

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SI02 wtz	Al2O3 wtz	CaO wtz	TiO2 wtz	K2O wtz	MgO wtz	MnO wtz	Na2O wtz	Zr ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1002	Nb/Zr	Y/Zr	Nb/Zr	CaO/1002		
10.001	AMF 1210	AMF 0041 ANU	F. Valentine	Adze	Adze	n/a	n/a	Eromanga Range	Vanuatu	Vanuatu	69.73	18.61	1.17	0.39	0.23	0.28	0.28	0.28	127.31	135.69	265.44	25.14	33.51	0.01	0.17	0.14	0.10	0.10	0.10		
16.468	AMF 17150	AMF 0041 ANU	F. Valentine	Adze	Adze	n/a	n/a	Toumau 2013 BR extension Layer II middle 5.12.5.13	Vanuatu	Vanuatu	46.49	8.17	1.61	1.45	0.00	0.28	0.28	0.28	-0.74	243.87	43.56	409.43	45.26	23.44	34.00	0.00	0.68	0.11	0.52	5.06	
12.117	AMF 18847	AMF 0036 ANU	Robertson	Adze	Adze	n/a	n/a	Matamas Area A	Vanuatu	Vanuatu	54.52	9.08	1.73	1.40	0.00	0.28	0.28	0.28	-1.13	237.31	39.60	240.87	52.02	22.99	34.67	0.00	0.66	0.22	0.44	5.24	
4.133	AMF 18847	AMF 0036 ANU	Robertson	Adze	Adze	n/a	n/a	S.E. Malakula	Vanuatu	Vanuatu	97.04	7.68	1.00	10.49	0.00	0.18	0.18	0.18	-1.70	325.54	52.70	857.66	45.22	26.33	33.98	0.00	0.77	0.02	0.58	7.67	
180.0 D 11.57 NH 67.18	AMF 2195	AMF 0015 AMS	Robertson	Adze	Adze	n/a	n/a	Vanuatu	Vanuatu	70.54	6.94	2.61	19.96	0.00	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	
AMB 8.251	AMF 2195	AMF 0015 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	49.64	18.81	7.52	1.10	10.51	0.00	0.18	0.18	0.18	2.04	188.86	45.83	744.99	103.60	7.44	33.55	0.01	0.22	0.14	0.07	6.85
AMF 13749	AMF 2195	AMF 0015 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	44.54	18.63	13.18	0.72	11.90	0.00	0.18	0.18	0.18	0.91	145.08	19.25	595.83	31.43	7.21	23.07	0.00	0.12	0.05	0.09	18.34
AMF 17150	AMF 2195	AMF 0015 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	49.66	17.41	12.98	0.68	12.64	0.00	0.20	0.20	0.20	1.71	128.15	17.03	637.43	40.51	3.64	25.46	0.00	0.14	0.06	0.09	20.41
AMF 18847	AMF 2195	AMF 0015 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	43.86	18.79	10.61	0.85	10.68	0.00	0.18	0.18	0.18	0.18	10.68	21.33	388.80	46.51	0.10	26.60	0.00	0.10	0.09	0.10	11.87
AMF 2195	AMF 2195	AMF 0015 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	43.49	19.35	10.38	0.81	12.77	0.00	0.20	0.20	0.20	0.93	161.57	22.35	578.94	54.28	4.47	29.96	0.01	0.15	0.09	0.08	12.79
AMF 27009	AMF 27009	AMF 0002 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	45.60	16.17	14.52	0.67	9.50	0.00	0.15	0.15	0.15	0.98	156.62	32.83	672.34	32.10	2.40	25.51	0.00	0.09	0.05	0.07	22.90
AMF 4863	AMF 27009	AMF 0002 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	45.88	16.58	14.50	0.67	13.35	0.00	0.18	0.18	0.18	0.92	150.11	16.75	572.58	36.48	4.29	41.62	0.00	0.11	0.04	0.11	19.85
AMF 4863	AMF 27009	AMF 0002 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	47.39	14.21	14.52	0.54	10.93	0.00	0.17	0.17	0.17	0.51	122.49	14.52	573.77	30.35	2.13	23.38	0.00	0.09	0.05	0.07	27.50
AMF 5971	AMF 27009	AMF 0002 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	48.75	18.29	11.20	0.77	13.80	0.00	0.21	0.21	0.21	0.89	150.05	22.75	553.90	48.42	3.76	29.39	0.01	0.13	0.09	0.08	14.62
AMF 6376	AMF 27009	AMF 0002 AMS	Robertson	Adze	Adze	n/a (Samoa)	n/a (Samoa)	Eromanga, Vanuatu	Vanuatu	Vanuatu	55.76	20.65	11.34	1.31	12.14	0.00	0.20	0.20	0.20	0.52	153.36	13.35	358.84	110.70	8.46	32.51	0.01	0.26	0.21	0.08	8.66
AMF 7419	AMF 27009	AMF 0002 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	59.25	22.15	11.81	0.78	13.82	0.00	0.21	0.21	0.21	0.87	187.92	15.88	514.21	36.94	3.16	26.11	0.01	0.12	0.07	0.09	15.23
AMF 7419	AMF 27009	AMF 0002 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	46.74	20.15	11.01	0.71	9.78	0.00	0.17	0.17	0.17	1.07	108.07	17.92	504.72	36.38	2.25	25.24	0.01	0.09	0.07	0.06	15.52
AMF 7420	AMF 27009	AMF 0002 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	56.68	16.81	10.70	1.10	11.05	0.00	0.18	0.18	0.18	1.19	115.34	21.39	496.05	66.08	5.06	34.78	0.01	0.15	0.13	0.08	15.39
AMF 8300	AMF 27009	AMF 0002 AMS	Robertson	Adze	Adze	n/a	n/a	Eromanga, Vanuatu	Vanuatu	Vanuatu	43.86	20.28	12.68	0.81	14.04	0.00	0.21	0.21	0.21	0.59	156.40	14.72	581.86	24.06	2.37	23.98	0.00	0.10	0.04	0.10	15.73
BM OC1899.60	AMF 27009	AMF 0002 BM	F.W. Christian	Adze	Adze	n/a	n/a	Hiva Oa, Marquesas	Marquesas	Marquesas	37.94	12.52	11.55	0.58	9.90	0.00	0.16	0.16	0.16	0.29	163.95	9.11	155.73	24.54	9.31	25.89	0.01	0.36	0.22	0.27	19.97
BM OC1899.63	AMF 27009	AMF 0003 BM	F.W. Christian	Adze	Adze	n/a	n/a	Mangia, Cook Islands	Cook Is.	Cook Is.	47.01	19.36	6.40	3.46	13.36	0.00	0.27	0.27	0.27	0.29	159.67	72.12	610.01	34.02	53.06	29.11	0.01	1.82	0.56	0.16	1.85
BM OC1905.0209.328	AMF 27009	AMF 0008 BM	Monckton	Adze	Adze	n/a	n/a	Rainu, Wangigala, Collingwood Bay, Papua New Guinea	PNG	PNG	48.78	16.05	12.05	1.30	10.62	0.00	0.18	0.18	0.18	0.45	131.44	13.23	485.17	106.26	14.89	30.83	0.01	0.48	0.22	0.14	9.30
BM OC1908.1114.4	AMF 27009	AMF 0028 BM	Capt. E. L. Gruning	Adze	Adze	n/a	n/a	Rainu, Wangigala, Collingwood Bay, Papua New Guinea	Austral Is.	Austral Is.	31.64	15.72	12.41	5.15	14.66	0.00	0.13	0.13	0.13	0.49	117.27	9.98	102.94	37.93	100.42	43.11	0.01	2.33	0.83	0.27	4.41
BM OC1925.1019.28	AMF 27009	AMF 0025 BM	W.S. & K. Routledge	Adze	Adze	3-H (finished) (F&S)	3-H	Tubuai, Austral Islands	Austral Is.	Austral Is.	32.39	14.22	12.25	2.66	12.42	0.00	0.19	0.19	0.19	0.96	31.00	43.00	1216.00	390.40	143.19	41.07	0.01	3.49	0.32	0.37	6.61
BM OC1925.1019.27	AMF 27009	AMF 0026 BM	W.S. & K. Routledge	Adze	Adze	3-H (unfinished) (F&S)	3-H	Tubuai, Austral Islands	Austral Is.	Austral Is.	26.23	14.58	11.88	1.97	14.53	0.00	0.23	0.23	0.23	0.20	127.00	21.00	927.00	247.13	116.01	38.04	0.01	3.05	0.27	0.47	5.87
BM OC1925.1019.25	AMF 27009	AMF 0027 BM	W.S. & K. Routledge	Adze	Adze	3-A	3-A	Tubuai, Austral Islands	Austral Is.	Austral Is.	30.73	14.44	2.63	1.00	10.35	0.00	0.22	0.22	0.22	0.22	144.00	87.00	621.00	189.00	45.21	37.63	0.01	0.68	0.43	0.40	3.21
BM OC1925.1019.15	AMF 27009	AMF 0029 BM	W.S. & K. Routledge	Adze	Adze	3-A (finished) (F&S)	3-A	Rapali, Austral Islands	Austral Is.	Austral Is.	30.41	16.26	8.04	4.60	12.39	0.00	0.16	0.16	0.16	1.72	103.00	24.00	1333.00	431.08	96.51	38.78	0.01	2.49	0.32	0.22	1.75
BM OC1925.1019.11	AMF 27009	AMF 0030 BM	W.S. & K. Routledge	Adze	Adze	3-E (unfinished) (F&S)	3-E	Tubuai Marae near Tempot, Austral Islands	Austral Is.	Austral Is.	25.69	13.79	10.97	2.53	11.65	0.00	0.19	0.19	0.19	1.19	135.00	43.00	1123.00	355.24	126.75	41.02	0.01	3.09	0.32	0.36	4.33
BM OC1925.1019.11	AMF 27009	AMF 0031 BM	W.S. & K. Routledge	Adze	Adze	3-F (unfinished) (F&S)	3-F	Tubuai, Austral Islands	Austral Is.	Austral Is.	27.52	14.66	10.45	2.91	12.26	0.00	0.21	0.21	0.21	1.19	169.00	50.00	1106.00	365.46	132.05	40.86	0.01	3.23	0.33	0.36	3.60
BM OC1925.1019.78	AMF 27009	AMF 0032 BM	W.S. & K. Routledge	Adze	Adze	3-E (unfinished) (F&S)	3-E	Tarava Island, Mangavea	Austral Is.	Austral Is.	32.34	15.74	11.47	3.38	13.80	0.00	0.14	0.14	0.14	0.45	178.00	45.00	1335.00	400.00	79.15	37.63	0.01	2.46	0.21	0.30	3.64
BM OC1925.1019.55	AMF 27009	AMF 0033 BM	W.S. & K. Routledge	Adze	Adze	3-E (unfinished) (F&S)	3-E	Tarava Island, Mangavea	Austral Is.	Austral Is.	33.00	15.51	12.96	2.69	11.66	0.00	0.16	0.16	0.16	1.74	114.00	22.00	519.00	196.35	36.04	29.15	0.01	1.24	0.38	0.18	4.81
BM OC1925.1019.77	AMF 27009	AMF 0034 BM	W.S. & K. Routledge	Adze	Adze	2-A (broken) (F&S)	2-A	Mangavea Island, Mangavea Group	Gambier Is.	Gambier Is.	34.27	16.63	11.62	2.87	12.23	0.00	0.16	0.16	0.16	0.71	121.00	22.00	467.00	194.06	50.10	30.88	0.01	1.66	0.42	0.26	4.05
BM OC1925.1019.74	AMF 27009	AMF 0035 BM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A	Mangavea Island, Mangavea Group	Gambier Is.	Gambier Is.	31.83	16.48	11.31	3.89	10.92	0.00	0.17	0.17	0.17	0.81	115.00	23.00	479.00	225.35	18.99	44.11	0.01	1.72	0.83	0.39	2.89
BM OC1925.1019.58	AMF 27009	AMF 0036 BM	W.S. & K. Routledge	Adze	Adze	n/a	n/a	Akamani Island, Tokami District, Mangavea Group	Gambier Is.	Gambier Is.	29.16	15.10	9.88	2.92	15.84	0.00	0.18	0.18	0.18	0.58	128.00	77.00	890.00	216.62	38.64	26.88	0.01	1.44	0.26	0.18	2.39
BM OC1925.1019.84	AMF 27009	AMF 0037 BM	W.S. & K. Routledge	Adze	Adze	2-B	2-B	Mangavea Island, Mangavea Group	Gambier Is.	Gambier Is.	35.42	16.38	16.69	3.12	12.90	0.00	0.19	0.19	0.19	0.95	109.00	15.00	443.00	418.45	82.92	52.84	0.01	1.57			

Museum No.	Sample No.	Collector	Object	Sort	Type	Geo Group	Place Collected	Island Group	Island	SI02 w/ht	Al2O3 w/ht	CaO w/ht	TiO2 w/ht	e-ROST w/ht	MgO w/ht	MnO w/ht	Na2O w/ht	K2O w/ht	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/100Z	Nb/Y	Zr/Yr	Nb/Zr	CaO/100Z				
CMAAZ 3812	pxrf 0016 MAA	H. Wayne	Adze	Adze	Ceremonial	Malaysia	Kirivina, Tobi Islands Islands, Papua New Guinea	Malaysia	Malaysia	32.78	14.73	9.27	0.21	10.25	0.23	0.12	0.12	0.12	1777.71	6.49	16.35	0.40	0.40	0.00	1.12	0.56			0.04	13.92	0.04		
CMAAZ 6873	pxrf 0016 MAA	S. P. Oliver	Adze	Adze	n/a	n/a	New Caledonia	New Caledonia	New Caledonia	45.38	14.75	5.75	0.41	5.72	0.00	0.09	0.00	3.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CMMAZ 9854	pxrf 0039 MAA	A. C. Heddon	Adze	Adze	n/a	n/a	Papua New Guinea	PNG	PNG	30.04	10.30	11.01	0.89	9.88	0.00	0.15	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC101	pxrf 0212 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	48.30	13.35	3.49	1.56	11.55	0.00	0.18	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC110	pxrf 0219 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	47.81	14.31	4.21	1.69	14.53	0.00	0.27	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC115	pxrf 0221 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	47.13	13.95	2.61	1.45	15.56	0.00	0.23	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC120	pxrf 0213 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	47.83	13.90	3.90	2.67	14.87	0.00	0.23	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC121	pxrf 0218 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	50.20	14.49	4.89	2.85	15.37	0.00	0.22	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC122	pxrf 0217 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	49.35	14.35	4.26	2.35	14.24	0.00	0.21	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC123	pxrf 0217 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	48.30	13.05	1.58	10.69	0.00	0.21	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC125	pxrf 0216 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	47.24	12.72	1.53	10.63	0.00	0.16	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC136	pxrf 0219 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	49.37	13.27	3.27	1.50	13.01	0.00	0.17	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC132	pxrf 0215 KTM	Thor Heyerdahl	Adze	Adze	2-A (finished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	47.85	14.01	2.91	2.62	14.60	0.00	0.22	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC1202	pxrf 0202 KTM	Thor Heyerdahl	Adze	Adze	2-A (unfinished) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	23.71	15.00	5.35	2.48	14.12	0.00	0.21	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC222	pxrf 0200 KTM	Thor Heyerdahl	Adze	Adze	n/a	n/a	Eastern Island	Eastern Island	Eastern Island	34.00	16.26	4.54	1.78	14.43	0.00	0.26	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC240	pxrf 0201 KTM	Thor Heyerdahl	Adze	Adze	2-A (broken) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	31.05	16.95	2.92	1.59	15.01	0.00	0.26	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC285	pxrf 0234 KTM	Thor Heyerdahl	Adze	Adze	2-B (variant) (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	48.23	13.96	2.02	14.60	0.00	0.24	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC308	pxrf 0222 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	49.22	12.74	1.22	9.98	0.00	0.15	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC310	pxrf 0223 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	52.44	17.68	2.60	14.89	0.00	0.22	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC311	pxrf 0224 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	47.42	14.96	2.50	14.40	0.00	0.22	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC318	pxrf 0193 KTM	Carlos Fribe	Chisel	Adze	3-G	Eastern Island	Eastern Island	Eastern Island	37.11	16.38	3.82	1.41	11.90	0.00	0.22	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC312	pxrf 0225 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	47.17	14.21	2.44	14.15	0.00	0.22	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC313	pxrf 0226 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	47.28	14.29	2.48	14.56	0.00	0.22	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC314	pxrf 0227 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	47.56	14.66	2.96	16.77	0.00	0.22	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC315	pxrf 0228 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	48.88	14.61	2.07	14.19	0.00	0.24	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC316	pxrf 0229 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	49.41	14.31	4.26	2.35	14.24	0.00	0.24	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC317	pxrf 0230 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	46.71	14.15	2.43	14.70	0.00	0.22	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC318	pxrf 0231 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	50.12	14.01	2.69	15.28	0.00	0.23	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC319	pxrf 0232 KTM	Thor Heyerdahl	Adze	Adze	2-B (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	48.45	14.58	2.57	15.03	0.00	0.23	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC320	pxrf 0233 KTM	Thor Heyerdahl	Adze	Adze	2-A (broken) (F&S)	2-A	Eastern Island	Eastern Island	Eastern Island	39.78	14.62	3.90	1.96	12.98	0.00	0.26	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC383	pxrf 0233 KTM	Thor Heyerdahl	Adze	Adze	2-B (variant) (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	49.24	13.54	1.44	9.96	0.00	0.18	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC386	pxrf 0237 KTM	Thor Heyerdahl	Adze	Adze	2-B (variant) (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	49.99	14.04	2.86	15.39	0.00	0.23	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC387	pxrf 0238 KTM	Thor Heyerdahl	Adze	Adze	2-B (variant) (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	49.25	14.29	2.64	12.35	0.00	0.23	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC388	pxrf 0236 KTM	Thor Heyerdahl	Adze	Adze	2-B (variant) (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	49.25	14.29	2.64	12.35	0.00	0.23	0.00	0.00	2.03	863.14	48.09	306.88	546.40	86.27	50.61	0.03	0.10	0.70	1.78	0.10	0.09	12.35	0.00	
KC389	pxrf 0238 KTM	Thor Heyerdahl	Adze	Adze	2-B (variant) (finished) (F&S)	2-B	Eastern Island	Eastern Island	Eastern Island	47.18	14.05	2.64	14.94	0.00	0.23	0.00	0.00	2.03	863.14	48.0													

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	K2O wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/100Z	Nb/100Z	Nb/Zr	CaO/100Z
KI-629	pxrf 0070_KTM	Thor Heyerdahl	Adze	Adze	3-A (finished) (F&S)	3-A	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	45.54	14.80	10.21	2.62	12.90	0.00	0.14	1.30	105.49	43.51	802.28	281.42	80.04	32.60	0.01	2.91	0.31	0.28	3.89
KI-631	pxrf 0071_KTM	Thor Heyerdahl	Adze	Adze	3-A (unfinished) (F&S)	3-A	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	37.19	15.17	11.34	2.72	9.44	0.00	0.11	1.17	339.30	34.59	701.14	278.63	74.32	35.63	0.01	2.09	0.37	0.27	4.16
KI-632	pxrf 0072_KTM	Thor Heyerdahl	Adze	Adze	3-A (unfinished) (F&S)	3-A	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	34.37	14.39	11.22	2.58	12.68	0.00	0.15	0.52	397.54	23.59	900.22	230.45	100.08	41.46	0.01	2.44	0.26	0.44	4.38
KI-633	pxrf 0073_KTM	Thor Heyerdahl	Adze	Adze	3-A (unfinished) (F&S)	3-A	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	41.92	17.78	11.30	3.51	14.15	0.00	0.18	1.46	773.96	50.26	1459.27	355.97	106.07	41.61	0.01	2.80	0.34	0.31	2.20
KI-634	pxrf 0074_KTM	Thor Heyerdahl	Adze	Adze	3-A (unfinished) (F&S)	3-A	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	42.53	16.98	8.23	3.66	11.20	0.00	0.15	1.84	343.37	64.00	1774.02	406.41	140.07	33.60	0.01	1.47	0.23	0.34	2.25
KI-635	pxrf 0075_KTM	Thor Heyerdahl	Adze	Adze	3-A (unfinished) (F&S)	3-A	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	43.18	17.97	9.45	3.57	14.43	0.00	0.18	1.14	226.77	30.40	654.98	276.64	55.77	33.47	0.01	1.67	0.42	0.20	2.65
KI-636	pxrf 0076_KTM	Thor Heyerdahl	Adze	Adze	3-A (unfinished) (F&S)	3-A	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	36.62	15.10	9.15	3.05	13.44	0.00	0.20	1.27	239.37	54.61	1378.53	363.59	110.13	35.62	0.01	3.09	0.26	0.30	3.00
KI-637	pxrf 0077_KTM	Thor Heyerdahl	Adze	Adze	3-A (broken) (F&S)	3-A	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	40.48	14.53	11.04	2.89	11.64	0.00	0.20	0.81	347.47	92.02	1001.81	291.87	101.01	28.46	0.01	2.46	0.48	0.36	2.70
KI-638	pxrf 0078_KTM	Thor Heyerdahl	Adze	Adze	3-H (finished) (F&S)	3-H	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	36.18	14.61	9.25	3.57	14.26	0.00	0.15	0.91	801.04	33.03	793.84	301.59	89.20	39.60	0.01	2.35	0.38	0.30	3.40
KI-639	pxrf 0079_KTM	Thor Heyerdahl	Adze	Adze	3-H (finished) (F&S)	3-H	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	33.95	17.60	7.28	4.49	16.41	0.00	0.22	1.23	259.64	52.55	1206.83	387.87	119.71	36.28	0.01	3.30	0.32	0.31	1.62
KI-640	pxrf 0080_KTM	Thor Heyerdahl	Adze	Adze	3-Aberants (finished) (F&S)	3-Aberants	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	38.91	17.78	11.30	3.51	14.15	0.00	0.18	0.65	189.29	30.26	1459.27	355.97	106.07	41.61	0.01	2.80	0.34	0.31	2.20
KI-641	pxrf 0081_KTM	Thor Heyerdahl	Adze	Adze	3-Aberants (finished) (F&S)	3-Aberants	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	41.47	16.69	8.20	3.39	14.29	0.00	0.21	1.40	318.18	47.87	1420.59	361.60	106.77	39.24	0.01	2.72	0.25	0.30	2.60
KI-642	pxrf 0082_KTM	Thor Heyerdahl	Adze	Adze	3-Aberants (finished) (F&S)	3-Aberants	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	42.23	15.12	8.45	2.79	11.89	0.00	0.18	1.38	369.87	52.91	1554.59	357.00	107.67	36.72	0.01	2.93	0.23	0.30	3.03
KI-643	pxrf 0083_KTM	Thor Heyerdahl	Adze	Adze	3-Aberants (finished) (F&S)	3-Aberants	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	32.45	13.84	12.66	3.18	13.94	0.00	0.17	0.76	264.24	29.40	691.33	212.15	58.63	37.80	0.01	1.55	0.31	0.28	3.99
KI-644	pxrf 0084_KTM	Thor Heyerdahl	Adze	Adze	4-Finished (F&S)	4	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	32.25	16.78	9.51	3.05	13.37	0.00	0.20	1.21	238.22	50.24	1050.08	293.08	108.69	34.94	0.01	3.11	0.28	0.37	3.12
KI-645	pxrf 0085_KTM	Thor Heyerdahl	Adze	Adze	4-Finished (F&S)	4	Raivavae, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	36.48	15.38	7.51	3.74	14.85	0.00	0.20	1.33	275.88	45.88	1181.28	332.18	90.80	37.36	0.01	2.43	0.28	0.27	2.01
KI-646	pxrf 0053_KTM	Thor Heyerdahl	Adze	Adze	1-E (finished) (F&S)	1-E	Rapa Iti	Austral Isl.	Austral Isl.	Austral Isl.	37.90	17.61	9.21	3.88	12.26	0.00	0.15	1.56	353.11	50.40	1075.13	340.97	82.75	34.08	0.01	2.43	0.32	0.24	2.37
KI-647	pxrf 0054_KTM	Thor Heyerdahl	Adze	Adze	1-E (finished) (F&S)	1-E	Rapa Iti	Austral Isl.	Austral Isl.	Austral Isl.	43.80	19.72	9.38	4.11	10.84	0.00	0.16	1.77	390.21	49.97	1077.72	349.36	82.98	34.79	0.01	2.37	0.31	0.24	2.28
KI-648	pxrf 0049_KTM	Thor Heyerdahl	Adze	Adze	1-A (finished) (F&S)	1-A	Rapa Iti	Austral Isl.	Austral Isl.	Austral Isl.	32.85	15.22	10.08	3.28	13.43	0.00	0.17	1.13	462.80	36.97	873.21	221.34	55.60	31.13	0.01	1.79	0.32	0.25	3.07
KI-649	pxrf 0050_KTM	Thor Heyerdahl	Adze	Adze	1-A (finished) (F&S)	1-A	Rapa Iti	Austral Isl.	Austral Isl.	Austral Isl.	37.92	16.18	8.65	3.60	12.09	0.00	0.13	1.77	321.18	60.84	1398.78	389.65	103.43	31.40	0.01	3.29	0.28	0.27	2.40
KI-650	pxrf 0051_KTM	Thor Heyerdahl	Adze	Adze	1-A (finished) (F&S)	1-A	Rapa Iti	Austral Isl.	Austral Isl.	Austral Isl.	35.42	16.55	12.05	4.53	10.22	0.00	0.11	1.26	882.02	32.37	814.73	231.44	60.25	32.89	0.01	1.83	0.28	0.26	2.66
KI-651	pxrf 0052_KTM	Thor Heyerdahl	Adze	Adze	1-B (finished) (F&S)	1-B	Rapa Iti	Austral Isl.	Austral Isl.	Austral Isl.	37.70	16.42	8.03	4.28	13.89	0.00	0.15	1.79	372.34	57.18	1116.91	344.82	86.80	33.62	0.01	2.58	0.31	0.25	1.87
KI-652	pxrf 0055_KTM	Thor Heyerdahl	Chisel	Adze	6 (finished) (F&S)	6	Rapa Iti	Austral Isl.	Austral Isl.	Austral Isl.	36.92	18.29	8.30	4.66	11.17	0.00	0.12	1.62	258.18	41.55	1050.64	350.61	81.15	36.56	0.01	2.22	0.33	0.23	1.78
KI-653	pxrf 0086_KTM	Thor Heyerdahl	Adze	Adze	3-A (finished) (F&S)	3-A	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	39.27	14.70	13.99	2.74	11.13	0.00	0.13	0.40	577.98	35.35	1161.68	239.54	74.76	36.71	0.01	2.09	0.21	0.32	5.10
KI-654	pxrf 0087_KTM	Thor Heyerdahl	Adze	Adze	3-A (finished) (F&S)	3-A	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	34.91	14.94	13.99	2.56	12.49	0.00	0.19	1.04	944.72	58.10	1034.43	310.49	116.03	33.08	0.01	3.51	0.30	0.37	4.29
KI-655	pxrf 0088_KTM	Thor Heyerdahl	Adze	Adze	3-A (finished) (F&S)	3-A	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	32.78	16.28	11.09	3.23	12.06	0.00	0.23	0.43	241.20	52.12	942.08	251.08	134.21	39.21	0.01	3.42	0.32	0.31	3.12
KI-656	pxrf 0089_KTM	Thor Heyerdahl	Adze	Adze	3-A (finished) (F&S)	3-A	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	29.18	15.03	16.27	3.25	10.37	0.00	0.14	0.31	232.62	34.86	991.74	259.16	91.08	37.93	0.01	2.40	0.26	0.35	5.01
KI-657	pxrf 0090_KTM	Thor Heyerdahl	Adze	Adze	3-A (finished) (F&S)	3-A	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	31.68	13.94	10.10	2.53	12.30	0.00	0.19	0.93	794.22	45.71	1246.74	309.46	123.76	37.15	0.01	3.33	0.25	0.40	3.99
KI-658	pxrf 0091_KTM	Thor Heyerdahl	Adze	Adze	3-F (finished) (F&S)	3-F	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	34.38	15.52	13.82	2.78	13.55	0.00	0.19	0.15	286.28	28.99	743.95	230.93	73.09	36.84	0.01	1.98	0.31	0.42	3.97
KI-659	pxrf 0092_KTM	Thor Heyerdahl	Adze	Adze	3-F (finished) (F&S)	3-F	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	38.07	17.44	11.31	3.46	12.86	0.00	0.21	0.82	80.76	46.16	962.86	310.68	102.80	31.86	0.01	2.02	0.31	0.27	4.11
KI-660	pxrf 0093_KTM	Thor Heyerdahl	Adze	Adze	3-F (finished) (F&S)	3-F	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	33.61	13.87	11.56	3.80	13.86	0.00	0.19	0.63	548.50	46.41	1096.27	276.82	112.32	35.70	0.01	3.15	0.25	0.41	3.04
KI-661	pxrf 0094_KTM	Thor Heyerdahl	Adze	Adze	3-F (finished) (F&S)	3-F	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	34.91	16.51	13.77	3.05	14.94	0.00	0.18	0.23	232.44	25.72	798.21	249.58	78.37	39.31	0.01	1.99	0.31	0.31	4.51
KI-662	pxrf 0095_KTM	Thor Heyerdahl	Adze	Adze	3-F (finished) (F&S)	3-F	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	31.11	15.39	9.91	2.73	12.25	0.00	0.21	1.21	335.61	58.23	1034.38	325.05	121.66	33.60	0.01	3.22	0.29	0.40	2.51
KI-663	pxrf 0147_KTM	Thor Heyerdahl	Adze	Adze	3-F (unfinished) (F&S)	3-F	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	35.07	15.81	10.04	4.58	12.10	0.00	0.15	1.77	302.97	93.52	907.31	375.24	69.17	21.52	0.01	3.21	0.42	0.18	1.29
KI-664	pxrf 0096_KTM	Thor Heyerdahl	Adze	Adze	3-F (unfinished) (F&S)	3-F	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	35.22	15.02	13.72	3.30	11.84	0.00	0.13	0.53	166.48	29.23	738.88	240.10	79.13	36.88	0.01	2.15	0.32	0.33	4.60
KI-665	pxrf 0097_KTM	Thor Heyerdahl	Adze	Adze	3-F (unfinished) (F&S)	3-F	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	29.77	14.43	13.52	2.76	10.92	0.00	0.15	0.64	811.67	28.15	788.91	235.15	74.28	38.26	0.01	1.94	0.30	0.32	4.91
KI-666	pxrf 0098_KTM	Thor Heyerdahl	Adze	Adze	3-F (unfinished) (F&S)	3-F	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	29.92	13.90	11.23	3.09	12.32	0.00	0.18	0.64	644.29	32.82	1024.32	324.07	107.84	49.80	0.01	2.02	0.31	0.25	3.94
KI-667	pxrf 0099_KTM	Thor Heyerdahl	Adze	Adze	3-H (finished) (F&S)	3-H	Tubuai, Austral Islands	Austral Isl.	Austral Isl.	Austral Isl.	31.24	14.95																	

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SI02 w/ht	AI023 w/ht	CaO w/ht	TiO2 w/ht	e-TO37 w/ht	MgO w/ht	MnO w/ht	Na2O w/ht	K2O w/ht	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Zr	CaO/TiO2	
QJFO134.52	prxf 0105 PRM	W.S. & K. Routledge	Adze	Adze	2-B (finished) (F&S)	2-B		Riopo, Santo	Vanuatu	Vanuatu	59.23	14.82	5.07	1.82	13.40	0.00	0.23	1.83	213.67	42.02	313.27	519.05	75.05	56.58	0.03	1.94	1.66	0.15	2.79
PRM1916.36.147	prxf 0106 PRM	W.S. & K. Routledge	Adze	Adze	n/a	n/a		Eastern Island Rapa Nui	Eastern Island	Eastern Island	47.83	15.12	5.16	1.76	12.02	0.00	0.21	1.85	206.72	38.26	323.37	525.21	81.35	63.30	0.03	1.92	1.62	0.15	2.93
PRM1916.36.148	prxf 0107 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Eastern Island Rapa Nui	Eastern Island	Eastern Island	58.85	15.96	4.24	1.80	9.36	0.00	0.16	2.53	208.50	48.57	295.14	547.50	87.45	45.48	0.03	1.59	1.86	0.16	2.35
PRM1916.36.149	prxf 0108 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Eastern Island Rapa Nui	Eastern Island	Eastern Island	53.41	17.00	5.19	2.00	13.41	0.00	0.21	1.79	225.79	35.11	329.59	520.61	68.94	39.81	0.02	1.65	1.47	0.48	2.08
PRM1916.36.150	prxf 0109 PRM	W.S. & K. Routledge	Adze	Adze	2-A (broken) (F&S)	2-A		Eastern Island Rapa Nui	Eastern Island	Eastern Island	46.60	20.29	5.53	3.02	11.85	0.00	0.17	2.00	345.58	56.23	673.89	415.28	82.96	37.76	0.01	2.20	0.62	0.20	1.83
PRM1916.36.151	prxf 0110 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Eastern Island Rapa Nui	Eastern Island	Eastern Island	51.49	15.66	6.80	2.22	13.18	0.00	0.22	1.65	211.72	35.18	331.86	482.79	71.08	61.85	0.02	1.15	1.45	0.15	2.74
PRM1916.36.152	prxf 0111 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Eastern Island Rapa Nui	Eastern Island	Eastern Island	48.81	16.38	5.82	2.26	14.15	0.00	0.23	1.41	212.46	34.09	330.42	491.91	75.51	63.03	0.02	1.15	1.49	0.03	2.58
PRM1916.36.153	prxf 0112 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Eastern Island Rapa Nui	Eastern Island	Eastern Island	43.97	17.41	5.18	2.72	13.38	0.00	0.18	2.18	218.34	44.29	318.38	481.18	68.81	34.28	0.01	2.66	1.32	0.14	2.58
PRM1916.36.154	prxf 0113 PRM	W.S. & K. Routledge	Adze	Adze	2-B (broken) (F&S)	2-B		Eastern Island Rapa Nui	Eastern Island	Eastern Island	45.46	18.34	6.09	3.02	10.28	0.00	0.14	2.14	254.51	66.78	709.03	425.79	82.54	32.66	0.01	1.65	0.60	0.20	2.02
PRM1916.36.155	prxf 0114 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Caipé Roggevoev, Eastern Island Rapa Nui	Eastern Island	Eastern Island	37.46	23.15	2.21	3.07	18.77	0.00	0.24	1.34	232.28	39.86	277.99	527.93	77.67	57.87	0.02	1.34	1.90	0.15	0.72
PRM1916.36.156	prxf 0115 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Eastern Island Rapa Nui	Eastern Island	Eastern Island	49.91	15.67	5.73	1.82	10.95	0.00	0.21	1.87	216.64	35.11	329.59	520.61	68.94	39.81	0.02	1.65	1.47	0.48	2.08
PRM1916.36.157	prxf 0116 PRM	W.S. & K. Routledge	Adze	Adze	4-D (variant) (finished) (F&S)	4-D		Coike, Easter Island Rapa Nui	Eastern Island	Eastern Island	45.34	15.10	1.26	1.49	17.48	0.00	0.20	1.93	165.54	66.07	260.42	548.25	80.68	33.05	0.04	2.43	2.11	0.15	0.85
PRM1916.36.158	prxf 0117 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Red-earth area Poike, Easter Island Rapa Nui	Eastern Island	Eastern Island	53.85	14.12	1.10	2.03	12.58	0.00	0.16	2.41	149.78	53.04	262.67	559.14	81.49	38.03	0.03	2.41	2.13	0.16	0.54
PRM1916.36.159	prxf 0118 PRM	W.S. & K. Routledge	Adze	Adze	2-B (finished) (F&S)	2-B		Eastern Island Rapa Nui	Eastern Island	Eastern Island	55.93	15.32	4.17	1.71	9.42	0.00	0.16	2.53	182.39	52.83	307.38	546.59	89.09	42.82	0.03	2.06	1.81	0.16	2.44
PRM1916.36.160	prxf 0119 PRM	W.S. & K. Routledge	Adze	Adze	2-B (variant) (broken) (F&S)	2-B		Eastern Island Rapa Nui	Eastern Island	Eastern Island	44.20	16.75	3.98	2.17	13.31	0.00	0.21	1.77	292.19	39.41	307.68	523.14	80.43	61.41	0.01	1.31	1.73	0.15	1.84
PRM1916.36.161	prxf 0120 PRM	W.S. & K. Routledge	Adze	Adze	2-B (broken) (F&S)	2-B		Eastern Island Rapa Nui	Eastern Island	Eastern Island	54.63	15.50	3.53	1.27	9.98	0.00	0.18	2.47	201.38	60.17	282.43	557.82	84.99	39.12	0.04	2.17	1.98	0.15	2.77
PRM1916.36.162	prxf 0121 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Eastern Island Rapa Nui	Eastern Island	Eastern Island	43.68	20.86	4.71	2.83	14.90	0.00	0.22	1.44	226.37	34.43	323.70	486.74	88.40	58.64	0.02	1.17	1.90	0.14	1.67
PRM1916.36.163	prxf 0122 PRM	W.S. & K. Routledge	Adze	Adze	2-B (broken) (F&S)	2-B		Eastern Island Rapa Nui	Eastern Island	Eastern Island	39.23	21.36	5.80	3.29	14.35	0.00	0.24	1.76	310.49	63.05	286.76	425.25	83.21	33.87	0.01	2.46	0.58	0.20	1.76
PRM1916.36.164	prxf 0123 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Eastern Island Rapa Nui	Eastern Island	Eastern Island	52.20	17.13	6.17	2.22	12.22	0.00	0.25	1.39	278.97	37.66	298.20	486.94	70.02	60.77	0.02	1.16	1.49	0.44	2.78
PRM1916.36.165	prxf 0124 PRM	Kapiera (W.S. & K. Routledge)	Adze	Adze	n/a	n/a		Hanga Comu Ahu Arika	Eastern Island	Eastern Island	51.72	16.13	5.96	2.21	14.18	0.00	0.24	1.53	195.67	33.11	336.56	498.66	72.41	64.00	0.02	1.13	1.48	0.15	2.69
PRM1916.36.166	prxf 0004 PRM	W.S. & K. Routledge	Adze	Adze	3-E (finished) (F&S)	3-E		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	39.40	16.88	5.86	2.93	11.45	0.00	0.20	1.99	224.70	62.91	679.38	399.37	80.04	33.22	0.01	2.41	0.59	0.20	2.00
PRM1916.36.167	prxf 0002 PRM	W.S. & K. Routledge	Adze	Adze	3-E (finished) (F&S)	3-E		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	44.94	17.44	5.81	3.09	11.71	0.00	0.17	2.02	251.32	56.87	702.64	418.19	84.44	36.13	0.01	2.24	0.60	0.20	1.94
PRM1916.36.168	prxf 0042 PRM	W.S. & K. Routledge	Adze	Adze	3-A (finished) (F&S)	3-A		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	38.31	16.31	5.30	2.73	10.27	0.00	0.14	2.10	206.86	53.41	680.41	403.67	78.11	35.79	0.01	2.18	0.59	0.19	1.94
PRM1916.36.169	prxf 0043 PRM	W.S. & K. Routledge	Adze	Adze	3-E (finished) (F&S)	3-E		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	36.76	15.02	4.46	2.68	13.80	0.00	0.21	1.85	218.20	62.11	711.72	424.20	86.39	34.20	0.02	2.53	0.60	0.20	1.66
PRM1916.36.170	prxf 0044 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	46.78	17.85	5.80	3.17	12.58	0.00	0.21	1.94	231.40	49.89	701.17	419.79	86.33	39.96	0.01	2.17	0.60	0.21	1.83
PRM1916.36.171	prxf 0045 PRM	W.S. & K. Routledge	Adze	Adze	4-D	4-D		Maunga, Taaoi Area, Cruzifilo Hill, Easter Island, Rapa Nui	Eastern Island	Eastern Island	43.23	17.38	7.63	3.49	13.22	0.00	0.20	2.01	226.77	37.62	323.61	485.20	61.62	31.81	0.01	2.67	0.57	0.21	1.19
PRM1916.36.172	prxf 0005 PRM	W.S. & K. Routledge	Adze	Adze	2-A (broken) (F&S)	2-A		Maunga, Easter Island, Rapa Nui	Eastern Island	Eastern Island	53.87	15.54	2.72	1.76	9.93	0.00	0.11	2.64	228.10	60.94	298.40	547.58	64.06	37.24	0.03	2.26	1.84	0.15	1.55
PRM1916.36.173	prxf 0045 PRM	W.S. & K. Routledge	Adze	Adze	2-A (broken) (F&S)	2-A		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	46.58	17.44	6.00	3.08	11.86	0.00	0.18	1.98	302.17	67.20	704.16	404.82	83.84	31.44	0.01	2.67	0.57	0.21	1.95
PRM1916.36.174	prxf 0046 PRM	W.S. & K. Routledge	Adze	Adze	1-C (unfinished) (F&S)	1-C		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	48.65	18.27	5.88	3.10	11.96	0.00	0.18	2.02	196.19	62.27	715.97	415.30	82.85	34.00	0.01	2.44	0.58	0.20	1.90
PRM1916.36.175	prxf 0047 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	52.04	16.97	5.89	3.07	13.91	0.00	0.19	2.01	212.61	50.72	709.49	419.37	86.94	39.17	0.01	2.32	0.61	0.20	1.86
PRM1916.36.176	prxf 0048 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	44.04	16.71	5.05	3.14	11.98	0.00	0.16	2.05	225.85	64.48	718.27	417.39	82.37	32.76	0.01	2.51	0.58	0.20	1.61
PRM1916.36.177	prxf 0049 PRM	W.S. & K. Routledge	Adze	Adze	2-A (finished) (F&S)	2-A		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	48.24	17.51	6.12	3.10	13.27	0.00	0.16	2.10	210.71	61.85	707.06	414.62	84.79	34.17	0.01	2.48	0.59	0.20	1.93
PRM1916.36.178	prxf 0111 PRM	W.S. & K. Routledge	Adze	Adze	2-B (finished) (F&S)	2-B		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	43.59	18.40	6.20	3.28	12.09	0.00	0.18	1.92	255.62	59.23	602.40	405.36	83.20	36.53	0.01	2.13	0.58	0.20	1.96
PRM1916.36.179	prxf 0112 PRM	W.S. & K. Routledge	Adze	Adze	2-B (finished) (F&S)	2-B		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	50.39	18.30	6.60	3.25	12.69	0.00	0.19	1.86	238.81	53.17	708.35	400.45	81.15	38.40	0.01	2.11	0.57	0.20	2.03
PRM1916.36.180	prxf 0052 PRM	W.S. & K. Routledge	Adze	Adze	3-A (broken) (F&S)	3-A		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	44.06	16.64	5.87	2.80	10.81	0.00	0.15	2.06	228.23	53.86	722.49	424.20	89.79	38.28	0.02	2.35	0.59	0.21	2.10
PRM1916.36.181	prxf 0053 PRM	W.S. & K. Routledge	Adze	Adze	3-G (finished) (F&S)	3-G		Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	48.74	19.06	5.95	3.29	12.42	0.00	0.18	1.95	215.08	54.91	702.70	398.79	79.44	36.54	0.01	2.17	0.57	0.20	1.81
PRM1916.36.182	prxf 0054 PRM	W.S. & K. Routledge	Adze	Adze																									

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	Fe2O3 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Zr	Y/Zr	Nb/Y	CaO/TiO2			
PRM1925.29.73	xprf 0081 PRM	W.S. Routledge	Adze	Adze	I-B (finished)	I-B		Marau Unurua, Raiwae, Tubuai Islands	Austral Is.	Austral Is.	43.93	14.16	7.93	3.10	17.76	0.00	0.23	1.44	1.31	31.15	1556.57	399.34	101.03	18.73	0.01	2.63	0.23	0.23	0.23	0.23	0.23		
PRM1925.29.74	xprf 0081 PRM	W.S. Routledge	Adze	Adze	I-A (finished)	I-A		Mara Unurua, Raiwae, Tubuai Islands	Austral Is.	Austral Is.	46.51	15.68	8.31	3.77	13.63	0.00	0.19	1.32	289.23	45.61	1550.72	320.45	93.37	38.58	0.01	2.42	0.21	0.29	0.29	0.29	0.29	0.29	
PRM1925.29.75	xprf 0082 PRM	W.S. Routledge	Adze	Adze	I-B (finished)	I-B		Mara Unurua, Raiwae, Tubuai Islands	Austral Is.	Austral Is.	46.57	17.64	8.84	3.49	8.51	0.00	0.14	2.42	242.56	102.45	1165.61	338.69	84.82	14.65	0.01	5.79	0.16	0.25	0.25	0.25	0.25	0.25	
PRM1925.29.76	xprf 0083 PRM	W.S. Routledge	Adze	Adze	I-B (finished) (F&S)	I-B		Avava Bay, Rurutu, Tubuai Islands	Austral Is.	Austral Is.	40.43	15.32	6.63	2.97	11.86	0.00	0.17	1.67	206.41	58.97	1406.59	369.00	106.27	34.31	0.01	3.10	0.26	0.29	0.29	0.29	0.29	0.29	
PRM1925.29.77	xprf 0084 PRM	W.S. Routledge	Adze	Adze	I-A (finished) (F&S)	I-A		Rurutu, Tubuai Islands	Austral Is.	Austral Is.	45.40	17.30	5.07	2.46	13.19	0.00	0.26	2.17	199.16	46.14	1556.40	385.29	90.00	31.61	0.01	2.76	0.33	0.21	0.21	0.21	0.21		
PRM1925.29.78	xprf 0022 PRM	W.S. Routledge	Adze	Adze	I-C (unfinished) (F&S)	I-C		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	41.38	19.30	5.61	3.11	12.09	0.00	0.18	1.93	307.53	71.37	688.09	407.37	79.57	29.68	0.01	2.68	0.59	0.20	0.20	0.20	0.20	0.20	
PRM1925.29.79	xprf 0023 PRM	W.S. Routledge	Adze	Adze	I-C (unfinished) (F&S)	I-C		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	40.79	17.64	6.14	2.98	12.53	0.00	0.20	1.79	196.70	40.32	681.36	381.01	72.59	44.01	0.01	1.88	0.56	0.22	0.22	0.22	0.22		
PRM1925.29.80	xprf 0024 PRM	W.S. Routledge	Adze	Adze	I-B (unfinished) (F&S)	I-B		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	39.21	15.55	6.49	2.76	14.45	0.00	0.17	1.87	207.36	52.72	708.04	416.63	84.42	37.50	0.02	2.25	0.59	0.20	0.20	0.20	0.20	0.20	
PRM1925.29.81	xprf 0025 PRM	W.S. Routledge	Adze	Adze	I-C (unfinished) (F&S)	I-C		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	40.02	15.65	6.32	2.76	13.71	0.00	0.17	1.81	204.82	48.20	673.37	427.61	83.33	41.20	0.02	2.00	0.60	0.20	0.20	0.20	0.20	0.20	
PRM1925.29.82	xprf 0026 PRM	W.S. Routledge	Adze	Adze	I-C (unfinished) (F&S)	I-C		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	45.62	17.21	6.42	2.94	11.88	0.00	0.18	1.81	188.38	49.76	668.35	424.26	85.15	38.88	0.01	2.19	0.63	0.20	0.20	0.20	0.20	0.20	0.20
PRM1925.29.83	xprf 0027 PRM	W.S. Routledge	Adze	Adze	n/a	n/a		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	44.21	17.76	6.41	2.88	12.31	0.00	0.20	1.83	199.40	52.20	666.33	396.55	79.05	39.14	0.01	2.02	0.60	0.20	0.20	0.20	0.20	0.20	
PRM1925.29.84	xprf 0028 PRM	W.S. Routledge	Adze	Adze	n/a	n/a		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	45.16	17.52	5.35	2.95	12.95	0.00	0.20	1.80	200.13	46.14	696.46	385.29	79.57	31.61	0.01	2.16	0.51	0.21	0.21	0.21	0.21		
PRM1925.29.85	xprf 0029 PRM	W.S. Routledge	Adze	Adze	n/a (unfinished) (F&S)	n/a		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	45.36	17.01	6.23	2.86	12.35	0.00	0.19	1.83	207.61	48.41	687.27	389.27	79.08	40.28	0.01	1.96	0.57	0.20	0.20	0.20	0.20	0.20	
PRM1925.29.86	xprf 0030 PRM	W.S. Routledge	Adze	Adze	I-B (finished) (F&S)	I-B		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	38.70	15.98	5.94	3.00	9.95	0.00	0.14	2.10	196.80	48.50	682.76	405.83	84.61	39.85	0.01	2.13	0.59	0.21	0.21	0.21	0.21		
PRM1925.29.87	xprf 0031 PRM	W.S. Routledge	Adze	Adze	I-C (unfinished) (F&S)	I-C		Pitcairn Island, Pitcairn Islands	Pitcairn Is.	Pitcairn Is.	43.38	16.77	6.10	2.96	12.42	0.00	0.19	1.86	190.07	48.41	674.63	400.14	80.68	39.92	0.01	2.02	0.59	0.20	0.20	0.20	0.20	0.20	
RWF/PN173	xprf 0026 ANU		Adze	Adze	n/a	n/a		New Kwaena, Tanna	Vanuatu	Vanuatu	82.62	13.76	1.85	13.58	0.00	0.23	0.23	-0.99	126.66	40.09	230.67	46.12	26.18	35.05	0.01	0.75	0.19	0.57	0.19	0.19			
RWF/PN184	xprf 0025 ANU		Adze	Adze	n/a	n/a			Vanuatu	Vanuatu	83.42		8.51	1.73	15.56	0.00	0.24	-0.99	160.69	43.89	207.09	52.94	25.80	33.88	0.00	0.76	0.26	0.49	0.49	0.49			
Unavailable	xprf 0001 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	55.65	16.99	9.96	1.03	12.50	0.00	0.20	0.49	107.68	5.47	311.15	52.33	3.14	33.02	0.01	0.16	0.17	0.10	0.71	0.71	0.71		
Unavailable	xprf 0002 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	51.81	15.33	10.07	0.95	10.13	0.00	0.17	0.68	179.90	6.74	297.73	48.53	4.21	27.60	0.01	0.15	0.21	0.04	11.43	11.43			
Unavailable	xprf 0003 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	49.24	18.61	8.96	5.14	10.47	0.00	0.17	1.17	217.39	43.74	888.49	368.16	47.38	35.58	0.01	1.20	0.53	0.13	1.75	1.75			
Unavailable	xprf 0004 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	54.80	14.37	9.90	1.57	10.87	0.00	0.21	0.70	256.34	5.46	335.78	129.27	6.18	30.74	0.01	0.20	0.38	0.05	6.29	6.29			
Unavailable	xprf 0005 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	48.82	18.84	5.67	1.38	15.12	0.00	0.25	1.19	169.53	44.06	252.92	115.40	7.85	36.78	0.01	0.21	0.46	0.07	4.10	4.10			
Unavailable	xprf 0006 PANU	Aubrey Parke	Adze	Adze	n/a	n/a		Yacata Island, Boqali south Savu, Fiji	Fiji	Fiji	49.51	16.16	8.16	3.73	14.30	0.00	0.19	1.46	275.77	65.73	888.98	408.64	57.89	32.85	0.01	1.76	0.46	0.44	2.19	2.19			
Unavailable	xprf 0007 PANU	Aubrey Parke	Adze	Adze	n/a	n/a		Yacata Island, Boqali south Savu, Fiji	Fiji	Fiji	60.29	13.50	8.03	1.10	13.81	0.00	0.24	1.07	913.41	9.02	243.03	59.02	5.24	32.05	0.01	0.16	0.24	0.09	7.30	7.30			
Unavailable	xprf 0010 PANU	Aubrey Parke	Adze	Adze	n/a	n/a		Yacata Island, Boqali south Savu, Fiji	Fiji	Fiji	56.89	12.99	8.32	0.98	13.00	0.00	0.21	0.72	147.43	8.23	260.02	65.15	3.42	32.14	0.01	0.11	0.25	0.05	8.45	8.45			
Unavailable	xprf 0011 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	49.68	17.12	10.15	1.38	13.25	0.00	0.25	0.32	251.00	5.45	236.04	95.52	6.43	42.21	0.01	0.16	0.40	0.07	7.38	7.38			
Unavailable	xprf 0012 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	47.49	16.72	11.32	1.27	14.58	0.00	0.23	0.32	211.62	5.45	236.04	95.52	6.43	42.21	0.01	0.16	0.40	0.07	7.38	7.38			
Unavailable	xprf 0013 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	49.52	18.10	9.72	5.53	13.43	0.00	0.15	1.17	236.79	34.77	666.78	354.02	48.11	42.47	0.01	1.13	0.53	0.14	1.76	1.76			
Unavailable	xprf 0014 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	61.35	19.23	9.79	1.15	11.84	0.00	0.24	0.71	191.01	8.41	227.63	72.72	5.12	37.65	0.01	0.14	0.32	0.07	8.52	8.52			
Unavailable	xprf 0015 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	49.27	18.33	10.55	2.70	9.61	0.00	0.14	1.98	208.58	64.80	1044.90	253.04	65.06	30.77	0.01	2.11	0.24	0.26	3.91	3.91			
Unavailable	xprf 0016 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	42.51	14.35	12.47	0.85	9.46	0.00	0.23	0.65	166.46	6.26	302.63	100.86	37.17	30.86	0.01	0.29	0.45	0.45					
Unavailable	xprf 0017 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	52.36	19.91	10.63	1.13	14.46	0.00	0.26	0.86	154.38	21.14	433.15	94.28	6.99	35.99	0.01	0.19	0.22	0.07	9.39	9.39			
Unavailable	xprf 0018 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	54.58	20.56	12.06	0.77	12.23	0.00	0.18	0.53	100.18	6.41	399.34	30.12	1.63	20.05	0.00	0.08	0.08	0.05	15.64	15.64			
Unavailable	xprf 0019 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	49.88	15.90	8.30	2.59	12.26	0.00	0.20	0.19	188.98	11.00	24.24	34.00	0.01	0.19	0.01	0.21	0.21	0.21					
Unavailable	xprf 0020 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	50.64	18.93	5.99	1.51	17.52	0.00	0.22	1.32	190.05	24.57	414.83	107.57	5.67	32.82	0.01	0.17	0.26	0.05	5.57	5.57			
Unavailable	xprf 0021 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	49.70	19.79	5.64	1.63	15.91	0.00	0.29	1.53	162.45	30.63	409.29	132.12	7.71	34.95	0.01	0.22	0.32	0.06	3.45	3.45			
Unavailable	xprf 0022 PANU	Aubrey Parke	Adze	Adze	n/a	n/a			Fiji	Fiji	58.02	17.09	5.04	0.93	12.00	0.00	0.19	2.34	155.37	11.18	151.98	69.36	5.14	33.30	0.01	0.15	0.46	0.07	5.40	5.40			
Unavailable	xpr																																

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SI02 w/ht	AI023 w/ht	Ca30	TO2 w/ht	E-TO2 w/ht	MnO w/ht	MnO w/ht	Na2O w/ht	K2O w/ht	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Zr	Y/Zr	Nb/Zr	CaO/TO2		
BM(O)1925.1019.13	pxrf 0082 BM2	W.S. & K. Routledge	Pounder	Pounder	Y-shaped	Y-shaped	Rapa	Rapa, Austral Islands	Austral Is.	Austral Is.	47.00	10.74	16.35	10.71	10.00	0.19	0.10	0.10	0.10	299.37	37.17	577.39	261.12	51.25	35.24	0.01	1.45	0.45	0.20	2.95		
BM(O)1925.1019.33	pxrf 0090 BM2	W.S. & K. Routledge	Pounder	Pounder	Type 3 (Mulloly)	Type 3 (Mulloly)	Austral Islands	Austral Islands	Austral Is.	Austral Is.	30.08	15.56	10.52	13.32	0.00	0.10	0.10	0.10	0.10	1.87	33.19	58.64	1345.45	111.26	65.56	32.18	0.01	2.04	0.24	0.21	3.40	
BM(O)1925.1019.34	pxrf 0085 BM2	W.S. & K. Routledge	Pounder	Pounder	base	base	Austral Islands	Austral Islands	Austral Is.	Austral Is.	47.86	10.87	15.57	13.32	0.00	0.17	0.10	0.10	0.10	1.20	1404.76	63.32	1326.51	320.54	66.87	32.48	0.01	2.06	0.24	0.21	1.44	
BM(O)1925.1019.41	pxrf 0095 BM2	W.S. & K. Routledge	Pounder	Pounder	Knob	Knob	Gambier Is.	Taku, Mangareva, Gambier Islands	Gambier Is.	Gambier Is.	45.60	10.71	12.51	11.64	0.00	0.18	0.10	0.10	0.10	1.21	249.22	10.91	528.85	176.68	30.21	29.61	0.01	1.66	0.21	0.17	4.98	
BM(O)1925.1019.45	pxrf 0083 BM2	W.S. & K. Routledge	Pounder	Pounder	Y-shaped	Y-shaped	Austral Islands	Taku, Mangareva, Gambier Islands	Gambier Is.	Gambier Is.	45.09	9.47	13.74	13.28	0.00	0.17	0.10	0.10	0.10	0.53	211.06	49.84	716.28	332.17	45.96	34.41	0.01	1.33	0.46	0.14	2.53	
BM(O)1925.1019.53	pxrf 0092 BM2	W.S. & K. Routledge	Pounder	Pounder	Knob	Knob	Austral Islands	Taku, Mangareva, Gambier Islands	Gambier Is.	Gambier Is.	46.92	12.25	2.50	11.93	0.00	0.16	0.09	0.10	0.10	0.92	463.68	17.76	563.92	156.58	32.08	33.28	0.01	0.60	0.28	0.20	2.90	
BM(O)1925.1019.54	pxrf 0084 BM2	W.S. & K. Routledge	Pounder	Pounder	Knob	Knob	Austral Islands	Atamuro, Mangareva Islands	Gambier Is.	Gambier Is.	47.07	11.43	3.22	12.77	0.00	0.17	0.10	0.10	0.10	1.60	229.26	16.03	535.21	192.42	34.15	34.24	0.01	1.00	0.38	0.10	3.55	
BM(O)1925.1019.59	pxrf 0088 BM2	W.S. & K. Routledge	Pounder	Pounder	base	base	Austral Islands	Gambier or Vikeva, Mangareva, Gambier Islands	Gambier Is.	Gambier Is.	48.38	11.38	11.39	13.86	0.00	0.16	0.10	0.10	0.10	0.38	61.88	729.83	378.66	65.86	32.24	0.01	1.81	0.38	0.16	3.16		
BM(O)1925.1019.61	pxrf 0093 BM2	W.S. & K. Routledge	Pounder	Pounder	Knob	Knob	Austral Islands	Taku, Mangareva	Gambier Is.	Gambier Is.	27.65	13.19	7.89	10.77	0.00	0.18	0.10	0.10	0.10	0.75	338.76	7.79	282.27	94.53	15.47	19.77	0.01	1.78	0.33	0.16	7.40	
BM(O)1925.1019.64	pxrf 0094 BM2	W.S. & K. Routledge	Pounder	Pounder	Rounded	Rounded	Austral Islands	Tarava, Gambier Islands	Gambier Is.	Gambier Is.	44.45	14.87	8.47	14.61	0.00	0.20	0.10	0.10	0.10	0.42	451.94	7.94	317.80	45.38	6.91	13.35	0.00	0.52	0.14	0.15	5.67	
BM(O)1925.1019.65	pxrf 0095 BM2	W.S. & K. Routledge	Pounder	Pounder	Knob	Knob	Austral Islands	Taku, Mangareva, Gambier Islands	Gambier Is.	Gambier Is.	45.60	10.71	12.51	11.64	0.00	0.18	0.10	0.10	0.10	1.21	249.22	10.91	528.85	176.68	30.21	29.61	0.01	1.66	0.21	0.17	4.98	
BFPM 10.780	pxrf 0013 BPBM	Alexander M. McBryde	Pounder	Pounder	Doubletiki (ring)	Doubletiki (ring)	Marquesas	Marquesas	Marquesas	Marquesas	46.18	16.17	10.99	3.68	0.78	0.00	0.10	0.10	0.10	0.10	1.54	328.83	31.89	810.13	354.67	61.40	40.21	0.01	1.53	0.44	0.17	2.99
BFPM 1974.102	pxrf 0062 BPBM	Benjamin Draper	Pounder	Pounder	German Trading Co	German Tradit	Marquesas	Marquesas	Marquesas	Marquesas	43.49	14.56	8.88	3.77	9.55	0.00	0.11	0.10	0.10	1.93	686.86	63.63	802.77	347.37	50.81	32.54	0.01	1.56	0.43	0.15	2.36	
BFPM 2011.055.003	pxrf 0139 BPBM	Parafine Sander	Pounder	Pounder	Tahiti (modern)	Tahiti	Marquesas	Marquesas	Unknown	Unknown	45.18	14.54	8.80	3.14	11.77	0.00	0.14	0.10	0.10	1.69	385.68	49.76	918.77	317.21	48.40	33.48	0.01	1.45	0.35	0.15	2.83	
BFPM 5148	pxrf 0012 BPBM	Alvin Sale	Pounder	Pounder	Phallic	Phallic	Marquesas	Marquesas, Nuku Hiva	Marquesas	Marquesas	42.29	12.62	9.29	3.53	9.61	0.00	0.11	0.10	0.10	1.34	370.91	33.34	543.25	325.80	42.21	41.35	0.01	1.02	0.58	0.33	2.63	
BFPM 6170	pxrf 0002 BPBM	Alvin Sale	Pounder	Pounder	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	41.59	18.28	8.56	4.50	10.87	0.00	0.14	0.10	0.10	1.68	222.11	23.35	701.56	361.80	48.69	46.55	0.01	1.05	0.52	0.13	1.90	
BFPM 6180	pxrf 0100 BPBM	Alvin Sale	Pounder	Pounder	base	base	Austral Is.	Austral Is.	Austral Is.	Austral Is.	42.86	17.44	10.30	2.95	14.11	0.00	0.19	0.10	0.10	1.08	304.78	47.12	1324.30	318.02	128.12	36.58	0.01	3.47	0.24	0.40	3.49	
BFPM 6531	pxrf 0112 BPBM	Unknown	Pounder	Pounder	Elongated	Elongated	Unknown	Unknown	Cook Is.	Cook Is.	43.27	15.78	3.89	1.55	5.37	0.00	0.14	0.10	0.10	3.52	586.44	236.85	2205.83	348.79	199.76	0.00	0.02	0.01	0.57	0.52	2.50	
BFPM 6532	pxrf 0111 BPBM	Unknown	Pounder	Pounder	Three finger	Three finger	Unknown	Unknown	Cook Is.	Cook Is.	42.51	15.27	11.21	3.86	9.71	0.00	0.12	0.10	0.10	2.21	268.78	83.68	1335.05	364.52	100.78	25.39	0.01	1.97	0.26	0.28	2.90	
BFPM 71.172.04	pxrf 0080 BPBM	Y.H. Sinoto	Pounder	Pounder	Y-shaped	Y-shaped	Rapa	Rapa	Austral Is.	Austral Is.	38.12	16.19	10.92	2.71	10.49	0.00	0.11	0.10	0.10	1.02	199.54	25.83	561.25	186.49	39.61	29.46	0.01	1.34	0.33	0.21	4.03	
BFPM 71.172.06	pxrf 0081 BPBM	Y.H. Sinoto	Pounder	Pounder	Type 3 (Mulloly)	Type 3 (Mulloly)	Rapa	Rapa	Austral Is.	Austral Is.	40.96	18.83	10.42	4.63	7.31	0.00	0.08	0.10	0.10	1.13	202.32	50.30	1490.95	333.77	78.62	34.94	0.01	2.25	0.22	0.24	2.18	
BFPM 71.172.09	pxrf 0082 BPBM	Y.H. Sinoto	Pounder	Pounder	Type 1 (Mulloly)	Type 1 (Mulloly)	Rapa	Rapa	Austral Is.	Austral Is.	42.47	19.49	7.80	4.03	8.99	0.00	0.13	0.10	0.10	2.15	176.15	61.22	1370.37	336.63	71.36	33.67	0.01	2.18	0.25	0.21	1.97	
BFPM 71.172.09	pxrf 0082 BPBM	Y.H. Sinoto	Pounder	Pounder	Type 1 (Mulloly)	Type 1 (Mulloly)	Rapa	Rapa	Austral Is.	Austral Is.	42.47	19.49	7.80	4.03	8.99	0.00	0.13	0.10	0.10	2.15	176.15	61.22	1370.37	336.63	71.36	33.67	0.01	2.18	0.25	0.21	1.97	
BFPM 71.172.10	pxrf 0079 BPBM	Y.H. Sinoto	Pounder	Pounder	base	base	Rapa	Rapa	Austral Is.	Austral Is.	43.51	16.79	10.28	3.15	7.59	0.00	0.08	0.10	0.10	1.82	292.38	47.39	1466.14	315.40	61.00	36.80	0.01	1.66	0.22	0.19	3.26	
BFPM 8004	pxrf 0001 BPBM	S.T. Alexander	Pounder	Pounder	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	42.11	15.43	7.22	3.01	8.58	0.00	0.10	0.10	0.10	2.40	229.77	101.92	633.78	366.81	49.12	36.12	0.01	0.70	0.58	0.13	2.39	
BFPM 8005	pxrf 0002 BPBM	S.T. Alexander	Pounder	Pounder	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	39.14	14.46	9.24	3.42	9.84	0.00	0.10	0.10	0.10	1.45	60.61	45.22	616.26	325.66	61.30	32.11	0.01	1.87	0.43	0.16	2.70	
BFPM 8044	pxrf 0016 BPBM	Unknown	Pounder	Pounder	Doubletiki	Doubletiki	Marquesas	Marquesas	Marquesas	Marquesas	43.13	13.09	9.01	3.09	8.96	0.00	0.11	0.10	0.10	3.16	346.11	73.55	887.17	410.48	60.79	28.36	0.01	2.14	0.46	0.55	2.82	
BFPM 810.544	pxrf 0131 BPBM	Unknown	Pounder	Pounder	base	base	Paperoa, Tahiti	Society Is.	Society Is.	Society Is.	38.57	15.48	8.05	1.46	8.10	0.00	0.14	0.10	0.10	2.12	259.35	230.08	254.27	389.40	128.52	0.00	0.03	0.00	0.00	1.33	1.40	
BFPM 8301	pxrf 0010 BPBM	R. Linton	Pounder	Pounder	Opu	Opu	Marquesas	Marquesas	Marquesas	Marquesas	36.28	14.43	10.77	3.16	8.96	0.00	0.12	0.10	0.10	3.97	209.31	19.29	745.78	282.93	38.39	44.22	0.01	0.87	0.48	0.14	3.41	
BFPM 8302	pxrf 0007 BPBM	R. Linton	Pounder	Pounder	Opu	Opu	Marquesas	Marquesas	Marquesas	Marquesas	46.63	14.05	9.74	3.54	10.92	0.00	0.11	0.10	0.10	1.92	272.00	60.05	977.17	404.21	49.84	34.61	0.01	1.87	0.43	0.16	1.18	
BFPM 8303	pxrf 0006 BPBM	R. Linton	Pounder	Pounder	Conical	Conical	Marquesas	Marquesas	Marquesas	Marquesas	38.42	14.79	9.74	3.55	9.17	0.00	0.13	0.10	0.10	1.96	266.40	77.41	878.02	357.47	60.62	26.98	0.01	2.25	0.41	0.17	2.74	
BFPM 8304	pxrf 0009 BPBM	R. Linton	Pounder	Pounder	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	43.54	11.02	8.03	3.36	8.10	0.00	0.09	0.10	0.10	2.40	220.56	71.77	738.33	321.89	48.14	29.35	0.01	1.51	0.44	0.14	2.39	
BFPM 8305	pxrf 0119 BPBM	R. Linton	Pounder	Pounder	Opu	Opu	Marquesas	Marquesas	Marquesas	Marquesas	33.74	14.14	9.26	3.93	9.92	0.00	0.11	0.10	0.10	2.42	202.75	36.65	958.40	346.11	53.62	37.62	0.01	1.43	0.38	0.15	2.03	
BFPM 8306	pxrf 0153 BPBM	R. Linton	Pounder	Pounder	Tiki	Tiki	Marquesas	Marquesas	Marquesas	Marquesas	55.04	16.72	5.99	3.55	10.79	0.00	0.12	0.10	0.10	2.42	202.75	36.65	958.40	346.11	53.62	37.62	0.01	1.43	0.38	0.15	1.57	
BFPM 8307	pxrf 0014 BPBM	R. Linton	Pounder	Pounder	Doubletiki	Doubletiki	Marquesas	Marquesas	Marquesas	Marquesas	44.11	15.40	8.01	3.52	9.31	0.00	0.10	0.10	0.10	2.25	576.39	84.63	753.19	418.15	57.92	23.67	0.01	2.45	0.56	0.14	2.27	
BFPM 8308	pxrf 0038 BPBM	R. Linton	Pounder	Pounder	Doubletiki	Doubletiki	Marquesas	Marquesas	Marquesas	Marquesas	65.35	10.77	4.95	2.71	8.87	0.00	0.13	0.10	0.10													

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SI02 w/ht	AI023 w/ht	Ca24 w/ht	TiO2 w/ht	e-TO2 w/ht	MgO w/ht	MnO w/ht	Na2O w/ht	K2O w/ht	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Zr	Y/Zr	CaO/100			
BPBM-4045	pxrf 0015 BPBM	Kenneth P. Emory	Knob	Phallic	Double Tiki	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	52.78	15.23	7.61	0.21	0.26	0.26	0.11	0.11	0.11	2.26	97.35	81.65	372.61	55.16	18.92	0.00	0.00	0.00	0.00	0.00	0.00	
BPBM-4046	pxrf 0057 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	45.34	16.24	3.28	2.23	6.77	0.00	0.11	0.11	0.11	3.33	1036.44	158.43	876.64	485.98	90.06	0.00	0.02	0.00	0.00	0.00	0.00	0.00
BPBM-4047	pxrf 0039 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	48.06	14.25	6.94	3.37	10.76	0.00	0.14	0.14	0.14	2.23	342.70	92.06	641.56	392.07	56.01	20.43	0.01	0.24	0.61	0.14	2.06	
BPBM-4048	pxrf 0050 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	38.48	15.34	9.88	3.71	10.85	0.00	0.12	0.12	0.12	1.05	663.33	20.79	735.25	361.53	54.20	40.43	0.01	1.25	0.49	0.15	2.66	
BPBM-4049	pxrf 0014 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	39.02	15.20	9.61	3.77	10.59	0.00	0.14	0.14	0.14	1.70	128.92	93.11	649.39	327.20	60.94	42.61	0.01	3.56	0.48	0.31	2.69	
BPBM-4050	pxrf 0048 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	37.92	21.24	4.37	5.63	11.41	0.00	0.18	0.18	0.18	1.80	256.98	104.75	865.83	448.38	66.59	15.90	0.01	4.19	0.52	0.15	2.87	
BPBM-4054	pxrf 0151 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	42.60	16.61	10.24	3.57	11.43	0.00	0.14	0.14	0.14	1.82	711.79	80.69	929.86	329.37	64.17	26.29	0.01	2.44	0.35	0.19	0.87	
BPBM-4055	pxrf 0121 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	38.43	15.06	8.81	3.06	15.38	0.00	0.19	0.19	0.19	1.28	814.71	118.79	718.61	326.20	48.49	44.85	0.01	3.38	0.45	0.15	2.88	
BPBM-4056	pxrf 0112 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	41.23	17.94	6.43	3.19	11.43	0.00	0.11	0.11	0.11	1.08	241.43	105.88	1448.21	64.00	41.04	0.00	0.01	0.41	0.24	0.31	2.44	
BPBM-4057	pxrf 0119 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	56.54	20.86	4.81	3.02	7.63	0.00	0.11	0.11	0.11	3.09	129.30	207.72	83.60	324.39	164.70	0.00	0.04	0.00	0.00	0.00	0.00	0.00
BPBM-4058	pxrf 0118 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	60.13	19.99	0.00	1.39	5.07	0.00	0.25	0.25	0.25	3.75	143.08	179.28	242.54	559.64	123.40	0.00	0.04	0.00	0.00	0.00	0.00	
BPBM-4059	pxrf 0124 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	41.03	15.44	8.42	3.48	10.59	0.00	0.11	0.11	0.11	1.77	389.11	357.82	1081.31	327.20	61.93	42.61	0.01	6.14	0.69	0.31	2.49	
BPBM-4063	pxrf 0117 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	35.08	15.12	10.03	3.61	13.24	0.00	0.16	0.16	0.16	1.50	2629.99	77.20	1009.69	343.23	68.00	27.68	0.01	2.48	0.34	0.20	2.78	
BPBM-4064	pxrf 0120 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	32.84	16.48	9.83	2.88	9.74	0.00	0.12	0.12	0.12	2.09	354.02	283.65	871.71	366.59	49.79	0.00	0.01	4.99	0.71	0.42	0.14	3.41
BPBM-4068	pxrf 0128 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	46.23	16.20	7.93	3.92	10.42	0.00	0.12	0.12	0.12	2.28	410.46	164.73	1278.83	403.27	75.15	0.00	0.01	7.15	0.42	0.20	2.02	
BPBM-4073	pxrf 0125 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	44.92	16.81	11.53	3.86	10.64	0.00	0.12	0.12	0.12	1.65	282.55	76.73	850.36	328.10	54.71	27.56	0.01	1.97	0.38	0.21	3.43	
BPBM-4077	pxrf 0113 BPBM	Unknown	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	39.88	23.71	6.84	5.22	13.12	0.00	0.17	0.17	0.17	1.93	292.13	203.97	858.72	408.84	59.75	0.00	0.01	5.97	0.42	0.15	3.11	
BPBM-4078	pxrf 0115 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	42.43	18.65	2.95	1.47	5.46	0.00	0.16	0.16	0.16	3.60	283.45	180.34	589.80	0.00	269.07	0.00	0.00	0.00	0.00	0.00	0.00	
BPBM-4083	pxrf 0127 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	45.81	15.70	8.42	2.86	10.13	0.00	0.11	0.11	0.11	2.25	378.58	85.76	795.49	364.43	41.04	25.55	0.02	1.81	0.46	0.21	3.56	
BPBM-4100	pxrf 0146 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	47.45	16.62	0.45	1.00	9.11	0.00	0.14	0.14	0.14	2.85	230.80	370.72	278.99	390.49	121.12	0.00	0.04	0.00	0.00	0.00	0.00	
BPBM-475	pxrf 0045 BPBM	George Spitz	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	40.07	15.35	9.50	3.31	9.55	0.00	0.10	0.10	0.10	1.48	325.63	33.54	928.27	285.00	41.39	38.73	0.01	1.07	0.31	0.15	2.86	
BPBM-476a	pxrf 0037 BPBM	George Spitz	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	37.24	13.38	7.47	2.83	8.88	0.00	0.11	0.11	0.11	2.21	288.27	92.84	681.26	392.57	58.88	17.89	0.01	3.29	0.58	0.15	2.64	
BPBM-476b	pxrf 0017 BPBM	George Spitz	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	46.56	15.24	7.60	3.17	8.31	0.00	0.11	0.11	0.11	2.50	293.02	103.31	691.43	389.66	55.17	12.89	0.01	4.28	0.56	0.14	2.40	
BPBM-477	pxrf 0040 BPBM	George Spitz	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	36.08	13.65	9.90	3.24	9.75	0.00	0.11	0.11	0.11	3.19	566.02	60.06	894.72	357.57	58.60	32.67	0.01	1.81	0.40	0.16	3.06	
BPBM-478	pxrf 0087 BPBM	Unknown	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	37.43	14.17	9.92	1.65	10.31	0.00	0.13	0.13	0.13	1.16	310.01	24.87	474.25	159.90	30.00	27.69	0.01	1.12	0.22	0.21	6.03	
BPBM-478b	pxrf 0033 BPBM	Unknown	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	42.71	13.15	7.81	3.07	9.59	0.00	0.09	0.09	0.09	2.54	262.82	105.28	723.23	321.62	54.60	37.02	0.01	1.54	0.21	0.24	2.43	
BPBM-4872	pxrf 0152 BPBM	Paul Nordmann	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	39.28	14.15	9.75	3.61	11.20	0.00	0.13	0.13	0.13	1.92	354.42	148.87	784.36	341.00	64.40	5.29	0.01	1.27	0.44	0.20	2.42	
BPBM-4892	pxrf 0109 BPBM	Unknown	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	39.64	14.97	8.68	3.04	11.70	0.00	0.10	0.10	0.10	1.80	368.79	55.51	707.01	315.00	62.50	33.93	0.01	1.37	0.45	0.15	3.19	
BPBM-4893	pxrf 0105 BPBM	Unknown	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	38.02	17.43	5.71	3.35	10.95	0.00	0.16	0.16	0.16	2.43	509.38	116.05	1068.80	452.94	113.09	10.39	0.01	10.89	0.42	0.25	1.70	
BPBM-4907	pxrf 0078 BPBM	Paul Nordmann	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	37.07	14.89	9.61	3.36	10.49	0.00	0.11	0.11	0.11	1.66	266.92	104.22	316.48	41.74	61.46	0.01	1.74	0.34	0.28	2.47		
BPBM-4907b	pxrf 0148 BPBM	Unknown	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	52.19	10.17	5.52	2.58	9.98	0.00	0.11	0.11	0.11	2.82	242.89	199.76	1287.94	401.28	64.79	0.02	0.02	6.49	0.38	0.16	2.14	
BPBM-4922	pxrf 0142 BPBM	Unknown	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	38.98	15.89	8.78	4.06	7.78	0.00	0.12	0.12	0.12	2.45	1875.69	94.57	1372.14	429.03	87.71	19.66	0.01	4.46	0.31	0.20	2.16	
BPBM-4922b	pxrf 0219 BPBM	Kenneth P. Wilder	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	32.92	16.84	8.91	3.07	9.59	0.00	0.11	0.11	0.11	1.91	242.89	199.76	1287.94	401.28	64.79	0.02	0.02	6.49	0.38	0.16	2.14	
BPBM-4936	pxrf 0106 BPBM	Unknown	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	24.33	14.20	4.784	0.49	11.00	0.00	0.03	0.03	0.03	0.00	160.31	3.16	148.79	21.72	4.76	3.40	0.00	1.37	0.15	0.21	97.23	
BPBM-7337	pxrf 0018 BPBM	Rachel Kekela Kaiwaea	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	52.85	14.09	2.37	1.32	7.78	0.00	0.10	0.10	0.10	3.82	153.82	293.04	559.44	524.99	85.13	0.00	0.04	0.51	0.16	0.16	1.80	
BPBM-7339	pxrf 0143 BPBM	Kenneth P. Emory	Phallic	Phallic	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	49.54	16.46	8.07	3.13																		

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SI02 w/ht	Al2O3 w/ht	CaO w/ht	TI02 w/ht	e-TO2 w/ht	MgO w/ht	MnO w/ht	Na2O w/ht	K2O w/ht	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/1002	
MTI 777	pxrf 0098 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	45.12	17.40	8.61	3.47	10.06	0.00	0.15	2.19	269.87	94.76	712.43	366.32	59.75	22.89	0.01	2.61	0.51	0.16	1.77		
MTI 777	pxrf 0099 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	46.50	15.92	0.09	1.02	8.23	0.00	0.11	3.10	269.59	186.28	233.92	414.18	130.47	0.00	0.04	#####	1.77	0.32	0.08		
MTI 123	pxrf 0014 MTI	Musée de Papéete	Podder	Podder	Double tiki	Double tiki	Marquesas Is. (?)	Marquesas	Marquesas	Marquesas	47.02	14.20	5.79	3.15	8.98	0.00	0.10	2.52	456.92	96.47	778.40	435.58	66.85	18.00	0.01	3.71	0.56	0.15	1.84		
MTI 177	pxrf 0104 MTI	Unknown	Podder	Podder	Upward face	Upward face	Marquesas	Marquesas	Marquesas	Marquesas	43.49	11.96	1.39	3.99	10.29	0.00	0.08	1.15	137.21	25.67	423.89	320.16	42.90	42.92	0.01	0.02	0.91	0.46	0.21	2.67	
MTI 1658	pxrf 0100 MTI	Unknown	Podder	Podder	base	base	Unknown	Unknown	Unknown	Unknown	49.65	17.31	7.79	3.21	9.01	0.00	0.11	2.52	429.45	140.89	822.17	368.01	54.72	4.65	0.01	11.77	0.45	0.15	2.43		
MTI 168	pxrf 0046 MTI	Unknown	Podder	Podder	Maupiti	Maupiti	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	58.31	12.86	7.86	3.16	9.13	0.00	0.10	2.22	219.78	72.31	732.97	351.50	56.95	29.16	0.01	1.95	0.48	0.16	2.49		
MTI 169	pxrf 0102 MTI	Unknown	Podder	Podder	Maupiti	Maupiti	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	43.64	16.06	1.11	1.11	8.12	0.00	0.18	3.54	370.57	247.82	251.81	413.60	129.63	0.00	#####	1.64	0.33	1.00			
MTI 171	pxrf 0047 MTI	Unknown	Podder	Podder	Maupiti	Maupiti	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	49.55	15.27	8.82	3.00	8.88	0.00	0.10	2.68	664.85	67.31	712.93	313.85	51.08	30.62	0.01	1.87	0.49	0.13	3.89		
MTI 174	pxrf 0103 MTI	Unknown	Podder	Podder	Maupiti	Maupiti	Unknown	Unknown	Unknown	Unknown	42.84	15.97	11.49	2.95	8.62	0.00	0.10	1.55	385.55	30.32	688.11	277.93	36.71	36.82	0.01	1.00	0.40	0.13	3.89		
MTI 175	pxrf 0048 MTI	Unknown	Podder	Podder	Maupiti	Maupiti	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	43.65	16.07	9.04	3.27	8.74	0.00	0.10	2.24	224.42	84.67	864.15	368.62	69.04	23.79	0.01	2.48	0.43	0.16	2.76		
MTI 177	pxrf 0104 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	43.18	16.77	8.18	3.06	10.29	0.00	0.14	1.98	341.80	93.68	1055.99	358.43	42.90	42.92	0.01	0.02	0.91	0.46	0.21	2.67	
MTI 178	pxrf 0043 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	45.21	13.28	7.40	2.28	8.43	0.00	0.08	2.28	1153.86	84.58	695.10	374.43	59.04	45.47	0.02	1.63	0.54	0.11	3.25		
MTI 188	pxrf 0042 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	47.16	16.00	10.33	4.43	8.24	0.00	0.06	2.12	431.35	107.55	941.58	400.25	74.85	15.21	0.01	4.92	0.43	0.19	2.33		
MTI 188	pxrf 0044 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	57.23	17.84	0.20	1.17	7.68	0.00	0.10	3.16	291.07	299.36	918.56	296.55	129.53	0.00	#####	0.32	0.44	0.17	2.33		
MTI 200.10.1	pxrf 0022 MTI	Unknown	Podder	Podder	Two finger	Two finger	French Polynesia	French Polynesia	French Polynesia	French Polynesia	47.29	16.51	9.67	3.97	11.17	0.00	0.14	1.80	220.28	66.82	989.80	383.83	79.23	30.71	0.01	2.56	0.39	0.21	2.43		
MTI 2001.3.1	pxrf 0060 MTI	Unknown	Podder	Podder	base	base	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	39.58	19.05	6.71	4.68	12.40	0.00	0.16	1.66	186.73	111.76	960.97	318.34	66.27	16.08	0.01	4.12	0.33	0.21	1.43		
MTI 2001.3.4	pxrf 0031 MTI	Unknown	Podder	Podder	Maupiti	Maupiti	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	Society Is. Ties Sous-le-Vent (?)	46.80	17.20	8.31	3.37	10.47	0.00	0.11	1.93	610.85	95.62	716.21	338.33	68.81	21.47	0.01	2.32	0.47	0.15	2.46		
MTI 2001.3.5	pxrf 0035 MTI	Unknown	Podder	Podder	Two finger	Two finger	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	40.67	15.57	4.92	2.40	10.19	0.00	0.13	1.70	152.22	148.93	694.89	387.84	57.93	16.80	0.02	3.60	0.56	0.15	2.05		
MTI 2004.10.31	pxrf 0051 MTI	Unknown	Podder	Podder	Maupiti	Maupiti	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	49.83	15.68	8.27	3.11	8.82	0.00	0.10	2.25	330.37	77.86	689.35	341.61	51.59	27.38	0.01	1.88	0.50	0.15	2.66		
MTI 2007.1.1	pxrf 0094 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Society Is. Tahiti (?)	Society Is. Tahiti (?)	Society Is. Tahiti (?)	Society Is. Tahiti (?)	40.07	14.38	9.11	3.34	10.08	0.00	0.16	1.40	357.67	79.51	753.77	329.23	55.11	26.87	0.01	2.05	0.44	0.17	2.73		
MTI 2013.5.1	pxrf 0090 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	38.49	13.99	5.74	3.65	11.65	0.00	0.13	1.92	419.86	65.08	613.45	371.79	57.43	30.32	0.01	1.89	0.61	0.15	1.57		
MTI 211	pxrf 0035 MTI	Unknown	Podder	Podder	Phallic	Phallic	Marquesas	Marquesas	Marquesas	Marquesas	40.67	15.57	4.92	2.40	10.19	0.00	0.13	1.70	152.22	148.93	694.89	387.84	57.93	16.80	0.02	3.60	0.56	0.15	2.05		
MTI 214	pxrf 0106 MTI	Unknown	Podder	Podder	Phallic	Phallic	Marquesas (?)	Marquesas (?)	Marquesas (?)	Marquesas (?)	36.29	13.59	9.68	3.48	9.05	0.00	0.10	1.53	641.78	48.05	737.69	346.45	47.27	35.73	0.01	1.32	0.47	0.14	2.78		
MTI 217	pxrf 0004 MTI	Musée de Papéete	Podder	Podder	Double tiki	Double tiki	French Polynesia, Marquesas (?)	French Polynesia, Marquesas (?)	French Polynesia, Marquesas (?)	French Polynesia, Marquesas (?)	42.78	19.08	7.55	4.47	12.40	0.00	0.22	1.51	287.65	72.35	720.42	355.29	53.30	29.19	0.01	1.83	0.49	0.15	1.69		
MTI 218	pxrf 0009 MTI	Musée de Papéete	Podder	Podder	Double animal	Double animal	Marquesas	Marquesas	Marquesas	Marquesas	54.43	13.64	9.83	2.36	9.96	0.00	0.04	1.68	436.23	60.80	692.40	313.94	41.86	32.08	0.01	1.30	0.45	0.13	1.47		
MTI 287	pxrf 0051 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	40.03	14.43	7.51	2.63	12.58	0.00	0.12	1.39	102.11	95.57	629.13	281.03	43.02	22.82	0.01	1.87	0.46	0.13	2.89		
MTI 47.50.18 (B1.05.17)	pxrf 0081 MTI	Unknown	Podder	Podder	Dumbell	Dumbell	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	45.84	18.19	10.09	4.30	10.85	0.00	0.13	1.82	448.09	63.23	1013.07	369.75	61.06	32.71	0.01	1.87	0.37	0.17	2.35		
MTI 55 (124)	pxrf 0041 MTI	Unknown	Podder	Podder	Double tiki	Double tiki	Marquesas (?)	Marquesas (?)	Marquesas (?)	Marquesas (?)	56.45	14.61	7.34	3.66	9.51	0.00	0.11	2.35	529.61	94.60	757.86	426.10	61.26	18.11	0.01	3.88	0.56	0.14	2.00		
MTI 600	pxrf 0049 MTI	Unknown	Podder	Podder	Knob	Knob	Gambier Is. Tarava	Gambier Is. Tarava	Gambier Is. Tarava	Gambier Is. Tarava	40.67	14.69	8.69	1.58	13.73	0.00	0.17	0.58	255.96	7.70	375.70	103.54	17.59	19.93	0.01	0.88	0.28	0.17	5.49		
MTI 50.18 (B1.05.19)	pxrf 0045 MTI	Unknown	Podder	Podder	Infant	Infant	Society Is. Austr.	Society Is. Austr.	Society Is. Austr.	Society Is. Austr.	48.44	17.37	8.14	3.54	13.47	0.00	0.14	0.92	419.47	44.72	1053.69	449.27	64.00	29.42	0.01	1.87	0.44	0.17	2.33		
MTI 706	pxrf 0045 MTI	Unknown	Podder	Podder	Type 1 (Mullay)	Type 1 (Mullay)	Austral Is. Rapa (?)	Austral Is. Rapa (?)	Austral Is. Rapa (?)	Austral Is. Rapa (?)	48.62	19.31	8.61	3.87	8.82	0.00	0.10	1.75	262.78	40.76	1310.74	316.70	70.31	37.53	0.01	0.88	0.24	0.22	2.53		
MTI 73	pxrf 0050 MTI	Unknown	Podder	Podder	Knob	Knob	Hawaii (?)	Hawaii (?)	Hawaii (?)	Hawaii (?)	45.20	13.49	9.52	1.87	9.17	0.00	0.11	0.99	279.18	14.30	507.95	186.99	13.87	31.92	0.01	0.43	0.37	0.07	5.10		
MTI 78.01.32	pxrf 0052 MTI	Unknown	Podder	Podder	Opu	Opu	Marquesas	Marquesas	Marquesas	Marquesas	49.63	16.79	10.72	3.50	12.50	0.00	0.11	1.99	360.00	303.50	512.72	198.28	38.11	0.00	#####	0.31	0.00	0.30	2.71		
MTI 78.01.47	pxrf 0051 MTI	Unknown	Podder	Podder	Infant	Infant	Marquesas	Marquesas	Marquesas	Marquesas	41.68	14.42	9.61	1.33	10.79	0.00	0.12	1.70	844.53	143.06	1098.01	337.17	64.41	9.52	0.01	6.35	0.31	0.18	2.97		
MTI 78.01.84	pxrf 0101 MTI	Unknown	Podder	Podder	Tahiti	Tahiti	Unknown	Unknown	Unknown	Unknown	41.29	14.96	11.20	2.73	9.22	0.00	0.10	1.75	229.22	61.43	857.93	322.30	44.58	32.48	0.01	1.37	0.38	0.14	4.11		
MTI 79.06.104	pxrf 0023 MTI	Unknown	Podder	Podder	Horn	Horn	Society Is. (?)	Society Is. (?)	Society Is. (?)	Society Is. (?)	38.84	15.10	8.98	3.42	9.10	0.00	0.10	1.80	383.91	77.48	841.64	346.98	61.13	27.50	0.01	2.23	0.41	0.18	2.62		
MTI 79.05.109	pxrf 0017 MTI	Unknown	Podder	Podder	Double animal	Double animal	Marquesas	Marquesas	Marquesas	Marquesas	43.69	12.91	8.31	3.51	12.92	0.00	0.12	1.27	321.92	177.84	1382.92	390.05	41.91								

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	K2O wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Zr	Nb/Zr	CaO/1000	
5325		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	11.38	1.18	10.43	3.47	12.23	1251.00	0.73	11.81	23.00	403.00	237.00	31.00	31.00	31.00	11.03	0.77	0.59	0.11	3.01	
5327		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	10.43	3.47	12.23	1251.00	0.97	118.00	29.00	494.00	274.00	31.00	37.00	21.00	24.00	26.00	33.00	0.01	0.79	0.53	0.11	3.48
5328		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	11.99	3.45	11.78	1294.00	0.84	96.00	27.00	447.00	239.00	26.00	36.00	23.00	24.00	25.00	36.00	0.01	0.69	0.54	0.10	3.40
5328-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	11.86	3.49	11.52	1280.00	0.87	113.00	19.00	456.00	248.00	25.00	36.00	21.00	24.00	25.00	36.00	0.01	0.69	0.54	0.10	3.40
5329		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	9.12	3.61	14.05	1198.00	1.37	107.00	11.00	455.00	259.00	26.00	31.00	21.00	24.00	25.00	36.00	0.01	0.60	0.57	0.11	2.81
5330-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	11.26	3.57	12.49	1309.00	0.86	116.00	23.00	451.00	243.00	21.00	30.00	21.00	24.00	25.00	36.00	0.01	0.70	0.54	0.09	3.15
5330-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	11.13	3.44	12.31	1262.00	0.82	98.00	21.00	434.00	229.00	25.00	36.00	0.01	0.69	0.53	0.11	3.24				
5331		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	10.70	3.40	13.61	1255.00	0.90	111.00	24.00	460.00	244.00	24.00	33.00	0.01	0.75	0.55	0.10	3.15				
5331-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	11.48	3.34	13.44	1207.00	0.88	122.00	23.00	469.00	253.00	24.00	33.00	0.01	0.74	0.54	0.09	3.45				
5336-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	11.86	3.53	12.04	1309.00	0.99	107.00	26.00	438.00	254.00	24.00	33.00	0.01	0.73	0.58	0.09	3.36				
5336-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	12.25	3.41	12.15	1247.00	1.00	110.00	23.00	441.00	249.00	26.00	36.00	0.01	0.72	0.56	0.10	3.62				
5337		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	11.46	3.61	12.41	1286.00	0.81	112.00	15.00	456.00	259.00	26.00	31.00	0.01	0.81	0.62	0.10	3.17				
5338		McAlister and Allen 2017		Archaeological			Northeast Nuku	Anaho	Nuku Hiva	Māruquesu	11.35	3.43	12.29	1185.00	0.67	118.00	14.00	455.00	264.00	31.00	35.00	0.01	0.89	0.58	0.12	3.24				
5340		McAlister and Allen 2017		Archaeological			South Nuku Hiva	Taipivai	Nuku Hiva	Māruquesu	6.05	2.04	12.79	2714.00	2.94	105.00	103.00	878.00	457.00	80.00	34.00	0.02	2.35	0.52	0.18	2.97				
5340-a		McAlister and Allen 2017		Archaeological			South Nuku Hiva	Taipivai	Nuku Hiva	Māruquesu	5.88	2.33	12.78	1004.00	2.50	106.00	109.00	898.00	476.00	87.00	38.00	0.02	2.29	0.53	0.18	2.52				
5341		McAlister and Allen 2017		Archaeological			South Nuku Hiva	Taipivai	Nuku Hiva	Māruquesu	7.77	3.01	12.95	2028.00	2.59	94.00	85.00	920.00	348.00	62.00	38.00	0.01	1.63	0.38	0.18	2.56				
5345		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	10.81	2.56	11.94	1097.00	0.98	100.00	20.00	421.00	243.00	32.00	34.00	0.01	0.94	0.58	0.13	3.65				
5347-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	11.34	3.71	12.80	1332.00	0.95	120.00	23.00	450.00	244.00	26.00	38.00	0.01	0.68	0.54	0.11	3.06				
5347-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	10.28	3.53	12.45	1262.00	0.70	115.00	21.00	446.00	253.00	24.00	32.00	0.01	0.75	0.57	0.09	3.20				
5348-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	52.18	10.57	3.38	13.54	1188.00	0.81	96.00	13.00	416.00	231.00	22.00	24.00	0.01	0.92	0.56	0.10	3.13			
5348-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	10.15	3.18	12.06	1248.00	0.77	108.00	13.00	401.00	231.00	14.00	29.00	0.01	0.48	0.58	0.06	3.18				
5350		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	10.25	3.50	12.95	1258.00	0.89	107.00	28.00	409.00	235.00	30.00	38.00	0.01	0.79	0.57	0.13	2.93				
5351-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	48.51	10.66	3.44	13.18	1200.00	0.86	112.00	19.00	417.00	239.00	25.00	47.00	0.01	0.53	0.57	0.10	3.10			
5352		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	9.60	3.77	13.70	1210.00	1.05	111.00	17.00	415.00	230.00	37.00	48.00	0.01	0.77	0.55	0.16	2.55				
5353		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	11.40	3.69	12.43	1299.00	0.98	115.00	17.00	454.00	256.00	26.00	34.00	0.01	0.76	0.56	0.10	3.09				
5354-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	11.31	3.10	12.42	1269.00	0.98	115.00	23.00	461.00	237.00	26.00	31.00	0.01	0.76	0.54	0.10	3.52				
5354-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	48.54	11.50	3.36	12.35	1340.00	0.64	110.00	15.00	419.00	239.00	22.00	34.00	0.01	0.65	0.57	0.09	3.42			
5355		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	9.55	3.40	12.88	1306.00	0.86	117.00	22.00	495.00	244.00	30.00	33.00	0.01	0.91	0.49	0.12	2.81				
5356		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	10.67	3.80	11.84	1056.00	1.09	108.00	33.00	561.00	284.00	36.00	36.00	0.01	1.00	0.51	0.13	2.81				
5356-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	10.99	3.88	12.88	1242.00	1.09	113.00	28.00	485.00	278.00	36.00	36.00	0.01	0.92	0.49	0.10	2.84				
5357		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	10.82	3.94	12.77	1239.00	1.09	113.00	28.00	551.00	292.00	32.00	37.00	0.01	0.86	0.53	0.11	2.75				
5358		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	10.34	3.61	12.45	1189.00	1.06	108.00	32.00	425.00	278.00	45.00	47.00	0.01	0.96	0.65	0.16	2.86				
5370-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	11.35	3.59	12.39	1253.00	0.78	111.00	19.00	423.00	227.00	34.00	46.00	0.01	0.74	0.56	0.14	3.00				
5370-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	11.21	3.36	12.39	1681.00	1.23	107.00	24.00	435.00	242.00	21.00	36.00	0.01	0.58	0.56	0.09	3.34				
5370-c		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	10.69	3.15	12.33	1248.00	0.84	112.00	30.00	444.00	240.00	24.00	35.00	0.01	0.69	0.54	0.10	3.39				
5370-d		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	48.64	11.21	3.25	12.36	1239.00	1.03	106.00	26.00	431.00	240.00	24.00	31.00	0.01	0.77	0.56	0.10	3.45			
5372		McAlister and Allen 2017		Archaeological			Northeast Nuku	Haataiva	Nuku Hiva	Māruquesu	9.51	3.47	13.26	1204.00	1.06	103.00	17.00	404.00	259.00	27.00	31.00	0.01	0.77	0.56	0.10	2.74				
5618-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	47.12	10.62	3.97	13.41	1247.00	1.06	122.00	21.00	577.00	322.00	35.00	37.00	0.01	0.95	0.56	0.11	2.68			
5618-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	10.64	4.03	13.66	1230.00	1.00	102.00	24.00	595.00	330.00	40.00	37.00	0.01	1.08	0.55	0.12	2.64				
5618-c		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	11.15	4.05	13.36	1307.00	0.97	123.00	24.00	575.00	324.00	39.00	35.00	0.01	1.11	0.58	0.12	2.75				
5619-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	10.33	3.84	13.60	1175.00	0.91	117.00	18.00	411.00	233.00	31.00	31.00	0.01	0.81	0.51	0.11	3.87				
5619-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	11.33	4.49	13.34	1162.00	1.32	124.00	24.00	589.00	294.00	33.00	34.00	0.01	0.97	0.50	0.11	2.52				
5620		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	46.25	10.84	3.55	13.44	1255.00	0.41	118.00	9.00	449.00	260.00	27.00	36.00	0.01	0.75	0.58	0.10	3.05			
5621-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	10.43	3.57	13.43	1347.00	0.95	115.00	13.00	423.00	234.00	26.00	31.00	0.01	0.68	0.54	0.11	2.43				
5621-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	10.96	4.73	14.34	1354.00	0.34	123.00	9.00	519.00	325.00	38.00	41.00	0.01	0.93	0.63	0.12	2.32				
5622-a		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	10.45	3.88	13.30	1276.00	0.95	115.00	39.00	584.00	310.00	34.00	37.00	0.01	0.92	0.53	0.11	2.69				
5622-b		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	10.49	4.09	13.41	1284.00	0.92	106.00	35.00	582.00	326.00	30.00	33.00	0.01	0.91	0.56	0.09	2.56				
5623		McAlister and Allen 2017		Archaeological			Northeast Nuku	Hakaa	Nuku Hiva	Māruquesu	47.24	11.38	3.48	13.15	1253.00	0.51	105.00	24.00	435.00	242.00	21.00	36.00	0.01	0.58	0.56	0.11	2.79			
5624-a		McAlister and Allen 2017																												

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	K2O wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Nb/Zr	CaO/100			
6442-a	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	7.71	4.20	12.39	1162.00	1.26	111.00	1.26	111.00	1.26	111.00	1.26	111.00	1.26	111.00	1.26	111.00	1.26	111.00	1.26	111.00	1.26	111.00		
6442-b	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	8.31	4.39	12.38	1102.00	1.48	92.00	36.00	592.00	353.00	41.00	46.00	0.01	0.89	0.60	0.12	0.89	0.60	0.12	0.89	0.60	0.12	0.89		
6442-c	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	7.06	4.19	12.30	1094.00	1.30	109.00	35.00	580.00	320.00	32.00	42.00	0.01	1.03	0.76	0.55	0.10	1.68							
6444-b	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	8.08	3.89	11.80	1084.00	1.38	107.00	41.00	554.00	322.00	36.00	35.00	0.01	1.07	0.58	0.11	2.13								
6444-c	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	8.81	4.61	12.31	1162.00	1.59	109.00	32.00	593.00	344.00	42.00	45.00	0.01	0.93	0.57	0.12	1.90								
6444-d	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	8.42	4.65	12.48	1162.00	1.46	116.00	36.00	603.00	339.00	35.00	41.00	0.01	0.85	0.56	0.10	1.81								
6446	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	7.59	5.58	13.29	978.00	1.39	127.00	42.00	621.00	317.00	34.00	30.00	0.01	1.13	0.51	0.11	1.36								
6448	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	8.72	4.45	12.82	1079.00	1.50	117.00	43.00	599.00	347.00	32.00	37.00	0.01	0.86	0.58	0.09	1.96								
6448-b	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	9.07	4.45	12.82	1158.00	1.61	112.00	36.00	624.00	329.00	31.00	37.00	0.01	1.05	0.60	0.12	0.84								
6452	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	9.08	4.66	12.04	1099.00	1.28	116.00	36.00	624.00	299.00	31.00	34.00	0.01	0.91	0.48	0.10	1.95								
6455	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	8.69	4.25	12.44	1166.00	1.33	108.00	33.00	589.00	352.00	38.00	31.00	0.01	1.23	0.60	0.11	2.04								
6455-b	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	7.95	4.16	12.31	1162.00	1.19	109.00	32.00	593.00	327.00	32.00	39.00	0.01	0.83	0.51	0.10	1.91								
6456	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	8.29	3.52	13.27	1084.00	1.04	115.00	33.00	547.00	303.00	29.00	41.00	0.01	0.71	0.55	0.10	2.36								
6459	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	7.30	2.88	12.94	697.00	1.16	137.00	34.00	556.00	256.00	33.00	42.00	0.01	0.79	0.46	0.13	2.53								
6460	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	8.12	3.54	12.93	1065.00	1.21	111.00	33.00	582.00	314.00	36.00	42.00	0.01	0.86	0.54	0.11	2.29								
6461	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	7.03	3.65	12.92	697.00	1.50	138.00	46.00	591.00	292.00	41.00	39.00	0.01	1.05	0.49	0.14	2.22								
6463	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Inner Hatheu	Hatheu	Inner Hatheu	Nuku Hiva	Margaree	7.06	3.78	13.24	852.00	1.46	135.00	42.00	545.00	304.00	32.00	38.00	0.01	0.84	0.56	0.11	1.87								
6606	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Henua a Taha	Henua a Taha	Henua a Taha	Nuku Hiva	Margaree	9.95	3.54	13.34	1317.00	1.04	121.00	33.00	478.00	243.00	40.00	45.00	0.01	0.89	0.51	0.16	2.81								
6607	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Henua a Taha	Henua a Taha	Henua a Taha	Nuku Hiva	Margaree	10.34	3.22	13.45	1359.00	1.11	115.00	29.00	482.00	249.00	28.00	36.00	0.01	0.78	0.51	0.11	3.21								
6608	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Henua a Taha	Henua a Taha	Henua a Taha	Nuku Hiva	Margaree	9.33	3.28	13.39	1522.00	1.25	120.00	38.00	460.00	275.00	42.00	34.00	0.01	1.24	0.61	0.15	2.84								
6609	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Henua a Taha	Henua a Taha	Henua a Taha	Nuku Hiva	Margaree	10.09	3.47	13.45	1396.00	1.09	114.00	30.00	501.00	259.00	31.00	36.00	0.01	0.86	0.52	0.12	2.91								
6610	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Henua a Taha	Henua a Taha	Henua a Taha	Nuku Hiva	Margaree	9.72	3.35	13.49	1367.00	0.86	113.00	34.00	485.00	252.00	32.00	34.00	0.01	0.94	0.52	0.13	2.90								
6612	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Henua a Taha	Henua a Taha	Henua a Taha	Nuku Hiva	Margaree	9.85	3.37	13.61	1255.00	0.93	112.00	27.00	495.00	232.00	23.00	32.00	0.01	0.72	0.47	0.10	2.92								
6614	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Henua a Taha	Henua a Taha	Henua a Taha	Nuku Hiva	Margaree	10.20	3.40	13.45	1435.00	0.86	117.00	28.00	496.00	241.00	34.00	33.00	0.01	1.03	0.49	0.14	3.00								
6614	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Henua a Taha	Henua a Taha	Henua a Taha	Nuku Hiva	Margaree	9.50	3.41	13.48	1344.00	0.83	118.00	31.00	485.00	256.00	36.00	35.00	0.01	1.03	0.53	0.14	2.79								
6615	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Henua a Taha	Henua a Taha	Henua a Taha	Nuku Hiva	Margaree	10.21	3.36	13.75	1359.00	1.18	116.00	29.00	476.00	253.00	31.00	37.00	0.01	1.15	0.52	0.12	3.04								
7393	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Northeast Nuku	Hatheu	Northeast Nuku	Nuku Hiva	Margaree	10.56	3.94	11.91	1210.00	0.93	110.00	22.00	501.00	272.00	30.00	34.00	0.01	0.88	0.54	0.11	2.68								
7394	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Northeast Nuku	Hatheu	Northeast Nuku	Nuku Hiva	Margaree	10.50	3.80	12.44	1275.00	0.87	109.00	24.00	501.00	272.00	28.00	32.00	0.01	0.88	0.54	0.10	2.76								
7395	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Northeast Nuku	Hatheu	Northeast Nuku	Nuku Hiva	Margaree	11.00	4.49	13.97	1414.00	0.54	120.00	34.00	492.00	271.00	29.00	28.00	0.01	1.04	0.55	0.11	2.45								
7396	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Northeast Nuku	Hatheu	Northeast Nuku	Nuku Hiva	Margaree	10.20	3.56	12.31	1323.00	0.76	109.00	26.00	490.00	264.00	28.00	31.00	0.01	0.92	0.51	0.12	2.89								
7397	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Northeast Nuku	Hatheu	Northeast Nuku	Nuku Hiva	Margaree	10.40	3.87	12.39	1297.00	0.86	110.00	27.00	480.00	262.00	28.00	32.00	0.01	0.88	0.55	0.11	2.64								
7398	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Northeast Nuku	Hatheu	Northeast Nuku	Nuku Hiva	Margaree	10.33	4.43	13.42	1278.00	0.71	114.00	21.00	492.00	266.00	28.00	36.00	0.01	0.78	0.54	0.11	2.33								
7399	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Northeast Nuku	Hatheu	Northeast Nuku	Nuku Hiva	Margaree	8.74	3.74	12.63	1363.00	1.04	107.00	31.00	495.00	263.00	31.00	31.00	0.01	0.89	0.51	0.12	2.72								
7400	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Northeast Nuku	Hatheu	Northeast Nuku	Nuku Hiva	Margaree	10.89	3.89	12.65	1302.00	0.80	108.00	21.00	490.00	265.00	29.00	33.00	0.01	0.88	0.54	0.11	2.78								
Eiao 1	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Eiao, Group I	Eiao	Margaree	8.60	4.00	12.80	1007.00	1.00	98.00	21.00	622.00	294.00	21.00	0.01	0.47	0.08	0.15	1.51									
Eiao 100	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Eiao, Group I	Eiao	Margaree	7.40	4.90	12.10	774.00	1.00	91.00	20.00	607.00	307.00	31.00	0.01	0.51	0.10	1.51										
Eiao 102	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Eiao, Group I	Eiao	Margaree	4.80	2.50	13.30	697.00	1.20	121.00	27.00	470.00	246.00	24.00	0.01	0.51	0.10	1.39										
Eiao 102	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Eiao, Group I	Eiao	Margaree	9.60	4.40	14.80	1007.00	0.90	129.00	21.00	634.00	314.00	23.00	0.01	0.50	0.07	2.18										
Eiao 103	McAlister and Allen 2017	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Eiao, Group I	Eiao	Margaree	9.50	4.40	14.00	1162.00	1.10	99.00	29.00	607.																

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group 1	Place Collected	Island Group	Island Group	SiO2 w%	Al2O3 w%	CaO w%	TiO2 w%	Fe2O3 w%	MgOw%	MnO w%	Na2O w%	K2O w%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2	
Eiao 52	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae	51.57	7.54	3.50	14.05	93.00	0.84	27.00	25.00	167.00	317.00	27.00	38.00	602.00	321.00	38.00	36.00	0.01	0.69	0.51	0.76	0.62	0.11	0.27	2.38		
Eiao 52-4 cut	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae	47.62	7.64	3.50	14.05	1057.00	0.80	136.00	25.00	167.00	317.00	27.00	37.00	601.00	300.00	30.00	0.01	0.01	0.73	0.56	0.09	2.18	0.20	2.04			
Eiao 53a	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.20	4.50	13.80	929.00	1.10	97.00	20.00	601.00	300.00	30.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Eiao 53b	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		7.30	4.10	14.40	929.00	1.10	102.00	18.00	579.00	292.00	27.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Eiao 54	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.30	3.90	12.80	1219.00	1.10	99.00	21.00	608.00	291.00	29.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Eiao 55	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		8.50	4.20	13.60	1007.00	0.80	76.00	23.00	598.00	292.00	28.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Eiao 56	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.60	4.00	14.40	1014.00	1.10	107.00	24.00	610.00	307.00	28.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Eiao 58	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.40	4.80	13.10	1007.00	1.10	96.00	23.00	601.00	312.00	31.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Eiao 59	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.70	4.10	13.60	1317.00	1.10	119.00	21.00	610.00	317.00	26.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 6	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		8.60	4.70	14.30	1084.00	1.10	102.00	25.00	587.00	291.00	30.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 60	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.20	4.30	13.70	1084.00	1.10	101.00	29.00	599.00	302.00	27.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 61	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.40	4.60	13.90	852.00	0.80	98.00	22.00	608.00	291.00	30.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 62	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.20	3.60	10.30	697.00	0.80	64.00	21.00	619.00	299.00	27.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 63	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.80	4.00	13.50	1317.00	1.10	107.00	19.00	609.00	309.00	27.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 65	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		7.70	3.50	12.30	774.00	1.10	89.00	25.00	601.00	296.00	25.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 66	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.30	4.60	12.70	1007.00	1.20	101.00	28.00	602.00	321.00	28.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 67	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		7.70	4.70	13.80	774.00	1.00	76.00	33.00	624.00	333.00	33.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 69	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.50	4.00	13.50	852.00	1.20	84.00	26.00	618.00	314.00	33.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 7	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		8.90	4.50	10.60	774.00	1.10	62.00	21.00	606.00	331.00	35.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 70	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.20	4.00	13.00	852.00	1.00	69.00	25.00	649.00	327.00	32.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 71	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		8.80	4.30	14.00	929.00	1.00	72.00	25.00	615.00	333.00	31.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 73	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		8.70	4.40	12.40	929.00	0.90	80.00	18.00	595.00	299.00	31.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 75	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		8.80	4.20	13.10	1007.00	1.00	95.00	20.00	606.00	283.00	27.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 77	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		8.90	4.80	11.60	774.00	0.80	40.00	34.00	626.00	371.00	36.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 78	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		7.90	4.40	12.90	1084.00	0.80	96.00	25.00	586.00	277.00	28.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 79	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.60	4.40	13.90	1394.00	1.10	114.00	25.00	614.00	323.00	29.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 80	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		10.10	4.50	13.60	774.00	1.10	79.00	20.00	649.00	307.00	34.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 81a	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		7.50	4.40	14.20	1007.00	1.00	87.00	26.00	622.00	327.00	30.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 81b	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		7.40	4.00	12.70	852.00	0.90	82.00	23.00	608.00	316.00	35.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 82a	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		7.50	3.80	10.60	774.00	1.10	68.00	20.00	609.00	303.00	30.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 82b	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		7.40	4.00	12.60	697.00	1.10	64.00	21.00	609.00	308.00	33.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 83a	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.70	4.30	14.50	1084.00	0.80	124.00	19.00	611.00	290.00	23.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 83b	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.30	4.60	12.90	1084.00	0.80	122.00	23.00	609.00	299.00	29.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 84	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.30	5.30	15.00	1781.00	1.40	113.00	23.00	634.00	315.00	27.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 85	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		10.00	4.50	13.50	1239.00	1.10	129.00	21.00	606.00	310.00	28.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 87	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		8.80	4.40	15.00	1239.00	1.20	109.00	25.00	595.00	311.00	29.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Eiao 87a	McAlister and Allen 2017	Archaeological	Eiao, Group I	Eiao	Marguetae		9.80																								

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SiO2 w%	Al2O3 w%	CaO w%	TiO2 w%	Fe2O3 w%	MgO w%	MnO w%	Na2O w%	K2O w%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Nb/Zr	CaO/TiO2		
166	S31 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 10, Level 3	Samoa		7.21																				
167	S32 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 10, Level 2	Samoa		2.73																				
168	S33 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 13	Samoa		23.88	439.59	314.00	76.31	31.62	0.01	1.15	0.71	0.12												
169	S34 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 13	Samoa		71.86	396.11	304.00	77.03	33.32	0.01	2.31	0.77	0.25												
170	S35 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 15	Samoa		34.40	633.09	382.00	42.37	14.71	0.01	1.41	0.21	0.11												
171	S36 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 15	Samoa		43.62	608.22	359.00	42.85	35.38	0.01	1.21	0.59	0.12												
172	S37 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 15	Samoa		48.63	691.33	385.00	49.43	39.17	0.01	1.26	0.56	0.13												
173	S38 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 15	Samoa		53.39	655.31	362.00	44.49	39.92	0.01	1.11	0.55	0.02												
174	S39 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 15	Samoa		43.03	696.90	385.00	45.18	40.30	0.01	0.49	0.12													
176	S4 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 7	Samoa		46.89	652.18	378.00	42.32	37.48	0.01	1.13	0.58	0.11												
177	S40 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 15	Samoa		5.09																				
178	S41 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 15	Samoa		12.21	526.60	306.00	24.33	20.11	0.01	1.14	0.58	0.11												
179	S5 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Square B, 45cm	Samoa		34.39	489.71	346.00	41.51	33.22	0.01	1.25	0.71	0.12												
180	S6 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 2	Samoa		6.92																				
181	S7 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Square B, 30cm	Samoa		3.86																				
182	S8 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Square B, 15cm	Samoa		4.12																				
183	S9 Clark	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele, Trench 6	Samoa		7.45																				
184	SF-21 Poulsen	Clark et al. 2013	Adze, surface	Archaeological				Unlocaised, surface	Tonga		0.77																				
185	SF26 Poulsen	Clark et al. 2013	Adze, surface	Archaeological				White, surface	Samoa		4.01																				
186	SF28 Poulsen	Clark et al. 2013	Adze, surface	Archaeological				Pea/Tokomoloto	Tonga		0.80																				
187	SF32 Poulsen	Clark et al. 2013	Adze, surface	Archaeological				Unlocaised, surface find	Tonga		1.00																				
188	SF35 Poulsen	Clark et al. 2013	Adze, surface	Archaeological				Pea/Tokomoloto	Tonga		0.93																				
189	SF38 Poulsen	Clark et al. 2013	Adze, surface	Archaeological				Pea/Tokomoloto	Tonga		0.89																				
190	SF39 Poulsen	Clark et al. 2013	Adze, surface	Archaeological				Pea/Tokomoloto	Tonga		0.83																				
191	SF5 (a) Poulsen	Clark et al. 2013	Adze, surface	Archaeological				Manafale Island, surface	Tonga		1.28																				
192	SF9 Poulsen	Clark et al. 2013	Adze, surface	Archaeological				T02, surface	Samoa		4.53																				
193	S Powder Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, dredge	Eua		2.43																				
195	T10 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, 42cm	Eua		0.72																				
196	T101 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha Lafakua, Area 1, D-30cm	Samoa		2.77																				
198	T103 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha north quarry, Poulali, 20cm	Fiji		0.92																				
199	T104 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, Aponima, 10-15cm	Tonga		5.67																				
200	T105 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J28, Aponima, 10-15cm	Tonga		0.68																				
201	T106 Clark	Clark et al. 2013	Adze, surface	Archaeological				Lapaha reclaimed land, well	Tonga		0.74																				
202	T11 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP, 20-30cm	East Polynesia		127.33	1272.48	439.00	162.35	48.76	0.01	1.33	0.31	0.27												
204	T12 Powder Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, 20cm	Samoa		3.90																				
206	T13 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha Ditch south, excavation	Central Tonga		0.69																				
208	T14 Clark	Clark et al. 2013	Adze flake, surface	Archaeological				Fafa Island, north beach, surface	Tutuila		2.93																				
210	T17 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha Lotomanu, McKern #3, surface	Upolu-Savaii		32.37	725.69	392.00	42.87	37.89	0.01	1.12	0.45	0.12												
211	T18 Powder Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, 20cm	Upolu-Savaii		3.21																				
212	T2 Powder Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, 20cm	Upolu-Savaii		3.14																				
213	T20 Powder Clark	Clark et al. 2013	Adze flake, surface	Archaeological				Fafa Island, north beach, surface	Central Tonga		0.84																				
214	T26 Clark	Clark et al. 2013	Adze, surface	Archaeological				Lapaha Fomauanga, surface	Samoa		3.27																				
215	T207 Clark	Clark et al. 2013	Flake, surface	Archaeological				Nukuleka, surface	Samoa		50.50	927.77	338.00	39.54	39.55	0.01	1.00	0.36	0.12												
216	T209 Clark	Clark et al. 2013	Reference sample	Archaeological				Niuafoou	Niuafoou		1.32																				
217	T21 Powder Clark	Clark et al. 2013	Adze flake, surface	Archaeological				Fafa Island, north beach, surface	Central Tonga		0.79																				
218	T210 Clark	Clark et al. 2013	Kilikili stone, sur	Archaeological				Lapaha J26, surface	Tonga		6.33	221.40	22.00	0.88	18.18	0.00	0.05	0.30	0.04												
219	T211 Clark	Clark et al. 2013	Kilikili stone, sur	Archaeological				Lapaha J26, surface	Tonga		0.75																				
220	T212 Clark	Clark et al. 2013	Kilikili stone, sur	Archaeological				Lapaha J26, surface	Tonga		1.04																				
221	T213 Clark	Clark et al. 2013	Kilikili stone, sur	Archaeological				Lapaha J26, surface	Tonga		6.76	232.42	27.00	0.92	18.92	0.00	0.06	0.48	0.03												
222	T214 Clark	Clark et al. 2013	Kilikili stone, sur	Archaeological				Lapaha Nukulangi, surface	Tonga		0.54																				
223	T215 Clark	Clark et al. 2013	Kilikili stone, sur	Archaeological				Lapaha Nukulangi, surface	Tonga		0.79																				
224	T216 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, dredge	Fiji		0.65																				
225	T217 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, dredge	Samoa		1.63	601.28	482.00	49.31	39.00	0.01	1.16	0.55	0.11												
226	T218 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, 10-20cm	Tonga		0.56																				
227	T219 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, dredge	Samoa		4.21																				
228	T22 Powder Clark	Clark et al. 2013	Kilikili stone, sur	Archaeological				Lapaha Lotomanu (D&H)	Central Tonga		0.71																				
229	T230 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, dredge	Samoa		4.05																				
230	T231 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, 10-30cm	Samoa		4.39																				
231	T22 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha J20, TP4, dredge	Tonga		0.87																				
232	T24 Clark	Clark et al. 2013	Archaeological	Archaeological				Lapaha 137, TP3, 13	Central Tonga		5.83																				
234	T24 Powder Clark	Clark et al. 2013	Reference sample	Archaeological				Niuafoou	Niuafoou		1.25																				
235	T25 Powder Clark	Clark et al. 2013	Kilikili stone, sur	Archaeological				Lapaha Nukulangi, surface	Central Tonga		1.44																				
237	T26 Clark	Clark et al. 2013	Reference sample	Archaeological				Niuafoou	Niuafoou		1.26																				
247	T27 Powder Clark	Clark et al. 2013	Reference sample	Archaeological				Niuafoou	Niuafoou		1.4																				

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	e-ZrO3 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Nb/Zr	CaO/TiO2
400	A16-162	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Savina	Samoa		5.32										45.87	77.74	365.0	42.34	11.12	80.1	6.48		
401	A16-163	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Savina	Samoa		5.04										30.95	730.41	335.00	39.22	40.71	0.01	0.96	0.46	0.12
402	A16-164	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Savina	Samoa		5.06										31.29	754.67	346.00	38.26	37.21	0.01	1.03	0.46	0.11
403	A16-166	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Savina	Samoa		4.54										37.50	753.53	414.00	44.80	38.96	0.01	1.21	0.53	0.11
404	A16-167	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Savina	Samoa		3.96										38.75	731.07	356.00	40.95	42.41	0.01	0.93	0.49	0.11
405	A16-17	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Tapa	Samoa		5.59										35.24	737.25	348.00	38.04	41.34	0.01	0.92	0.47	0.11
406	A16-174	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		6.13										28.46	601.64	296.00	35.26	35.96	0.00	0.88	0.49	0.12
407	A16-175	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		5.40										33.32	614.66	318.00	39.87	30.58	0.01	1.30	0.52	0.13
408	A16-176	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		4.22										42.52	749.28	438.00	45.84	42.71	0.01	0.99	0.49	0.11
409	A16-177	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		5.06										41.01	751.09	366.00	49.30	44.59	0.01	1.11	0.49	0.13
410	A16-178	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		3.50										41.35	814.26	432.00	50.05	50.72	0.01	0.99	0.53	0.12
411	A16-180	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		7.01										23.87	578.68	270.00	31.61	35.21	0.00	0.60	0.47	0.12
412	A16-18	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Fa'afuata (Vailoa)	Samoa		4.08										32.19	833.95	371.00	51.66	35.58	0.01	1.45	0.44	0.14
413	A16-181	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		7.18										33.66	551.33	281.00	31.61	36.58	0.00	0.86	0.51	0.11
414	A16-182	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		7.36										26.65	621.99	236.00	48.87	20.07	0.00	2.44	0.38	0.21
415	A16-183	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		5.57										47.56	788.37	337.00	48.01	40.84	0.01	1.18	0.43	0.46
416	A16-184	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Saipi	Samoa		5.48										50.50	937.50	320.00	34.51	29.83	0.01	1.16	0.34	0.11
417	A16-189	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Pu'upu'u	Samoa		6.29										32.19	792.12	354.00	45.33	36.08	0.01	1.26	0.45	0.13
418	A16-190	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Pu'upu'u	Samoa		6.13										37.05	582.92	293.00	36.36	35.08	0.00	1.09	0.50	0.13
419	A16-19	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Paga	Samoa		5.93										40.44	797.08	460.00	69.45	33.60	0.01	1.30	0.58	0.15
420	A16-192	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Pu'upu'u	Samoa		4.85										40.33	891.10	434.00	54.98	47.84	0.01	1.15	0.49	0.13
421	A16-198	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Pu'upu'u	Samoa		4.49										43.72	795.86	360.00	44.48	47.47	0.01	0.94	0.45	0.12
422	A16-203	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Pu'upu'u	Samoa		4.28										42.82	718.18	409.00	51.55	43.21	0.01	1.19	0.57	0.13
423	A16-205	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		7.59										36.03	621.18	316.00	47.26	36.21	0.01	1.31	0.51	0.15
424	A16-207	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		5.52										30.61	794.56	340.00	51.55	37.46	0.01	1.38	0.43	0.15
425	A16-208	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		5.07										39.88	840.30	369.00	46.19	34.96	0.01	1.32	0.44	0.13
426	A16-209	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		5.37										38.52	629.52	348.00	46.80	44.83	0.01	1.42	0.47	0.13
427	A16-210	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		4.70										36.94	765.58	363.00	45.33	40.08	0.01	1.13	0.47	0.12
428	A16-212	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		5.41										29.93	484.42	272.00	29.04	31.20	0.01	0.93	0.56	0.11
429	A16-213	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Safotu	Samoa		7.45										37.50	580.15	381.00	46.62	38.46	0.01	1.21	0.66	0.12
430	A16-214	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Safotu	Samoa		5.06										35.86	465.21	253.00	36.45	34.86	0.01	1.40	0.40	0.20
431	A16-216	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Safotu	Samoa		4.21										41.35	694.27	413.00	51.12	48.22	0.01	1.06	0.59	0.12
432	A16-227	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		5.88										23.71	569.57	274.00	35.36	32.20	0.00	1.10	0.48	0.13
433	A16-231	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		4.28										32.30	527.27	322.00	34.49	43.34	0.01	1.08	0.48	0.13
434	A16-232	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		4.09										44.29	713.97	408.00	47.37	43.46	0.01	1.09	0.57	0.12
435	A16-233	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		6.17										30.49	593.34	273.00	37.08	35.96	0.00	1.03	0.46	0.14
436	A16-234	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		4.25										38.75	758.09	415.00	52.62	52.47	0.01	1.00	0.55	0.13
437	A16-236	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		4.48										27.44	528.47	266.00	34.04	37.31	0.00	0.76	0.49	0.11
438	A16-237	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		7.26										26.76	625.41	285.00	32.79	43.09	0.00	0.76	0.46	0.12
439	A16-238	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		4.28										27.33	697.37	252.00	23.04	31.45	0.00	0.73	0.36	0.09
440	A16-239	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		2.99										61.26	718.20	406.00	55.84	38.58	0.01	1.45	0.57	0.14
441	A16-240	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		4.41										43.31	619.23	316.00	44.71	44.71	0.01	0.84	0.41	0.13
442	A16-241	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Faleatapaloa	Samoa		6.20										29.25	606.52	293.00	37.08	35.83	0.00	1.03	0.48	0.13
443	A16-245	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Aopo	Samoa		6.21										25.86	678.48	292.00	43.40	31.58	0.00	1.37	0.43	0.15
444	A16-246	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Aopo	Samoa		5.37										45.53	758.97	363.00	44.49	40.71	0.01	1.03	0.48	0.13
445	A16-249	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Aopo	Samoa		5.33										51.18	586.82	319.00	31.93	29.70	0.01	1.08	0.54	0.10
446	A16-25	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Vailoa	Samoa		6.20										28.91	481.33	262.00	34.83	29.58	0.00	1.18	0.54	0.13
447	A16-251	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Fagavee	Samoa		6.09										36.26	706.32	315.00	38.36	37.96	0.01	1.01	0.45	0.12
448	A16-252	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Fagavee	Samoa		5.37										38.88	671.21	379.00	49.15	38.83	0.01	0.66	0.23	0.48
449	A16-253	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Fagavee	Samoa		6.36										37.73	624.43	278.00	32.58	38.71	0.00	0.84	0.45	0.12
450	A16-260	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Fagavee	Samoa		5.06										25.41	486.70	255.00	41.15	27.20	0.01	1.51	0.52	0.16
451	A16-26	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Tofu'amea (Palala)	Samoa		6.78										50.05	824.02	348.00	41.15	41.71	0.01	0.99	0.42	0.12
452	A16-261	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Tofu'amea (Palala)	Samoa		6.20										31.86	653.97	321.00	36.08	44.01	0.01	1.12	0.47	0.13
453	A16-267	Clark et al. 2013	Adze, surface	Archaeological				Savaii, Sal'alu	Samoa		4.12										33.21	737.09	356.00	45.65	49.22	0.01	0.93	0.48	0.13
454																													

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	e-ZO3 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2
571	WA A12-200	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Vaivase	Samoa		5.31										42.74	702.53	434.00	114.00	41.21	3.01	0.82	0.11		
572	WA A12-201	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Vaivase	Samoa		7.35										25.07	416.37	253.00	33.54	31.83	0.00	1.05	0.61	0.33	
573	WA A12-202	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Vaivase	Samoa		4.15										34.00	862.93	377.00	59.80	37.21	0.01	1.61	0.44	0.16	
574	WA A12-182	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Vaitele	Samoa		8.22										35.92	649.83	413.00	51.44	38.46	0.01	1.34	0.64	0.12	
5747	W515 A14-17	McAlister Allen	Reference	Archaeological	WDXRF	WDXRF	Nuku Hiva	Atafu	Marguases		46.93	13.02	10.01	3.44	13.20	8.78	0.16	2.53	1.03	121.00	39.31	752.37	239.00	40.63	45.00	0.01	0.62	0.49	0.27	2.91
5748	W515 A14-18	McAlister Allen	Reference	Archaeological	WDXRF	WDXRF	Nuku Hiva	T. Deserte	Marguases		46.46	12.94	9.97	3.43	13.01	8.87	0.17	2.63	1.14	115.00	26.00	483.00	251.00	31.00	33.00	0.01	0.94	0.52	0.12	2.91
575	W511 A14-11	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Faleava	Samoa		5.88										45.53	648.36	338.00	48.76	38.58	0.01	1.26	0.52	0.14	
576	W512 A14-12	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Faleava	Samoa		6.46										31.96	833.84	372.00	46.40	41.34	0.01	1.11	0.45	0.10	
577	W513 A14-14	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Faleava	Samoa		30.86										29.01	777.99	347.00	47.48	42.34	0.01	1.02	0.45	0.14	
578	W515 A14-15	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Faleava	Samoa		6.14										37.84	743.93	344.00	47.37	36.08	0.01	1.31	0.46	0.14	
579	W516 A14-16	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Faleava	Samoa		4.75										52.54	698.67	429.00	49.73	44.21	0.01	1.12	0.61	0.12	
580	W517 A14-17	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Faleava	Samoa		4.76										39.31	752.37	239.00	40.63	45.00	0.01	1.02	0.49	0.27	
581	W518 A14-18	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Faleava	Samoa		5.28										34.68	655.53	317.00	41.26	36.58	0.01	1.13	0.48	0.13	
582	W52 A14-2	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Vaivase	Samoa		7.41										34.00	632.90	370.00	43.08	34.20	0.00	1.26	0.58	0.12	
583	W520 A14-21	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Tuilefumu	Samoa		7.20										20.77	444.54	241.00	34.93	26.95	0.00	1.30	0.54	0.14	
584	W520 A14-22	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Salelele	Samoa		4.47										34.90	650.97	363.00	48.98	46.21	0.01	1.06	0.56	0.13	
585	W54 A14-33	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Lana	Samoa		8.28										26.20	653.41	322.00	34.08	34.71	0.00	0.98	0.49	0.11	
586	W542 A14-35	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Salepaga	Samoa		7.00										23.15	592.36	327.00	27.64	28.31	0.00	0.98	0.48	0.12	
587	W543 A14-34	Clark et al. 2013	Adze, surface	Archaeological				Upolu, Salepaga	Samoa		6.69										26.20	640.27	307.00	41.04	40.96	0.00	1.00	0.48	0.13	
588	W58	McAlister Allen	Artifact	Archaeological	WDXRF	WDXRF	Nuku Hiva	Anaho	Marguases		49.05	12.99	11.22	3.34	12.96	6.72	0.17	2.31	0.80	111.00	21.00	405.00	233.00	22.00	31.00	0.01	0.71	0.58	0.09	3.36
621	Samoa UPO Alesia 01	Clark et al. 2013	Reference sample	Archaeological				Upolu, Alesia	Samoa		5.79										38.75	987.64	304.00	62.81	30.70	0.01	2.05	0.31	0.21	
622	Samoa UPO Alesia 02	Clark et al. 2013	Reference sample	Archaeological				Upolu, Alesia	Samoa		4.41										20.09	574.29	181.00	35.90	29.33	0.00	1.22	0.32	0.20	
623	Samoa UPO Malaeao	Clark et al. 2013	Reference sample	Archaeological				Upolu, Malaeao	Samoa		5.45										43.72	727.95	206.00	50.48	26.20	0.00	1.93	0.26	0.25	
624	Samoa UPO Malaeao	Clark et al. 2013	Reference sample	Archaeological				Upolu, Malaeao	Samoa		7.93										15.91	609.13	217.00	50.16	26.57	0.00	1.89	0.36	0.23	
625	Samoa UPO MF Agard	Clark et al. 2013	Reference sample	Archaeological				Upolu, Malifaesua area	Samoa		4.17										31.06	568.27	159.00	36.01	21.07	0.00	1.71	0.28	0.23	
626	Samoa UPO Vaiele 01	Clark et al. 2013	Reference sample	Archaeological				Upolu, Vaiele	Samoa		8.86										15.68	43.40	292.00	61.20	28.70	0.00	2.13	0.73	0.21	
627	Samoa UPO Vaiele 02	Clark et al. 2013	Reference sample	Archaeological				Upolu, Vaiele	Samoa		4.92										16.94	443.23	225.00	36.13	23.81	0.00	1.31	0.20		
628	Tonga LAP_Apo_834	Clark et al. 2013	Archaeological	Archaeological				Lapaha Aponima, 834	Tonga		1.29										19.08	247.22	41.00	2.56	20.94	0.00	0.12	0.17	0.66	
630	Tonga LAP_surface_BW	Clark et al. 2013	Adze flake, surface	Archaeological				Lapaha, J06 area	Tonga		1.03										16.36	227.20	45.00	8.24	22.70	0.00	0.36	0.20	0.18	
631	Tonga NUK_T02_surface	Clark et al. 2013	Adze flake, surface	Archaeological				T02, Nukuileta, surface	Samoa		6.01										31.85	603.27	299.00	33.11	35.83	0.00	0.92	0.50	0.11	
632	Tonga TA_surface_01	Clark et al. 2013	Reference sample	Archaeological				Talasi, Archaeological	Fiji		2.25										42.72	757.90	203.00	7.81	8.89	0.00	0.47	0.20	0.09	
633	Uvea_ALE_Lutunupile	Clark et al. 2013	Reference sample	Archaeological				Lutunupile, surface	Fiji		2.25										27.78	342.95	9.00	18.00	20.69	0.00	0.87	0.28	0.19	
634	Uvea_NUK_SW_Clar	Clark et al. 2013	Reference sample	Archaeological				Nukuileta, surface exposure	Samoa		4.50										18.74	496.14	191.00	36.44	27.95	0.00	1.30	0.38	0.19	
635	Uvea_UTU_Lapaha_Clar	Clark et al. 2013	Reference sample	Archaeological				Utuleva, surface exposure	Samoa		4.83										30.65	629.95	338.00	43.00	39.08	0.00	1.11	0.43	0.13	
636	Uvea_UTU_LomipDaar	Clark et al. 2013	Reference sample	Archaeological				Utuleva, surface exposure	Samoa		3.45										74.47	611.41	407.00	65.06	24.07	0.01	2.70	0.67	0.16	
637	Uvea_NUK_Nbeach_Clar	Clark et al. 2013	Reference sample	Archaeological				Nukuileta, surface exposure	Samoa		5.05										20.32	487.19	165.00	30.32	21.57	0.00	1.41	0.34	0.18	
638	Uvea_NUK_top_Clar	Clark et al. 2013	Reference sample	Archaeological				Nukuileta, surface exposure	Samoa		1.74										16.70	472.86	166.00	32.00	21.57	0.01	1.53	0.35	0.20	
639	Uvea_TA_Kotoulu_Clar	Clark et al. 2013	Reference sample	Archaeological				Kotoulu, surface	Samoa		4.83										12.49	301.69	203.00	18.69	21.14	0.00	1.45	0.17	0.45	
663	Samoa Pulemele_Platf	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele mound	Savai		3.82										32.30	456.10	168.00	31.18	27.70	0.00	1.13	0.37	0.19	
664	Samoa Pulemele_Platf	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele mound	Samoa		3.02										15.01	54.31	117.00	25.18	27.32	0.00	0.92	2.15	0.22	
665	Samoa Pulemele_Platf	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele mound	Savai		3.06										38.06	364.20	109.00	22.61	21.57	0.00	1.05	0.66	0.21	
666	Samoa Pulemele_Platf	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele mound	Savai		3.24										17.77	463.92	293.00	36.13	32.31	0.00	1.44	0.21		
667	Samoa Pulemele_Platf	Clark et al. 2013	Archaeological	Archaeological				Savai, Pulemele mound	Savai		2.79										52.09	687.43	283.00	61.73	25.07	0.01	2.46	0.41	0.22	
668	Samoa Savaii_Lawifile	Clark et al. 2013	Reference sample	Archaeological				Savai, recent lava field	Samoa		2.76										23.37	323.25	128.00	21.21	20.44	0.00	1.04	0.40	0.17	
669	Samoa Savaii_Letu_S	Clark et al. 2013	Reference sample	Archaeological				Savaii, Letu	Samoa		2.90										35.84	643.03	224.00	40.00	34.45	0.00	1.46	0.43	0.21	
670	Samoa Savaii_Matava	Clark et al. 2013	Reference sample	Archaeological				Savaii, Matava	Samoa		2.96										36.15	586.01	224.00	43.94	25.82	0.01	1.70	0.38	0.20	
671	Samoa Savaii_modif_Clar	Clark et al. 2013	Reference sample	Archaeological				Savaii, modified quarry	Samoa		4.10																			

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Inland Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	K2O wt%	TiO2 wt%	Fe2O3 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2					
OVAP	OVAP XRF-95	Kahn et al. 2100	Archaeological	GEO					Society Is.	Society Is.	41.23	15.35	8.24	3.98	10.77	18.33	1.14	1858	55	1.14	155	26	1812	60	71	54.4	1.16	0.28	1.14	0.28	1.14	0.28				
OVAP	OVAP XRF-96	Kahn et al. 2110	Archaeological	GEO					Society Is.	Society Is.	46.12	15.35	8.67	3.98	10.77	18.33	1.14	1545	68	1.14	149	52	644.82	370.34	52.20	37.68	0.01	1.39	0.57	0.14	2.17	0.57	0.14	2.17		
OVAP	OVAP XRF-97	Kahn et al. 2111	Archaeological	GEO					Society Is.	Society Is.	35.56	9.29	6.48	3.97	11.83	1.14	5380.44				205	152.40	75.67	933.20	469.47	64.20	44.19	0.01	1.45	0.50	0.14	1.63	0.50	0.14	1.63	
OVAP	OVAP XRF-98	Kahn et al. 2112	Archaeological	GEO					Society Is.	Society Is.	44.61	14.30	11.12	4.28	7.85	1.01	1027.58				1.09	132.28	52.89	705.90	319.49	41.36	32.90	0.01	1.26	0.45	0.13	2.60	0.45	0.13	2.60	
OVAP	OVAP XRF-99	Ohne et al. 2113	Archaeological	GEO					Society Is.	Society Is.	40.96	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	207	50.00	210.00	802.00	93.00	119.00	0.06	1.37	0.80	0.10	0.85	0.80	0.10	0.85	0.80	0.10	0.85
Papeno II (Sinton & Sinton 1959 Average (n=2))		Sinton & Sinton	Geo	Archaeological	WDXRF	Geo		Papeno's Valley	Society Is.	Society Is.	44.66	14.68	11.15	3.80	14.08	5.03	0.20	3.28	1.59	132.00	40.00	784.00	352.00	62.00	36.00	0.01	1.72	0.45	0.18	2.93	0.45	0.18	2.93			
P5-585	P5-585	Simpsen et al. 2018	Geo	Archaeological	GEO				Eastern Island	Eastern Island	55.50	15.20	5.40	1.80	10.40	2.10	0.20	4.50	1.80	147.80	34.30	231.30	713.00	68.00	72.50	0.04	0.94	3.08	1.10	3.08	1.10	3.08	1.10	3.08	1.10	
P5-585	P5-585	Simpsen et al. 2018	Geo	Archaeological	GEO				Eastern Island	Eastern Island	60.30	15.80	4.80	1.20	8.30	1.50	0.10	4.90	2.20	146.20	21.00	230.80	705.20	67.30	60.80	0.06	1.03	3.06	1.10	3.06	1.10	3.06	1.10	3.06	1.10	
P5-587	P5-587	Simpsen et al. 2018	Geo	Archaeological	GEO				Eastern Island	Eastern Island	60.00	15.80	4.80	1.20	8.30	1.50	0.10	4.90	2.20	146.40	37.70	230.80	711.50	67.30	62.00	0.06	1.03	3.06	1.10	3.06	1.10	3.06	1.10	3.06	1.10	
Rafatea II (Sinton & Sinton 1959 Average (n=2))		Sinton & Sinton	Geo	Archaeological	WDXRF	Geo		Rafatea II quarry, Rafatea	Society Is.	Society Is.	46.08	17.18	8.86	3.19	7.74	1.01	0.16	4.19	2.50	118.00	63.00	188.00	433.00	74.00	42.00	0.01	1.76	0.23	0.17	2.78	0.23	0.17	2.78			
RMGC 11a8_G098		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	126.00	63.00	244.00	751.00	92.00	65.00	0.08	1.42	3.08	1.12	3.08	1.12	3.08	1.12	3.08	1.12	
RMGC 11a8_G099		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	126.00	63.00	244.00	751.00	92.00	65.00	0.08	1.42	3.08	1.12	3.08	1.12	3.08	1.12	3.08	1.12	
RMGC 11a8_G101		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	156.00	18.00	197.00	738.00	91.00	96.00	0.07	0.95	3.75	1.32	3.75	1.32	3.75	1.32	3.75	1.32	
RMGC 13_G091		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	216.00	29.00	209.00	747.00	86.00	60.00	0.07	1.33	3.27	1.12	3.27	1.12	3.27	1.12	3.27	1.12	
RMGC 13_G092		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	180.00	44.00	173.00	697.00	80.00	59.00	0.07	1.36	4.03	1.11	4.03	1.11	4.03	1.11	4.03	1.11	
RMGC 13_G094		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	186.00	42.00	211.00	642.00	72.00	66.00	0.06	1.09	3.04	1.11	3.04	1.11	3.04	1.11	3.04	1.11	
RMGC 14_G084		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	207.00	23.00	212.00	729.00	85.00	85.00	0.07	1.00	3.44	1.12	3.44	1.12	3.44	1.12	3.44	1.12	
RMGC 14_G085		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	199.00	21.00	213.00	744.00	77.00	67.00	0.07	0.88	3.83	1.10	3.83	1.10	3.83	1.10	3.83	1.10	
RMGC 14_G086		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	233.00	53.00	223.00	810.00	91.00	82.00	0.08	0.99	3.63	1.11	3.63	1.11	3.63	1.11	3.63	1.11	
RMGC 17_G102		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	161.00	23.00	224.00	762.00	84.00	94.00	0.08	0.89	3.40	1.11	3.40	1.11	3.40	1.11	3.40	1.11	
RMGC 17_G103		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	172.00	27.00	245.00	793.00	88.00	70.00	0.08	1.26	3.24	1.11	3.24	1.11	3.24	1.11	3.24	1.11	
RMGC 21_G116		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	436.00	16.00	89.00	457.00	83.00	63.00	0.04	1.32	5.13	1.18	5.13	1.18	5.13	1.18	5.13	1.18	
RMGC 21_G117		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	64.10	16.60	2.09	1.20	8.12	0.62	0.12	4.12	2.63	316.00	16.00	90.00	575.00	93.00	24.00	0.05	3.88	6.39	1.16	6.39	1.16	6.39	1.16	6.39	1.16	
RMGC 22_G108		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	64.10	16.60	2.09	1.20	8.12	0.62	0.12	4.12	2.63	380.00	51.00	159.00	666.00	75.00	54.00	0.05	1.39	3.56	1.13	3.56	1.13	3.56	1.13	3.56	1.13	
RMGC 22_G109		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	64.10	16.60	2.09	1.20	8.12	0.62	0.12	4.12	2.63	380.00	51.00	159.00	666.00	75.00	54.00	0.05	1.39	3.56	1.13	3.56	1.13	3.56	1.13	3.56	1.13	
RMGC 22_G107		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	64.10	16.60	2.09	1.20	8.12	0.62	0.12	4.12	2.63	179.00	83.00	109.00	676.00	116.00	57.00	0.07	2.04	8.04	1.13	8.04	1.13	8.04	1.13	8.04	1.13	
RMGC 25_G001		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	63.90	16.10	2.20	0.98	7.90	0.68	0.18	4.53	3.00	183.00	58.00	90.00	999.00	147.00	81.00	0.10	1.81	11.10	1.15	11.10	1.15	11.10	1.15	11.10	1.15	
RMGC 25_G002		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	63.90	16.10	2.20	0.98	7.90	0.68	0.18	4.53	3.00	189.00	62.00	135.00	876.00	127.00	46.00	0.09	2.76	6.49	1.14	6.49	1.14	6.49	1.14	6.49	1.14	
RMGC 25_G003		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	63.90	16.10	2.20	0.98	7.90	0.68	0.18	4.53	3.00	178.00	59.00	126.00	733.00	117.00	46.00	0.09	2.76	6.49	1.14	6.49	1.14	6.49	1.14	6.49	1.14	
RMGC 29_G054		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	56.70	14.80	6.75	2.17	10.70	2.81	0.23	3.71	1.28	186.00	29.00	231.00	432.00	59.00	49.00	0.02	0.86	1.87	1.14	1.87	1.14	1.87	1.14	1.87	1.14	
RMGC 29_G055		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	56.70	14.80	6.75	2.17	10.70	2.81	0.23	3.71	1.28	135.00	26.00	318.00	486.00	67.00	66.00	0.02	1.02	1.53	1.14	1.53	1.14	1.53	1.14	1.53	1.14	
RMGC 29_G056		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	56.70	14.80	6.75	2.17	10.70	2.81	0.23	3.71	1.28	146.00	27.00	278.00	307.00	61.00	61.00	0.02	0.86	1.87	1.14	1.87	1.14	1.87	1.14	1.87	1.14	
RMGC 29_G057		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	56.70	14.80	6.75	2.17	10.70	2.81	0.23	3.71	1.28	163.00	23.00	262.00	466.00	61.00	69.00	0.02	0.88	1.78	1.13	1.78	1.13	1.78	1.13	1.78	1.13	
RMGC 29_G058		Simpsen & Dusubieux (2 GEO)	Archaeological	GEO					Eastern Is.	Eastern Island	56.70	14.80	6.75	2.17	10.70	2.81	0.23	3.71	1.28	138.00	50.00	145.00	558.00	81.00	44.00	0.03	1.84	3.85								

Museum No.	Sample No.	Collector	Object	Sort	Type	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	Fe2O3 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Zr	Y/Zr	CaO/TiO2		
RMC9_G_0291		Simpson & Dusubuhubus (2)GEO	GEO	Archaeological	GEO		Pu Tokitoki	Eastern Island	Eastern Island	54.76	15.03	7.30	1.01	11.17	3.33	0.28	4.01	2.33	23.00	298.00	380.00	66.00	57.00	60.00	0.21	1.17	0.21	1.33		
RMC9_G_030		Simpson & Dusubuhubus (2)GEO	GEO	Archaeological	GEO		Pu Tokitoki	Eastern Island	Eastern Island	55.02	14.99	8.11	1.85	10.80	2.61	0.28	4.01	1.46	183.00	26.00	289.00	436.00	68.00	65.00	0.02	1.05	1.51	0.16	4.38	
RMC9_G_031		Simpson & Dusubuhubus (2)GEO	GEO	Archaeological	GEO		Pu Tokitoki	Eastern Island	Eastern Island	53.96	12.93	7.77	1.91	11.97	5.52	0.33	3.53	1.22	223.00	20.00	246.00	434.00	72.00	66.00	0.02	1.09	1.76	0.17	4.07	
RMC9_G_032		Simpson & Dusubuhubus (2)GEO	GEO	Archaeological	GEO		Pu Tokitoki	Eastern Island	Eastern Island	55.66	14.48	8.13	2.26	9.78	3.47	0.23	3.78	1.21	159.00	16.00	262.00	412.00	69.00	67.00	0.02	1.03	1.27	0.17	3.60	
RMC9_G_033		Simpson & Dusubuhubus (2)GEO	GEO	Archaeological	GEO		Pu Tokitoki	Eastern Island	Eastern Island	51.80	15.10	7.10	2.70	12.93	3.40	0.21	2.90	4.00	120.00	18.00	295.00	358.00	49.00	62.00	0.02	1.46	1.67	0.14	4.66	
RMC91_G095		Simpson & Dusubuhubus (2)GEO	GEO	Archaeological	GEO		Southwest Coast	Eastern Island	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	215.00	18.00	194.00	683.00	68.00	56.00	0.07	1.50	3.52	0.12	3.10	
RMC91_G096		Simpson & Dusubuhubus (2)GEO	GEO	Archaeological	GEO		Southwest Coast	Eastern Island	Eastern Island	61.70	15.00	3.10	1.00	10.00	0.70	0.19	5.10	2.00	196.00	26.00	225.00	587.00	68.00	64.00	0.06	1.06	2.61	0.12	3.10	
RT-578	RT-578	Simpson et al. 2018	Geo	Archaeological	Geo		Eastern Island	Eastern Island	Eastern Island	56.90	15.00	6.90	2.70	13.20	3.10	0.20	4.00	1.20	168.90	20.10	301.80	503.10	52.80	63.20	0.02	0.84	1.67	0.10	2.56	
RT-579	RT-579	Simpson et al. 2018	Geo	Archaeological	Geo		Eastern Island	Eastern Island	Eastern Island	56.30	15.00	7.70	2.60	13.30	3.10	0.20	4.00	1.20	188.60	19.00	305.70	499.20	52.80	64.40	0.02	0.70	1.43	0.11	2.96	
RT-580	RT-580	Simpson et al. 2018	Geo	Archaeological	Geo		Eastern Island	Eastern Island	Eastern Island	51.30	15.00	6.90	2.70	13.40	3.20	0.20	4.00	1.20	163.20	20.20	299.80	500.90	52.80	65.90	0.02	0.80	1.67	0.11	2.56	
RT-581	RT-581	Simpson et al. 2018	Geo	Archaeological	Geo		Eastern Island	Eastern Island	Eastern Island	51.70	14.90	6.90	2.60	13.40	3.10	0.20	3.90	1.20	161.40	20.00	294.70	492.20	52.20	63.80	0.02	0.82	1.67	0.11	2.65	
RT-582	RT-582	Simpson et al. 2018	Geo	Archaeological	Geo		Eastern Island	Eastern Island	Eastern Island	51.80	15.10	7.10	2.70	13.90	3.20	0.20	4.00	1.20	163.00	20.20	295.30	492.00	52.20	63.80	0.02	0.82	1.67	0.11	2.63	
RT-583	RT-583	Simpson et al. 2018	Geo	Archaeological	Geo		Eastern Island	Eastern Island	Eastern Island	51.40	14.80	6.80	2.60	13.40	3.10	0.20	4.10	1.30	160.80	20.90	295.50	505.50	53.10	62.40	0.02	0.85	1.71	0.11	2.62	
RT-584	RT-584	Simpson et al. 2018	Geo	Archaeological	Geo		Eastern Island	Eastern Island	Eastern Island	52.30	14.70	7.00	2.70	13.00	3.00	0.20	4.10	1.30	161.60	22.90	301.10	496.80	53.20	57.80	0.02	0.92	1.64	0.11	2.59	
RW-E	RW-E	Rolett et al. 2052	Adze	Archaeological	Geo		Burutu	Austral	Austral Cook	42.30	14.79	8.31	4.33	15.54	6.52	0.27	4.86	1.70												1.92
RW-G	RW-G	Rolett et al. 2051	Core	Archaeological	Geo		Burutu	Austral	Austral Cook	42.16	14.67	8.39	4.24	15.81	6.47	0.28	4.41	1.73												1.93
ScMo	ScMo 124H N99 E98 B1	Kahn et al. 2157	Core	Archaeological	Geo			Society Is.	Society Is.	47.74	15.00	9.10	3.82	13.92	3.78	1491.75	1.79	1.43	146.44	81.69	818.36	341.16	58.86	36.54	0.01	1.61	0.42	0.17	2.38	
ScMo	ScMo 124AE N100 E96	Kahn et al. 2146	Geo	Archaeological	Geo			Society Is.	Society Is.	44.72	14.21	8.58	3.80	11.66	4.99	1528.67	1.71	1.74	157.21	128.83	844.85	348.57	62.57	39.68	0.01	1.58	0.41	0.18	2.26	
ScMo	ScMo 124AE N100 S3	Kahn et al. 2144	Geo	Archaeological	Geo			Society Is.	Society Is.	41.70	13.65	8.50	3.63	11.30	4.77	1457.80	1.71	1.89	144.36	105.48	936.90	412.98	71.96	43.17	0.01	1.66	0.44	0.17	2.34	
ScMo	ScMo 124AE N99 E93 B1	Kahn et al. 2145	Geo	Archaeological	Geo			Society Is.	Society Is.	45.37	12.46	7.74	4.08	13.03	3.78	1697.83	2.63	1.15	156.22	104.48	913.29	531.84	87.99	45.53	0.01	1.92	0.58	0.16	4.90	
ScMo	ScMo 124AE N99 E93 B1	Kahn et al. 2147	Geo	Archaeological	Geo			Society Is.	Society Is.	39.32	14.02	8.37	3.34	5.77	3.94	1335.51	1.71	1.59	132.82	64.85	670.49	301.39	57.40	33.52	0.01	1.71	0.45	0.19	2.63	
ScMo	ScMo 124AF N100 E104	Kahn et al. 2148	Geo	Archaeological	Geo			Society Is.	Society Is.	66.26	19.95	1.64	1.10	9.17	0.92	979.09	4.22	4.59	465.06	190.54	90.40	1383.71	129.29	47.24	0.13	2.74	15.21	0.09	1.48	
ScMo	ScMo 124AF N100 S1	Kahn et al. 2149	Geo	Archaeological	Geo			Society Is.	Society Is.	45.50	11.51	10.74	3.95	12.78	6.17	1372.83	1.77	1.33	136.41	73.29	652.46	274.14	45.96	33.48	0.01	1.37	0.42	0.17	2.72	
ScMo	ScMo 124AF N102 E100	Kahn et al. 2150	Geo	Archaeological	Geo			Society Is.	Society Is.	57.63	18.09	6.90	4.20	12.29	2.28	1335.81	4.62	1.91	179.37	647.99	803.39	527.28	71.10	44.96	0.01	1.58	0.66	0.13	1.55	
ScMo	ScMo 124AF N99 E105	Kahn et al. 2151	Geo	Archaeological	Geo			Society Is.	Society Is.	44.07	13.58	7.90	3.63	10.21	4.59	1613.11	1.71	2.09	140.24	81.58	860.50	347.80	62.65	38.34	0.01	1.63	0.40	0.18	2.17	
ScMo	ScMo 124AF N99 E105	Kahn et al. 2152	Geo	Archaeological	Geo			Society Is.	Society Is.	52.69	16.11	7.10	2.10	10.53	3.68	815.77	1.68	1.89	108.54	176.39	621.86	312.76	39.62	41.27	0.01	1.76	0.91	0.10	2.20	
ScMo	ScMo 124BX N94 E90	Kahn et al. 2201	Geo	Archaeological	Geo			Society Is.	Society Is.	36.66	11.29	8.07	3.78	12.82	3.19	1950.74	1.71	1.24	165.00	65.58	619.95	346.21	48.34	35.45	0.01	1.36	0.56	0.14	2.13	
ScMo	ScMo 124BX N94 S5 E1	Kahn et al. 2152	Geo	Archaeological	Geo			Society Is.	Society Is.	45.73	13.94	9.75	4.47	6.26	4.67	1651.37	1.87	1.52	142.96	66.76	765.38	375.54	49.92	33.65	0.01	1.48	0.49	0.13	2.18	
ScMo	ScMo 124BX N98 E90	Kahn et al. 2154	Geo	Archaeological	Geo			Society Is.	Society Is.	49.12	14.64	9.10	4.02	9.94	4.64	1162.33	2.02	1.70	128.38	59.96	760.75	348.13	50.27	34.59	0.01	1.45	0.46	0.14	2.26	
ScMo	ScMo 124BX N98 E7	Kahn et al. 2155	Geo	Archaeological	Geo			Society Is.	Society Is.	70.93	24.40	0.91	3.90	13.51	1.55	1340.24	5.29	4.90	173.07	116.02	925.93	358.49	65.49	39.51	0.01	1.59	0.40	0.09	2.00	
ScMo	ScMo 124C upper shrim	Kahn et al. 2155	Geo	Archaeological	Geo			Society Is.	Society Is.	42.18	14.12	9.85	3.75	9.94	3.42	1276.35	1.94	1.31	125.84	44.12	676.70	303.53	44.00	30.33	0.01	1.48	0.45	0.15	2.63	
ScMo	ScMo 124C-1 Decapage	Kahn et al. 2202	Geo	Archaeological	Geo			Society Is.	Society Is.	41.64	12.36	9.22	4.48	10.68	5.14	1448.35	1.71	1.29	165.38	76.78	797.44	380.56	48.52	37.55	0.01	1.29	0.48	0.13	2.06	
ScMo	ScMo 124H N99 E93 C1	Kahn et al. 2158	Geo	Archaeological	Geo			Society Is.	Society Is.	42.17	18.13	8.39	4.01	13.58	6.07	1432.82	1.71	1.89	142.88	233.64	902.92	325.30	54.20	43.30	0.01	1.33	0.20	0.09	1.88	
ScMo	ScMo 124H N99 E93 C1	Kahn et al. 2158	Geo	Archaeological	Geo			Society Is.	Society Is.	45.36	15.45	9.60	3.53	11.87	4.51	1445.74	1.71	1.73	143.26	117.37	911.08	360.77	69.16	37.06	0.01	1.87	0.40	0.19	2.72	
ScMo	ScMo 124H N99 E93 C1	Kahn et al. 2158	Geo	Archaeological	Geo			Society Is.	Society Is.	44.47	15.16	9.08	3.50	12.55	5.68	1269.25	1.71	1.68	137.45	164.45	918.33	356.60	63.00	38.51	0.01	1.66	0.39	0.18	2.59	
ScMo	ScMo 124H N99 E93 C1	Kahn et al. 2158	Geo	Archaeological	Geo			Society Is.	Society Is.	41.19	15.34	8.98	3.33	8.14	3.71	1289.54	1.71	1.81	132.03	88.39	884.95	341.97	64.25	34.24	0.01	1.68	0.39	0.19	2.69	
ScMo	ScMo 124H N99 E93 C1	Kahn et al. 2158	Geo	Archaeological	Geo			Society Is.	Society Is.	43.78	9.12	9.21	3.89	11.87	3.98	1704.46	1.71	1.89	149.07	93.01	745.21	347.37	61.42	44.93	0.01	1.79	0.41	0.14	2.78	
ScMo	ScMo 124I Ahu ob1	Kahn et al. 2160	Geo	Archaeological	Geo			Society Is.	Society Is.	53.72	15.14	1.76	1.10	5.61	0.44	1390.15	3.68	4.85	165.93	205.86	109.21	1464.19	140.26	46.21	0.13	3.04	13.41	0.10	1.60	
ScMo	ScMo 124I Ahu surface	Kahn et al. 2204	Geo	Archaeological	Geo			Society Is.	Society Is.	36.30	10.95	8.25	4.11	8.84	1.76	1792.66	1.80	1.84	156.37	112.35	1325.96	483.62	69.45	38.83	0.01	1.79	0.36	0.14	2.01	
ScMo	ScMo 124I N103																													

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SiO2 w%	Al2O3 w%	CaO w%	TiO2 w%	Fe2O3 w%	MgO w%	MnO w%	Na2O w%	K2O w%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/100Z	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2		
simp. 532 A			BASALT	GEOROC				SAMON ISLANDS / SAVANU / ADOPO SERIES	Samoa	Samoa	45.89	12.38	9.51	3.11	11.23	12.31	0.16	2.15		118.00	49.30	556.00	225.00	50.26	21.52	0.01	2.34	0.40	0.21	3.04		
simp. 535 P			BASALT	GEOROC				SAMON ISLANDS / SAVANU / PIUPAIA SERIES	Samoa	Samoa	48.30	13.32	9.44	2.94	11.29	10.16	0.15	2.84		114.00	29.50	402.00	187.00	38.69	20.55	0.01	1.88	0.47	0.21	3.21		
simp. 536 F			BASALT	GEOROC				SAMON ISLANDS / SAVANU / FAGALOA SERIES	Samoa	Samoa	45.93	11.92	10.05	3.12	11.59	13.21	0.16	3.10		120.00	55.90	585.00	188.00	42.85	20.89	0.01	2.05	0.32	0.23	3.22		
simp. 539 A			BASALT	GEOROC				SAMON ISLANDS / SAVANU / ADOPO SERIES	Samoa	Samoa	47.33	12.47	9.45	2.70	11.71	12.94	0.16	2.88		121.00	24.80	398.00	159.00	31.82	20.92	0.01	1.52	0.40	0.20	3.50		
simp. 542 A			BASALT	GEOROC				SAMON ISLANDS / SAVANU / SALANI SERIES	Samoa	Samoa	46.05	11.76	9.28	2.81	13.98	13.75	0.16	2.66		124.00	31.00	437.00	175.00	36.65	20.46	0.01	1.79	0.40	0.21	2.28		
simp. 543 P			BASALT	GEOROC				SAMON ISLANDS / SAVANU / PIUPAIA SERIES	Samoa	Samoa	44.72	11.45	9.13	3.67	12.42	14.06	0.16	2.45														
simp. 544 F			BASALT	GEOROC				SAMON ISLANDS / SAVANU / FAGALOA SERIES	Samoa	Samoa	47.24	14.48	10.19	2.57	11.86	9.62	0.16	2.64		121.00	23.20	436.00	161.00	29.16	46.87	0.01	0.62	0.37	0.18	3.96		
simp. 545 F			BASALT	GEOROC				SAMON ISLANDS / SAVANU / FAGALOA SERIES	Samoa	Samoa	45.84	11.94	9.70	3.04	11.34	13.24	0.16	2.65		115.00	48.00	821.00	191.00	44.36	20.84	0.01	2.13	0.23	0.23	3.19		
simp. 546 F			BASALT	GEOROC			30528-5 46 F	SAMON ISLANDS / SAVANU / FAGALOA SERIES	Samoa	Samoa	48.25	13.93	10.35	2.72	11.29	9.34	0.16	2.73		110.00	25.10	419.00	156.00	28.81	21.40	0.01	1.35	0.37	0.18	3.81		
simp. 547 F			BASALT	GEOROC				SAMON ISLANDS / SAVANU / FAGALOA SERIES	Samoa	Samoa	46.83	14.70	9.18	3.11	11.86	10.16	0.16	2.62		122.00	16.80	394.00	189.00	36.51	21.05	0.01	1.73	0.48	0.19	2.95		
simp. 550 S			BASALT	GEOROC				SAMON ISLANDS / SAVANU / SALANI SERIES	Samoa	Samoa	45.94	12.59	9.79	3.27	12.37	11.95	0.17	2.31		123.00	38.60	409.00	214.00	51.11	18.63	0.01	2.53	0.52	0.23	2.99		
simp. 552 M			BASALT	GEOROC				SAMON ISLANDS / SAVANU / MULIFANUA SERIES	Samoa	Samoa	45.83	11.98	9.24	3.04	11.45	13.33	0.15	2.86		126.00	44.00	794.00	225.00	35.33	21.87	0.01	1.35	0.28	0.23	3.04		
simp. SAV-B-15			BASALT	GEOROC			1756-SAV-B-15	SAMON ISLANDS / SAVANU	Samoa	Samoa																						
simp. SAV-B-15			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa	48.08	13.60	8.41	2.89	10.57	10.47	0.15	3.38		118.00	51.00	562.00	260.00	54.00	25.00	0.01	2.16	0.46	0.21	2.91		
simp. SAV-B-5			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa																						
simp. SAV-B-5			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa	47.90	12.43	9.40	2.73	11.97	12.70	0.17	2.61		115.00	24.00	382.00	161.00	33.30	23.00	0.01	1.45	0.42	0.21	3.44		
simp. SAV-B-6			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa																						
simp. SAV-B-7			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa																						
simp. SAV-B-7			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa	45.93	12.65	9.43	2.77	11.25	13.27	0.16	2.81		118.00	35.00	572.00	214.00	52.00	24.00	0.01	2.17	0.37	0.24	3.40		
simp. SAV-B-8			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa																						
simp. SAV-B-8			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa	45.99	12.72	10.54	3.41	10.38	12.12	0.17	3.34		115.00	48.00	706.00	261.00	68.00	29.00	0.01	2.34	0.37	0.26	3.09		
simp. SAV1			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa																						
simp. SAV1			BASALT	GEOROC				SAMON ISLANDS / SAVANU	Samoa	Samoa																						
simp. ST-26			BASALT	GEOROC				SAMON ISLANDS / TUTUILA / TAPUTAPU	Samoa	Samoa																						
simp. ST-26			BASALT	GEOROC				SAMON ISLANDS / TUTUILA / TAPUTAPU	Samoa	Samoa	47.10	12.80	8.53	3.96	14.03	8.50	0.17	2.80														
simp. T16			BASALT	GEOROC				SAMON ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T25			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T33			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T33			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
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simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						
simp. T44			BASALT	GEOROC				SAMON ISLANDS / MANUA ISLANDS / TAUI ISLAND	Samoa	Samoa																						

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	e-FeO3 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/100					
	simp_2504-10		BASALT, THOLEI	GEORC			1077	SAMON ISLANDS / TUTUILA / SHIELD STAGE	Samoa	Samoa	49.60	13.30	9.20	12.80	7.10	2.20	0.20	0.20								0.01	0.39	0.49	2.24						
	simp_TLW67-77		BASALT, THOLEI	GEORC			G10	SAMON ISLANDS / TUTUILA / PAGO	Samoa	Samoa	48.88	13.80	9.90	2.31	10.70	7.30	0.15	2.23								305.00	120.00			4.29					
	simp_E9201		BASALT, TRANSIT	GEORC			E9201	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	49.88	14.54	10.09	2.98	13.35	5.54	0.19	3.27	0.57	134.00	8.31	259.00	211.00	25.70	36.10	0.01	0.71	0.81	0.12	3.39					
	simp_E9202		BASALT, TRANSIT	GEORC			E9202	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	48.88	14.70	10.03	3.29	14.46	5.33	0.21	3.35	0.39											3.05					
	simp_E9203		BASALT, TRANSIT	GEORC			E9203	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	48.36	15.52	9.59	3.17	14.39	4.72	0.20	3.21	0.60											2.84					
	simp_E9204		BASALT, TRANSIT	GEORC			E9204	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	50.09	14.07	8.80	3.28	13.94	4.25	0.21	3.74	0.91							10.80	266.00	374.00	39.60	51.90	0.01	0.76	1.41	0.11	2.68
	simp_E9205		BASALT, TRANSIT	GEORC			E9205	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	48.24	18.22	10.57	2.76	13.30	3.70	0.16	3.42	0.49												3.84				
	simp_E9212		BASALT, TRANSIT	GEORC			E9212	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	49.16	16.75	9.94	2.96	12.17	4.29	0.21	3.50	0.75											3.36					
	simp_E9213		BASALT, TRANSIT	GEORC			E9213	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	48.53	14.97	9.24	3.65	14.55	4.77	0.21	3.45	0.67											3.29					
	simp_E9215		BASALT, TRANSIT	GEORC			E9215	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	49.29	15.12	10.17	3.19	13.56	5.58	0.19	3.04	0.55											3.19					
	simp_E9216		BASALT, TRANSIT	GEORC			E9216	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	47.68	15.01	10.28	3.43	14.47	5.91	0.21	3.11	0.28	113.00	1.91	275.00	219.00	27.30	39.00	0.01	0.70	0.80	0.12	3.00					
	simp_E9217		BASALT, TRANSIT	GEORC			E9217	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	47.93	14.92	10.19	3.17	14.40	5.79	0.20	3.11	0.33											3.02					
	simp_E9218		BASALT, TRANSIT	GEORC			E9218	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	47.74	14.80	10.29	3.38	14.74	5.79	0.20	3.13	0.30											3.05					
	simp_E9207		BASALT, TRANSIT	GEORC			E9207	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	47.70	16.34	9.90	2.76	12.31	7.87	0.18	3.02	0.55	99.80	5.54	318.00	191.00	26.90	37.10	0.01	0.73	0.60	0.14	3.58					
4038-E9209	simp_E9209		BASALT, TRANSIT	GEORC			E9209	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	47.03	16.44	9.44	3.10	12.56	7.14	0.18	3.13	0.59	84.70	3.66	300.00	272.00	37.30	37.00	0.01	0.76	0.91	0.14	3.05					
simp_110	2165-5-10		BASALT, TRANSIT	GEORC			2165-5-10	SAMON ISLANDS / MANUA ISLANDS / TAU ISLAND / LATA FOR	Samoa	Samoa																				4.43					
simp_110	2165-5-10		BASALT, TRANSIT	GEORC			2165-5-10	SAMON ISLANDS / MANUA ISLANDS / TAU ISLAND / LATA FOR	Samoa	Samoa	48.45	18.90	7.98	2.88	2.97	4.16	0.10														2.77				
simp_44	2159-5-44		BASALT, TRANSIT	GEORC			2159-5-44	SAMON ISLANDS / MANUA ISLANDS / TAU ISLAND / LATA FOR	Samoa	Samoa	46.59	13.40	11.42	4.22	7.26	0.18	2.61														2.71				
simp_44	2159-5-44		BASALT, TRANSIT	GEORC			2159-5-44	SAMON ISLANDS / MANUA ISLANDS / TAU ISLAND / LATA FOR	Samoa	Samoa	43.50	11.70	10.70	3.70	12.40	13.40	0.20	2.70													2.89				
simp_8	1831-KU-21		BASALT, TRANSIT	GEORC			1831-KU-21	SAMON ISLANDS / UPOLU / PUAPUA LAVA	Samoa	Samoa	43.90	11.90	10.60	3.01	12.00	14.80	0.30	2.90													3.52				
simp_SAM16A			BASALT, TRANSIT	GEORC				SAMON ISLANDS / TUTUILA / LEONE	Samoa	Samoa	43.77	12.26	10.25	3.43	13.07	14.8	0.25	2.97												2.99					
simp_SAM6E			BASALT, TRANSIT	GEORC				SAMON ISLANDS / TUTUILA / LEONE	Samoa	Samoa	43.20	12.45	10.33	3.11	13.95	14.8	0.28	2.90												3.32					
simp_SAM37B			BASALT, TRANSIT	GEORC				SAMON ISLANDS / TUTUILA / LEONE	Samoa	Samoa	43.64	11.09	10.48	3.18	14.16	14.8	0.29	2.97												3.30					
simp_SAM37C			BASALT, TRANSIT	GEORC				SAMON ISLANDS / TUTUILA / LEONE	Samoa	Samoa	43.25	12.43	10.52	2.79	14.78	14.8	0.25	2.95												3.77					
simp_SAV28			BASALT, TRANSIT	GEORC				SAMON ISLANDS / SAVAI'I / MULIFANUA SERIES	Samoa	Samoa	45.55	16.30	9.00	2.93	9.80	14.8	0.13	2.92												3.07					
simp_U23 P	30550-U 23 P		BASALT, TRANSIT	GEORC			30550-U 23 P	SAMON ISLANDS / UPOLU / PUAPUA SERIES	Samoa	Samoa																				0.24					
simp_U23 P	30550-U 23 P		BASALT, TRANSIT	GEORC			30550-U 23 P	SAMON ISLANDS / UPOLU / PUAPUA SERIES	Samoa	Samoa																									
simp_U35 M	30557-U 35 M		BASALT, TRANSIT	GEORC			30557-U 35 M	SAMON ISLANDS / UPOLU / MULIFANUA SERIES	Samoa	Samoa	40.70	11.10	9.81	4.28	14.70	11.80	0.18	3.50													2.29				
simp_UPO-7A	6425-UPO-7A		BASALT, TRANSIT	GEORC			6425-UPO-7A	SAMON ISLANDS / UPOLU / POST-EROSIONA STAGE	Samoa	Samoa	49.00	14.17	3.78	1.03	0.92	0.48	5.11	2.13	168.00	43.00	198.00	292.00	77.00	111.00	0.08	0.69	4.00	0.10	2.67						
simp_UPO-9	6426-UPO-9		BASALT, TRANSIT	GEORC			6426-UPO-9	SAMON ISLANDS / UPOLU / POST-EROSIONA STAGE / FAGAL	Eastern Island	Eastern Island	43.90	11.80	10.48	4.33	14.42	11.40	0.17	2.60													2.35				
simp_1770A	simp_1770A		BENMOREITE	GEORC			1770A	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	58.79	14.66	6.57	1.06	1.11	0.37	3.56	1.86	173.00	33.00	250.00	704.00	64.00	91.00	0.07	0.70	2.82	0.09	4.31						
simp_1751B	simp_1751B		BENMOREITE	GEORC			1751B	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	60.03	15.08	3.80	1.33	1.64	0.08	4.38	2.14	143.00	54.00	154.00	831.00	83.00	84.00	0.06	0.99	5.40	0.10	2.86						
simp_1762B	simp_1762B		BENMOREITE	GEORC			1762B	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	58.80	14.65	4.57	1.18	11.58	11.14	0.26	3.58	1.78	135.00	28.30	209.00	672.00	64.10	85.20	0.06	0.75	3.22	0.10	3.87					
4041-09214	simp_6		BENMOREITE	GEORC			6	SAMON ISLANDS / TUTUILA / SHIELD STAGE	Samoa	Samoa	59.00	18.00	3.40	1.20	7.60	3.00	0.20	3.50												2.83					
simp_9	simp_9		BENMOREITE	GEORC			9	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	60.92	13.47	4.98	1.88	1.65	0.14	4.61	1.73												2.65					
simp_10	simp_10		BENMOREITE	GEORC			10	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	59.75	15.42	4.50	0.70	0.90	0.38	4.75	1.74												6.43					
simp_7	simp_7		BENMOREITE	GEORC			7	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	46.66	14.28	7.54	4.06	5.35	0.32	2.57	1.00												1.86					
simp_1750B	simp_1750B		BENMOREITE	GEORC			1750B	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	45.55	14.56	8.99	4.22	4.79	0.29	3.07	0.37	151.00	3.00	196.00	322.00	36.00	49.00	0.01	0.73	1.64	0.11	2.13						
simp_1758B	simp_1758B		BENMOREITE	GEORC			1758B	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	47.66	14.97	8.87	3.99	4.82	0.28	3.45	0.69	330.00	8.00	254.00	276.00	40.00	52.00	0.01	0.77	1.28	0.12	2.22						
simp_1779B	simp_1779B		BENMOREITE	GEORC			1779B	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	48.70	15.46	9.43	3.99	4.74	0.24	3.29	0.62	114.00	9.00	298.00	292.00	30.00	41.00	0.01	0.73	0.81	0.12	2.87						
simp_E9206	simp_E9206		BENMOREITE	GEORC			E9206	EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER IS	Eastern Island	Eastern Island	53.50	15.46	6.45	2.21	13.60	2.80	0.24	4.27	1.21											2.92					
simp_04-11	simp_04-11		HAWAIIITE	GEORC				SAMON ISLANDS / MANUA ISLANDS / OFU / POST-EROSIONA	Samoa	Samoa	48.74	17.20	8.63	3.37	10.80	4.62	0.20	3.74												2.56					
simp_04-13	simp_04-13		HAWAIIITE	GEORC				SAMON ISLANDS / MANUA ISLANDS / OFU / POST-EROSIONA	Samoa	Samoa	44.75	14.51	9.74	5.19	14.29	5.96	0.20	3.42												1.88					
simp_107	2164-5-107		HAWAIIITE	GEORC			2164-5-107	SAMON ISLANDS / MANUA ISLANDS / TAU ISLAND / LATA FOR	Samoa	Samoa	46.56	14.54	10.13</																						

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	e-ZrO2 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/TiO2	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2							
			TRACHYTE	GEOROC				EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER ISLAND	Easter Island	Easter Island	66.60	15.40	0.72	0.32	0.05	0.11	5.90	3.55							1025.00	0.33			2.25								
			TRACHYTE	GEOROC				EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER ISLAND	Easter Island	Easter Island	69.62	17.80	0.73	0.30	0.04	0.11	5.79	3.55							975.00	50.00	0.33		2.43								
			TRACHYTE	GEOROC				EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER ISLAND	Easter Island	Easter Island	64.90	15.30	0.55	0.31	0.04	0.11	6.23	4.05							900.00	95.00	0.29		1.77								
			TRACHYTE	GEOROC				EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER ISLAND	Easter Island	Easter Island	67.56	14.70	0.10	0.19	0.28	0.03	3.77	2.40							875.00	50.00	0.46		0.53								
			TRACHYTE	GEOROC				EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER ISLAND	Easter Island	Easter Island	66.36	14.70	1.75	0.34	0.05	0.12	6.34	4.05	177.00	107.00	51.00	1261.00	150.00	57.00	57.00	0.37	2.63	24.73	0.12	5.15							
			TRACHYTE	GEOROC				EASTER SEAMOUNT CHAIN - SALAS Y GOMEZ RIDGE / EASTER ISLAND	Easter Island	Easter Island	67.69	16.40	0.70	0.34	5.25	0.08	0.32	6.01	3.96	196.00	85.40	57.00	1355.00	130.00	59.40	0.40	2.19	23.77	0.10	2.05							
	samp_20		TRACHYTE	GEOROC				SAMOA ISLANDS / UPOULU / SHIELD STAGE / FAGALO A SERIES	Samoa	Samoa	61.10	18.80	1.40	0.60	5.40	1.00	0.20	6.40												2.33							
	samp_7		TRACHYTE	GEOROC				SAMOA ISLANDS / TUTUILA / SHIELD STAGE	Samoa	Samoa	69.50	17.00	0.80	0.10	2.20	0.10	0.10	5.20												8.00							
	samp_82-104		TRACHYTE	GEOROC				SAMOA ISLANDS / UPOULU / FAGALO A SERIES	Samoa	Samoa																											
	samp_SAMTR-1		TRACHYTE	GEOROC				SAMOA ISLANDS / TUTUILA / PAGO	Samoa	Samoa	69.10	15.70	0.65	0.09	2.16	0.09	0.03	5.20								215.00	11.00	310.00	160.00	70.00	0.34	2.29	28.18	0.52	7.22		
	samp_TU1		TRACHYTE	GEOROC				SAMOA ISLANDS / TUTUILA / PAGO	Samoa	Samoa																											
	samp_TU10		TRACHYTE	GEOROC				SAMOA ISLANDS / TUTUILA / PAGO	Samoa	Samoa																											
	samp_TU14		TRACHYTE	GEOROC				SAMOA ISLANDS / TUTUILA / PAGO	Samoa	Samoa																											
	samp_TU60		TRACHYTE	GEOROC				SAMOA ISLANDS / TUTUILA / PAGO	Samoa	Samoa																											
	samp_TU77		TRACHYTE	GEOROC				SAMOA ISLANDS / TUTUILA / PAGO	Samoa	Samoa																											
	samp_UPD-12A		TRACHYTE	GEOROC				SAMOA ISLANDS / UPOULU / FAGALO A SERIES	Samoa	Samoa	58.50	18.90	1.19	0.76	5.36	0.80	0.18	5.57																1.57			
	samp_UPD-12B		TRACHYTE	GEOROC				SAMOA ISLANDS / UPOULU / FAGALO A SERIES	Samoa	Samoa	56.80	18.40	1.11	0.84	6.30	1.50	0.14	6.53																1.32			
	samp_UPD-12F		TRACHYTE	GEOROC				SAMOA ISLANDS / UPOULU / FAGALO A SERIES	Samoa	Samoa	61.20	17.60	1.18	0.32	4.60	0.70	0.14	5.55								175.00	24.00	847.00	164.00	37.00	0.26	4.43	35.29	0.19	3.69		
	samp_033/150		TRACHYTE	GEOROC				BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / TUBUIAI																											
	samp_1			GEOROC				BASALT		PITCAIRN-GAMBIER	Gambier Is.																										
	samp_1			GEOROC				ANDESITE		PITCAIRN-GAMBIER	Pitcairn Is.	49.64	18.50	6.88	2.44		2.80	0.15	4.73	1.66														2.82			
	samp_1			GEOROC				BASALT, THOLEI		PITCAIRN-GAMBIER	Gambier Is.																										
	samp_1			GEOROC				ANDESITE BASAL		PITCAIRN-GAMBIER	Pitcairn Is.																										
	samp_1			GEOROC				ANKARAMITE		SOCIETY ISLANDS /	Society Is.																										
	samp_1	11483 LACROIX A. 192		GEOROC				TRACHYTE	MARQUESAS / NUKU HIVA	MARQUESAS	65.82	18.43	1.26	0.36		0.06	0.04																			3.50	
	samp_1	1784 BROUSSE R. 1978		GEOROC				PHONOLITE	MARQUESAS / UIA POU	UIA POU	48.40	1.66	8.80	0.88		1.79	4.27																			10.00	
	samp_1	1784 BROUSSE R. 1978		GEOROC				PHONOLITE	MARQUESAS / UIA POU	UIA POU	31.07	0.84	29.32	5.43																						5.40	
	samp_1	1784 BROUSSE R. 1978		GEOROC				PHONOLITE	MARQUESAS / UIA POU	UIA POU	44.44	32.94																									
	samp_1	1784 BROUSSE R. 1978		GEOROC				PHONOLITE	MARQUESAS / UIA POU	UIA POU	44.80	33.00																									
	samp_1	1784 BROUSSE R. 1978		GEOROC				PHONOLITE	MARQUESAS / UIA POU	UIA POU	44.58	32.76																									
	samp_1	1784 BROUSSE R. 1978		GEOROC				PHONOLITE	MARQUESAS / UIA POU	UIA POU	41.10	29.37	0.03																								
	samp_1	1784 BROUSSE R. 1978		GEOROC				PHONOLITE	MARQUESAS / UIA POU	UIA POU	65.52	17.50	0.01																								
	samp_1	1784 BROUSSE R. 1978		GEOROC				PHONOLITE	MARQUESAS / UIA POU	UIA POU	53.25	22.29	0.62																								
	samp_1	1785 BISHOP A.C. 1937		GEOROC				HAWAIIITE	MARQUESAS / UIA POU	UIA POU	46.39	16.19	8.17	3.24			5.34	0.16							800.00	86.00	1300.00	800.00	150.00	25.00	0.02	6.00	0.62	0.19	7.52		
	samp_1	1786 BROUSSE R. 1978		GEOROC				HAWAIIITE	MARQUESAS / HIVA OA	HIVA OA	47.20	16.22	8.49	3.85			4.77	0.18																		2.21	
	samp_1	1787 BROUSSE R. 1978		GEOROC				BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	40.37	11.10	11.25	5.14		11.71	14.79	0.21																		2.19	
	samp_1	1787 BROUSSE R. 1978		GEOROC				BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	50.18	3.66	21.22	0.87	7.54	16.09	0.27																			24.39	
	samp_1	1787 BROUSSE R. 1978		GEOROC				BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	61.66	6.16																								0.47	
	samp_1	1787 BROUSSE R. 1978		GEOROC				TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	52.20	1.73	21.76	0.47	10.49	11.08	1.26																			46.30	
	samp_1	1787 BROUSSE R. 1978		GEOROC				BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	36.06	14.31		7.13	13.23	14.82	0.17																				
	samp_1	1787 BROUSSE R. 1978		GEOROC				BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	55.35	26.58	10.28		0.36	0.28																					
	samp_1	1787 BROUSSE R. 1978		GEOROC				TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	63.82	18.43	1.26		0.36																						
	samp_1	1788 BROUSSE R. 1978		GEOROC				BASALT, OLIVINE	MARQUESAS / FATU HIVA	FATU HIVA	43.75	16.92	10.82	4.25			6.70	0.18																			3.50
	samp_1	1788 BROUSSE R. 1978		GEOROC				BASALT	MARQUESAS / TAHITIATA	TAHITIATA	43.04	18.26	9.80	4.00			4.95	0.20																		2.45	
	samp_1	1788 BROUSSE R. 1978		GEOROC				BASALT	MARQUESAS / TAHITIATA	TAHITIATA	47.52	15.18	7.42	1.92			1.63																				3.86
	samp_1	1788 BROUSSE R. 1978		GEOROC				BASALT	MARQUESAS / TAHITIATA	TAHITIATA	43.04	18.26	9.80	4.00			4.95	0.20																			
	samp_1	1788 BROUSSE R. 1978		GEOROC				BASANTITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA	47.52	15.18	7.42	1.92			1.63																				
	samp_1	1788 BROUSSE R. 1978																																			

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	Fe2O3 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/TiO2 /10000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2		
camp. 11A				GEORC			OCEANITE		PITCAIRN-GAMBIER	Gambier Is.				1.03			2.08															
camp. 11B				GEORC			BASALT, ANDESIT		PITCAIRN-GAMBIER	Gambier Is.				3.02																		
camp. 11F				GEORC			BASALT		PITCAIRN-GAMBIER	Gambier Is.				3.16																		
camp. 11G				GEORC			BASALT		PITCAIRN-GAMBIER	Gambier Is.				2.30																		
camp. 11M				GEORC			BASALT, ANDESIT		PITCAIRN-GAMBIER	Gambier Is.				2.30																		
camp. 11P				GEORC			BASALT		PITCAIRN-GAMBIER	Gambier Is.				2.43																		
camp. 12				GEORC			BASALT		PITCAIRN-GAMBIER	Gambier Is.				2.76																		
camp. 12	114831 LACROIX A. (192)			GEORC			TRACHYTE	MARQUESAS / UIA HUKA	UIA HUKA	Marquesas	60.18	18.82	2.18	0.76		0.16	0.17														2.87	
camp. 12	7875 BISHOP A. C. (197)			GEORC			TRACHYTE	MARQUESAS / UIA POU	UIA POU	Marquesas	60.66	19.09	0.81	0.27		0.43	0.22			1500.00	360.00	40.00	1500.00	275.00			0.56		37.50	0.18	3.00	
camp. 12	7871 BROUSSE R. (197)			GEORC			BENMOREITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	1.72			18.11																		
camp. 12	7871 BROUSSE R. (197)			GEORC			BENMOREITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	45.27	7.50	22.60	2.49	8.13	12.62	0.24														9.08	
camp. 12	7871 BROUSSE R. (197)			GEORC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	39.92	12.54	0.01	6.81	10.99	10.44	0.50														0.00	
camp. 12	7871 BROUSSE R. (197)			GEORC			MUGEARITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	59.02	25.31	7.74	0.06	0.54																129.00	
camp. 12	7871 BROUSSE R. (197)			GEORC			TRACHYBASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	46.46	16.84	8.55	3.60		2.20	0.15														2.38	
camp. 12-1	11182 DESOMNE L. (1)			GEORC			TRACHYANDESIT	MARQUESAS / UNNAMED SEAMOUNT (MARQUESAS)	UNNAMED SEAMOUNT	Marquesas	51.73	17.44	7.19	2.26		6.24	0.20				439.00	57.00	1231.00	439.00	112.00	44.00	0.02	2.55	0.36	0.26	3.18	
camp. 12-10	11182 DESOMNE L. (1)			GEORC			TRACHYANDESIT	MARQUESAS / UNNAMED SEAMOUNT (MARQUESAS)	UNNAMED SEAMOUNT	Marquesas	54.53	17.00	6.36	2.44																	2.97	
camp. 12-10	11182 DESOMNE L. (1)			GEORC			TRACHYANDESIT	MARQUESAS / UNNAMED SEAMOUNT (MARQUESAS)	UNNAMED SEAMOUNT	Marquesas	51.64	17.56	7.20	2.27		2.52	0.20				452.00	58.00	1247.00	452.00	114.00	43.00	0.02	2.65	0.36	0.25	3.17	
camp. 12-11	11182 DESOMNE L. (1)			GEORC			TRACHYANDESIT	MARQUESAS / UNNAMED SEAMOUNT (MARQUESAS)	UNNAMED SEAMOUNT	Marquesas	51.67	17.51	7.19	2.27		2.77	0.20				439.00	55.00	1235.00	439.00	110.00	43.00	0.02	2.56	0.36	0.25	3.17	
camp. 12-12	11182 DESOMNE L. (1)			GEORC			TRACHYANDESIT	MARQUESAS / UNNAMED SEAMOUNT (MARQUESAS)	UNNAMED SEAMOUNT	Marquesas	51.60	17.68	7.17	2.27		2.89	0.20				448.00	56.00	1225.00	448.00	114.00	45.00	0.02	2.53	0.37	0.25	3.16	
camp. 12-17	11182 DESOMNE L. (1)			GEORC			TRACHYANDESIT	MARQUESAS / UNNAMED SEAMOUNT (MARQUESAS)	UNNAMED SEAMOUNT	Marquesas	51.23	17.41	7.17	2.26		2.88	0.20				459.00	56.00	1227.00	459.00	114.00	44.00	0.02	2.59	0.37	0.25	3.17	
camp. 12-6	11182 DESOMNE L. (1)			GEORC			TRACHYANDESIT	MARQUESAS / UNNAMED SEAMOUNT (MARQUESAS)	UNNAMED SEAMOUNT	Marquesas	51.53	17.48	7.01	2.20	12.88	2.93	0.20				460.00	49.00	1222.00	460.00	113.00	44.00	0.02	2.57	0.38	0.25	3.19	
camp. 1200	2500-1200			GEORC	GEORC	HAWAIIITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RURUTU / YOUNG ATU-TREND LAV	RURUTU / YOUNG ATU-TREND LAV	Austral Cook	43.36	14.74	8.66	3.36	15.40	6.17	0.23	4.10	1.41		144.00	31.00	1115.00	409.00			0.01		0.37		2.58	
camp. 1200	2500-1200			GEORC	GEORC	HAWAIIITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RURUTU / YOUNG ATU-TREND LAV	RURUTU / YOUNG ATU-TREND LAV	Austral Cook														391.80	86.90					0.22		
camp. 122M	2500-122M			GEORC	GEORC	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RURUTU / YOUNG ATU-TREND LAV	RURUTU / YOUNG ATU-TREND LAV	Austral Cook	42.40	13.05	10.40	3.90	14.15	8.30	0.21	3.24	1.04		113.00	19.00	770.00	298.00			0.01		0.39		2.59	
camp. 122M	2500-122M			GEORC	GEORC	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RURUTU / YOUNG ATU-TREND LAV	RURUTU / YOUNG ATU-TREND LAV	Austral Cook														22.00	884.00	285.00	65.00	35.70	0.01	1.82	0.23	2.59
camp. 124				GEORC			BASALT		PITCAIRN-GAMBIER	Gambier Is.				2.52			1.82															
camp. 12P				GEORC			BASALT	OHAI CONE	SOCIETY ISLANDS / Society Is.		49.22	12.69	9.36	2.51		9.51	0.34	1.32	1.57												3.73	
camp. 12R				GEORC			OCEANITE		PITCAIRN-GAMBIER	Gambier Is.				1.54																		
camp. 12S				GEORC			OCEANITE		PITCAIRN-GAMBIER	Gambier Is.				1.65			1.85															
camp. 12T				GEORC			OCEANITE		PITCAIRN-GAMBIER	Gambier Is.				2.68			1.78															
camp. 13				GEORC			BASALT		PITCAIRN-GAMBIER	Gambier Is.																						
camp. 13	114831 LACROIX A. (192)			GEORC			BASALT, LABRA	MARQUESAS / UIA HUKA	UIA HUKA	Marquesas	45.74	16.76	9.02	4.16		3.24	0.21														2.17	
camp. 13	7871 BROUSSE R. (197)			GEORC			PHONOLITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	50.44	18.42	4.85	1.50		2.40	0.17				800.00	240.00	1340.00	800.00	200.00	30.00	0.05	6.67	0.60	0.25	3.00	
camp. 13	7871 BROUSSE R. (197)			GEORC			BENMOREITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	2.16			18.17		1.94	1.90															
camp. 13	7871 BROUSSE R. (197)			GEORC			MUGEARITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	65.11	20.39	2.57		0.19																	
camp. 13	7871 BROUSSE R. (197)			GEORC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	61.34	19.97	1.86			0.84																
camp. 130				GEORC	GEORC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA																					62.50	
camp. 132	1360-RTG132			GEORC	GEORC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA	49.39	17.13	8.11	2.86		3.89	0.25	4.24	3.07												2.84	
camp. 132	1360-RTG132			GEORC	GEORC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA																						
camp. 13K				GEORC	GEORC		BASALT	OHAI CONE	SOCIETY ISLANDS / Society Is.																							
camp. 13L				GEORC	GEORC		BASALT, PICRIT		PITCAIRN-GAMBIER	Gambier Is.				2.48																		
camp. 14				GEORC			BASALT		PITCAIRN-GAMBIER	Gambier Is.				49.18	11.77	8.14	2.48															
camp. 14	114831 LACROIX A. (192)			GEORC			BASALT, LABRA	MARQUESAS / UIA HUKA	UIA HUKA	Marquesas	45.24	16.17	9.76	3.22		7.01	0.19															3.03
camp. 14	7871 BROUSSE R. (197)			GEORC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	15.49			1.87		1.91																
camp. 14	7871 BROUSSE R. (197)			GEORC			BENMOREITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	56.22	26.91	10.21	0.05	0.45																	204.20
camp. 14	7871 BROUSSE R. (197)			GEORC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	58.86	21.62	2.22	0.24		0.85																9.25
camp. 14-1	11182 DESOMNE L. (1)			GEORC			THOL EITE, OLIV	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas	48.99	14.00	10.07	2.17		6.43	0.14															4.64
camp. 14-1	11182 DESOMNE L. (1)			GEORC			THOL EITE, OLIV	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas	49.10	13.26	10.01	1.97		11.16	0.14															5.98
camp. 140				GEORC	GEORC																											

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	e-ZrO2 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/100Zr	Nb/Y	Zr/Sr	Nb/Zr	CaO/10Zr							
camp. 18755				GEOROC			BASALT	WATER VALLEY	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18755				GEOROC			BASALT	WATER VALLEY	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18764				GEOROC			HAWAIIITE	JINERS VALLEY	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18764				GEOROC			HAWAIIITE	JINERS VALLEY	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 188				GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook															68.60												
camp. 18815				GEOROC			HAWAIIITE	CABIN CAVE, NORTHWEST COAST	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18823				GEOROC			TRACHYTE	WEST COAST	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18824				GEOROC			HAWAIIITE	PAUVA RIVER	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18825				GEOROC			MUGEARITE, OLIV	WESTERN SIDE OF JOHN MILLS VALLEY, CENTER OF ISLAND	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18825				GEOROC			MUGEARITE, OLIV	WESTERN SIDE OF JOHN MILLS VALLEY, CENTER OF ISLAND	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18878				GEOROC			HAWAIIITE	ST. PAULS POINT, EASTERN TIP OF ISLAND	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18878				GEOROC			HAWAIIITE	ST. PAULS POINT, EASTERN TIP OF ISLAND	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18888				GEOROC			MUGEARITE, BQ	ARTEFACT SITE, TAUTAMA, ADJACENT TO SOUTH COAST	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 18888				GEOROC			MUGEARITE, BQ	ARTEFACT SITE, TAUTAMA, ADJACENT TO SOUTH COAST	PITCAIRN-GAMBIER	Pitcairn Is.																											
camp. 188A				GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook																66.20											
camp. 19	17871	BROUSSE R. (1978)		GEOROC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	59.30	25.58	7.38	0.03	0.30																						
camp. 19	17871	BROUSSE R. (1978)		GEOROC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	50.40	15.90	7.45	2.50		5.10	0.18																				
camp. 19	11182	DESOMIE D. L. (1)		GEOROC		BASALT, BASANITIC	BASALT, BASAN	VOLCANIC ROCK	AUSTRAL COOK ISLANDS / TUBUAI	TUBUAI	Austral Cook	41.42	16.55	10.96	3.58		5.78	0.23	2.97	1.05																	
camp. 19-1	11182	DESOMIE D. L. (1)		GEOROC			THIOLITE, OLIV	MARQUESAS / TAHUATA	TAHUATA	Marquesas	48.79	13.00	8.57	3.31		5.86	0.14																				
camp. 19-1	11182	DESOMIE D. L. (1)		GEOROC			THIOLITE, OLIV	MARQUESAS / TAHUATA	TAHUATA	Marquesas	48.25	12.02	10.56	2.93		10.06	0.20				198.00	19.00	436.00	198.00	32.00	29.00	0.01	1.10	0.45	0.16	3.60						
camp. 19-11	11182	DESOMIE D. L. (1)		GEOROC			BASALT, TRANSI	MARQUESAS / TAHUATA	TAHUATA	Marquesas	48.33	14.74	10.03	3.81		5.28	0.18																				
camp. 19-2	11182	DESOMIE D. L. (1)		GEOROC			THIOLITE, OLIV	MARQUESAS / TAHUATA	TAHUATA	Marquesas	48.34	11.81	10.53	2.91		9.93	0.16				199.00	19.00	435.00	199.00	35.00	29.00	0.01	1.21	0.46	0.18	3.62						
camp. 19-3	11182	DESOMIE D. L. (1)		GEOROC			BASALT, TRANSI	MARQUESAS / TAHUATA	TAHUATA	Marquesas	47.48	11.30	10.40	3.19		11.30	0.16				221.00	29.00	504.00	221.00	43.00	27.00	0.01	1.59	0.44	0.18	3.26						
camp. 19-7	11182	DESOMIE D. L. (1)		GEOROC			HAWAIIITE	MARQUESAS / TAHUATA	TAHUATA	Marquesas	46.86	17.45	8.57	3.20		3.35	0.13																				
camp. 19-8	11182	DESOMIE D. L. (1)		GEOROC			BASANITE	MARQUESAS / TAHUATA	TAHUATA	Marquesas	45.07	13.74	10.91	3.73		7.55	0.18				331.00	77.00	820.00	331.00	88.00	35.00	0.01	2.51	0.40	0.27	2.92						
camp. 190				GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook																											
camp. 192				GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook																											
camp. 193				GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook																											
camp. 1A				GEOROC			BASALT	BETWEEN MAHINA AND TAARPO	SOCIETY ISLANDS / Society Is.	Society Is.	44.46	11.77	13.36	3.55		9.73	0.17	1.56	0.77	113.00	11.00	680.00	282.00	36.00	28.00	0.01	1.29	0.41	0.13	3.76							
camp. 1A				GEOROC			BASALT	BETWEEN MAHINA AND TAARPO	SOCIETY ISLANDS / Society Is.	Society Is.																											
camp. 1B				GEOROC			BASALT	BETWEEN MAHINA AND TAARPO	SOCIETY ISLANDS / Society Is.	Society Is.																											
camp. 1F				GEOROC			BASALT	FAARIPOO BAY	SOCIETY ISLANDS / Society Is.	Society Is.																											
camp. 1K				GEOROC			PHONOLITE	NECK TAHIENA VAIRAO	SOCIETY ISLANDS / Society Is.	Society Is.																											
camp. 1M				GEOROC			PHONOLITE	FAHAMA	SOCIETY ISLANDS / Society Is.	Society Is.																											
camp. 1R				GEOROC			BASALT	PUPAU	SOCIETY ISLANDS / Society Is.	Society Is.																											
camp. 2				GEOROC			BASALT	PITCAIRN-GAMBIER	Gambier Is.	Gambier Is.																											
camp. 2				GEOROC			ANDESITE	PITCAIRN-GAMBIER	Pitcairn Is.	Pitcairn Is.	50.30	17.69	6.86	2.42		2.94	0.18	5.13	2.79																		
camp. 2				GEOROC			BASALT, THOLITE	PITCAIRN-GAMBIER	Gambier Is.	Gambier Is.																											
camp. 2				GEOROC			ANDESITE, BASAN	PITCAIRN-GAMBIER	Pitcairn Is.	Pitcairn Is.																											
camp. 2				GEOROC			BASALT	SOCIETY ISLANDS / Society Is.	Society Is.	Society Is.	43.64	14.43	12.14	4.57		6.09	0.29	3.08	1.85																		
camp. 2				GEOROC			ANAKARAMITE	SOCIETY ISLANDS / Society Is.	Society Is.	Society Is.																											
camp. 2	11483	LAUROIX A. (192)		GEOROC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	64.98	18.14	0.72	0.40		0.04	0.13																				
camp. 2	17851	BISHOP A. C. (197)		GEOROC			BASALT, ALKALIN	MARQUESAS / UIA POU	UIA POU	Marquesas	41.66	13.45	12.26	2.74		9.31	0.15				200.00	25.00	590.00	200.00				0.01	0.34	0.47							
camp. 2	1786	BROUSSE R. (1978)		GEOROC			HAWAIIITE	MARQUESAS / HIVA OA	HIVA OA	Marquesas	48.65	17.43	9.72	3.80		4.14	0.17																				
camp. 2	17871	BROUSSE R. (1978)		GEOROC			BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	50.87	14.05	20.87	3.48		8.11	0.78																				
camp. 2	17871	BROUSSE R. (1978)		GEOROC			BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	40.31	11.09	11.52	5.12		11.70	0.15																				
camp. 2	17871	BROUSSE R. (1978)		GEOROC			BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	0.64					43.49																					
camp. 2	17871	BROUSSE R. (1978)		GEOROC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	55.33	1.30	20.97	0.45		12.04	8.57	1.46																			
camp. 2	17871	BROUSSE R. (1978)		GEOROC			BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	31.93	12.04		7.46																							

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GEO Group	Place Collected	Society Islands / Pitcairn-Gambier	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	e-ZrO2 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/TiO2 /10000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2				
camp. 5B				GEORC			BASALT	ATIANGA BAY	SOCIETY ISLANDS / Pitcairn-Gambier						2.81																				
camp. 5C				GEORC			BASALT	PLAGIOCLASTIC	SOCIETY ISLANDS / Pitcairn-Gambier						2.32																				
camp. 5F				GEORC			BASALT	CAP TIANDERFO	SOCIETY ISLANDS / Society Is.						2.36																				
camp. 5P				GEORC			BASALT	COL DE PUETI	SOCIETY ISLANDS / Society Is.						2.30																				
camp. 5V	1163481	CHAUVEL, C. (2)		GEORC			TRACHYTE	MARQUESAS / HIVA OIA / TAHOA / SHIELD STAGE	MARQUESAS			45.00	14.64	10.18	5.18	13.42	5.40	0.16			320.00	51.00	660.00	320.00	44.00	39.00	0.01	1.13	0.48	0.14	1.97				
camp. 6				GEORC			BASALT		SOCIETY ISLANDS / Pitcairn-Gambier												0.53														
camp. 6				GEORC			BASANITE		SOCIETY ISLANDS / Society Is.						0.70		0.50	0.17				91.00	870.00										4.03		
camp. 6	1148311	ACROIX A. (19)		GEORC			TRACHYANDESIT	MARQUESAS / NUKU HIVA	NUKU HIVA			58.92	19.02	2.82	0.70																			4.03	
camp. 6	17871	BISHOP A. C. (19)		GEORC			BASALT	ALAKAIN	MARQUESAS / UIA POU			42.89	13.79	9.92	3.94						600.00	142.00	890.00	600.00	100.00	60.00	0.02	1.67	0.67	0.17	2.52				
camp. 6	17871	BOUSSER R. (19)		GEORC			BENMOREITE	MARQUESAS / NUKU HIVA	MARQUESAS			35.79	12.34	0.19	8.34	13.08	13.85	0.35															0.02		
camp. 6	17871	BOUSSER R. (19)		GEORC			BASALT	ALAKAIN	MARQUESAS / NUKU HIVA				0.13		49.65																		0.75		
camp. 6	17871	BOUSSER R. (19)		GEORC			HAWAITE	MARQUESAS / NUKU HIVA	NUKU HIVA			36.95	0.06	0.39	0.10	23.45																	3.90		
camp. 6	17871	BOUSSER R. (19)		GEORC			HAWAITE	MARQUESAS / NUKU HIVA	NUKU HIVA			48.80	3.95	21.61	2.43	7.21	13.29	0.20															8.89		
camp. 6	17871	BOUSSER R. (19)		GEORC			MUGGARITE	MARQUESAS / NUKU HIVA	MARQUESAS			43.02	9.56	11.05	4.44	12.97	10.37	0.42															2.49		
camp. 6	17871	BOUSSER R. (19)		GEORC			BASALT	ALAKAIN	MARQUESAS / NUKU HIVA			51.56	27.89	14.23	0.19	0.83																	74.89		
camp. 6	17871	BOUSSER R. (19)		GEORC			TRACHYANDESIT	MARQUESAS / NUKU HIVA	NUKU HIVA			59.92	19.02	2.82	0.70			0.50	0.17														4.03		
camp. 6				GEORC			GEORC	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / MANGAIA					11.32	2.14					16.42	0.19	2.15	0.52	98.00	11.00	360.00	142.00			0.01	0.39	5.20		
camp. 6				GEORC			GEORC	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI					11.96	2.71					11.96	0.15	4.54	1.73	129.00	57.00	1278.00	193.00			0.01	0.15	4.41		
camp. 60	1788	BOUSSER R. (19)		GEORC			BASALT	MARQUESAS / UIA POU	UIA POU			42.80	15.00	9.55	4.00																		2.39		
camp. 60A	1788	BOUSSER R. (19)		GEORC			HAWAITE	MARQUESAS / UIA POU	UIA POU			44.15	16.36	8.70	3.55																		2.48		
camp. 60P	1788	BOUSSER R. (19)		GEORC			BENMOREITE	MARQUESAS / UIA POU	UIA POU			52.31	19.57	3.75	0.80																		4.69		
camp. 61	1788	BOUSSER R. (19)		GEORC			BASALT	MARQUESAS / UIA POU	UIA POU			55.40	19.10	2.85	0.82																		3.48		
camp. 61A	17871	BOUSSER R. (19)		GEORC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA			62.20	17.32	1.45	0.64																		2.27		
camp. 61B	17871	BOUSSER R. (19)		GEORC			HAWAITE	MARQUESAS / NUKU HIVA	NUKU HIVA			46.22	17.71	9.56	4.00																		2.39		
camp. 61D	17871	BOUSSER R. (19)		GEORC			BENMOREITE	MARQUESAS / NUKU HIVA	NUKU HIVA			43.58	14.00	9.07	2.95																		3.07		
camp. 61G	17871	BOUSSER R. (19)		GEORC			BENMOREITE	MARQUESAS / NUKU HIVA	NUKU HIVA			56.05	17.52	3.24	1.70																		2.70		
camp. 61K	17871	BOUSSER R. (19)		GEORC			BASALT	MARQUESAS / NUKU HIVA	NUKU HIVA			43.53	12.56	7.73	3.25																		2.39		
camp. 61X	17871	BOUSSER R. (19)		GEORC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA			61.75	17.82	1.79	0.60																		2.98		
camp. 62	1788	BOUSSER R. (19)		GEORC			BASALT	MARQUESAS / UIA POU	UIA POU			56.30	19.70	2.15	0.52																		4.13		
camp. 62A				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.			46.37	11.96	10.81	2.69																		4.02		
camp. 62AB				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62AC1				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.			45.00	14.03	11.32	3.35	12.95	7.86	0.19															3.38		
camp. 62AF1				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62AF2				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62AK2				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62AL				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.			46.40	14.29	11.57	3.15	12.38	5.81	0.18																3.67	
camp. 62AM				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.			48.05	14.09	10.72	3.73	12.30	4.62	0.19																2.87	
camp. 62AN				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.			46.49	14.31	11.99	3.28	13.25	6.36	0.18																3.66	
camp. 62AO				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62AJ2				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62B				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62BF1				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62BL1				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62BRD				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62BU				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62BW				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.			44.12	6.62	9.92	1.95	13.41	21.19	0.18																5.09	
camp. 62BY				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62BB8				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62B22				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.			47.00	17.50	7.71	2.46	8.78	2.34	0.25																3.13	
camp. 62C				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										
camp. 62CA2				GEORC			BASALT	ALAKAIN	SOCIETY ISLANDS / Society Is.																										

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	QfO Group	Place Collected	Mineral	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	+ZrO2 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/TiO2 /10000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2		
samp. 6988			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / MAROTIRI	MAROTIRI	Austral Cook																						
samp. 6991			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / MAROTIRI	MAROTIRI	Austral Cook																						
samp. 6996			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / MAROTIRI	MAROTIRI	Austral Cook																						
samp. 69E	1788 BROUSSE R. 1978		GEOROC	GEOROC			BENMOREITE	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas	58.76	17.46	2.71	1.18		1.48	0.34													2.30		
samp. 69K	1788 BROUSSE R. 1978		GEOROC	GEOROC			BASALT	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas	44.60	13.63	8.52	3.92		10.57	0.20													2.17		
samp. 69Z	1788 BROUSSE R. 1978		GEOROC	GEOROC			PICRITE	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas	46.36	15.25	11.29	2.57		7.63	0.38														3.80	
samp. 6R			GEOROC	GEOROC			BASALT	TEKEO	PITCAIRN-GAMBIER	Gambier Is.				2.38																		
samp. 7			GEOROC	GEOROC			BASALT		PITCAIRN-GAMBIER	Gambier Is.																						
samp. 7			GEOROC	GEOROC			HYDULITE		PITCAIRN-GAMBIER	Pitcairn Is.	69.40	15.29	1.86	0.32		0.11	0.07	5.30	3.91												5.81	
samp. 7			GEOROC	GEOROC			BASANITE		SOCIETY ISLANDS /	Society Is.																						
samp. 7	114831 LACROIX A. 192		GEOROC	GEOROC			ANDESITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	56.76	18.83	4.28	1.22		1.65	0.25														3.51	
samp. 7	1787 BROUSSE R. 1978		GEOROC	GEOROC			HAWAIIITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	51.26	3.81	23.12	2.04	7.08	13.77	0.24														11.33	
samp. 7	1787 BROUSSE R. 1978		GEOROC	GEOROC			HAWAIIITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas				2.26		25.67																
samp. 7	1787 BROUSSE R. 1978		GEOROC	GEOROC			BENMOREITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	37.99	11.75	11.69	5.18	16.13	9.86	0.56														2.26	
samp. 7	1787 BROUSSE R. 1978		GEOROC	GEOROC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	36.60	14.06	0.01	6.41	17.50	11.38	0.46														0.00	
samp. 7	1787 BROUSSE R. 1978		GEOROC	GEOROC			HAWAIIITE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	49.79	28.08	15.15	0.06	0.46																189.38	
samp. 7	1787 BROUSSE R. 1978		GEOROC	GEOROC			ANDESITE AND	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	56.76	18.83	4.28	1.22		1.65	0.25														3.51	
samp. 7			GEOROC	GEOROC	BASANITOID	BASANITOID	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.13	13.25	12.64	2.87		6.96	0.19	3.23	0.85	121.00	20.00	510.00	176.00			0.01		0.35			4.40	
samp. 7			GEOROC	GEOROC	NEPHELINE, OLIVINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / TUTUHIKI	TUTUHIKI	Austral Cook	48.28	11.24	10.17	2.56		12.76	0.17	4.46	1.95	115.00	51.00	1113.00	215.00			0.01		0.19			3.97	
samp. 70			GEOROC	GEOROC			TAHITIITE	VAITEPIHA RIVER	SOCIETY ISLANDS /	Society Is.	48.89	16.92	3.85	2.46		3.30	0.13	4.76	4.28													2.38
samp. 70A	1788 BROUSSE R. 1978		GEOROC	GEOROC			PICRITE	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas	43.52	11.79	8.35	2.71		13.76	0.19														3.08	
samp. 70B	1788 BROUSSE R. 1978		GEOROC	GEOROC			PICRITE	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas	44.35	14.79	10.30	4.00		7.58	0.20														2.58	
samp. 70C	1788 BROUSSE R. 1978		GEOROC	GEOROC			PICRITE	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas	44.60	11.40	11.00	2.71		12.28	0.18														4.06	
samp. 70E	1788 BROUSSE R. 1978		GEOROC	GEOROC			BASALT	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas	45.94	12.91	10.63	2.93		9.93	0.17														3.64	
samp. 70F	1788 BROUSSE R. 1978		GEOROC	GEOROC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	63.45	18.39	1.46	0.41		0.56	0.07														3.56	
samp. 70K	116241 L DEZA. (1996)		GEOROC	GEOROC			BASALT, TRANS	MARQUESAS / NUKU HIVA / TAQOHAE / INNER VOLCANO	NUKU HIVA	Marquesas	63.80	18.00	1.53	0.66	3.08	0.47	0.06			370.00	153.00	360.00	370.00	84.00	28.00	0.06	3.00	1.03	0.23		2.32	
samp. 70L	1787 BROUSSE R. 1978		GEOROC	GEOROC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	62.90	17.50	1.80	0.63		0.72	0.09														2.86	
samp. 70Z	1787 BROUSSE R. 1978		GEOROC	GEOROC			TRACHYTE	MARQUESAS / NUKU HIVA	NUKU HIVA	Marquesas	59.48	18.20	1.80	0.66		1.21	0.33														2.73	
samp. 71			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	BASANITE	NORTH EAST COAST OF TAHITI-NUJI	SOCIETY ISLANDS /	Society Is.	44.35	15.62	9.73	4.01		1.62	0.10	3.92	1.08												2.43	
samp. 7258			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook																						
samp. 7263			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook																						
samp. 7266			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook																						
samp. 7268			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RANAVAE	RANAVAE	Austral Cook																						
samp. 7275			GEOROC	GEOROC	THOLEIITE	THOLEIITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RANAVAE	RANAVAE	Austral Cook																						
samp. 7277			GEOROC	GEOROC	THOLEIITE	THOLEIITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RANAVAE	RANAVAE	Austral Cook																						
samp. 7282			GEOROC	GEOROC	THOLEIITE	THOLEIITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / TUBUAI	TUBUAI	Austral Cook																						
samp. 7285			GEOROC	GEOROC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / TUBUAI	TUBUAI	Austral Cook																						
samp. 7288			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / TUBUAI	TUBUAI	Austral Cook																						
samp. 7291			GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / TUBUAI	TUBUAI	Austral Cook																						
samp. 7294			GEOROC	GEOROC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / TUBUAI	TUBUAI	Austral Cook																						
samp. 73-11	11309 DUNCAN R. A. (1)		GEOROC	GEOROC			BASALT	MARQUESAS / NUKU HIVA / SHIELD STAGE	NUKU HIVA	Marquesas																						
samp. 73-11	15541 DUNCAN R. A. (18)		GEOROC	GEOROC			BASALT	MARQUESAS / NUKU HIVA / SHIELD STAGE	NUKU HIVA	Marquesas																						
samp. 73-11	17721 WOODHEAD J. D.		GEOROC	GEOROC			THOLEIITE	MARQUESAS / NUKU HIVA / SHIELD STAGE	NUKU HIVA	Marquesas										214.00	14.00	381.00										
samp. 73-111	6883-73-111		GEOROC	GEOROC			BASALT		SOCIETY ISLANDS /	Society Is.																						
samp. 73-111	6883-73-111		GEOROC	GEOROC			BASALT		SOCIETY ISLANDS /	Society Is.																						
samp. 73-117			GEOROC	GEOROC			BASALT		SOCIETY ISLANDS /	Society Is.																						
samp. 73-12	11309 DUNCAN R. A. (1)		GEOROC	GEOROC			BASALT	MARQUESAS / NUKU HIVA / SHIELD STAGE	NUKU HIVA	Marquesas																						
samp. 73-12	11309 DUNCAN R. A. (1)		GEOROC	GEOROC			BASALT	MARQUESAS / NUKU HIVA / SHIELD STAGE	NUKU HIVA	Marquesas																						
samp. 73-12	17721 WOODHEAD J. D.		GEOROC	GEOROC			THOLEIITE	MARQUESAS / NUKU HIVA / SHIELD STAGE	NUKU HIVA	Marquesas										255.00	27.00	442.00	255.00	27.00	33.00			0.82	0.58	0.11		
samp. 73-123			GEOROC	GEOROC			BASALT		SOCIETY ISLANDS /	Society Is.																						
samp. 73-124	6882-73-124		GEOROC	GEOROC			BASALT																									

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Q10 Group	Place Collected	Island Group	Austrl Cook	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	Fe2O3 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2						
camp. AT53C	6419-AT53C	GEORC	GEORC	GEORC	PICRITE	PICRITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook	43.60	10.80	10.61	2.31	12.64	15.78	0.18	1.90	0.71																	
camp. AT50C UNLEACHED	6419-AT50C	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT50C UNLEACHED	6419-AT50C	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT50C UNLEACHED	6419-AT50C	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT50E	6419-AT50E	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT50E	6419-AT50E	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT548	6420-AT548	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook	43.60	14.90	11.57	3.21	12.02	4.90	0.20	2.70	1.01																	
camp. AT54D	6420-AT54D	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook	41.70	15.40	10.49	3.47	12.66	4.80	0.21	3.50	1.70																	
camp. AT54D	6420-AT54D	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT54D	6420-AT54D	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT81A	1568-AT81A	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT81B	1568-AT81B	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT82A	1568-AT82A	GEORC	GEORC	GEORC	BASALT, ALKALINE, OLIVINE	BASALT, ALKAL	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT83A UNLEACHED	1568-AT83A UNLEACHED	GEORC	GEORC	GEORC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT83A UNLEACHED	1568-AT83A UNLEACHED	GEORC	GEORC	GEORC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT85	1568-AT85	GEORC	GEORC	GEORC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT87A UNLEACHED	1568-AT87A UNLEACHED	GEORC	GEORC	GEORC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT87A UNLEACHED	1568-AT87A UNLEACHED	GEORC	GEORC	GEORC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT87B	1568-AT87B	GEORC	GEORC	GEORC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATU	ATU	Austral Cook																										
camp. AT102	1444-AT102	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	39.24	10.46	13.32	2.63		11.15	0.19	4.12	1.92																	
camp. AT103	1444-AT103	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	40.58	11.36	12.12	2.64		10.44	0.19	4.05	1.85																	
camp. AT106	1444-AT106	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	39.81	11.00	12.48	2.58		10.77	0.20	4.57	2.07																	
camp. AT106	1444-AT106	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	39.05	11.07	11.86	2.58		11.60	0.19	4.70	1.15																	
camp. AT108	1444-AT108	GEORC	GEORC	GEORC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	45.37	16.00	9.20	3.25		4.48	0.20	3.88	1.43																	
camp. AT119	1444-AT119	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	39.63	11.25	12.48	2.50		11.60	0.19	3.92	1.80																	
camp. AT121	1444-AT121	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	40.12	11.20	11.87	2.50		11.63	0.19	4.87	2.32																	
camp. AT122	1444-AT122	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	39.24	11.11	12.40	2.54		12.05	0.19	4.70	2.10																	
camp. AT123	1444-AT123	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	40.42	11.07	11.86	2.53		11.60	0.19	4.20	1.90																	
camp. AT125	1444-AT125	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	39.25	11.00	12.44	2.49		12.16	0.20	4.13	1.72																	
camp. AT126	1444-AT126	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	41.22	11.60	12.00	2.56		11.80	0.20	3.70	1.13																	
camp. AT127	1444-AT127	GEORC	GEORC	GEORC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	41.80	11.30	11.90	2.29		12.16	0.19	3.30	1.38																	
camp. AT131	1444-AT131	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	41.03	11.41	11.56	2.30		11.12	0.19	4.20	1.52																	
camp. AT132	1444-AT132	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	41.52	11.38	11.80	2.23		11.45	0.19	3.92	1.34																	
camp. AT136	1444-AT136	GEORC	GEORC	GEORC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	41.33	11.17	11.83	2.20		11.66	0.19	3.34	1.29																	
camp. AT138	1444-AT138	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	40.64	11.33	12.10	2.21		12.18	0.19	3.37	1.33																	
camp. AT139	1444-AT139	GEORC	GEORC	GEORC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	45.62	11.27	9.85	2.00		12.86	0.16	2.16	1.06																	
camp. AT144	1444-AT144	GEORC	GEORC	GEORC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	45.13	11.50	10.05	2.15		12.26	0.16	3.21	1.70																	
camp. AT145	1444-AT145	GEORC	GEORC	GEORC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	44.94	11.35	10.20	2.13		11.95	0.16	4.00	1.11																	
camp. AT146	1444-AT146	GEORC	GEORC	GEORC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	45.32	11.46	9.94	2.13		11.55	0.16	3.87	0.94																	
camp. AT148	1444-AT148	GEORC	GEORC	GEORC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	44.93	11.71	10.00	2.14		11.58	0.16	3.13	0.60																	
camp. AT149	1444-AT149	GEORC	GEORC	GEORC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	44.93	11.57	10.00	2.06		11.93	0.16	3.90	0.87																	
camp. AT149X	1444-AT149X	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	39.50	11.07	12.56	2.35		10.90	0.21	4.45	1.45																	
camp. AT152	1444-AT152	GEORC	GEORC	GEORC	NEPHELINE	NEPHELINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / ATUTAKI	ATUTAKI	Austral Cook	41.22	11.45	11.75	2.19		11.31	0.20	3.75	1.50																	
camp. AT154	1444-AT154	GEORC	GEORC	GEORC	NEPHE																															

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	K2O wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/TiO2 /10000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2					
camp. BIG-06	1770 BARSCZUS H. G. I			GEORC			BASALT	ALAKALIN MARQUESAS / BANC JEAN GOGUEL	BANC JEAN GOGUEL	Marquesas	41.89	11.37	11.00	2.73	13.56	13.90	0.17															4.03			
camp. BIG-06	1775 DULUY C. (1987)			GEORC			BASALT	ALAKALIN MARQUESAS / BANC JEAN GOGUEL	BANC JEAN GOGUEL	Marquesas																									
camp. BIG-08	11184 BROUSSE R. (194)			GEORC			BASALT	MARQUESAS / BANC JEAN GOGUEL	BANC JEAN GOGUEL	Marquesas																									
camp. BIG-08	11520 VIDAL P. (1987)			GEORC			BASALT	ALAKALIN MARQUESAS / BANC JEAN GOGUEL	BANC JEAN GOGUEL	Marquesas																									
camp. BIG-08	1770 BARSCZUS H. G. I			GEORC			BASALT	ALAKALIN MARQUESAS / BANC JEAN GOGUEL	BANC JEAN GOGUEL	Marquesas	40.41	11.60	11.75	2.97	13.53	13.50	0.20																	3.86	
camp. BIG-11	1770 BARSCZUS H. G. I			GEORC			BASALT	ALAKALIN MARQUESAS / BANC JEAN GOGUEL	BANC JEAN GOGUEL	Marquesas	42.15	14.27	12.12	3.38	13.00	6.61	0.16																	3.59	
camp. BIG-12	1770 BARSCZUS H. G. I			GEORC			BASALT	ALAKALIN MARQUESAS / BANC JEAN GOGUEL	BANC JEAN GOGUEL	Marquesas	41.60	14.00	13.15	3.18	13.70	6.73	0.17																	4.14	
camp. BIG-85				GEORC			BASALT	VALLEE DU PUNARUAU, WEST COAST OF TAHITI-NUI	SOCIETY ISLANDS / Society Is.																										
camp. BKV-185				GEORC			BASALT	VALLEE DU PUNARUAU, WEST COAST OF TAHITI-NUI	SOCIETY ISLANDS / Society Is.																										
camp. BO-120277				GEORC			THOLEIITE, QUARTZ		SOCIETY ISLANDS / Society Is.		49.52	13.92	11.04	3.63		4.66	0.27	3.01	1.45															3.04	
camp. BK6-R08A				GEORC			BASALT		SOCIETY ISLANDS / Society Is.		43.65	14.14	10.88	3.26	12.45	6.82	0.16	2.72	1.51															3.34	
camp. BR-24	37836-BR-24			GEORC			BASALT		SOCIETY ISLANDS / Society Is.		46.20	13.60	9.40	2.96	12.50	9.60	0.16	3.06	0.76															3.18	
camp. BR-27				GEORC			HAWAIIITE		SOCIETY ISLANDS / Society Is.		47.70	15.20	9.40	3.34	13.58	5.96	0.16	3.20	1.90															2.75	
camp. BR-34	37836-BR-34			GEORC			BASALT		SOCIETY ISLANDS / Society Is.		45.80	11.65	8.80	2.53	12.78	12.70	0.17	2.11	0.93															3.48	
camp. BR-40				GEORC			BASALT		SOCIETY ISLANDS / Society Is.		46.00	14.65	11.22	3.85	13.05	5.72	0.18	2.98	1.38															2.91	
camp. BR-43	37836-BR-43			GEORC			BASALT		SOCIETY ISLANDS / Society Is.		46.80	13.10	11.10	3.21	12.70	7.95	0.17	2.25	0.98															3.46	
camp. BR-64	37836-BR-64			GEORC			BASALT		SOCIETY ISLANDS / Society Is.		47.50	14.60	10.15	3.30	12.45	5.86	0.18	2.84	1.56															3.08	
camp. BR-64				GEORC			TRACHYPHONOIT		SOCIETY ISLANDS / Society Is.		60.60	18.60	1.30	0.61																				1.97	
camp. D116.0	17891 CAROFF M. (199)			GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	46.60	14.61	10.24	3.98	13.12	5.48	0.17																	2.57	
camp. D122.2				GEORC			BASALT	ALAKALIN MARQUESAS / EIAO	EIAO	Marquesas																									
camp. D122.2	17891 CAROFF M. (199)			GEORC			BASALT	ALAKALIN MARQUESAS / EIAO	EIAO	Marquesas	45.60	14.47	9.93	4.22	13.26	5.13	0.15																	2.35	
camp. D130.4				GEORC			BASALT	ALAKALIN MARQUESAS / EIAO	EIAO	Marquesas	50.21	3.28	20.43	2.18	8.91	15.01	0.06																	9.37	
camp. D130.4	17891 CAROFF M. (199)			GEORC			BASALT	ALAKALIN MARQUESAS / EIAO	EIAO	Marquesas	49.97	4.24	21.41	1.43	5.34	15.68	0.08																	14.97	
camp. D130.4	17891 CAROFF M. (199)			GEORC			BASALT	ALAKALIN MARQUESAS / EIAO	EIAO	Marquesas	44.90	13.20	10.80	3.76	13.21	6.45	0.16																	2.87	
camp. D135.5				GEORC			BASALT	ALAKALIN MARQUESAS / EIAO	EIAO	Marquesas																									
camp. D135.7	17891 CAROFF M. (199)			GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	46.10	14.19	10.70	3.55	12.84	6.26	0.16																		3.01
camp. D193.7	17891 CAROFF M. (199)			GEORC			PICRITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	50.83	3.80	21.50	1.13	5.37	16.15	0.20																	19.03	
camp. D193.7	17891 CAROFF M. (199)			GEORC			PICRITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	44.00	8.45	7.76	1.97	13.24	21.65	0.17																		3.94
camp. D2				GEORC			BASALT	VOLCANIC ROCKS AUSTRAL COOK ISLANDS / KAROTONGA	KAROTONGA	Austral Cook																									
camp. D214.0	17891 CAROFF M. (199)			GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	50.34	2.16	18.63	1.57	10.64	14.87	0.16																		11.87
camp. D214.0	17891 CAROFF M. (199)			GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	50.83	3.27	20.83	1.17	6.43	16.11	0.08																		17.80
camp. D214.0	17891 CAROFF M. (199)			GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	46.30	14.02	10.89	4.09	13.69	5.81	0.17																		2.66
camp. D232.5				GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	46.40	13.87	10.88	3.90	13.10	6.37	0.13																		2.74
camp. D237.4				GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	46.40	14.80	10.88	3.98	12.72	5.21	0.16																		2.73
camp. D25.7				GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	45.50	14.52	10.50	4.01	13.83	5.44	0.17																		2.62
camp. D262.2				GEORC			PICRITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	46.30	14.10	12.36	2.81	9.89	7.95	0.12																		4.40
camp. D266.5				GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	45.40	15.71	11.74	3.17	14.23	5.13	0.19																		2.59
camp. D341.3				GEORC			THOLEIITE, OLIVINE	MARQUESAS / EIAO	EIAO	Marquesas	46.20	13.40	9.60	4.77	14.49	5.36	0.17																		2.01
camp. D369.0				GEORC			BASALT	ALAKALIN MARQUESAS / EIAO	EIAO	Marquesas	45.20	13.75	10.01	4.81	14.20	5.24	0.17																		2.08
camp. D385.5				GEORC			BASALT	ALAKALIN MARQUESAS / EIAO	EIAO	Marquesas	45.30	13.81	9.50	4.79	14.00	4.84	0.17																		1.98
camp. D405.3				GEORC			BASALT	ALAKALIN MARQUESAS / EIAO	EIAO	Marquesas																									
camp. D433.5				GEORC			HAWAIIITE	MARQUESAS / EIAO	EIAO	Marquesas	47.50	14.61	9.19	3.81	12.77	3.60	0.21																		2.41
camp. D452.5				GEORC			MUGEARITE	MARQUESAS / EIAO	EIAO	Marquesas	48.50	15.50	7.46	3.32	10.27	3.20	0.16																		2.25
camp. D453.3				GEORC			MUGEARITE	MARQUESAS / EIAO	EIAO	Marquesas	49.55	10.71	20.36	1.69	8.80	14.04	0.32																		13.05
camp. D453.3				GEORC			MUGEARITE	MARQUESAS / EIAO	EIAO	Marquesas	49.63	2.19	19.29	1.75	10.93	13.55	0.35																		11.02
camp. D453.3				GEORC			MUGEARITE	MARQUESAS / EIAO	EIAO	Marquesas	51.90	16.82	5.97	2.92	8.05	1.55	0.20																		4.04
camp. D456.3				GEORC			HAWAIIITE	MARQUESAS / EIAO	EIAO	Marquesas																									

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	ZrO2 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/TiO2 /10000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2			
camp. FH08	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / OMOA / POST-SHIELD STAGE	FATU HIVA	Marquesas	48.40	12.20	11.10	3.44	12.60	9.50	0.17			261.00	15.50	478.00	261.00	41.00	29.90	0.01	1.37	0.55	0.16	3.23			
camp. FH11	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / OMOA / POST-SHIELD STAGE	FATU HIVA	Marquesas	47.50	14.00	11.50	3.84	11.50	6.80	0.16			318.00	30.60	738.00	318.00	52.00	33.80	0.01	1.54	0.43	0.16	2.99			
camp. FH11	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / OMOA / POST-SHIELD STAGE	FATU HIVA	Marquesas										304.00	30.90	748.00	304.00	26.30	35.60		0.74	0.41	0.09				
camp. FH12	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / OMOA / POST-SHIELD STAGE	FATU HIVA	Marquesas																							
camp. FH12	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / OMOA / POST-SHIELD STAGE	FATU HIVA	Marquesas	63.10	17.20	2.50	1.01	4.22	0.76	0.09			918.00	112.00	568.00	918.00	114.00	49.80	0.09	2.29	1.62	0.12	2.48			
camp. FH13	16348 CHAUVÉL C. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / SHIELD STAGE	FATU HIVA	Marquesas										264.00	26.10	583.00	264.00	38.90	29.40	0.01	1.32	0.45	0.15	3.30			
camp. FH13	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / SHIELD STAGE	FATU HIVA	Marquesas	47.70	13.10	11.10	3.36	11.70	7.80	0.17																
camp. FH13	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / SHIELD STAGE	FATU HIVA	Marquesas										286.00	26.60	581.00	286.00	34.90	31.70		1.10	0.49	0.12				
camp. FH16	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / POST-SHIELD STAGE	FATU HIVA	Marquesas										355.00	108.00	740.00	355.00	80.00	18.00	0.04	4.44	0.48	0.23	3.42			
camp. FH17	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / POST-SHIELD STAGE	FATU HIVA	Marquesas	61.50	18.20	2.70	0.79	3.81	0.80	0.16			401.00	29.10	661.00	401.00	59.20	46.20	0.01	1.28	0.61	0.15	2.06			
camp. FH17	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / SHIELD STAGE	FATU HIVA	Marquesas	47.40	14.50	9.20	4.46	13.10	5.20	0.17																
camp. FH17	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / SHIELD STAGE	FATU HIVA	Marquesas										381.00	30.60	691.00	381.00	55.30	49.40		1.12	0.55	0.15				
camp. FH18	16348 CHAUVÉL C. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / SHIELD STAGE	FATU HIVA	Marquesas										282.00	25.00	605.00	282.00	45.10	26.00	0.01	1.73	0.47	0.16	2.87			
camp. FH18	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / SHIELD STAGE	FATU HIVA	Marquesas	45.50	11.60	10.00	3.48	13.00	12.20	0.17			259.00	24.60	587.00	259.00	41.30	27.70		1.49	0.44	0.16				
camp. FH18	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / TOUANOHO / SHIELD STAGE	FATU HIVA	Marquesas										326.00	30.40	685.00	326.00	50.00	31.60	0.01	1.58	0.48	0.15	2.57			
camp. FH30	18469 GUILLOU H. 02			GEOROC			HIVA	MARQUESAS / FATU HIVA / OMOA / POST-SHIELD STAGE	FATU HIVA	Marquesas	46.90	12.10	9.60	3.07	12.10	10.60	0.14			243.00	12.00	432.00	243.00	34.00	27.00	0.01	1.26	0.56	0.14	3.13			
camp. FT01-23	11182 DESONNE D. L. 11			GEOROC			BASALT	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas																							
camp. FT01-39	11182 DESONNE D. L. 11			GEOROC			BASALT	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas																							
camp. FT01-42	11182 DESONNE D. L. 11			GEOROC			BASALT	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas																							
camp. FT01-61	11182 DESONNE D. L. 11			GEOROC			BASALT	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas																							
camp. FT01-65	11182 DESONNE D. L. 11			GEOROC			BASALT	MARQUESAS / FATU HIVA	FATU HIVA	Marquesas																							
camp. FTK-01	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	46.75	9.32	9.23	2.75	13.13	15.00	0.18				30.00	402.00											
camp. FTK-02	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	47.33	9.39	9.17	2.73	13.33	15.28	0.18				30.00	393.00											
camp. FTK-03	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	46.35	9.36	9.06	2.72	13.38	15.24	0.18				30.00	391.00											
camp. FTK-04	11184 BROUSSER R. 198			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas											416.00												
camp. FTK-04	15220 VIDAL P. (1987)			GEOROC			BASALT, TRANS	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	46.55	9.59	9.16	2.71	13.34	14.70	0.18			26.00	300.00												
camp. FTK-04	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas											416.00												
camp. FTK-05	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	46.75	13.36	10.42	3.41	13.16	7.07	0.18			28.00	794.00												
camp. FTK-06	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	48.54	14.30	9.70	3.50	13.93	5.16	0.17			36.00	568.00												
camp. FTK-07	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	47.75	12.01	9.00	2.98	12.12	9.38	0.17			24.00	506.00												
camp. FTK-09	11184 BROUSSER R. 198			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas											416.00												
camp. FTK-09	15220 VIDAL P. (1987)			GEOROC			BASALT, TRANS	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	47.95	12.93	8.79	3.17	11.88	6.77	0.16			41.00	577.00												
camp. FTK-09	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas											577.00												
camp. FTK-09	7776 DUPUY C. (1987)			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas											577.00												
camp. FTK-10	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	47.75	12.29	8.99	3.07	11.94	8.07	0.17			41.00	500.00												
camp. FTK-12	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	45.76	9.77	8.34	3.15	12.86	15.69	0.17			13.00	355.00												
camp. FTK-13	11184 BROUSSER R. 198			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas											416.00												
camp. FTK-13	11191 DUPUY C. (1989)			GEOROC			BASALT, AKAAL	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	46.16	13.42	10.75	3.57	7.75	0.18			247.00	26.00	794.00	247.00	29.00	33.00	0.01	0.88	0.31	0.12	3.01				
camp. FTK-13	15220 VIDAL P. (1987)			GEOROC			BASALT, TRANS	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	45.16	13.42	10.75	3.57	13.06	7.75	0.18			26.00	794.00												
camp. FTK-13	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas											794.00												
camp. FTK-13	7776 DUPUY C. (1987)			GEOROC			BASALT, TRANS	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	46.16	9.15	7.45	2.75	12.63	15.23	0.17			18.00	348.00												
camp. FTK-19	7731 LIOTARD J.-M. 14			GEOROC			BASALT	MARQUESAS / FATU HUKU	FATU HUKU	Marquesas	54.57	20.80	3.19	0.85	4.60	0.84	0.15			207.00	1417.00												
camp. G-M-39				GEOROC			BASALT, THOLEI	MARQUESAS / FATU HUKU	PITCAIRN-GAMBIER	Gambier Is.	48.80	15.48	12.45	2.14	10.92	6.79	0.15	2.25	0.55	10.00	378.00	145.00	22.00	22.80	0.01	1.00	0.88	0.15	5.82				
camp. G-M-45	7321-645			GEOROC			BASALT, THOLEI	MARQUESAS / FATU HUKU	PITCAIRN-GAMBIER	Gambier Is.	39.85	14.73	10.67	2.78	13.80	5.85	0.17	2.48	0.58	5.50	389.00	177.00	30.50	47.80	0.01	0.95	0.44	0.17	3.84				
camp. G-M-33				GEOROC			BASALT, THOLEI	MARQUESAS / FATU HUKU	PITCAIRN-GAMBIER	Gambier Is.	48.60	15.30	11.00	2.54	11.53	7.49	0.15	2.38	0.53	9.40	417.00												

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GBD Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	e-TOX1 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/100							
camp. M-307				GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.98	11.57	3.31	2.93	12.44	12.74	0.17	2.23	0.16	16.00	456.0	190.0	60.0	19.0	0.01	2.11	0.11	0.81	0.21	4.68							
camp. M-C31				GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	42.75	10.82	12.16	2.67	13.16	13.57	0.17	2.18	0.72	13.00	409.0	159.0	32.0	18.0	0.01	1.78	0.39	0.20	4.55								
camp. M-C32				GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.28	11.69	13.33	2.98	13.42	9.91	0.18	2.60	0.83	16.00	471.0	196.0	43.0	22.0	0.01	1.95	0.42	0.22	4.47								
camp. M13ACIDWASHED				GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.32	8.12	12.90	1.94	14.42	15.74	0.22	1.53	4.49	116.00	17.40	487.0	170.0	43.0	24.0	0.01	1.76	0.35	0.25	6.65							
camp. M13ACIDWASHED	3900-MG-1			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.85	10.39	12.83	2.70	14.60	12.86	0.19	1.85	0.37	118.00	9.80	449.0	206.0	50.0	28.0	0.01	1.78	0.44	0.24	6.75							
camp. M12ACIDWASHED	3900-MG-2			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	44.01	8.86	13.49	4.29	13.77	14.18	0.21	1.58	0.53	102.00	16.30	404.0	156.0	39.0	25.0	0.01	0.53	0.39	0.25	6.36							
camp. M13ACIDWASHED	3900-MG-12			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.82	10.50	13.35	2.50	14.21	12.28	0.20	2.23	0.62	109.00	15.00	441.0	182.0	48.0	25.0	0.01	1.88	0.41	0.27	5.34							
camp. M13ACIDWASHED	3900-MG-4			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	48.65	17.74	8.79	1.93	13.05	3.12	0.28	2.86	3.60	1.91	151.00	38.70	952.0	427.0	131.0	41.60	0.01	3.15	0.47	0.29	4.55						
camp. M15ACIDWASHED	3900-MG-5			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	44.51	15.07	11.63	3.80	14.84	5.80	0.30	3.39	0.84	137.00	17.60	574.0	236.0	60.0	34.40	0.01	1.76	0.41	0.26	3.55							
camp. M16ACIDWASHED	3900-MG-16			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	44.08	14.51	12.19	3.29	14.36	6.06	0.20	3.71	1.07	125.00	23.20	642.0	259.0	71.0	34.50	0.01	2.08	0.40	0.28	3.71							
camp. M17ACIDWASHED	3900-MG-17			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	46.68	16.09	11.43	3.48	12.38	3.66	0.15	1.49	1.54	147.00	26.40	700.0	271.0	84.50	42.40	0.01	1.99	0.39	0.31	3.28							
camp. M12ACIDWASHED	3900-MG-1			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.13	14.41	11.30	3.53	16.03	6.06	0.20	3.32	0.64	126.00	16.70	617.0	228.0	55.20	31.70	0.01	1.74	0.37	0.24	2.26							
camp. M2	1449[KATOH.H.1988]			GEOROC	GEOROC	BASALT	BASALT	MARQUESAS / HIVA OVA	HIVA OVA	Marquesas																											
camp. M2ACIDWASHED	3900-MG-2			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	45.06	12.74	11.41	2.81	13.77	9.49	0.20	3.25	0.85	109.00	19.20	497.0	234.0	60.0	29.0	0.01	2.03	0.47	0.26	4.06							
camp. M3ACIDWASHED	3900-MG-3			GEOROC	GEOROC	DOLERITE	DOLERITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	44.16	13.57	12.29	2.93	14.09	7.73	0.19	3.54	0.62	110.00	18.10	500.0	193.0	49.0	29.10	0.01	1.71	0.39	0.26	4.37							
camp. M4ACID WASHED	3900-M4			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.64	9.62	14.42	2.35	12.73	13.47	0.21	2.05	0.55	98.00	13.50	420.0	159.0	38.0	23.00	0.01	1.66	0.37	0.24	6.14							
camp. M5ACIDWASHED	3900-MG-5			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	44.55	14.04	12.30	3.20	14.87	6.48	0.21	3.00	0.91	122.00	21.80	553.0	247.0	60.0	33.60	0.01	1.79	0.45	0.24	3.84							
camp. M6ACIDWASHED	3900-MG-6			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.58	15.54	10.31	3.62	15.04	6.00	0.21	3.93	0.07	129.00	21.80	677.0	234.0	70.0	36.30	0.01	1.94	0.35	0.30	2.90							
camp. M7ACIDWASHED	3900-MG-7			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	44.61	13.73	12.29	3.53	14.90	6.18	0.20	3.26	0.46	126.00	17.50	585.0	212.0	56.50	33.50	0.01	1.69	0.36	0.27	3.48							
camp. M8ACIDWASHED	3900-MG-8			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	42.29	14.15	11.99	3.65	15.98	7.38	0.20	3.16	0.82	125.00	18.20	541.0	206.0	57.00	32.00	0.01	1.79	0.38	0.28	2.28							
camp. M9ACIDWASHED	3900-MG-9			GEOROC	GEOROC	DOLERITE	DOLERITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	44.02	13.50	12.41	3.45	14.67	7.12	0.20	3.07	1.01	128.00	27.30	628.0	301.0	72.40	36.20	0.01	2.00	0.48	0.24	3.60							
camp. MAG-B-21				GEOROC	GEOROC	BASALT, ALKALINE, OLIVINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAG-B-21	1404-MAG-B-21			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAG-B-25	106051-MAG-B-25			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAG-B-26				GEOROC	GEOROC	BASALT, ALKALINE, OLIVINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAG-B-26	1404-MAG-B-26			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAG-B-26	1404-MAG-B-26			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAG-B-27	106051-MAG-B-27			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAG-B-27	106051-MAG-B-27			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAG-A101				GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	44.50	7.99	10.65	1.74	20.67	0.19	1.68	0.48	89.00	11.00	270.0	112.0	30.00	16.00	0.01	1.88	0.41	0.27	6.12								
camp. MAN-101	1404-MAN-101			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	44.93	16.60	8.77	2.60	31.01	0.22	3.35	1.67	32.00	772.00	294.00	82.00	33.00	0.01	2.48	0.48	0.38	0.28	3.37								
camp. MAN-101	1404-MAN-101			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAN-82C UNLEACHED	1404-MAN-82C UNLEA			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAN-82C UNLEACHED	1404-MAN-82C UNLEA			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAN-82C UNLEACHED	1404-MAN-82C UNLEA			GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAN-83D				GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAN-88A	6417-MAN-88A			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAN-88A	6417-MAN-88A			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAN-88A	6417-MAN-88A			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAN-88A	6417-MAN-88A			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook																											
camp. MAN-88B				GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK AUSTRAL-COOK ISLANDS / MANGAIA	MANGAIA	Austral Cook	43.20	14.80	12.14	3.32	14.37	5.60	0.21	3.90	1.13	23.00	610.00	230															

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wtk%	Al2O3 wtk%	CaO wtk%	TiO2 wtk%	K2O wtk%	MgO wtk%	MnO wtk%	Na2O wtk%	K2O wtk%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/100Zr	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2	
camp. PIT-13	3906-PIT-13			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.	47.50	14.42	8.12	3.75	8.06	0.16	3.31	1.59	124.00	26.70	656.00	328.00	50.00	29.00	0.01	1.72	0.50	0.15	2.17		
camp. PIT-13	3906-PIT-13			GEOROC	GEOROC		BASALT, ALKALIN		PITCAIRN-GAMBIER	Pitcairn Is.	47.47	14.42	8.12	3.75	8.06	0.16	3.31	1.59	124.00	26.70	656.00	328.00	50.00	29.00	0.01	1.72	0.50	0.15	2.17		
camp. PIT-16	3906-PIT-16			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.	48.70				4.40																
camp. PIT-16	3906-PIT-16			GEOROC	GEOROC		BASALT, ALKALIN		PITCAIRN-GAMBIER	Pitcairn Is.	48.71	15.82	8.45	4.08	4.45	0.17	3.92	2.00	121.00	37.00	562.00	397.00	61.00	43.00	0.01	1.42	0.71	0.15	2.07		
camp. PIT-3	3906-PIT-3			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.	48.70				7.90																
camp. PIT-3	3906-PIT-3			GEOROC	GEOROC		BASALT, ALKALIN		PITCAIRN-GAMBIER	Pitcairn Is.	48.73	14.76	7.62	3.27	7.77	0.15	3.71	1.10	113.00	32.50	312.00	318.00	46.00	30.00	0.01	1.53	1.02	0.14	2.39		
camp. PIT-4A	3906-PIT-4A			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.	48.90				4.20																
camp. PIT-4A	3906-PIT-4A			GEOROC	GEOROC		BASALT, ALKALINE		PITCAIRN-GAMBIER	Pitcairn Is.	48.91	14.97	8.53	4.34	4.25	0.17	4.23	1.13	140.00	41.70	616.00	439.00	67.00	38.00	0.01	1.76	0.71	0.15	1.97		
camp. PIT-6	3906-PIT-6			GEOROC	GEOROC		BASALT, ALKALIN		PITCAIRN-GAMBIER	Pitcairn Is.	49.54	15.96	7.50	2.99	3.83	0.21	4.42	2.00	154.00	42.50	593.00	504.00	76.00	47.00	0.02	1.62	0.85	0.15	2.51		
camp. PIT-7	3906-PIT-7			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.	48.20				6.40																
camp. PIT-7	3906-PIT-7			GEOROC	GEOROC		BASALT, ALKALIN		PITCAIRN-GAMBIER	Pitcairn Is.	48.15	15.28	8.69	3.55	6.39	0.16	3.84	1.59	15.00	28.20	595.00	325.00	48.00	30.00	0.01	1.60	0.55	0.15	2.45		
camp. PIT-8	3906-PIT-8			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.	48.30				11.90																
camp. PIT-8	3906-PIT-8			GEOROC	GEOROC		BASALT, ALKALIN		PITCAIRN-GAMBIER	Pitcairn Is.	46.32	13.35	8.31	2.77	11.91	0.17	3.02	0.98	123.00	18.00	528.00	220.00	34.00	22.00	0.01	1.55	0.42	0.15	3.00		
camp. PIT-8	3906-PIT-8			GEOROC	GEOROC		NOT GIVEN		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-10	3906-PIT89-10			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-10	3906-PIT89-10			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-10	3906-PIT89-10			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-19				GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-19				GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-19				GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-2	3906-PIT89-2			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-2	3906-PIT89-2			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-20	5087-PIT89-20			GEOROC	GEOROC		HAWAIIITE		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-20	5087-PIT89-20			GEOROC	GEOROC		HAWAIIITE		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-21				GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-4	3906-PIT89-4			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-4	3906-PIT89-4			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-4	3906-PIT89-4			GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-5				GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PIT89-8				GEOROC	GEOROC		BASALT		PITCAIRN-GAMBIER	Pitcairn Is.																					
camp. PV500				GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	YALLEE DU PUNARUU, WEST COAST OF TAHITI-NUI	SOCIETY ISLANDS / Society Is.																						
camp. PV500				GEOROC	GEOROC	TRACHYTE, ANORTHOCLEASE	TRACHYTE, ANORTHOCLEASE		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. PV510				GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE		AUSTRAL COOK ISLANDS / RAROTONGA	RURUTU / Austral Cook																					
camp. PV522				GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE		AUSTRAL COOK ISLANDS / RAROTONGA	RURUTU / Austral Cook																					
camp. PV523				GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE		AUSTRAL COOK ISLANDS / RAROTONGA	RURUTU / Austral Cook																					
camp. PV524				GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE		AUSTRAL COOK ISLANDS / RAROTONGA	RURUTU / Austral Cook																					
camp. PV532				GEOROC	GEOROC	NEPHELINE, OLIVINE	NEPHELINE, OLIVINE		AUSTRAL COOK ISLANDS / RAROTONGA	ATUTAKI / Austral Cook																					
camp. PV533				GEOROC	GEOROC	NEPHELINE, OLIVINE	NEPHELINE, OLIVINE		AUSTRAL COOK ISLANDS / RAROTONGA	ATUTAKI / Austral Cook																					
camp. PV534				GEOROC	GEOROC	NEPHELINE, OLIVINE	NEPHELINE, OLIVINE		AUSTRAL COOK ISLANDS / RAROTONGA	ATUTAKI / Austral Cook																					
camp. PV535				GEOROC	GEOROC	ANKARAMITE	ANKARAMITE		AUSTRAL COOK ISLANDS / RAROTONGA	MANGIA / Austral Cook																					
camp. PV536				GEOROC	GEOROC	BASALT	BASALT		AUSTRAL COOK ISLANDS / RAROTONGA	MANGIA / Austral Cook																					
camp. PV537				GEOROC	GEOROC	ANKARAMITE	ANKARAMITE		AUSTRAL COOK ISLANDS / RAROTONGA	MANGIA / Austral Cook																					
camp. PV538				GEOROC	GEOROC	ANKARAMITE	ANKARAMITE		AUSTRAL COOK ISLANDS / RAROTONGA	MANGIA / Austral Cook																					
camp. PV539				GEOROC	GEOROC	BASALT	BASALT		AUSTRAL COOK ISLANDS / RAROTONGA	MANGIA / Austral Cook																					
camp. PV573				GEOROC	GEOROC	ANKARAMITE	ANKARAMITE		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. PV574				GEOROC	GEOROC	BASALT	BASALT		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. PV575				GEOROC	GEOROC	PHONOILITE, NEPHELINE	PHONOILITE, NEPHELINE		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. PV584				GEOROC	GEOROC	BASALT, ANKARAMITE	BASALT, ANKARAMITE		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. PV587				GEOROC	GEOROC	TRACHYDABASE, ANALCIME	TRACHYDABASE, ANALCIME		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. R-1				GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. R-108	4790-R-108			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. R-108	4790-R-108			GEOROC	GEOROC	TRACHYBASALT	TRACHYBASALT		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. R-118	4790-R-118			GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE		AUSTRAL COOK ISLANDS / RAROTONGA	RAROTONGA / Austral Cook																					
camp. R-118	4790-R-118																														

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	e-ZrO2 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/TiO2 /10000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2					
camp. RA-19				GEOROC	BASALT	GEOROC	BASALT	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																										
camp. RA-225				GEOROC	BASALT	GEOROC	BASALT	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																										
camp. RA-227				GEOROC	BASALT	GEOROC	BASALT	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																										
camp. RA-243657	1452-RA-243657		GEOROC	GEOROC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook	44.23	14.43	8.12	4.18	13.81	7.22	0.15	3.56	1.97	162.00	38.00	1070.00	397.00	74.00	26.00	0.01	2.85	0.37	0.19	1.94					
camp. RA-244			GEOROC	GEOROC	BASANITE	BASANITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook	42.51	11.75	10.24	3.87	12.37	0.27	2.41	1.54			38.00	740.00	298.00	43.00	27.00	0.01	1.59	0.40	0.14	2.65					
camp. RA-257			GEOROC	GEOROC	BASALT	GEOROC	BASALT	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																										
camp. RA-27	1452-RA-27		GEOROC	GEOROC	BASALT, ALKALINE	BASALT, ALKALINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook	45.00	15.06	10.70	3.70		5.96	0.16	2.92	1.29		22.00	858.00	269.00	52.00	28.00	0.01	1.86	0.31	0.19	2.89					
camp. RA-30			GEOROC	GEOROC	TEPHRITE, SOULITE	TEPHRITE, SOULITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook	52.40	17.40	5.55	2.03	10.31	2.50	0.18	4.60	2.50		56.00	746.00	274.00	95.00	43.00	0.02	2.21	0.66	0.19	2.75					
camp. RA-39			GEOROC	GEOROC	BASALT, OLIVINE	BASALT, OLIVINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook	42.20	14.00	10.86	4.03	12.88	8.10	0.15	2.60	1.37		28.00	795.00	278.00	57.00	24.00	0.01	2.38	0.31	0.21	2.69					
camp. RA-4			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook	47.50	15.90	9.12	3.60	13.06	5.90	0.16	2.20	1.07		20.00	631.00	242.00	46.00	31.00	0.01	1.48	0.38	0.19	2.53					
camp. RA-6			GEOROC	GEOROC	BASALT, OLIVINE	BASALT, OLIVINE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAPA	RAPA	Austral Cook	44.40	8.40	7.83	2.06	12.48	20.60	0.15	1.10	0.44		4.00	324.00	146.00	27.00	16.00	0.01	1.69	0.45	0.18	3.80					
camp. RA-7A			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	SOCIETY ISLANDS / Society Is.	RAROTONGA	Austral Cook																								
camp. RA-8-1			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook																									
camp. RA-8-12			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook																									
camp. RA-8-16			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook																									
camp. RA-8-9	1360-RA-8-9		GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook	44.50	10.59	9.81	2.29		17.00	0.17	1.97	0.60																
camp. RA-8-9	1360-RA-8-9		GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook	43.31	8.49	13.57	3.01		16.85	0.16	1.01	0.58	89.00	11.00	472.00	142.00	24.80	16.00	0.00	1.55	0.30	0.17	4.51					
camp. RA-9-05			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	44.83	14.73	13.29	2.54		8.13	0.20	2.89	1.02																
camp. RA-9-06			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	44.79	9.49	8.37	1.84		20.15	0.18	1.54	0.53																
camp. RA-9-08			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	44.62	13.14	13.71	2.32		10.69	0.19	2.53	0.90																
camp. RA-9-11			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	42.59	15.61	12.34	3.51		6.89	0.21	3.96	1.48																
camp. RA-9-14			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	47.51	10.65	9.92	1.77		16.16	0.15	1.98	0.48																
camp. RA-9-16			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	44.50	10.59	9.81	2.29		17.00	0.17	1.97	0.60																
camp. RA-9-18			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	45.60	9.60	8.79	1.70		18.13	0.13	1.33	0.61																
camp. RA-9-20			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	44.63	13.80	13.54	2.41		9.82	0.20	2.53	0.93																
camp. RA-9-23			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	48.15	16.11	10.67	2.50		6.98	0.15	3.17	0.87																
camp. RA-9-27			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	48.07	12.31	8.43	2.21		12.52	0.17	2.90	0.83																
camp. RA-9-30			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	45.47	9.51	9.77	1.76		18.76	0.18	1.57	0.52																
camp. RA-9-38			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	48.21	16.06	11.36	2.62		6.57	0.15	2.99	0.79																
camp. RA-9-39			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	47.81	16.03	10.93	2.02		9.37	0.14	2.63	0.66																
camp. RA-9-41			GEOROC	GEOROC	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAVANUAE	RAVANUAE	Austral Cook	48.30	11.70	15.86	2.00		11.16	0.18	1.52	0.48																
camp. RI-59	37834-RI-59		GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-6	37834-RI-6		GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-66	37834-RI-66		GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-66	37834-RI-66		GEOROC	GEOROC	NOT GIVEN	NOT GIVEN	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-6	37834-RI-15		GEOROC	GEOROC	BASALT	BASALT	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-2	37835-RI-2		GEOROC	GEOROC	TRACHYTE	TRACHYTE	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.			61.50	17.95	1.33	0.64	3.03	0.76	0.26	6.90	5.20																
camp. RI-2	37835-RI-2		GEOROC	GEOROC	TRACHYTE	TRACHYTE	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-27	37835-RI-27		GEOROC	GEOROC	TRACHYTE	TRACHYTE	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.			62.40	17.25	1.30	0.50	3.52	0.81	0.35	6.45	5.15																
camp. RI-27	37835-RI-27		GEOROC	GEOROC	TRACHYTE	TRACHYTE	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-27	37835-RI-27		GEOROC	GEOROC	TRACHYTE	TRACHYTE	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-6	37835-RI-36		GEOROC	GEOROC	TRACHYTE	TRACHYTE	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-37	37834-RI-37		GEOROC	GEOROC	BASALT	BASALT	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.			46.00	14.75	10.82	3.70	13.45	5.70	0.18	2.62	1.29																
camp. RI-37	37834-RI-37		GEOROC	GEOROC	BASALT	BASALT	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																											
camp. RI-38	37834-RI-38		GEOROC	GEOROC	OLCANITE	OLCANITE	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.			43.30	7.94	7.70	2.15	14.16	21.50	0.18	1.29	0.71																
camp. RI-48	37834-RI-48		GEOROC	GEOROC	BASALT	BASALT	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.			43.20	11.42	11.25</																						

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	K2O wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2	
camp. RVV-302	2962-RV-302	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	47.11	15.53	10.91	2.43	11.77	6.46	0.15	2.79	0.76	95.00	11.00	446.00	173.00	42.00	25.00	0.01	1.68	0.39	0.24	4.45	
camp. RVV-310	2962-RV-310	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	44.73	10.31	9.60	1.85	13.51	16.87	0.17	1.70	0.57	95.00	11.00	412.00	128.00	31.70	16.00	0.01	1.98	0.31	0.25	5.19	
camp. RVV-310	2962-RV-310	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	47.61	15.15	8.16	3.56	13.90	4.28	0.20	3.94	1.19	128.00	27.00	688.00	246.00	63.80	34.00	0.01	1.88	0.36	0.26	2.29	
camp. RVV-310	2962-RV-310	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	40.44	11.17	12.72	2.56	14.54	12.64	0.22	3.63	0.89	112.00	18.00	836.00	235.00	103.70	29.00	0.01	3.58	0.28	0.44	4.97	
camp. RVV-310	2962-RV-310	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	44.70	8.89	13.58	1.58	11.92	16.84	0.18	1.27	0.42	65.00	13.00	266.00	101.00	40.00	15.00	0.01	2.67	0.38	0.40	8.58	
camp. RVV-318	2963-RV-318	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	44.55	8.87	13.56	1.59	12.22	16.61	0.18	1.24	0.43	66.00	11.00	274.00	105.00	36.30	17.00	0.01	2.14	0.38	0.35	8.53	
camp. RVV-318	2963-RV-318	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	42.62	12.28	12.57	2.56	14.04	11.35	0.20	2.42	0.80	96.00	21.00	532.00	165.00	68.50	34.00	0.01	2.85	0.31	0.42	4.91	
camp. RVV-328	2963-RV-328	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	48.18	14.69	8.22	3.51	15.11	4.13	0.21	3.59	1.08	134.00	22.00	507.00	249.00	55.70	36.00	0.01	1.55	0.49	0.22	2.34	
camp. RVV-328	2963-RV-328	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	45.83	15.53	8.38	3.75	14.41	4.53	0.19	3.62	0.94	128.00	24.00	728.00	206.00	48.00	31.00	0.01	1.55	0.28	0.32	2.23	
camp. RVV-330A	2963-RV-330	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	48.17	14.96	11.09	2.32	12.61	6.15	0.17	2.84	0.49	110.00	9.00	420.00	156.00	32.00	25.00	0.01	1.28	0.37	0.21	4.78	
camp. RVV-334	2963-RV-334	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	57.31	18.67	1.00	0.03	5.90	0.00	0.21	9.95	5.11	296.00	186.00	10.00	1116.00	300.00	90.00	3.72	3.33	111.60	0.27	33.33	
camp. RVV-336	2963-RV-336	GEOROC	GEOROC	TRACHYPHONOLITE	TRACHYPHONOLITE	TRACHYPHONOLITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	57.31	18.67	1.00	0.03	5.90	0.00	0.21	9.95	5.11	296.00	186.00	10.00	1116.00	300.00	90.00	3.72	3.33	111.60	0.27	33.33	
camp. RVV-338	2963-RV-338	GEOROC	GEOROC	TRACHYPHONOLITE	TRACHYPHONOLITE	TRACHYPHONOLITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	57.31	18.62	1.02	0.03	5.86	0.02	0.18	9.41	5.14	296.00	185.00	11.00	1103.00	292.00	86.00	3.68	3.40	100.27	0.26	34.00	
camp. RVV-340	2963-RV-340	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	44.11	10.01	9.40	1.74	14.01	17.50	0.19	1.45	0.51	94.00	11.00	305.00	113.00	28.00	16.00	0.01	1.75	0.37	0.25	5.23	
camp. RVV-340	2963-RV-340	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	46.35	14.37	10.81	2.87	12.75	7.13	0.16	3.05	1.00	104.00	30.00	558.00	196.00	53.00	24.00	0.01	2.21	0.35	0.27	3.77	
camp. RVV-342	2963-RV-342	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	47.26	14.84	9.14	3.14	15.16	4.87	0.20	3.46	0.81	127.00	20.00	433.00	200.00	45.00	30.00	0.01	1.59	0.46	0.23	2.80	
camp. RVV-342	2963-RV-342	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	47.04	14.90	9.15	3.14	15.26	4.75	0.20	3.44	0.92	124.00	18.00	436.00	198.00	46.00	29.00	0.01	1.59	0.46	0.23	2.91	
camp. RVV-343	2963-RV-343	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	45.68	11.69	11.77	1.92	12.97	12.72	0.18	1.90	0.48	89.00	11.00	346.00	127.00	37.00	19.00	0.01	1.95	0.37	0.29	6.13	
camp. RVV-344	2964-RV-344	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	46.07	12.78	12.96	2.12	12.34	10.07	0.18	2.22	0.54	89.00	16.00	377.00	144.00	39.00	23.00	0.01	1.70	0.38	0.27	6.11	
camp. RVV-345	2964-RV-345	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	43.26	11.05	11.02	1.94	13.23	14.53	0.20	2.18	0.65	95.00	20.00	446.00	154.00	52.00	22.00	0.01	2.36	0.35	0.34	5.68	
camp. RVV-346	2964-RV-346	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	47.86	15.30	8.76	3.16	13.24	4.21	0.17	4.24	1.31	132.00	33.00	626.00	260.00	60.00	31.00	0.01	1.94	0.42	0.23	2.77	
camp. RVV-346	2964-RV-346	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	42.27	11.46	13.08	2.58	13.74	12.10	0.19	2.25	0.49	103.00	14.00	497.00	168.00	62.00	23.00	0.01	2.70	0.34	0.37	5.77	
camp. RVV-362	2964-RV-362	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	47.48	17.55	11.20	2.26	13.89	4.82	0.15	3.04	0.61	93.00	11.00	510.00	131.00	28.00	19.00	0.01	1.47	0.26	0.21	4.86	
camp. RVV-370	2964-RV-370	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	45.19	8.84	8.47	1.57	13.28	19.74	0.17	1.51	0.49	92.00	10.00	261.00	113.00	26.00	14.00	0.01	1.86	0.43	0.23	5.39	
camp. RVV-373	2964-RV-373	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	46.69	14.90	8.47	3.83	14.50	5.01	0.19	3.83	1.02	122.00	26.00	667.00	218.00	54.00	31.00	0.01	1.74	0.33	0.25	2.21	
camp. RVV-373	2964-RV-373	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	57.81	18.35	1.37	0.09	6.25	0.19	0.16	7.85	5.17	258.00	166.00	201.00	1031.00	243.00	71.00	1.15	3.42	5.13	0.24	15.22	
camp. RVV-114	6922-RV114	GEOROC	GEOROC	BASALT	BASALT	BASALT	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAINVAE	RAINVAE	Austral Cook	45.50	15.30	9.70	3.10	13.00	5.60	0.17	2.84	1.10												
camp. R0305		GEOROC	GEOROC	ANKARAMITE	ANKARAMITE	ANKARAMITE	VOLCANIC ROCK	AUSTRAL-COOK ISLANDS / RAROTONGA	RAROTONGA	Austral Cook	44.04	14.31	10.90	3.58	12.86	7.41	0.17	2.90	2.25		49.00	1017.00	307.00	63.00	23.00	0.01	2.74	0.30	0.21	3.04	
camp. S127.7	11530 CAROFF M (199)	GEOROC	GEOROC	BASALT	BASALT	BASALT	ALKALIN MARGUESAS / EIAO	MARGUESAS / EIAO	MARGUESAS	Austral Cook	47.20	14.05	10.00	3.26	12.60	6.85	0.16	2.28	0.00	143.00	492.00	228.00	23.00	29.00	0.01	0.79	0.46	0.10	3.07		
camp. S127.7	11530 CAROFF M (199)	GEOROC	GEOROC	BASALT	BASALT	BASALT	ALKALIN MARGUESAS / EIAO	MARGUESAS / EIAO	MARGUESAS	Austral Cook	47.20	14.10	10.40	3.22	12.70	7.25	0.16	2.10	0.00	158.00	485.00	210.00	22.00	29.00	0.01	0.76	0.43	0.10	3.13		
camp. S187.7	11530 CAROFF M (199)	GEOROC	GEOROC	BASALT	BASALT	BASALT	ALKALIN MARGUESAS / EIAO	MARGUESAS / EIAO	MARGUESAS	Austral Cook	47.20	14.50	10.20	3.48	12.80	6.00	0.17	2.48	0.00	178.00	510.00	248.00	25.00	32.00	0.01	0.78	0.49	0.10	2.93		
camp. S148.6	11530 CAROFF M (199)	GEOROC	GEOROC	BASALT	BASALT	BASALT	ALKALIN MARGUESAS / EIAO	MARGUESAS / EIAO	MARGUESAS	Austral Cook	47.00	14.60	8.65	3.81	13.80	5.85	0.17	2.10	0.00	233.00	542.00	310.00	31.00	38.50	0.01	0.81	0.57	0.10	2.26		
camp. S163.3	11530 CAROFF M (199)	GEOROC	GEOROC	BASALT	BASALT	BASALT	ALKALIN MARGUESAS / EIAO	MARGUESAS / EIAO	MARGUESAS	Austral Cook	47.10	13.90	9.25	3.12	13.25	8.75	0.17	2.30	0.00	127.00	476.00	230.00	22.00	31.50	0.01	0.70	0.48	0.10	2.96		
camp. S179.6	11530 CAROFF M (199)	GEOROC	GEOROC	BASALT	BASALT	BASALT	ALKALIN MARGUESAS / EIAO	MARGUESAS / EIAO	MARGUESAS	Austral Cook	46.90	14.25	9.46	3.52	13.25	7.65	0.17	2.40	0.00	174.00	530.00	240.00	23.00	31.50	0.01	0.75	0.45	0.10	2.89		
camp. S181.8	11530 CAROFF M (199)	GEOROC	GEOROC	BASALT	BASALT	BASALT	ALKALIN MARGUESAS / EIAO	MARGUESAS / EIAO	MARGUESAS	Austral Cook	47.00	14.90	9.05	3.77	13.15	5.80	0.17	2.80	0.00	200.00	588.00	280.00	27.00	32.50	0.01	0.85	0.48	0.10	2.40		
camp. S196.8	11530 CAROFF M (199)	GEOROC	GEOROC	BASALT	BASALT	BASALT	ALKALIN MARGUESAS / EIAO	MARGUESAS / EIAO	MARGUESAS	Austral Cook	47.00	15.10	9.10	3.76	13.35	5.98	0.17	2.75	0.00	200.00	596.00	275.00	27.00	35.00	0.01	0.77	0.46	0.10			

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Geo Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	+ZrO2 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2				
samp. TB-29					GEORC	GEORC	NOT GIVEN		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-33	4124-TB-33				GEORC	GEORC	BASALT	VALLEE DE PAFENOO	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-33	4124-TB-33				GEORC	GEORC	BASALT, ALKALIN	VALLEE DE PAFENOO	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.	873.00	127.30		37.16	873.00	327.30	60.57	38.01										1.29	0.37	0.19				
samp. TB-34	4124-TB-34				GEORC	GEORC	BASALT	VALLEE DE PAFENOO	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-34	4124-TB-34				GEORC	GEORC	BASALT, ALKALIN	VALLEE DE PAFENOO	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				115.65	965.90	360.80	81.74	35.66										2.59	0.37	0.23	1.07			
samp. TB-35					GEORC	GEORC	BASALT, TRANSIT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				21.88	466.40	270.40	42.45	31.08										1.37	0.58	0.16				
samp. TB-36					GEORC	GEORC	NOT GIVEN		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-40					GEORC	GEORC	BASALT, TRANSIT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				44.21	404.80	313.80	39.89	36.80										1.08	0.78	0.13				
samp. TB-41	3891-TB-41				GEORC	GEORC	BASALT, ANDIEST		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.	52.66	14.21	8.77	3.22		4.55		2.86	1.89							0.01	1.20	0.65	0.15	2.72				
samp. TB-41	3891-TB-41				GEORC	GEORC	BASALT, TRANSIT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				32.74	459.50	298.40	38.40	34.20										1.12	0.65	0.13				
samp. TB-43					GEORC	GEORC	BASALT, ALKALIN		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				54.38	592.40	384.10	58.86	35.15										1.67	0.65	0.15				
samp. TB-44					GEORC	GEORC	HAWAIIITE		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				44.20	583.30	381.50	44.84	35.84										1.31	0.65	0.12				
samp. TB-47					GEORC	GEORC	BASALT	VAHIRIA	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-61					GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-67	4130-TB-67				GEORC	GEORC	HAWAIIITE	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-67	4130-TB-67				GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-7	4130-TB-7				GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-7	4130-TB-7				GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-72	4130-TB-72				GEORC	GEORC	BASALT, ALKALIN	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-72	4130-TB-72				GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-76					GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-81					GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-87					GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-93	4130-TB-93				GEORC	GEORC	BASALT, ALKALIN	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-93	4130-TB-93				GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-93	4130-TB-93				GEORC	GEORC	BASALT	VALLEE DU PUNARUIU, WEST COAST OF TAHITI-NUU	SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TB-96	1629-TB-96				GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TA-10H					GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TA-15R					GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TA-1D					GEORC	GEORC	BASALT, ALKALIN		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				3.59																				
samp. TA-25B					GEORC	GEORC	THOLOITE		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.	47.00	12.12	9.15	3.20		10.48	0.15	2.21	1.81															
samp. TA-25F					GEORC	GEORC	BASALT, ALKALIN		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.	46.62	12.71	9.55	3.11		9.32	0.15	3.25	0.72															
samp. TA-2J					GEORC	GEORC	BASALT, ALKALIN		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				3.60																				
samp. TA-2R					GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				3.19																				
samp. TA-2V					GEORC	GEORC	BASALTE		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				3.15																				
samp. TA-3F					GEORC	GEORC	BASALT, ALKALIN		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TA-4H					GEORC	GEORC	HAWAIIITE		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				3.55																				
samp. TA-8B					GEORC	GEORC	BASALT, ALKALIN		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				3.05																				
samp. TA-8G					GEORC	GEORC	HAWAIIITE		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.				1.51																				
samp. TA-9G					GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TA-16	4031-TA-16				GEORC	GEORC	OCEANITE		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.	43.24	10.27	9.30	3.23		13.93	0.16	2.16	1.01															
samp. TA-16	4031-TA-16				GEORC	GEORC	OCEANITE		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TAA-6-26	1400-TAA-6-26				GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TAA-6-26	1400-TAA-6-26				GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.	48.95	12.77	9.12	3.22		10.73	0.15	3.53	1.09	111.00														
samp. TAA-6-26	1400-TAA-6-26				GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TAA-8-7	1400-TAA-8-7				GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TAA-8-7	1400-TAA-8-7				GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.	48.68	12.31	9.65	2.90		11.93	0.16	2.20	2.20	108.00														
samp. TAH-31					GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TAH-47					GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TAHA73-185	1400-TAHA73-185				GEORC	GEORC	BASALT		SOCIETY ISLANDS / Society Is.	SOCIETY ISLANDS / Society Is.																								
samp. TAHA73-185	1400-TAHA73-185				GEORC	GEORC	BASALT																											

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	GfO Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	Fe2O3 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2				
camp. TH48	4390-TH-0			GEOROC			BASALT, ALKALIN	SOCIETY ISLANDS / Society Is.			46.89	9.56	11.4	2.30				1.85	1.14		32.60	571.00	188.00	32.60	105.50	0.01	1.59	0.33	0.12	2.97				
camp. TH-70	4390-TH-70			GEOROC			HAWAIIITE	SOCIETY ISLANDS / Society Is.			46.35	14.36	11.54	3.71		5.69		3.75	1.61		41.80	793.00	343.00	55.80	38.00	0.01	1.47	0.43	0.16	3.11				
camp. TH-70	4390-TH-70			GEOROC			BASALT, ALKALIN	SOCIETY ISLANDS / Society Is.																										
camp. TH-8				GEOROC			BASALT, ALKALIN	SOCIETY ISLANDS / Society Is.			46.01	12.47	11.56	3.05		11.53		2.20	1.07		340.00	26.20	591.00	251.00	43.40	30.70	0.01	1.41	0.42	0.17	3.79			
camp. TH-8	116348 CHAUVEL C.22			GEOROC			BASALT, ALKALIN	SOCIETY ISLANDS / Society Is.			45.80	13.45	11.07	3.60		6.37															0.16	3.08		
camp. TH-8	116348 CHAUVEL C.22			GEOROC			BASANITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas	44.50	13.50	10.82	3.18		12.90		7.44	0.18		325.00	40.80	780.00	325.00	74.50	31.60	0.01	2.36	0.42	0.23	3.40			
camp. TH-8	116348 CHAUVEL C.22			GEOROC			HAWAIIITE	MARQUESAS / TAHUATA / HANAUETENA / POST-SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-8	116348 CHAUVEL C.22			GEOROC			HAWAIIITE	MARQUESAS / TAHUATA / HANAUETENA / POST-SHIELD STAGE	TAHUATA	Marquesas	47.40	14.95	9.70	4.20		12.15		4.87	0.15		360.00	50.40	691.00	360.00	53.40	35.70	0.01	1.50	0.52	0.15	2.31			
camp. TH-8	118469 GUILLOU H.24			GEOROC			HAWAIIITE	MARQUESAS / TAHUATA / HANAUETENA / POST-SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-8	118469 GUILLOU H.24			GEOROC			HAWAIIITE	MARQUESAS / TAHUATA / HANAUETENA / POST-SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-13	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-13	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas	47.70	14.70	9.95	4.15		12.35		6.09	0.16		365.00	10.80	609.00	365.00	46.40	36.40	0.01	1.27	0.60	0.13	2.40			
camp. TH-13	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-13	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-14	116348 CHAUVEL C.22			GEOROC			BASALT, ALKALIN	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-14	116348 CHAUVEL C.22			GEOROC			BASALT, ALKALIN	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas	46.40	13.17	9.96	3.17		12.66		8.37	0.17		317.00	8.92	626.00	317.00	54.80	30.90	0.01	1.77	0.51	0.17	3.14			
camp. TH-14	116348 CHAUVEL C.22			GEOROC			BASALT, ALKALIN	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-14	116348 CHAUVEL C.22			GEOROC			BASALT, ALKALIN	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-14	118469 GUILLOU H.24			GEOROC			BASALT, ALKALIN	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-14	118469 GUILLOU H.24			GEOROC			BASALT, ALKALIN	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-18	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-18	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-18	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas	47.70	14.60	9.93	3.44		12.30		6.40	0.16		287.00	39.30	570.00	287.00	44.10	30.70	0.01	1.44	0.50	0.15	2.89			
camp. TH-18	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-18	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-18	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas	46.90	13.60	10.50	4.10		11.80		5.60	0.14		326.00	10.80	579.00	326.00	45.20	32.50	0.01	1.39	0.56	0.14	2.56			
camp. TH-31	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / HANAUETENA / POST-SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-31	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / HANAUETENA / POST-SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-31	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / HANAUETENA / POST-SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-35	118469 GUILLOU H.24			GEOROC			TEPHRITE	MARQUESAS / TAHUATA / VAITAHU / POST-SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-35	118469 GUILLOU H.24			GEOROC			TEPHRITE	MARQUESAS / TAHUATA / VAITAHU / POST-SHIELD STAGE	TAHUATA	Marquesas	51.90	19.00	4.10	1.61		6.20		1.70	0.18		927.00	172.00	1673.00	927.00	170.00	60.80	0.06	2.80	0.55	0.18	2.55			
camp. TH-37	118469 GUILLOU H.24			GEOROC			HAWAIIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-37	118469 GUILLOU H.24			GEOROC			HAWAIIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas	47.00	16.10	10.10	3.56		12.40		5.10	0.17		323.00	64.20	773.00	323.00	50.90	34.70	0.01	1.47	0.42	0.16	2.84			
camp. TH-38	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-38	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas	46.70	11.90	10.70	3.34		12.80		11.00	0.17		250.00	25.10	552.00	250.00	37.50	27.80	0.01	1.35	0.45	0.15	3.20			
camp. TH-39	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-39	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas	47.20	12.70	9.80	3.45		12.80		9.00	0.17		312.00	32.50	564.00	312.00	44.90	32.90	0.01	1.36	0.55	0.14	2.84			
camp. TH-39	116348 CHAUVEL C.22			GEOROC			THOLEIITE OLIV	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-39	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-39	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-41	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas																								
camp. TH-41	118469 GUILLOU H.24			GEOROC			THOLEIITE	MARQUESAS / TAHUATA / VAITAHU / SHIELD STAGE	TAHUATA	Marquesas	45.80	14.70	10.70	4.26		13.30		6.20	0.17		308.00	4.90	539.00	308.00	38.30	36.50	0.01	1.05	0.57	0.12	2.51			
camp. THG-12B				GEOROC			BASALT, ALKALIN	CENTRAL DEPRESSION	SOCIETY ISLANDS / Society Is.		46.80	13.78	10.40	3.40		12.82		6.20	0.18		13.50	610.00	232.00	44.00	32.00	0.01	1.38	0.38	0.19	3.06				
camp. THG-15A				GEOROC			BASALT, ALKALIN	CENTRAL DEPRESSION	SOCIETY ISLANDS / Society Is.		45.90	14.95	10.30	4.07		12.80		5.18	0.17		2.85	46.00	760.00	158.00	55.00	36.00	0.01	1.53	0.21	0.85	2.53			
camp. THG-16C				GEOROC			TEPHRITE	CENTRAL DEPRESSION	SOCIETY ISLANDS / Society Is.		44.25	16.70	9.75	3.54		12.65		4.57	0.21		69.00	97.00	345.00	76.00	37.00	0.01	2.05	0.35	0.22	2.75				
camp. THG-18A				GEOR																														

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	QED Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	e-TO2 wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/100Zr	Nb/Y	Zr/Sr	Nb/Zr	CaO/10Zr			
camp. UAP-017	7779 DUNCAN R. A. (19)				GEORC	THOLIHITE	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-019	7779 DUNCAN R. A. (19)				GEORC	UJA POU	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-02	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	42.20	13.53	10.59	4.15	13.83	8.12	0.19				323.00	80.00	917.00	323.00	59.00	28.00	0.01	2.11	0.35	0.18	2.55			
camp. UAP-024	7779 DUNCAN R. A. (19)				GEORC	THOLIHITE	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-025	7779 DUNCAN R. A. (19)				GEORC	MUGEARHITE	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-026	7779 DUNCAN R. A. (19)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-03	11520 VIDAL P. (1987)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-03	776 DUFUY C. (1987)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-037	7779 DUNCAN R. A. (19)				GEORC	PHONOITE	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-101	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	42.44	13.57	10.58	4.13	13.83	8.03	0.19				325.00	72.00	921.00	325.00	59.00	28.00	0.01	2.11	0.35	0.18	2.56			
camp. UAP-11	11520 VIDAL P. (1987)				GEORC	THOLIHITE	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-11	776 DUFUY C. (1987)				GEORC	THOLIHITE	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-117	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	43.40	13.99	10.28	4.05	13.30	7.80	0.16				320.00	80.00	844.00	320.00	59.00	27.00	0.01	2.19	0.38	0.18	2.54			
camp. UAP-150	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	43.89	15.02	10.08	3.91	13.08	5.34	0.18				381.00	101.00	1091.00	381.00	74.00	30.00	0.01	2.47	0.35	0.19	2.58			
camp. UAP-167	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	43.38	14.47	10.76	4.11	13.53	7.51	0.20				313.00	50.00	879.00	313.00	58.00	39.00	0.01	1.49	0.38	0.19	2.62			
camp. UAP-17	11520 VIDAL P. (1987)				GEORC	THOLIHITE	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-17	776 DUFUY C. (1987)				GEORC	THOLIHITE	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-172	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	43.55	14.48	10.54	4.13	13.65	7.08	0.17				317.00	61.00	885.00	317.00	58.00	27.00	0.01	2.15	0.36	0.18	2.55			
camp. UAP-185	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	43.16	14.35	10.76	3.28	13.73	8.30	0.18				221.00	73.00	834.00	221.00	50.00	23.00	0.01	2.17	0.26	0.23	3.28			
camp. UAP-213	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	44.19	13.29	10.52	2.82	12.75	10.55	0.18				228.00	42.00	728.00	228.00	47.00	21.00	0.01	2.24	0.31	0.21	3.73			
camp. UAP-227	11191 DUFUY C. (1989)				GEORC	THOLIHITE	MARQUESAS / UJA POU	UJA POU	Marquesas	46.96	13.44	11.30	3.81	6.42	0.18					316.00	5.00	523.00	316.00	34.00	37.00	0.01	0.92	0.60	0.11	2.97			
camp. UAP-24	11191 DUFUY C. (1989)				GEORC	THOLIHITE	MARQUESAS / UJA POU	UJA POU	Marquesas	46.10	13.35	11.18	4.29	5.53	0.14					419.00	11.00	610.00	419.00	34.00	37.00	0.01	0.92	0.69	0.08	2.61			
camp. UAP-24	776 DUFUY C. (1987)				GEORC	THOLIHITE	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-26	11520 VIDAL P. (1987)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-26	776 DUFUY C. (1987)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-301	112439 HESHEY, (200)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas																								
camp. UAP-301	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	47.86	18.61	7.55	2.85	8.66	3.70	0.18				402.00	83.00	1180.00	402.00	64.00	31.00	0.01	2.71	0.30	0.21	2.65			
camp. UAP-302	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	45.67	16.23	9.69	3.74	12.00	5.55	0.19				312.00	44.00	1045.00	312.00	64.00	32.00	0.01	2.00	0.34	0.21	2.59			
camp. UAP-308	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	43.55	12.01	12.40	2.90	13.16	12.12	0.18				178.00	11.00	640.00	178.00	37.00	19.00	0.01	1.95	0.28	0.21	4.24			
camp. UAP-309	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	43.21	12.59	10.36	2.78	13.12	11.93	0.18				209.00	14.00	717.00	209.00	44.00	20.00	0.01	2.20	0.29	0.21	3.73			
camp. UAP-361	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	43.24	14.30	10.47	3.92	13.24	7.76	0.19				321.00	101.00	1051.00	321.00	62.00	29.00	0.01	2.14	0.31	0.19	2.67			
camp. UAP-370	11350 KOGISO T. (1997)				GEORC	BASALT, A.K.A.KIN	MARQUESAS / UJA POU	UJA POU	Marquesas	44.45	14.85	10.56	4.10	12.98	6.05	0.17				360.00	47.00	986.00	360.00	67.00	29.00	0.01	2.31	0.37	0.19	2.58			
camp. UH27	116348 CHAUVEL C. (2)				GEORC	BASANITE	MARQUESAS / UJA HUKA / HANE / POST-SHIELD STAGE	UJA HUKA	Marquesas	57.60	17.65	2.30	0.87	5.55	0.00	0.10				460.00	117.00	461.73	660.00	101.44	28.04	0.08	3.63	1.43	0.15	2.87			
camp. UH27	116348 CHAUVEL C. (2)				GEORC	THOLIHITE, OLIV	MARQUESAS / UJA HUKA / HIKITAU / SHIELD STAGE	UJA HUKA	Marquesas	47.20	14.75	9.47	3.75	12.85	4.64	0.16				337.00	37.57	528.48	337.00	63.07	41.24	0.01	1.26	0.64	0.13	3.53			
camp. UH34	116348 CHAUVEL C. (2)				GEORC	BASANITE	MARQUESAS / UJA HUKA / HANE / POST-SHIELD STAGE	UJA HUKA	Marquesas	44.00	11.95	10.20	3.24	14.25	11.75	0.18				240.00	62.39	805.17	240.00	60.80	33.33	0.01	1.82	0.30	0.25	3.15			
camp. UH35	116348 CHAUVEL C. (2)				GEORC	BASANITE	MARQUESAS / UJA HUKA / HANE / POST-SHIELD STAGE	UJA HUKA	Marquesas	41.00	11.15	10.90	3.64	14.30	11.45	0.17				246.00	40.43	881.81	244.00	60.69	31.58	0.01	1.92	0.28	0.25	2.99			
camp. UH35	116348 CHAUVEL C. (2)				GEORC	BASANITE	MARQUESAS / UJA HUKA / HANE / POST-SHIELD STAGE	UJA HUKA	Marquesas	45.60	14.65	8.13	2.62	12.42	6.57	0.17				337.00	38.17	819.33	337.00	92.29	39.26	0.01	3.15	0.42	0.27	3.10			
camp. UH47	116348 CHAUVEL C. (2)				GEORC	TRACHYTE	MARQUESAS / UJA HUKA / HANE / POST-SHIELD STAGE	UJA HUKA	Marquesas	61.10	17.42	1.30	0.37	4.61	0.65	0.17				833.00	168.01	71.24	833.00	119.48	41.08	0.23	2.91	11.37	0.14	3.51			
camp. UH50	116348 CHAUVEL C. (2)				GEORC	BASANITE	MARQUESAS / UJA HUKA / HANE / POST-SHIELD STAGE	UJA HUKA	Marquesas	42.70	11.78	10.15	2.98	13.50	11.54	0.20				231.00	43.34	646.46	231.00	58.08	28.79	0.01	2.02	0.36	0.25	3.41			
camp. UH53	116348 CHAUVEL C. (2)				GEORC	PHONOITE	MARQUESAS / UJA HUKA / HANE / POST-SHIELD STAGE	UJA HUKA	Marquesas	59.35	18.25	1.35	0.21	5.62	0.38	0.29				796.00	198.98	90.92	796.00	133.27	35.65	0.38	3.74	8.75	0.17	6.43			
camp. UH54	116348 CHAUVEL C. (2)				GEORC	BASANITE	MARQUESAS / UJA HUKA / HANE / POST-SHIELD STAGE	UJA HUKA	Marquesas	42.40	9.20	10.45	3.42	13.95	11.28	0.18				214.00	9.11	512.22	214.00	51.73	28.65	0.01	1.80	0.42	0.26	3.23			
camp. UH65	116348 CHAUVEL C. (2)				GEORC	BASANITE	MARQUESAS / UJA HUKA / HANE / POST-SHIELD STAGE	UJA HUKA	Marquesas	41.50	12.10	10.45	3.45	15.00	9.90	0.18				286.00	6.97	721.66	283.00	69.48	29.80	0.01	2.33	0.39	0.25	3.03			
camp. UH65	116348 CHAUVEL C. (2)				GEORC	THOLIHITE, OLIV	MARQUESAS / U																										

Museum No.	Sample No.	Collector	Object	Sort	Type	Type Sort	Q10 Group	Place Collected	Island Group	Island Group	SiO2 wt%	Al2O3 wt%	CaO wt%	TiO2 wt%	K2O wt%	MgO wt%	MnO wt%	Na2O wt%	K2O wt%	Zn ppm	Rb ppm	Sr ppm	Zr ppm	Nb ppm	Y ppm	Zr/1000	Nb/Y	Zr/Sr	Nb/Zr	CaO/TiO2			
camp. UP31	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE	MARQUESAS / UA POU / LOWER UA POU PHONOLITES	UA POU	Marquesas	55.60	21.00	0.78	0.26	3.02	0.10	0.22			1550	389.00	92.00	1550.00	363.00	48.00	0.63	7.50	17.61	0.21	3.00			
camp. UP31	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE	MARQUESAS / UA POU / LOWER UA POU PHONOLITES	UA POU	Marquesas	55.60	21.00	0.78	0.26	3.02	0.10	0.22			1796.00	355.00	102.00	1796.00	363.00	45.40								
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	39.07	0.76	0.20	0.05	25.96	33.08	0.44																
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	0.00	0.03	0.04	0.01	53.81	6.38	0.79																
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	0.00	0.01	0.04	0.01	53.81	6.38	0.79																
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	0.00	0.18	0.18	52.33	6.25	0.55																	
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	37.85	0.00	0.20	0.04	25.99	35.76	0.32																
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	38.30	0.00	0.16	0.00	27.69	34.88	0.40																
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	39.36	0.00	0.00	0.00	18.36	41.31	0.11																
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	38.36	0.00	0.09	0.00	25.70	36.48	0.38																
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	50.26	2.76	20.64	1.66	14.87	0.18																	
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	51.55	2.01	19.91	1.39	15.37	0.04																	
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	0.01	0.07	0.00	46.82	0.12	0.36																	
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	45.80	11.45	8.25	4.56	13.75	0.25	0.15				470.00	14.00	680.00	470.00	34.00	32.50	0.01	1.05	0.69	0.07	1.81		
camp. UP33	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	THOLIHITE, OLIV	MARQUESAS / UA POU	UA POU	Marquesas	48.70	13.70	6.80	4.97	10.00	0.20	0.15				487.00	13.70	680.00	497.00	34.70	32.60	0.01	1.06	0.73	0.07	1.81		
camp. UP34	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE	MARQUESAS / UA POU / LOWER UA POU PHONOLITES	UA POU	Marquesas	58.80	19.70	1.33	0.49	2.95	0.39	0.14				196.00	433.00		125.00	22.00		5.68						
camp. UP36	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BASANITE, AMPH	MARQUESAS / UA POU	UA POU	Marquesas	48.30	17.45	4.62	2.62	9.40	3.43	0.20				460.00	73.00	1350.00	460.00	105.00	38.00	0.02	2.76	0.34	0.23	2.60		
camp. UP36	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE	MARQUESAS / UA POU / LOWER UA POU PHONOLITES	UA POU	Marquesas	55.40	21.70	1.35	0.32	3.05	0.31	0.18				942.00	320.00	203.00	942.00	204.00	27.50	0.29	7.42	4.64	0.22	4.22		
camp. UP39	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	TRACHYTE	MARQUESAS / UA POU / LOWER UA POU PHONOLITES	UA POU	Marquesas	61.00	17.65	1.67	0.84	5.01	0.75	0.08				1700.00	129.00	530.00	710.00	111.00	33.50	0.08	3.31	1.34	0.46	1.99		
camp. UP39	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BASANITE	MARQUESAS / UA POU	UA POU	Marquesas	41.75	13.85	10.70	4.11	14.54	7.35	0.19				285.00	45.00	890.00	285.00	60.00	33.00	0.01	1.82	0.32	0.21	2.60		
camp. UP40	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BENMOREITE	MARQUESAS / UA POU	UA POU	Marquesas	55.60	19.40	3.21	1.20	4.86	0.97	0.16				659.00	140.00	1130.00	659.00	142.00	34.00	0.05	4.18	0.58	0.22	2.68		
camp. UP42	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BASANITE, AMPH	MARQUESAS / UA POU	UA POU	Marquesas	42.30	13.70	10.25	3.92	14.10	7.90	0.19				296.00	45.00	885.00	296.00	64.00	32.00	0.01	2.00	0.33	0.22	2.61		
camp. UP48	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE	MARQUESAS / UA POU / LOWER UA POU PHONOLITES	UA POU	Marquesas	54.60	19.10	3.22	1.08	4.78	1.11	0.18				580.00	82.00	1170.00	580.00	149.00	32.00	0.05	4.66	0.50	0.26	2.98		
camp. UP49	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BASANITE	MARQUESAS / UA POU	UA POU	Marquesas	47.70	17.90	7.20	2.70	8.90	0.77	0.18				860.00	48.00	1150.00	860.00	89.00	35.00	0.01	2.54	0.31	0.25	2.67		
camp. UP50	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE	MARQUESAS / UA POU / LOWER UA POU PHONOLITES	UA POU	Marquesas	55.50	19.60	2.38	0.30	2.98	0.73	0.20				890.00	274.00	1140.00	890.00	134.00	23.00	0.30	5.83	6.64	0.15	1.93		
camp. UP51	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE, TEPH	MARQUESAS / UA POU	UA POU	Marquesas	60.11	23.87	3.78	0.86	0.52	0.01	0.00																
camp. UP51	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE, TEPH	MARQUESAS / UA POU	UA POU	Marquesas	0.17	2.66	0.00	13.00	0.61	1.73																	
camp. UP51	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE, TEPH	MARQUESAS / UA POU	UA POU	Marquesas	0.48	0.04	54.07	0.12	0.06	0.05																	
camp. UP51	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE, TEPH	MARQUESAS / UA POU	UA POU	Marquesas	37.92	13.17	11.99	6.33	10.80	0.20																	
camp. UP51	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE, TEPH	MARQUESAS / UA POU	UA POU	Marquesas	50.90	19.00	3.94	4.00	6.98	0.68	0.17				676.00	174.00	1005.00	676.00	139.00	30.00	0.08	4.63	0.67	0.21	1.14		
camp. UP52	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	TEPHRITE	MARQUESAS / UA POU	UA POU	Marquesas	47.48	5.49	22.56	1.99	10.82	0.50																	
camp. UP52	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	TEPHRITE	MARQUESAS / UA POU	UA POU	Marquesas	46.22	6.80	22.99	3.03	13.16	0.05																	
camp. UP52	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	TEPHRITE	MARQUESAS / UA POU	UA POU	Marquesas	42.65	9.06	20.27	1.69	11.65	0.13																	
camp. UP52	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	TEPHRITE	MARQUESAS / UA POU	UA POU	Marquesas	0.07	4.71	0.04	23.45	3.25	0.76																	
camp. UP52	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	TEPHRITE	MARQUESAS / UA POU	UA POU	Marquesas	44.50	14.80	9.85	3.54	11.40	5.34	0.17				380.00	48.00	1135.00	380.00	82.00	34.50	0.01	2.38	0.33	0.22	2.78		
camp. UP53	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	PHONOLITE	MARQUESAS / UA POU / LOWER UA POU PHONOLITES	UA POU	Marquesas	57.90	20.45	1.15	0.28	2.95	0.20	0.17				962.00	278.00	350.00	962.00	141.00	22.00	0.34	6.41	2.75	0.15	4.11		
camp. UP54	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BASANITE	MARQUESAS / UA POU	UA POU	Marquesas	40.82	30.38	8.44	3.24	13.79	0.10	0.12																
camp. UP54	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BASANITE	MARQUESAS / UA POU	UA POU	Marquesas	39.19	0.06	0.39	0.01	18.18	42.65	0.35																
camp. UP54	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BASANITE	MARQUESAS / UA POU	UA POU	Marquesas	38.89	0.08	0.30	0.00	20.39	40.56	0.36																
camp. UP54	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BASANITE	MARQUESAS / UA POU	UA POU	Marquesas	40.85	4.92	0.01	21.61	3.22	0.92																	
camp. UP54	8489 LEGENDRE C.20	GEORC	GEORC	GEORC	GEORC	GEORC	BASANITE	MARQUESAS / UA POU	UA POU	Marquesas	44.80	14.00	10.35	2.90	12.75	7.88	0.19				260.00	60.00	980.00	260.00	64.00								

Museum ANU
 Date Acquired by Museum 2015
 Collector Aubrey Parke
 Date Collected 1950 - 1960
 Collection Method unknown
 Place Collected Fiji
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	127	Width Cutting Edge	26	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	18	Shoulder Max Thickness	no_data
Max Thickness	39	Middle Width	39	Middle Max Thickness	40
Weight (g)		Middle Thickness	no_data	Top Max Width	32
		Middle Max Front	no_data	Top Max Thickness	32
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	15
Island Group	Fiji	Middle Max Back	no_data	Length Rightangle to Bevel	11
TAS (SiO ₂) Material	52			Cross Section Shape	Round

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.1	50.2	1	0.7	10.7	0.9	164.7	453.0	0.2	10.8	▲ GREEN* V A C U U M ▼
2	16.2	54.4	1	0.7	10.8	1.0	182.3	401.4	0.2	10.5	
3	14.6	50.8	1	0.7	11.1	0.9	152.0	257.3	0.2	9.1	
4											
AV	15.3	51.8	0.8	0.7	10.9	1.0	166.3	370.6	0.2	10.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	219.7	86.6	185.6	23.4	91.9	89.6	0.0	6.2	292.1	25.3	90.9	6.2	▲ GREEN ▼
	196.5	68.1	135.1	20.3	93.8	92.4	1.0	8.1	294.5	26.4	93.3	3.2	
	189.4	126.0	216.3	23.3	95.5	89.4	1.0	5.9	306.6	31.1	99.3	3.2	
AV	202	94	179	22	94	90	1	7	298	28	95	4	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Accession No. Unavailable

Record No. 4

pXRF_0004_PANU

Museum ANU
 Date Acquired by Museum 2015
 Collector Aubrey Parke
 Date Collected 1950 - 1960
 Collection Method unknown
 Place Collected Fiji
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	82	Width Cutting Edge	35	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	24	Shoulder Max Thickness	no_data
Max Thickness	26	Middle Width	31	Middle Max Thickness	25
Weight (g)		Middle Thickness	25	Top Max Width	19
		Middle Max Front	15	Top Max Thickness	15
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	23
Island Group	Fiji	Middle Max Back	no_data	Length Rightangle to Bevel	23
TAS (SiO ₂) Material	55			Cross Section Shape	Trapezoid

basaltic andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.0	53.1	0	0.7	9.6	1.6	268.0	542.0	0.2	11.2
2	13.8	52.2	0	0.6	9.6	1.5	256.6	592.6	0.2	11.7
3	15.3	59.1	1	0.7	10.5	1.7	259.8	193.0	0.2	9.7
4										
AV	14.4	54.8	0.5	0.7	9.9	1.6	261.5	442.5	0.2	10.9

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	134.9	49.4	209.8	20.2	102.5	96.9	0.1	5.7	321.0	32.0	117.2	7.4
	187.7	158.6	351.4	19.6	122.1	116.5	0.5	5.7	329.0	29.3	124.5	4.6
	140.3	119.4	207.7	26.1	69.1	67.5	0.7	5.0	357.4	31.0	146.1	6.5
AV	154	109	256	22	98	94	0	5	336	31	129	6

GREEN

YELLOW



AV

Accession No. Unavailable

Record No. 5

pXRF_0005_PANU

Museum ANU
 Date Acquired by Museum 2015
 Collector Aubrey Parke
 Date Collected 1950 - 1960
 Collection Method unknown
 Place Collected Fiji
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	67	Width Cutting Edge	30	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	13	Shoulder Max Thickness	no_data
Max Thickness	15	Middle Width	27	Middle Max Thickness	15
Weight (g)		Middle Thickness	15	Top Max Width	18
		Middle Max Front	14	Top Max Thickness	5
Island Group	Fiji	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	11
TAS (SiO ₂) Material	49	Middle Max Back	no_data	Length Rightangle to Bevel	14
				Cross Section Shape	Trapezoid

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.2	47.3	0	1.2	5.6	1.4	323.9	229.2	0.2	15.3	▲ GREEN* V A C U U M ▼
2	19.2	50.9	0	1.2	5.7	1.4	319.4	191.3	0.3	15.2	
3	19.2	48.2	0	1.1	5.8	1.3	289.8	154.8	0.3	14.8	
4											
AV	18.8	48.8	0.1	1.2	5.7	1.4	311.0	191.8	0.3	15.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	69.0	25.4	151.0	20.5	19.3	12.0	4.4	50.1	249.0	34.8	120.4	7.9	▲ GREEN ▼
	44.9	38.6	172.1	20.9	7.6	4.5	4.9	43.8	245.6	37.9	117.6	7.7	
	33.3	75.5	185.4	23.0	11.3	10.3	4.3	38.2	264.2	37.7	108.3	8.0	
AV	49	47	170	21	13	9	5	44	253	37	115	8	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Museum ANU
 Date Acquired by Museum 2015
 Collector Aubrey Parke
 Date Collected 1950 - 1960
 Collection Method unknown
 Place Collected Fiji
 Material Stone
 Object Ground stone
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	125	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	33	Middle Width	72	Middle Max Thickness	33
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
Island Group	Fiji	Middle Max Front	no_data	Top Max Thickness	no_data
TAS (SiO ₂) Material	47	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
		Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	Oval

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	23.0	47.5	0	1.4	5.2	1.2	339.7	663.0	0.2	15.7
2	23.8	51.6	0	1.5	5.1	1.3	361.2	470.8	0.2	15.5
3	21.0	40.5	0	1.4	5.4	1.2	294.3	329.8	0.2	14.7
4										
AV	22.6	46.5	0.1	1.4	5.2	1.2	331.7	487.9	0.2	15.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	51.4	154.4	108.1	23.8	20.8	16.7	3.1	25.7	354.4	31.5	70.2	3.7
	74.1	138.7	117.1	24.1	24.7	10.6	2.4	24.5	361.2	32.0	66.8	6.7
	71.9	147.7	120.1	19.4	13.6	12.9	3.0	29.9	336.8	34.3	72.0	5.7
AV	66	147	115	22	20	13	3	27	351	33	70	5



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AV

Accession No. Unavailable

Record No. 12

pXRF_0012_PANU

Museum ANU
 Date Acquired by Museum 2015
 Collector Aubrey Parke
 Date Collected 1950 - 1960
 Collection Method unknown
 Place Collected Fiji
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	114	Width Cutting Edge	37	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	31	Shoulder Max Thickness	no_data
Max Thickness	38	Middle Width	43	Middle Max Thickness	39
Weight (g)		Middle Thickness	39	Top Max Width	29
		Middle Max Front	37	Top Max Thickness	17
Island Group	Fiji	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	30
TAS (SiO ₂) Material	47	Middle Max Back	41	Length Rightangle to Bevel	17
				Cross Section Shape	Rectangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.7	43.4	0	1.8	12.3	2.8	291.2	50.9	0.1	9.2	V A C U U M * G R E E N
2	16.6	55.2	1	1.9	9.9	2.3	244.0	0.0	0.1	7.6	
3	16.9	43.8	0	1.6	12.4	2.7	306.2	96.6	0.1	9.7	
4											
AV	16.7	47.5	0.7	1.7	11.5	2.6	280.5	49.2	0.1	8.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	82.9	66.2	184.4	22.9	65.1	68.2	10.3	62.1	701.9	29.9	179.9	51.4	G R E E N
	107.0	95.9	238.5	24.3	27.6	26.8	7.8	53.5	717.1	32.5	221.1	65.8	
	117.8	90.9	245.7	24.3	39.2	47.8	7.7	49.1	723.1	32.6	234.0	69.8	
AV	103	84	223	24	44	48	9	55	714	32	212	62	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. Unavailable

Record No. 14

pXRF_0014_PANU

Museum ANU
 Date Acquired by Museum 2015
 Collector Aubrey Parke
 Date Collected 1950 - 1960
 Collection Method unknown
 Place Collected Fiji
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	66	Width Cutting Edge	30	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	13	Shoulder Max Thickness	no_data
Max Thickness	15	Middle Width	35	Middle Max Thickness	16
Weight (g)		Middle Thickness	16	Top Max Width	28
Island Group	Fiji	Middle Max Front	28	Top Max Thickness	13
TAS (SiO ₂) Material	50	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	14
	basalt	Middle Max Back	32	Length Rightangle to Bevel	12
				Cross Section Shape	Trapezoid

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.4	50.1	1	1.1	9.8	5.6	0.0	278.4	0.2	13.6	▲ GREEN* V A C U U M ▼
2	17.6	48.6	0	1.2	9.5	5.4	0.0	458.6	0.2	13.6	
3	18.2	49.9	0	1.2	9.8	5.6	0.0	314.2	0.1	13.1	
4											
AV	18.1	49.5	0.4	1.2	9.7	5.5	0.0	350.4	0.2	13.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	200.1	63.8	227.6	30.9	20.4	20.4	3.6	30.6	670.8	45.3	358.1	48.5	▲ GREEN ▼
	155.4	82.6	261.4	34.1	24.5	14.8	4.9	36.2	667.8	40.5	352.8	49.3	
	153.6	81.5	221.5	27.7	15.9	14.4	5.3	37.5	661.7	41.6	351.1	46.6	
AV	170	76	237	31	20	17	5	35	667	42	354	48	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													

AV

Museum ANU
 Date Acquired by Museum 2015
 Collector Aubrey Parke
 Date Collected 1950 - 1960
 Collection Method unknown
 Place Collected Fiji
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	80	Width Cutting Edge	41	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	27	Shoulder Max Thickness	no_data
Max Thickness	28	Middle Width	46	Middle Max Thickness	28
Weight (g)		Middle Thickness	28	Top Max Width	no_data
Island Group	Fiji	Middle Max Front	32	Top Max Thickness	no_data
TAS (SiO ₂) Material	49	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	29
	basalt	Middle Max Back	45	Length Rightangle to Bevel	23
				Cross Section Shape	Trapezoid

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.9	51.0	1	2.0	10.0	2.8	293.8	39.4	0.2	9.9	▲ GREEN* V A C U U M ▼
2	18.0	47.5	1	2.0	10.3	2.7	291.6	8.7	0.1	9.3	
3	18.1	49.3	1	1.9	11.4	2.6	269.3	31.3	0.1	9.7	
4	18.3	49.3	1.0	2.0	10.5	2.7	284.9	26.4	0.1	9.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	90.3	90.5	234.6	25.7	33.3	37.1	9.6	60.0	1107.6	31.3	259.8	65.5	▲ GREEN ▼
	127.7	91.8	215.4	21.8	33.8	30.3	9.6	60.7	1042.0	32.4	241.7	65.3	
	78.6	112.9	175.7	24.0	33.3	27.4	12.8	73.7	985.1	28.6	257.6	64.4	
AV	99	98	209	24	33	32	11	65	1045	31	253	65	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Museum ANU
 Date Acquired by Museum 2015
 Collector Aubrey Parke
 Date Collected 1950 - 1960
 Collection Method unknown
 Place Collected Naulu I, Fiji
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	69	Width Cutting Edge	25	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	35	Shoulder Max Thickness	no_data
Max Thickness	37	Middle Width	42	Middle Max Thickness	32
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
Island Group	Fiji	Middle Max Front	24	Top Max Thickness	no_data
TAS (SiO ₂) Material	40	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	36
		Middle Max Back	no_data	Length Rightangle to Bevel	13
				Cross Section Shape	Trapezoid

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.1	44.0	0	1.1	6.9	6.7	0.0	494.7	0.2	19.1
2	13.9	35.0	0	1.1	5.5	7.0	0.0	497.2	0.2	19.9
3	14.0	41.9	0	1.2	5.3	7.5	0.0	721.4	0.3	21.8
4										
AV	14.3	40.3	0.0	1.1	5.9	7.0	0.0	571.1	0.2	20.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	213.9	17.5	260.4	24.0	29.4	29.7	4.7	35.6	437.4	39.7	426.7	54.9
	167.7	41.5	244.1	25.2	30.2	34.8	4.1	34.7	527.5	43.7	407.8	52.3
	175.9	26.4	211.0	25.1	14.9	22.4	5.1	38.8	477.3	41.6	438.0	62.6
AV	186	28	239	25	25	29	5	36	481	42	424	57



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AV

VACUUM

GREEN

YELLOW

Accession No. Unavailable

Record No. 34

pXRF_0034_PANU

Museum ANU
 Date Acquired by Museum 2015
 Collector Aubrey Parke
 Date Collected 1950 - 1960
 Collection Method unknown
 Place Collected Fiji
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	62	Width Cutting Edge	30	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	14	Shoulder Max Thickness	no_data
Max Thickness	16	Middle Width	29	Middle Max Thickness	17
Weight (g)		Middle Thickness	14	Top Max Width	11
Island Group	Fiji	Middle Max Front	no_data	Top Max Thickness	7
TAS (SiO ₂) Material	50	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	19
	basalt	Middle Max Back	no_data	Length Rightangle to Bevel	17
				Cross Section Shape	Oval

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.1	55.6	2	0.2	14.8	0.8	120.9	344.8	0.2	7.9	V A C U U M * G R E E N
2	13.0	48.2	0	0.1	13.2	0.8	137.8	572.1	0.2	10.8	
3	13.6	47.6	0	0.1	13.2	1.0	180.7	1123.8	0.2	11.6	
4											
AV	13.9	50.5	1.1	0.2	13.8	0.9	146.5	680.2	0.2	10.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	87.9	47.4	214.4	19.4	11.9	12.0	1.0	6.6	331.9	28.4	37.2	0.8	G R E E N
	96.7	44.0	178.8	22.5	11.2	8.7	0.9	6.0	300.3	48.8	44.7	8.1	
	202.5	50.1	231.2	18.0	15.3	21.0	1.0	4.1	149.5	25.0	23.4	3.4	
AV	129	47	208	20	13	14	1	6	261	34	35	4	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. AM E.5971

Record No. 37

pXRF_0001_AMS

Museum Australian
 Date Acquired by Museum 12.02.1897
 Collector W. Lawrie
 Date Collected By 1897
 Collection Method Surface
 Place Collected Aneityum, Vanuatu
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	176.7	Width Cutting Edge	68.2	Shoulder Back Max Width	
Max Width	73.2	Bevel Max Thickness	27.2	Shoulder Max Thickness	
Max Thickness	31.5	Middle Width	69.2	Middle Max Thickness	30.2
Weight (g)		Middle Thickness	30.2	Top Max Width	26.4
		Middle Max Front	46.8	Top Max Thickness	14.6
		Shoulder Front Max Width		Cutting Edge to Bevel	41.4
Island Group	Vanuatu	Middle Max Back		Length Rightangle to Bevel	35.5
TAS (SiO ₂) Material	49			Cross Section Shape	Oval

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.8	50.0	0	0.9	11.5	0.8	192.5	102.3	0.2	14.2	V A C U U M * G R E E N
2	18.7	48.6	0	0.8	11.5	0.7	187.4	25.8	0.2	13.9	
3	17.3	47.7	0	1.0	10.6	0.8	179.2	8.1	0.2	13.4	
4											
AV	18.3	48.8	0.1	0.9	11.2	0.8	186.4	45.4	0.2	13.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	5.9	129.4	141.3	24.5	43.4	46.8	2.8	22.6	543.5	30.9	53.2	4.4	G R E E N
	3.4	160.5	156.0	25.8	38.5	36.0	3.2	27.4	585.8	29.0	49.3	2.4	
	8.2	162.6	152.8	23.0	28.6	25.8	1.4	18.3	532.4	28.2	42.7	4.5	
AV	6	151	150	24	37	36	2	23	554	29	48	4	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Australian
 Date Acquired by Museum 1897 - 1917
 Collector Robertson
 Date Collected 1890 - 1910
 Collection Method Surface
 Place Collected Erromango, Vanuatu
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	96.8	Width Cutting Edge	52.4	Shoulder Back Max Width	
Max Width	57	Bevel Max Thickness	24	Shoulder Max Thickness	
Max Thickness	27.1	Middle Width	49.5	Middle Max Thickness	27
Weight (g)		Middle Thickness	27	Top Max Width	19.6
		Middle Max Front		Top Max Thickness	8.7
		Shoulder Front Max Width		Cutting Edge to Bevel	46.8
Island Group	Vanuatu	Middle Max Back		Length Rightangle to Bevel	30.1
TAS (SiO ₂) Material	46			Cross Section Shape	Oval

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.7	45.5	0	1.1	14.5	0.7	104.1	278.9	0.1	9.5	GREEN* VANUATU
2	16.4	46.8	1	1.0	15.8	0.7	103.0	240.5	0.1	9.1	
3	16.5	44.6	1	0.9	16.0	0.7	121.5	422.0	0.2	10.0	
4											
AV	16.2	45.6	0.5	1.0	15.5	0.7	109.6	313.8	0.2	9.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	87.3	140.0	163.3	19.0	84.4	86.0	2.9	32.6	667.9	24.3	34.7	2.0	GREEN
	62.8	119.6	140.6	21.7	78.6	72.5	4.3	32.1	676.2	25.6	31.4	4.1	
	72.6	117.8	166.0	21.1	117.1	106.8	4.4	33.8	672.9	26.7	30.2	1.1	
AV	74	126	157	21	93	88	4	33	672	26	32	2	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													



Museum Australian
 Date Acquired by Museum 1897 - 1917
 Collector Robertson
 Date Collected 1890 - 1910
 Collection Method Surface
 Place Collected Erromango, Vanuatu
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	96.3	Width Cutting Edge	47.4	Shoulder Back Max Width	
Max Width	55.8	Bevel Max Thickness	22.2	Shoulder Max Thickness	
Max Thickness	24.3	Middle Width	46.9	Middle Max Thickness	24.3
Weight (g)		Middle Thickness	24.3	Top Max Width	11.5
		Middle Max Front		Top Max Thickness	5.2
		Shoulder Front Max Width		Cutting Edge to Bevel	26.8
Island Group	Vanuatu	Middle Max Back		Length Rightangle to Bevel	23.9
TAS (SiO ₂) Material	47			Cross Section Shape	Oval

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.5	41.6	0	0.5	14.5	0.5	92.5	290.5	0.2	10.4	V A C U U M * G R E E N
2	14.2	48.9	0	0.6	14.8	0.5	102.2	329.7	0.2	11.1	
3	14.8	51.6	1	0.4	15.1	0.5	104.9	327.6	0.2	11.3	
4											
AV	14.2	47.4	0.3	0.5	14.8	0.5	99.9	315.9	0.2	10.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	65.6	149.6	110.5	18.6	24.6	27.6	1.5	11.8	566.6	24.8	36.7	2.0	G R E E N
	47.7	118.9	120.7	17.4	16.2	13.0	2.2	18.0	577.8	21.8	25.7	1.3	
	54.8	113.0	136.2	20.1	35.1	26.5	1.7	13.7	576.9	23.5	28.6	3.1	
AV	56	127	122	19	25	22	2	15	574	23	30	2	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Australian
 Date Acquired by Museum 1897 - 1917
 Collector Robertson
 Date Collected 1890 - 1910
 Collection Method Surface
 Place Collected Erromango, Vanuatu
 Material Stone
 Object Adze
 Type n/a (Samoa)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	104.7	Width Cutting Edge	40.7	Shoulder Back Max Width	no_data
Max Width	37.1	Bevel Max Thickness	25.5	Shoulder Max Thickness	no_data
Max Thickness	26.9	Middle Width	35.6	Middle Max Thickness	27.1
Weight (g)		Middle Thickness	27.1	Top Max Width	25
		Middle Max Front	29.4	Top Max Thickness	19.6
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	52.1
Island Group	Vanuatu	Middle Max Back	35.1	Length Rightangle to Bevel	41.4
TAS (SiO ₂) Material	56			Cross Section Shape	Trapezoid

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	20.5	57.4	1	0.5	11.4	1.3	233.6	102.8	0.2	12.2	V A C U U M * G R E E N
2	21.3	55.4	1	0.5	11.3	1.3	254.3	106.3	0.2	12.2	
3	20.1	54.5	0	0.5	11.3	1.3	245.0	96.7	0.2	12.0	
4											
AV	20.7	55.8	0.6	0.5	11.3	1.3	244.3	101.9	0.2	12.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	0.0	111.9	151.0	28.9	296.2	296.7	0.2	12.8	370.5	32.3	110.4	9.8	G R E E N
	0.0	98.7	178.5	28.8	245.9	239.3	0.3	11.7	348.6	31.1	116.2	6.3	
	10.0	40.7	130.6	27.9	269.9	265.5	1.5	15.5	357.4	34.2	105.6	9.2	
AV	3	84	153	29	271	267	1	13	359	33	111	8	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Australian
 Date Acquired by Museum 1897 - 1917
 Collector Robertson
 Date Collected 1890 - 1910
 Collection Method Surface
 Place Collected Erromango, Vanuatu
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	155.3	Width Cutting Edge	65.3	Shoulder Back Max Width	no_data
Max Width	65.3	Bevel Max Thickness	20.3	Shoulder Max Thickness	no_data
Max Thickness	27.5	Middle Width	55.7	Middle Max Thickness	27.4
Weight (g)		Middle Thickness	27.4	Top Max Width	10.9
		Middle Max Front	no_data	Top Max Thickness	6.6
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	40.2
Island Group	Vanuatu	Middle Max Back	no_data	Length Rightangle to Bevel	39.5
TAS (SiO ₂) Material	50			Cross Section Shape	Oval

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	19.2	54.0	0	2.0	7.9	1.1	224.9	32.9	0.2	10.8	V A C U U M * G R E E N
2	19.2	50.7	0	2.1	7.5	1.1	216.7	49.9	0.2	10.3	
3	18.0	44.3	0	2.0	7.1	1.1	202.1	3.6	0.2	10.5	
4	18.8	49.6	0.1	2.0	7.5	1.1	214.5	28.8	0.2	10.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	0.0	293.0	208.6	23.4	209.9	204.2	7.4	50.2	746.2	32.5	96.6	8.4	G R E E N
	0.0	311.5	198.0	24.9	99.1	100.0	5.7	41.5	752.6	35.8	112.1	8.1	
	10.7	237.8	160.0	22.3	63.3	57.0	5.0	45.8	736.2	32.4	102.2	5.8	
AV	4	281	189	24	124	120	6	46	745	34	104	7	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Australian
 Date Acquired by Museum 1897 - 1917
 Collector Robertson
 Date Collected 1890 - 1910
 Collection Method Surface
 Place Collected Erromango, Vanuatu
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	84.1	Width Cutting Edge	43.2	Shoulder Back Max Width	no_data
Max Width	49.1	Bevel Max Thickness	14.3	Shoulder Max Thickness	no_data
Max Thickness	19.1	Middle Width	48.9	Middle Max Thickness	19
Weight (g)		Middle Thickness	19.1	Top Max Width	9.3
		Middle Max Front	no_data	Top Max Thickness	7.6
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	25.3
Island Group	Vanuatu	Middle Max Back	no_data	Length Rightangle to Bevel	23.1
TAS (SiO ₂) Material	47			Cross Section Shape	Oval

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.8	50.4	0	0.6	14.0	0.7	141.2	424.8	0.2	11.7	V A C U U M * G R E E N
2	16.8	46.7	0	1.0	13.2	0.7	131.8	313.8	0.2	11.3	
3	16.2	43.5	0	1.1	12.9	0.7	128.8	337.2	0.2	11.1	
4	16.6	46.9	0.2	0.9	13.4	0.7	133.9	358.6	0.2	11.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	64.6	182.7	191.9	22.3	108.0	97.5	2.1	16.8	564.6	28.6	36.5	5.7	G R E E N
	72.1	143.4	125.0	20.6	42.1	36.4	1.5	16.0	561.5	30.2	40.3	4.7	
	71.9	141.6	133.5	24.1	31.2	24.7	1.8	14.4	600.6	22.3	32.7	2.1	
AV	70	156	150	22	60	53	2	16	576	27	36	4	

													Y E L L O W

AV

Museum Australian
 Date Acquired by Museum 1922
 Collector J. H. Lawrie
 Date Collected 1890 - 1920
 Collection Method Surface
 Place Collected Futuna, Vanuatu
 Material Greenstone
 Object Pendant
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	46.7	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	8.7	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	29.3	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Vanuatu	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	60			Cross Section Shape	Ovoid

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	4.2	58.2	1	0.4	14.9	0.1	0.0	885.8	0.1	5.6	V A C U U M * G R E E N
2	3.1	59.5	1	0.3	15.3	0.1	2.5	397.4	0.1	5.7	
3	2.9	62.4	1	0.3	15.4	0.1	0.0	680.5	0.1	5.9	
4											
AV	3.4	60.0	0.7	0.3	15.2	0.1	0.8	654.5	0.1	5.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	736.6	106.1	57.6	14.5	33.3	30.5	0.8	2.5	447.5	3.0	0.0	0.0	G R E E N
	748.2	71.5	41.1	15.6	33.0	28.5	0.7	4.4	426.0	3.6	0.0	0.0	
	745.7	81.3	47.7	14.6	20.3	18.0	0.9	2.6	422.6	0.0	0.0	0.0	
AV	744	86	49	15	29	26	1	3	432	2	0	0	
	1440	71	66	16	12	10	0	3	417	9	-57	1	Y E L L O W
	1320	63	62	16	12	11	0	3	430	8	-64	2	
	1641	97	66	16	11	9	-0	3	350	9	-52	4	
AV	1467	77	65	16	12	10	0	3	399	9	-58	2	



Museum Australian
 Date Acquired by Museum 1922
 Collector J. H. Lawrie
 Date Collected 1890 - 1920
 Collection Method Surface
 Place Collected Futuna, Vanuatu
 Material Greenstone
 Object Pendant
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	64.9	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	57.4	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	12.1	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Vanuatu	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	64			Cross Section Shape	Ovoid

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	2.5	60.5	1	0.0	17.1	0.1	9.9	239.4	0.1	5.1	GREEN* V A C U U M
2	1.6	65.5	1	-0.0	16.7	0.1	23.5	167.0	0.1	5.1	
3	2.0	65.4	1	0.0	17.1	0.1	4.2	248.1	0.1	5.2	
4											
AV	2.0	63.8	1.0	0.0	17.0	0.1	12.5	218.1	0.1	5.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	680.8	147.1	70.9	16.4	46.8	33.3	0.9	3.5	205.6	2.1	0.0	0.0	GREEN
	656.8	90.7	49.0	15.0	16.2	11.0	0.7	2.9	186.7	1.2	0.0	0.0	
	733.7	92.5	46.0	15.3	23.7	19.2	0.9	3.6	238.4	2.1	0.0	0.0	
AV	690	110	55	16	29	21	1	3	210	2	0	0	
	2359	70	55	16	11	10	1	4	209	9	-13	4	YELLOW
	984	60	60	16	9	8	0	2	179	9	-8	3	
	2265	73	56	16	14	13	0	4	206	8	-15	1	
AV	1869	67	57	16	11	10	0	3	198	9	-12	3	



Museum Australian
 Date Acquired by Museum 1897 - 1917
 Collector Robertson
 Date Collected 1890 - 1910
 Collection Method Surface
 Place Collected Erromango, Vanuatu
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	72.6	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	47.7	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	44.5	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Vanuatu	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	47			Cross Section Shape	Ovoid

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

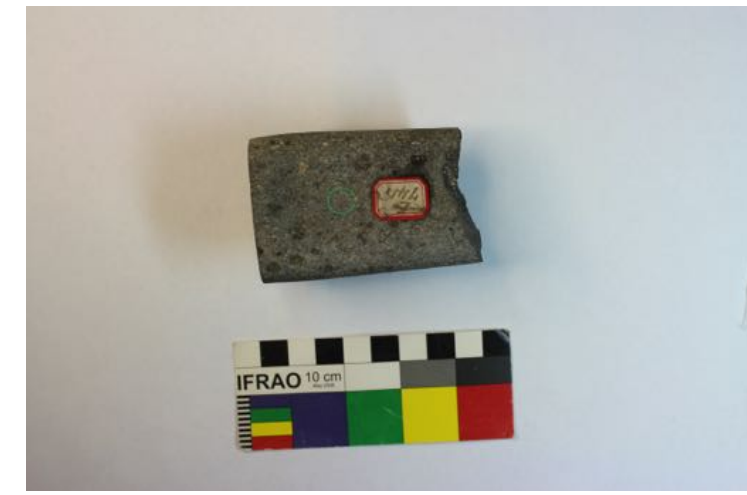
Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	21.7	54.4	0	1.1	11.0	0.7	114.1	1.4	0.2	9.8	V A C U U M * G R E E N
2	18.5	36.1	-0	1.1	10.5	0.7	119.2	0.0	0.2	9.5	
3	20.2	49.7	0	1.0	11.5	0.7	130.5	0.0	0.2	10.0	
4											
AV	20.1	46.7	-0.0	1.1	11.0	0.7	121.3	0.5	0.2	9.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	3.6	63.9	133.5	20.3	26.9	21.4	2.2	18.8	506.5	24.0	31.8	3.8	G R E E N
	23.6	90.1	92.4	22.8	23.4	23.4	2.4	19.3	517.0	27.4	41.6	1.0	
	0.0	98.0	98.3	20.9	18.1	17.0	2.0	15.7	490.7	24.3	35.8	1.9	
AV	9	84	108	21	23	21	2	18	505	25	36	2	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum: British Museum
 Date Acquired by Museum: 1899
 Collector: F.W. Christian
 Date Collected: 1896-1898
 Collection Method: Surface (gift)
 Place Collected: Hiva Oa, Marquesas
 Material: Basalt
 Object: Figure (tiki)
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	200	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	37	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



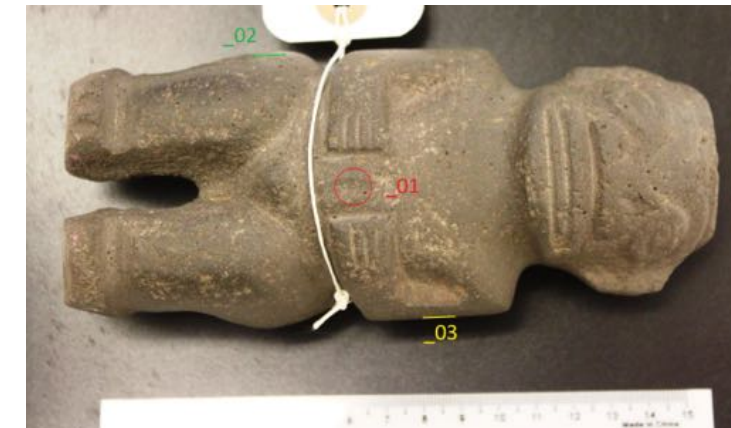
Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	12.6	40.7	0	1.4	8.4	3.4	184.2	164.8	0.1	10.3
2	13.3	31.9	0	1.5	8.8	3.9	171.2	237.5	0.1	10.9
3	13.5	38.6	0	1.4	8.6	3.7	206.8	172.7	0.1	10.8
4										
AV	13.1	37.1	0.0	1.4	8.6	3.7	187.4	191.7	0.1	10.7

VACUUM GREEN*



Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	560.7	199.5	240.7	30.2	56.3	54.1	3.7	31.9	573.0	36.4	269.1	47.6
	563.8	270.7	304.8	28.7	59.0	52.9	2.5	28.7	590.3	40.5	242.4	41.6
	548.8	202.6	242.4	30.9	58.2	56.2	4.5	34.8	608.4	40.1	275.3	49.6
AV	558	224	263	30	58	54	4	32	591	39	262	46
	484	330	152	25	16	16	3	31	744	38	330	54
	392	316	170	33	18	17	3	38	840	42	384	62
	350	350	143	28	18	16	3	30	795	57	340	55
AV	408	332	155	29	17	16	3	33	793	46	351	57

GREEN

YELLOW



Accession No. BM Oc1899.60

Record No. 54

pXRF_0002_BM

Museum: British Museum
 Date Acquired by Museum: 1899
 Collector: F.W. Christian
 Date Collected: 1896-1898
 Collection Method: Surface
 Place Collected: Hiva Oa, Marquesas
 Material: Basalt
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	134.3	Width Cutting Edge	59.6	Shoulder Back Max Width	no_data
Max Width	59.6	Bevel Max Thickness	14.5	Shoulder Max Thickness	no_data
Max Thickness	33.2	Middle Width	61.4	Middle Max Thickness	30.9
Weight (g)		Middle Thickness	32.1	Top Max Width	37.8
		Middle Max Front	46.4	Top Max Thickness	20.4
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	31.4
Island Group	Marquesas	Middle Max Back	61.7	Length Rightangle to Bevel	22.9
TAS (SiO ₂) Material	38			Cross Section Shape	Trapezoid

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.2	41.4	0	0.5	11.3	0.6	82.1	0.0	0.1	9.1	V A C U U M * G R E E N
2	13.2	38.5	0	0.3	12.1	0.6	106.4	24.7	0.2	9.8	
3	12.1	33.9	0	0.4	11.2	0.6	97.7	45.5	0.2	10.9	
4											
AV	12.5	37.9	0.0	0.4	11.5	0.6	95.4	23.4	0.2	9.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	411.7	0.0	158.1	25.2	97.6	91.0	0.0	10.0	152.7	24.5	33.5	8.9	G R E E N
	404.2	147.7	150.7	27.9	114.1	108.4	0.0	8.6	158.2	28.4	35.6	9.6	
	371.5	118.7	177.1	20.6	44.5	42.8	0.0	8.7	156.2	24.8	34.4	9.4	
AV	396	89	162	25	85	81	0	9	156	26	35	9	
	86	5334	112	19	24	20	2	5	195	23	33	6	Y E L L O W
	75	56	99	21	31	27	2	6	193	23	40	6	
	73	56	115	19	15	13	1	4	192	19	33	4	
AV	78	1815	109	19	23	20	2	5	193	22	35	6	



Accession No. BM Oc1899.63

Record No. 55

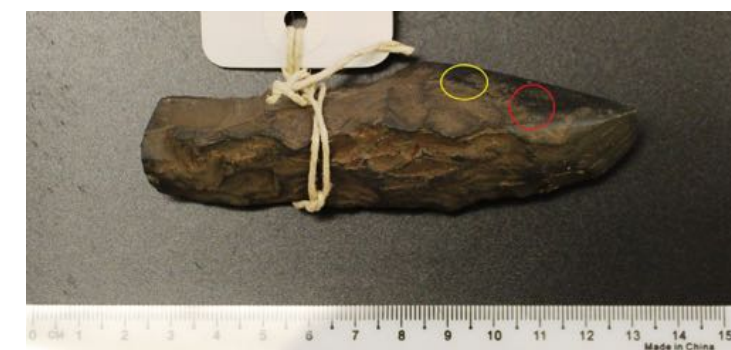
pXRF_0003_BM

Museum: British Museum
 Date Acquired by Museum: 1899
 Collector: F.W. Christian
 Date Collected: 1896-1898
 Collection Method: Surface
 Place Collected: Mangaia, Cook Islands
 Material: Basalt
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	103.9	Width Cutting Edge	12.6	Shoulder Back Max Width	no_data
Max Width	30.1	Bevel Max Thickness	10.1	Shoulder Max Thickness	no_data
Max Thickness	30.7	Middle Width	no_data	Middle Max Thickness	26.6
Weight (g)		Middle Thickness	no_data	Top Max Width	20.2
		Middle Max Front	10.3	Top Max Thickness	15.1
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	20.2
Island Group	Cook Islands	Middle Max Back	30.1	Length Rightangle to Bevel	15.1
TAS (SiO ₂) Material	47			Cross Section Shape	Triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	19.4	47.8	0	2.2	7.1	3.5	321.2	41.5	0.2	11.9	VACUUM GREEN*
2	17.8	37.3	0	2.4	5.1	3.4	291.8	0.0	0.1	10.8	
3	20.9	56.0	1	2.3	7.0	3.5	291.4	38.2	0.2	11.4	
4											
AV	19.4	47.0	0.2	2.3	6.4	3.5	301.5	26.6	0.2	11.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	391.9	103.2	163.8	29.6	37.8	43.9	15.1	78.7	630.0	26.9	333.3	53.3	GREEN
	385.1	110.6	147.8	32.6	39.6	40.8	11.1	62.3	576.2	32.2	339.9	51.8	
	372.0	93.7	167.5	33.0	41.9	43.8	14.6	75.4	623.8	28.1	347.8	54.2	
AV	383	102	160	32	40	43	14	72	610	29	340	53	
	37	32	104	28	12	12	6	79	840	36	424	54	YELLOW
	35	29	105	31	11	13	6	82	882	34	428	53	
	34	38	111	33	15	15	7	92	850	34	439	52	
AV	35	33	107	31	12	13	7	85	857	35	430	53	

Accession No. BM Oc1912.171a

Record No. 56

pXRF_0004_BM

Museum: British Museum
 Date Acquired by Museum: 1912
 Collector: Chignell
 Date Collected: By 1912
 Collection Method: Surface
 Place Collected: Murin, Wanigela,
 Material: Flint
 Object: Stone Implement
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	41			Cross Section Shape	Sub triangular

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.0	34.3	0	1.1	9.8	1.2	202.6	168.7	0.2	10.0	▲ GREEN* V A C U U M ▼
2	15.2	44.1	0	0.4	11.6	1.1	192.8	211.9	0.2	10.5	
3	15.6	45.6	0	0.9	10.6	1.3	229.7	283.0	0.2	11.4	
4											
AV	14.9	41.3	0.0	0.8	10.6	1.2	208.3	221.2	0.2	10.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	394.6	133.7	128.5	25.5	44.7	37.2	3.9	30.6	496.0	30.2	97.6	11.6	▲ GREEN ▼
	406.6	93.6	141.1	25.8	58.0	43.0	0.4	14.7	575.8	31.9	88.4	14.6	
	393.7	120.9	129.6	27.3	40.8	41.3	3.9	29.7	512.9	31.0	101.6	14.0	
AV	398	116	133	26	48	40	3	25	528	31	96	13	
	56	33	93	21	10	11	4	28	658	25	84	12	▲ YELLOW ▼
	61	35	93	21	11	10	3	13	728	27	81	10	
	58	34	99	21	11	10	4	29	628	27	97	13	
AV	58	34	95	21	11	10	4	23	671	27	87	12	



Accession No. BM Oc1905.0209.329

Record No. 57

pXRF_0005_BM

Museum: British Museum
 Date Acquired by Museum: 1905
 Collector: Monckton
 Date Collected: 1905
 Collection Method: Surface (?)
 Place Collected: Rainu, Wanigela,
 Material: Greenstone
 Object: Celt
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	43			Cross Section Shape	no_data

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	8.0	32.9	0	0.2	14.0	0.2	0.0	1429.8	0.2	7.1	VACUUM GREEN*
2	4.6	51.2	3	0.0	15.9	0.2	0.0	863.7	0.1	6.6	
3	7.0	44.8	0	0.0	14.0	0.1	0.0	2682.9	0.2	7.9	
4											
AV	6.5	42.9	0.9	0.1	14.6	0.1	0.0	1658.8	0.2	7.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	720.3	124.1	90.5	19.6	31.8	36.1	0.3	8.4	51.1	14.5	12.3	8.0	GREEN
	743.4	104.6	74.0	19.2	27.0	32.9	0.1	9.1	52.3	14.2	11.8	7.6	
	619.1	105.3	88.6	19.6	27.5	28.9	0.1	9.8	47.2	13.9	9.4	7.2	
AV	694	111	84	19	29	33	0	9	50	14	11	8	
	1782	53	70	15	8	6	-0	3	68	8	19	2	YELLOW
	1571	53	67	15	7	4	-1	2	73	7	17	3	
	2227	49	82	15	8	6	-1	2	68	8	19	1	
AV	1860	52	73	15	8	5	-1	2	70	8	18	2	

Accession No. BM Oc1905.0209.326

Record No. 58

pXRF_0006_BM

Museum: British Museum
 Date Acquired by Museum: 1905
 Collector: Monckton
 Date Collected: By 1905
 Collection Method: Surface (?)
 Place Collected: Rainu, Wanigela,
 Material: Stone
 Object: Club-head (part)
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	46			Cross Section Shape	no_data

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.2	49.3	2	0.0	15.5	0.2	65.2	186.6	0.1	5.5
2	19.8	40.8	4	0.0	19.4	0.3	20.5	654.2	0.1	5.6
3	23.2	47.5	4	0.0	21.2	0.3	14.1	819.4	0.1	5.1
4										
AV	20.4	45.9	3.3	0.0	18.7	0.3	33.3	553.4	0.1	5.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	446.1	94.3	104.2	21.5	31.1	33.3	0.1	9.7	124.2	14.9	10.0	8.3
	433.3	101.1	76.6	22.7	29.4	36.9	0.7	11.1	139.3	15.1	6.1	8.2
	465.9	97.6	78.6	23.5	29.5	30.5	0.9	11.4	132.3	14.3	10.5	7.1
AV	448	98	86	23	30	34	1	11	132	15	9	8
	173	50	80	17	9	9	1	5	176	12	-7	3
	126	56	82	18	9	7	1	6	189	11	-9	6
	124	57	81	18	8	9	1	4	179	11	-3	4
AV	141	54	81	17	9	8	1	5	181	12	-6	4

VACUUM GREEN*

GREEN

YELLOW

Accession No. BM Oc1905.0209.327

Record No. 59

pXRF_0007_BM

Museum British Museum
 Date Acquired by Museum 1906
 Collector Monckton
 Date Collected By 1905
 Collection Method Surface (?)
 Place Collected Rainu, Wanigela,
 Material Greenstone
 Object Club-head (part)
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	56			Cross Section Shape	no_data

basaltic andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	2.5	59.9	1	0.0	15.5	0.1	0.0	287.0	0.1	5.9	V A C U U M * G R E E N
2	3.8	57.6	6	0.0	15.3	0.1	0.0	719.0	0.1	6.7	
3	5.8	50.5	71	0.0	16.6	0.1	0.0	365.9	0.1	5.9	
4											
AV	4.0	56.0	25.8	0.0	15.8	0.1	0.0	457.3	0.1	6.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	745.4	96.5	64.4	18.4	42.7	39.8	0.0	8.9	43.8	14.4	10.3	7.6	G R E E N
	746.8	90.3	66.1	17.8	39.7	39.7	0.5	10.0	44.9	13.3	10.2	6.8	
	728.6	109.4	81.8	20.3	34.5	33.6	0.0	9.3	49.8	13.4	9.9	8.2	
AV	740	99	71	19	39	38	0	9	46	14	10	8	
	1262	54	66	16	14	9	-1	1	66	8	22	5	Y E L L O W
	1587	53	63	16	12	7	-1	1	63	8	21	-1	
	1811	53	68	15	9	6	-2	1	65	7	19	-0	
AV	1553	54	66	16	12	7	-1	1	65	7	21	1	



Museum: British Museum
 Date Acquired by Museum: 1905
 Collector: Monckton
 Date Collected: By 1905
 Collection Method: Surface (?)
 Place Collected: Rainu, Wanigela,
 Material: Stone
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	49			Cross Section Shape	Sub-triangular

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.3	52.2	0	0.5	11.8	1.3	228.2	277.2	0.2	10.8	VACUUM GREEN*
2	15.3	42.9	1	0.5	12.0	1.2	205.5	179.6	0.2	10.4	
3	16.6	51.3	0	0.4	12.3	1.4	248.5	283.9	0.2	10.7	
4											
AV	16.0	48.8	0.6	0.5	12.1	1.3	227.4	246.9	0.2	10.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	416.1	87.1	124.4	26.8	33.8	40.9	0.0	13.0	473.3	28.2	97.4	15.0	GREEN
	401.6	111.3	150.1	26.8	39.3	42.8	0.0	13.4	506.7	32.4	100.8	15.2	
	400.8	86.7	119.7	26.9	37.2	38.6	0.0	13.2	475.5	31.9	120.6	14.5	
AV	406	95	131	27	37	41	0	13	485	31	106	15	
	67	34	93	20	10	9	2	9	625	27	92	13	YELLOW
	73	38	103	20	11	11	1	9	627	27	86	13	
	61	35	89	20	9	9	2	8	623	30	127	13	
AV	67	36	95	20	10	10	2	9	625	28	102	13	



Museum: British Museum
 Date Acquired by Museum: 1905
 Collector: Monckton
 Date Collected: By 1905
 Collection Method: Surface (?)
 Place Collected: Rainu, Wanigela,
 Material: Stone
 Object: Pebble
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	122			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	0.0	115.3	42	1.0	7.0	0.1	0.0	1751.8	0.1	9.2	V A C U U M * G R E E N
2	0.0	105.1	7	1.2	6.5	0.2	0.0	1923.7	0.1	7.7	
3	0.0	146.9	19	1.1	6.3	0.1	0.0	666.7	0.1	8.9	
4	0.0	122.4	22.6	1.1	6.6	0.1	0.0	1447.4	0.1	8.6	
AV	0.0	122.4	22.6	1.1	6.6	0.1	0.0	1447.4	0.1	8.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	738.6	83.3	43.9	18.1	42.0	33.5	0.5	9.3	50.7	12.9	9.4	6.9	G R E E N
	715.4	68.6	49.7	18.7	31.2	25.6	0.8	8.8	49.8	12.1	8.5	5.7	
	735.3	85.6	44.7	18.1	46.9	39.9	0.6	9.3	51.0	13.7	9.3	7.1	
AV	730	79	46	18	40	33	1	9	51	13	9	7	
	1508	54	53	16	16	6	-3	-1	69	5	14	-2	Y E L L O W
	818	55	62	16	13	2	-4	-3	65	4	15	-5	
	1278	56	53	16	13	3	-4	-2	67	5	10	-4	
AV	1201	55	56	16	14	4	-4	-2	67	5	13	-4	



Accession No. BM Oc1905.0209.330

Record No. 62

pXRF_0010_BM

Museum British Museum

Date Acquired by Museum 1905

Collector Monckton

Date Collected By 1905

Collection Method Surface (?)

Place Collected Rainu, Wanigela,

Material Stone

Object Flake

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	46			Cross Section Shape	no_data

basalt

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.4	35.0	0	0.3	10.2	1.5	334.0	672.1	0.3	13.7
2	10.7	56.1	2	0.6	8.9	1.0	224.3	462.0	0.3	13.2
3	14.7	46.5	1	0.2	9.4	1.3	306.9	598.0	0.3	16.8
4										
AV	13.3	45.8	1.1	0.4	9.5	1.2	288.4	577.3	0.3	14.6

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	442.9	61.4	163.6	26.6	38.2	36.9	0.0	12.3	54.3	35.5	94.5	15.2
	449.2	117.8	189.8	27.2	42.2	42.0	0.3	13.3	164.0	35.8	81.8	13.9
	442.6	114.6	172.9	24.1	44.2	43.9	0.7	13.5	151.5	33.8	83.3	14.7
AV	445	98	175	26	42	41	0	13	123	35	87	15
	129	14	105	21	13	9	2	9	79	38	148	12
	104	54	121	22	15	11	2	7	217	35	106	9
	130	14	105	19	12	9	2	6	132	32	128	11
AV	121	27	110	20	13	10	2	7	143	35	128	10

GREEN

YELLOW

Museum: British Museum
 Date Acquired by Museum: 1905
 Collector: Monckton
 Date Collected: By 1905
 Collection Method: Surface (?)
 Place Collected: Rainu, Wanigela,
 Material: Greenstone
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	49			Cross Section Shape	no_data

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	8.3	61.6	2	0.4	12.9	1.0	148.1	94.2	0.1	6.7
2	8.8	49.8	2	0.5	12.9	1.1	151.0	36.0	0.1	6.2
3	9.1	36.4	0	0.6	11.9	0.9	121.3	0.0	0.1	5.9
4										
AV	8.8	49.3	1.1	0.5	12.6	1.0	140.1	43.4	0.1	6.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	380.2	74.4	129.3	19.1	20.5	22.7	0.0	10.3	108.4	22.9	77.0	11.7
	378.8	82.1	116.7	19.4	24.4	22.9	0.0	9.6	100.1	27.6	94.4	13.5
	359.1	91.9	105.9	20.8	20.2	22.9	0.2	10.0	98.7	24.3	89.8	11.7
AV	373	83	117	20	22	23	0	10	102	25	87	12
	26	56	91	15	6	4	-1	0	128	19	125	5
	25	56	96	15	7	5	-1	1	133	21	127	6
	24	56	92	16	7	5	-1	2	128	19	123	8
AV	25	56	93	15	7	5	-1	1	130	20	125	6



Museum: British Museum
 Date Acquired by Museum: 1905
 Collector: Monckton
 Date Collected: By 1905
 Collection Method: Surface (?)
 Place Collected: Rainu, Wanigela,
 Material: Stone
 Object: Chisel
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	41			Cross Section Shape	no_data

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	11.6	38.6	7	0.0	25.2	1.0	135.7	0.0	0.1	4.9
2	12.2	43.3	7	0.0	22.3	1.1	153.6	0.0	0.1	4.7
3	12.1	40.7	8	0.0	24.4	1.0	144.4	0.0	0.1	4.8
4										
AV	11.9	40.9	7.3	0.0	24.0	1.1	144.6	0.0	0.1	4.8

GREEN*
 V
A
C
U
U
M

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	414.8	120.0	175.6	22.1	46.2	46.7	0.0	16.0	1130.8	43.7	50.0	16.2
	421.4	107.3	230.3	24.7	38.1	43.3	0.0	16.4	952.1	43.5	70.7	17.1
	484.8	133.6	262.8	23.5	43.4	47.3	0.0	18.5	1127.8	37.8	32.8	16.0
AV	440	120	223	23	43	46	0	17	1070	42	51	16

GREEN

YELLOW



Accession No. BM Oc1905.0209.333

Record No. 65

pXRF_0013_BM

Museum: British Musuem
 Date Acquired by Museum: 1905
 Collector: Monckton
 Date Collected: By 1905
 Collection Method: Surface (?)
 Place Collected: Rainu, Wanigela,
 Material: Stone
 Object: Stone fragment
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	22			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.4	22.6	0	0.0	0.0	0.0	844.1	7379.2	0.3	81.2
2	16.2	21.5	0	0.0	0.0	0.0	538.2	2695.0	0.2	79.3
3	16.7	23.3	0	0.0	0.0	0.0	447.9	2343.6	0.2	81.3
4										
AV	16.1	22.5	0.0	0.0	0.0	0.0	610.1	4139.3	0.2	80.6

GREEN*
 V
A
C
U
U
M

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	0.0	0.0	475.3	47.3	131.5	130.1	0.0	28.2	103.8	21.9	114.0	15.4
	0.0	0.0	209.0	35.2	103.3	106.4	0.0	26.7	123.8	22.2	133.4	14.6
	0.0	0.0	248.7	41.7	100.7	98.0	0.0	27.2	147.9	22.2	139.4	13.5
AV	0	0	311	41	112	112	0	27	125	22	129	14

GREEN

	524	-663	250	47	41	59	-1042	109	167	14	180	26
	522	-545	125	26	27	47	-514	80	185	17	232	27
	534	-594	137	30	28	51	-706	93	233	15	228	25

YELLOW

AV	527	-601	171	35	32	52	-754	94	195	16	213	26
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Museum: British Museum
 Date Acquired by Museum: 1905
 Collector: Monckton
 Date Collected: By 1905
 Collection Method: Surface (?)
 Place Collected: Rainu, Wanigela,
 Material: Stone (red)
 Object: Pebble
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	73			Cross Section Shape	no_data

dacite/rhyolite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	5.7	61.5	2	2.1	6.1	0.8	114.3	182.4	0.0	6.0
2	4.5	81.2	9	2.0	6.3	0.9	124.1	253.1	0.0	6.2
3	5.0	75.0	13	1.9	7.4	0.8	109.0	159.9	0.0	5.7
4										
AV	5.1	72.6	8.0	2.0	6.6	0.8	115.8	198.5	0.0	6.0

GREEN*
 V
 A
 C
 U
 U
 M

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	437.2	118.9	111.8	22.1	55.5	42.4	8.0	49.8	99.1	35.2	99.9	16.5
	402.7	133.7	97.1	21.6	54.4	41.0	7.0	44.6	90.6	36.2	89.3	15.5
	415.0	133.4	109.9	21.5	65.4	52.8	8.4	50.4	95.3	35.9	101.7	17.1
AV	418	129	106	22	58	45	8	48	95	36	97	16

GREEN

YELLOW

Accession No. BM 1906.10.13 1658

Record No. 67

pXRF_0015_BM

Museum: British Museum
 Date Acquired by Museum: 1906
 Collector: Maj William Cook Daniels
 Date Collected: By 1906
 Collection Method: Surface
 Place Collected: Massim, Bartle Bay, Miline
 Material: Basalt
 Object: Stone for sling
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
Island Group	PNG	Middle Max Front	no_data	Top Max Thickness	no_data
TAS (SiO ₂) Material	36	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
		Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.4	29.2	0	0.7	12.5	1.3	202.1	215.1	0.2	10.5	▲ GREEN* VACUUM ▼
2	14.7	35.2	0	0.6	14.0	1.5	217.7	236.8	0.1	9.2	
3	15.3	42.2	0	0.9	13.1	1.1	174.5	328.2	0.1	8.6	
4											
AV	14.4	35.5	0.1	0.8	13.2	1.3	198.1	260.0	0.1	9.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	136	124	85	19	9	10	2	8	232	28	85	8	▲ GREEN ▼
	115	54	86	20	9	9	2	8	233	28	90	8	
	104	42	77	19	9	9	2	8	207	28	88	9	
AV	118	74	83	19	9	9	2	8	224	28	88	8	▲ YELLOW ▼



Accession No. BM 1906.10.13 1658

Record No. 68

pXRF_0016_BM

Museum: British Museum
 Date Acquired by Museum: 1906
 Collector: Maj William Cook Daniels
 Date Collected: By 1906
 Collection Method: Surface
 Place Collected: Massim, Bartle Bay, Miline
 Material: Basalt
 Object: Stone for sling
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
Island Group	PNG	Middle Max Front	no_data	Top Max Thickness	no_data
TAS (SiO ₂) Material	38	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
		Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	13.5	36.8	1	1.3	13.2	1.3	214.8	192.2	0.1	11.0
2	14.1	40.6	1	1.2	13.0	1.4	236.9	229.0	0.2	11.6
3	13.9	35.5	0	1.2	12.8	1.4	243.1	237.3	0.2	12.3
4										
AV	13.8	37.6	0.8	1.2	13.0	1.4	231.6	219.5	0.2	11.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	84	70	98	19	13	11	2	10	210	33	110	11
	84	82	98	20	11	12	2	11	212	33	113	10
	89	82	98	20	17	15	2	10	210	33	113	12
AV	86	78	98	20	14	13	2	10	211	33	112	11



Accession No. BM Oc1904.1123.1.a

Record No. 69

pXRF_0023_BM

Museum: British Museum
 Date Acquired by Museum: 1904
 Collector: Monckton
 Date Collected: By 1904
 Collection Method: Surface (?)
 Place Collected: Yodda River, Papua New
 Material: Stone
 Object: Mortar
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	PNG	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	35			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.4	32.4	0	0.5	6.6	4.0	289.7	575.0	0.3	22.0	V A C U U M * G R E E N
2	17.5	35.0	0	0.7	7.1	5.3	0.0	581.4	0.2	19.0	
3	17.1	36.7	0	0.6	8.9	2.8	336.2	379.2	0.2	17.3	
4											
AV	17.0	34.7	0.0	0.6	7.5	4.0	208.6	511.9	0.2	19.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	383.5	95.3	352.0	28.1	103.2	97.7	2.2	25.8	230.1	30.0	174.8	17.6	G R E E N
	384.4	100.9	336.9	31.5	129.9	121.0	0.6	22.4	238.0	34.1	119.5	23.7	
	396.2	132.5	291.8	32.0	125.6	113.4	0.6	21.6	249.2	30.6	179.5	24.3	
AV	388	110	327	31	120	111	1	23	239	32	158	22	
	61	10	178	32	33	29	3	25	348	24	169	14	Y E L L O W
	70	20	148	29	33	28	3	19	293	25	147	20	
	64	12	143	31	34	30	3	21	396	32	226	19	
AV	65	14	156	31	33	29	3	22	346	27	181	18	



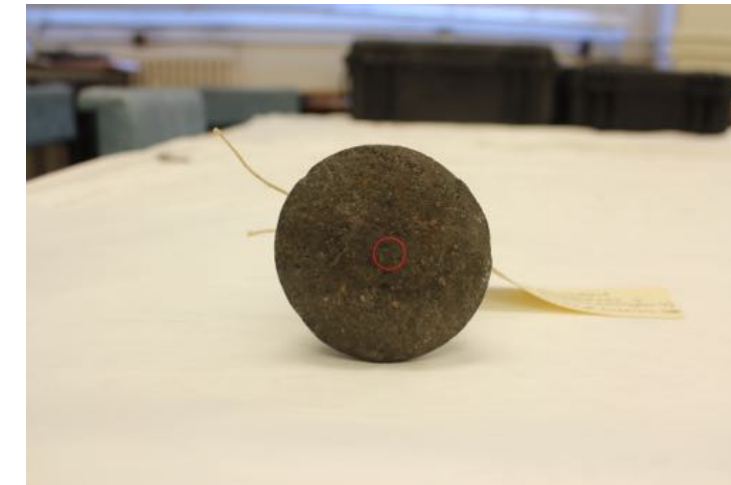
Museum: British Museum
 Date Acquired by Museum: 1899
 Collector: F.W. Chrisitan
 Date Collected: 1896 - 1898
 Collection Method: Surface
 Place Collected: Ua Huka, Marquesas
 Material: Basalt
 Object: Pounder
 Type: Phallic
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	129.2	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	77.5	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	38.7	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	33.5
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Marquesas	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	44			Cross Section Shape	Round

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.6	43.9	3	1.6	9.2	2.7	229.7	0.0	0.1	9.1	V A C U U M * G R E E N
2	13.6	43.7	3	1.6	9.2	2.7	237.9	0.0	0.1	9.0	
3	13.6	43.8	3	1.6	9.2	2.7	231.1	0.0	0.1	9.0	
4	13.6	43.8	3.2	1.6	9.2	2.7	232.9	0.0	0.1	9.0	
AV	13.6	43.8	3.2	1.6	9.2	2.7	232.9	0.0	0.1	9.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	447.2	145.7	267.7	36.0	184.2	177.7	7.5	50.5	640.2	35.3	259.8	43.3	G R E E N
	447.9	154.4	272.4	37.0	183.8	176.2	9.5	56.7	635.6	33.4	259.5	44.6	
	417.2	141.3	258.0	39.1	184.6	180.1	8.2	53.3	635.2	34.0	261.4	43.4	
AV	437	147	266	37	184	178	8	53	637	34	260	44	
	83	80	144	48	54	52	1	57	848	38	340	46	Y E L L O W
	84	86	146	47	54	53	0	59	846	38	340	45	
	77	80	144	46	54	51	3	56	835	42	342	47	
AV	81	82	145	47	54	52	1	57	843	40	341	46	

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-H (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	32			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.2	31.0	0	1.0	12.0	2.7	262.7	0.0	0.2	12.0	V A C U U M * G R E E N
2	13.5	33.0	0	0.9	12.3	2.4	259.2	0.0	0.2	12.0	
3	14.9	33.2	0	1.0	12.4	2.9	278.1	0.0	0.2	13.2	
4											
AV	14.2	32.4	0.0	1.0	12.3	2.7	266.7	0.0	0.2	12.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	46	26	-31	85	24	24	3	43	1215	41	390	143	Y E L L O W



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Austral Islands
 Material: Stone
 Object: Adze
 Type: 3-H (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	26			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.1	26.1	0	0.2	11.9	2.1	310.6	749.0	0.2	15.2	V A C U U M * G R E E N
2	14.5	27.9	0	0.2	11.8	2.0	289.7	622.0	0.2	14.1	
3	14.1	24.7	0	0.3	11.0	1.9	479.9	901.1	0.2	14.3	
4											
AV	14.6	26.2	0.0	0.2	11.6	2.0	360.1	757.4	0.2	14.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	519	44	131	24	13	14	1	22	826	39	258	120	Y E L L O W
	480	29	116	21	12	14	2	21	1015	37	246	120	
	564	46	132	21	12	13	1	19	940	39	237	108	
AV	521	40	127	22	12	14	1	21	927	38	247	116	

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Stone
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	37			Cross Section Shape	Triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.7	44.3	0	2.6	1.8	1.1	210.6	194.1	0.2	11.3	VACUUM* GREEN*
2	14.4	37.2	0	2.6	2.6	1.0	179.2	119.7	0.2	11.1	
3	13.3	28.7	0	2.7	3.4	1.0	166.2	57.8	0.2	9.8	
4											
AV	14.4	36.7	0.0	2.7	2.6	1.0	185.4	123.9	0.2	10.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
	45	54	149	40	17	15	7	88	853	54	433	200	
	34	37	133	37	13	11	6	88	638	41	387	193	
	38	37	149	41	13	13	8	86	670	43	427	176	
AV	39	43	144	40	14	13	7	87	721	46	415	189	



Accession No. BM Oc1908.1114.4

Record No. 74

pXRF_0028_BM

Museum British Museum

Date Acquired by Museum 1908

Collector Capt. E. L. Gruning

Date Collected By 1908

Collection Method Surface

Place Collected Austral Islands

Material Stone

Object Adze

Type Raivavae (probably)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	32			Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.5	30.5	0	1.1	12.1	5.2	11.9	0.0	0.1	11.2	VACUUM GREEN*
2	15.1	28.2	0	1.1	12.1	5.2	32.3	0.0	0.1	11.5	
3	16.6	36.3	0	1.1	13.0	5.1	47.6	0.0	0.1	11.7	
4											
AV	15.7	31.6	0.0	1.1	12.4	5.2	30.6	0.0	0.1	11.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
64	16	101	29	11	14	3	22	1344	42	361	100	YELLOW	
67	17	105	32	12	15	3	22	1329	45	371	99		
76	27	103	30	12	15	2	28	1325	42	390	102		
AV	69	20	103	30	11	15	2	24	1333	43	374	100	



Accession No. BM Oc1925.1019.35

Record No. 75

pXRF_0029_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Rapaiti, Austral Islands

Material Stone

Object Adze

Type 3-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	30			Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.9	29.8	0	1.7	8.1	4.6	106.4	0.0	0.2	12.6	V A C U U M * G R E E N
2	15.6	28.8	0	1.8	7.6	4.5	123.1	0.0	0.2	12.2	
3	17.3	32.7	0	1.7	8.4	4.7	60.4	0.0	0.2	12.4	
4											
AV	16.3	30.4	0.0	1.7	8.0	4.6	96.6	0.0	0.2	12.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	64	33	135	35	19	20	3	43	1123	39	431	97	Y E L L O W



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai Marae near
 Material: Stone
 Object: Adze
 Type: 3-E (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	26			Cross Section Shape	Sub-triangular
		foidite			

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.2	23.1	0	1.3	9.5	2.3	268.1	0.0	0.2	11.0	VACUUM GREEN*
2	14.3	28.0	0	1.2	11.6	2.7	286.2	0.0	0.2	12.2	
3	13.9	26.0	0	1.1	11.8	2.6	277.5	0.0	0.2	11.8	
4											
AV	13.8	25.7	0.0	1.2	11.0	2.5	277.3	0.0	0.2	11.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	36	59	130	29	16	18	2	46	1036	42	338	123	YELLOW
	39	121	178	49	49	47	-1	60	1132	38	368	129	
	41	52	199	38	22	23	1	45	1148	43	360	128	
AV	39	77	169	39	29	29	1	50	1106	41	355	127	



Accession No. BM Oc1925.1019.1

Record No. 77

pXRF_0031_BM

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Stone
 Object: Adze
 Type: 3-F (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	28			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.0	24.8	0	1.3	10.1	2.7	282.1	0.0	0.2	11.2	V A C U U M * G R E E N
2	15.4	31.6	0	1.1	10.9	3.2	291.3	0.0	0.2	13.5	
3	14.6	26.2	0	1.3	10.3	2.8	288.1	0.0	0.2	12.1	
4											
AV	14.7	27.5	0.0	1.2	10.5	2.9	287.2	0.0	0.2	12.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
49	16	193	34	14	16	2	43	1109	42	355	128	Y E L L O W	
51	19	195	38	16	18	4	49	1173	40	377	133		
56	16	148	29	16	18	1	44	1122	41	365	135		
AV	52	17	178	34	16	18	2	45	1135	41	365	132	



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Clerget
 Place Collected: Taravai Island,
 Material: Stone
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	32			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.4	37.3	0	0.9	11.9	3.3	288.0	5.7	0.1	11.3
2	15.1	29.8	0	0.7	12.4	3.4	287.4	5.3	0.1	10.8
3	15.8	29.8	0	0.9	12.1	3.3	275.6	0.0	0.1	10.5
4										
AV	15.7	32.3	0.0	0.8	12.1	3.3	283.6	3.7	0.1	10.9

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV	88	69	114	26	18	17	3	22	519	33	237	48



Accession No. BM Oc1925.1019.55

Record No. 79

pXRF_0033_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Taravai Island,

Material Stone

Object Adze

Type 3-E (unfinished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	33			Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.1	31.5	0	0.7	13.1	2.7	309.8	209.3	0.2	11.4
2	15.2	31.9	0	0.7	12.9	2.7	313.3	220.6	0.2	11.8
3	16.2	35.6	0	0.7	12.8	2.7	304.5	234.7	0.2	11.7
4										
AV	15.5	33.0	0.0	0.7	13.0	2.7	309.2	221.5	0.2	11.7

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV	119	41	121	23	12	12	4	22	467	29	196	36

GREEN

YELLOW



Accession No. BM Oc1925.1019.77

Record No. 80

pXRF_0034_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Clerget

Place Collected Mangareva Island,

Material Stone

Object Adze

Type 2-A (broken) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	34			Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.4	33.8	0	0.8	11.5	3.0	300.9	347.5	0.2	11.9	GREEN* VACUUM
2	16.0	30.0	0	0.7	10.2	2.9	294.1	481.6	0.2	13.4	
3	17.4	39.0	0	0.6	13.1	2.7	298.5	425.0	0.2	11.4	
4											
AV	16.6	34.3	0.0	0.7	11.6	2.9	297.8	418.0	0.2	12.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb		
													GREEN	
														YELLOW
AV	156	58	115	25	15	15	4	23	479	309	194	50		



Accession No. BM Oc1925.1019.74

Record No. 81

pXRF_0035_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Clerget

Place Collected Mangareva Island,

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Gambier Islands	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	35	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.1	35.5	0	1.8	11.6	3.9	275.9	0.0	0.1	11.1	▲ GREEN* V A C U U M ▼
2	15.8	35.1	0	1.9	10.9	3.9	254.4	0.0	0.1	10.9	
3	15.6	33.9	0	1.8	11.0	3.7	271.6	0.0	0.1	10.7	
4											
AV	15.8	34.8	0.0	1.8	11.2	3.9	267.3	0.0	0.1	10.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ GREEN G R E E N ▼
AV	53	40	128	35	20	19	6	77	830	33	398	46	▲ YELLOW Y E L L O W ▼



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Akamain Island, Tokami
 Material: Stone
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	29			Cross Section Shape	no_data

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Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.7	31.1	0	0.6	9.6	2.8	333.6	266.2	0.2	16.9	GREEN* VACUUM
2	13.3	26.1	0	0.7	8.5	3.1	335.9	279.2	0.2	17.5	
3	17.3	30.3	0	0.5	11.5	2.9	301.3	195.8	0.2	13.1	
4											
AV	15.1	29.2	0.0	0.6	9.9	2.9	323.6	247.1	0.2	15.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
													YELLOW
AV	122	20	109	22	11	12	3	15	443	27	217	39	



Accession No. BM Oc1925.1019.84

Record No. 83

pXRF_0037_BM

Museum British Museum
 Date Acquired by Museum 1925
 Collector W.S. & K. Routledge
 Date Collected By 1925
 Collection Method Clerget
 Place Collected Mangareva Island,
 Material Stone
 Object Adze
 Type 2-B (finihsed) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	35			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.7	42.2	0	1.9	7.2	3.2	298.0	157.3	0.2	13.8	VACUUM* GREEN*
2	15.9	34.4	0	2.1	6.8	3.0	278.1	45.1	0.2	12.0	
3	15.5	29.6	0	1.9	6.8	3.1	289.1	63.0	0.2	12.9	
4											
AV	16.4	35.4	0.0	2.0	7.0	3.1	288.4	88.5	0.2	12.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
	36	35	142	41	25	24	4	50	725	53	417	83	
	29	31	131	37	21	21	3	48	703	53	430	83	
	35	41	145	41	24	24	4	48	725	53	409	83	
AV	33	35	139	40	23	23	4	49	718	53	418	83	

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Clerget
 Place Collected: Mangareva Island,
 Material: Stone
 Object: Adze
 Type: 2-B (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Gambier Islands	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	35	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	Lenticular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.3	38.2	0	0.7	12.5	2.9	327.1	268.9	0.2	12.2	VACUUM GREEN*
2	16.8	34.8	0	0.9	11.7	2.8	302.5	214.7	0.2	11.5	
3	16.6	33.6	0	0.8	12.1	2.6	306.6	195.0	0.2	11.5	
4											
AV	17.3	35.5	0.0	0.8	12.1	2.8	312.1	226.2	0.2	11.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
AV	133	54	101	23	10	10	4	24	498	39	192	39	YELLOW
	133	44	116	23	13	13	4	23	485	29	199	35	
	133	45	110	23	12	13	3	20	484	28	191	39	
AV	133	47	109	23	12	12	4	23	489	32	194	38	



Accession No. BM Oc1925.1019.100

Record No. 85

pXRF_0039_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Clerget

Place Collected Ngatavake, Mangareva

Material Stone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Gambier Islands	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	34	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	no_data

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.2	39.2	0	0.9	10.0	4.4	217.3	283.9	0.2	15.5
2	15.2	29.8	0	1.0	10.0	4.5	188.1	136.0	0.2	13.7
3	15.5	31.5	0	1.1	9.7	4.5	206.7	241.5	0.2	14.9
4										
AV	16.0	33.5	0.0	1.0	9.9	4.5	204.1	220.4	0.2	14.7

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	121	20	105	28	11	12	3	23	677	42	319	37
	107	15	112	27	11	13	3	33	696	41	334	38
	117	19	117	29	12	13	4	37	729	42	350	38
AV	115	18	111	28	11	13	3	31	700	42	334	38



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Clerget
 Place Collected: Mangareva, Gambier
 Material: Stone
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	29			Cross Section Shape	no_data

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Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.3	24.7	0	0.6	13.1	2.6	313.1	226.8	0.2	12.4
2	14.6	28.3	0	0.7	13.8	2.4	290.6	126.1	0.1	11.2
3	15.2	32.5	0	0.8	12.4	2.6	312.1	235.7	0.2	12.2
4										
AV	14.7	28.5	0.0	0.7	13.1	2.5	305.3	196.2	0.2	11.9

GREEN*
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Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	149	53	147	27	22	21	3	20	501	29	185	38
	145	54	155	27	17	17	3	21	519	29	174	35
	147	55	137	22	18	17	3	21	473	28	190	36
AV	147	54	146	25	19	18	3	20	498	29	183	36

GREEN

YELLOW

Accession No. BM Oc1925.1019.40

Record No. 87

pXRF_0041_BM

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Ngatavake, Mangareva,
 Material: Stone
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	31			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.1	31.6	0	0.7	12.9	3.1	305.4	63.9	0.1	11.9	VACUUM* GREEN*
2	15.6	30.6	0	0.8	12.3	3.1	312.4	52.5	0.1	12.1	
3	15.0	29.6	0	0.7	11.6	2.9	320.7	101.8	0.1	13.7	
4											
AV	15.6	30.6	0.0	0.8	12.3	3.0	312.8	72.8	0.1	12.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
													YELLOW
AV	88	267	198	36	28	26	3	22	539	33	241	47	



Accession No. BM Oc1925.1019.56

Record No. 88

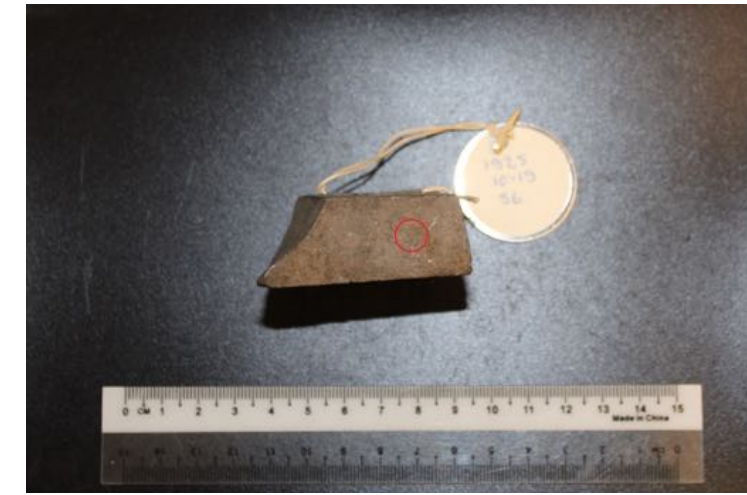
pXRF_0042_BM

Museum British Museum
 Date Acquired by Museum 1925
 Collector W.S. & K. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Taravai, Mangareva
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Gambier Islands	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	17	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	13.8	16.3	0	0.5	15.8	2.5	258.4	0.0	0.1	7.3
2	14.1	19.3	0	0.5	16.0	2.6	265.0	0.0	0.1	8.2
3	14.1	16.1	0	0.3	14.4	3.1	260.4	0.0	0.1	10.1
4										
AV	14.0	17.2	0.0	0.4	15.4	2.7	261.3	0.0	0.1	8.5

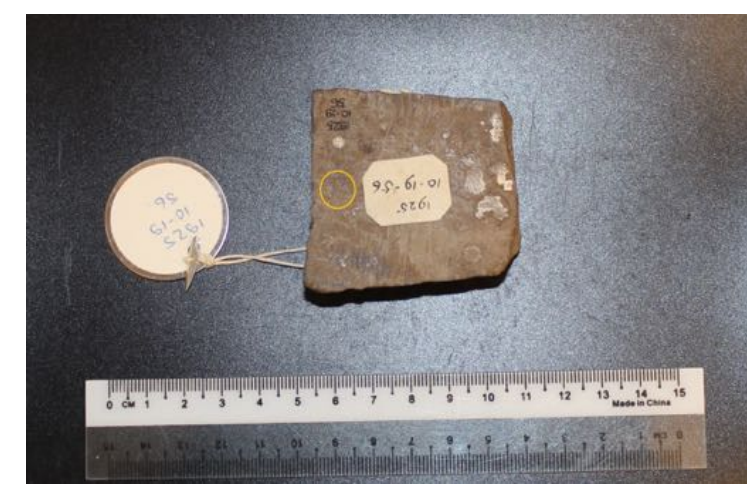
VACUUM * GREEN

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	84	108	102	23	11	12	4	29	633	25	185	41
	75	83	102	26	16	16	5	36	637	26	212	41
	79	45	111	23	12	13	3	26	686	27	175	39
AV	79	79	105	24	13	14	4	30	652	26	190	40

GREEN

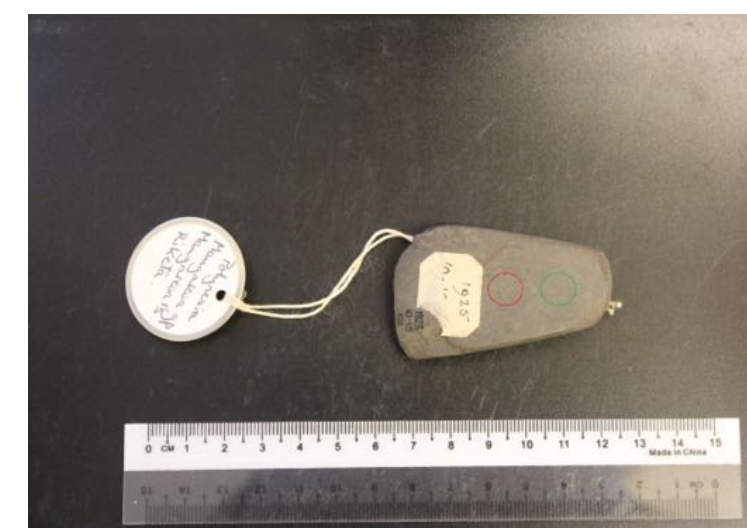
YELLOW



Museum	British Museum
Date Acquired by Museum	1925
Collector	W.S. & K. Routledge
Date Collected	By 1925
Collection Method	Surface
Place Collected	Riteta, Mangareva,
Material	Stone
Object	Adze
Type	n/a
Additional Museum Notes	<input checked="" type="radio"/> Yes <input type="radio"/> No

Measurements (mm)			
Max Length	no_data	Width Cutting Edge	no_data
Max Width	no_data	Bevel Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data
Weight (g)		Middle Thickness	no_data
		Middle Max Front	no_data
		Shoulder Front Max Width	no_data
Island Group	Gambier Islands	Middle Max Back	no_data
TAS (SiO ₂) Material	32	foidite	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

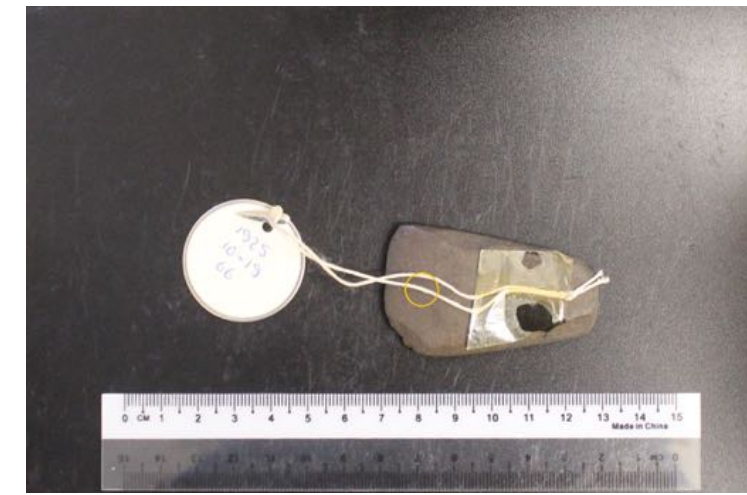
Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.7	34.9	0	0.4	13.7	2.5	307.4	383.8	0.2	11.2
2	16.5	33.6	0	0.5	13.5	2.4	302.1	317.5	0.2	11.4
3	16.3	28.9	0	0.7	11.9	2.4	312.3	408.2	0.2	12.3
4										
AV	16.5	32.5	0.0	0.5	13.0	2.4	307.2	369.8	0.2	11.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	109	44	102	23	13	14	3	18	410	27	156	31
	120	44	101	22	12	13	3	17	411	28	159	31
	114	50	99	21	9	11	3	18	399	27	155	32
AV	114	46	101	22	12	12	3	18	406	27	157	31



Accession No. BM Oc1925.1019.85

Record No. 90

pXRF_0044_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Clerget

Place Collected Mangareva Island,

Material Stone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	30			Cross Section Shape	no_data

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

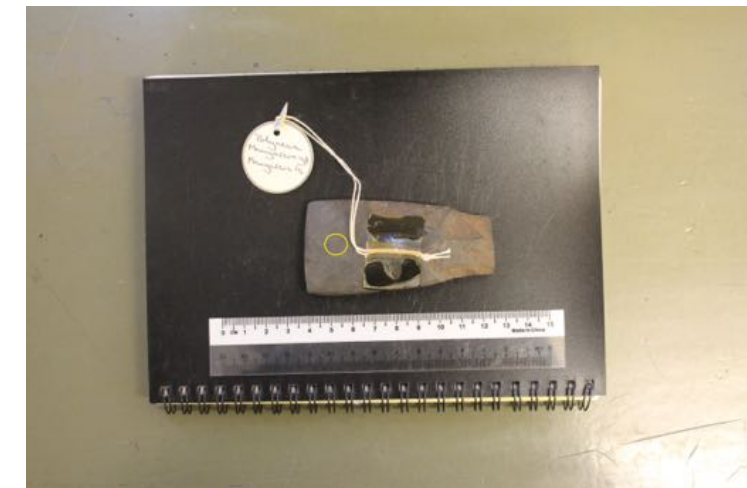
Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.0	31.4	0	1.6	5.5	3.0	288.9	100.9	0.2	16.7	V A C U U M * G R E E N
2	15.0	26.5	0	1.9	5.2	3.0	287.2	45.6	0.2	14.3	
3	16.5	33.4	0	1.8	6.4	3.2	292.0	55.4	0.2	14.4	
4											
AV	15.8	30.4	0.0	1.8	5.7	3.1	289.4	67.3	0.2	15.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	34	17	130	40	28	28	3	46	727	53	413	84	Y E L L O W



Accession No. BM Oc1925.1019.26

Record No. 91

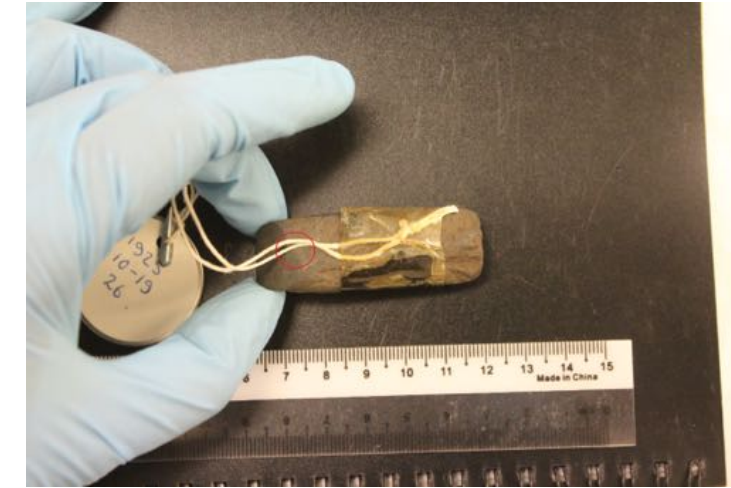
pXRF_0045_BM

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Stone
 Object: Adze
 Type: 4 (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	30			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.0	30.0	0	0.8	11.6	4.1	281.1	47.2	0.2	15.5	V A C U U M * G R E E N
2	16.0	29.8	0	0.8	11.6	4.1	259.0	51.2	0.2	15.6	
3	15.9	30.3	0	0.8	11.6	4.1	274.2	26.6	0.2	15.5	
4	15.9	30.1	0.0	0.8	11.6	4.1	271.4	41.6	0.2	15.5	
AV	15.9	30.1	0.0	0.8	11.6	4.1	271.4	41.6	0.2	15.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	71	20	115	31	16	18	3	39	1024	38	301	107	Y E L L O W
	75	20	119	28	16	17	1	40	1032	40	304	105	
	68	27	116	30	16	16	2	35	1012	38	299	101	
AV	71	22	117	30	16	17	2	38	1023	39	301	105	

Accession No. BM Oc1925.1019.24

Record No. 92

pXRF_0046_BM

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Raivavae near Marae
 Material: Stone
 Object: Adze
 Type: 3 (Aberrants) (finished)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	24			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

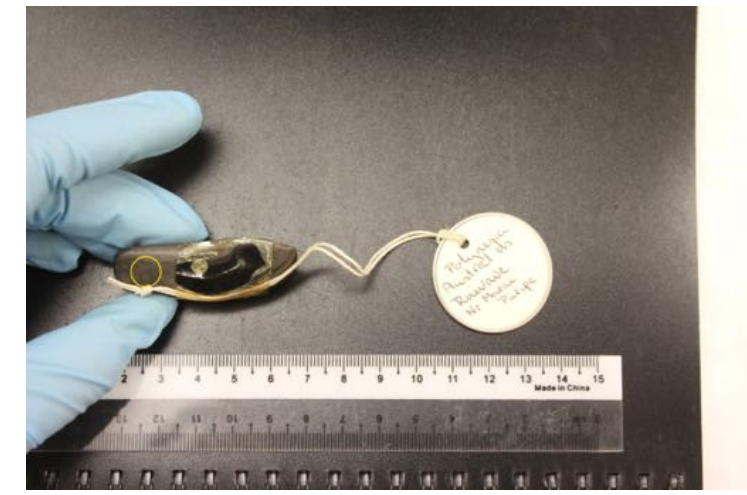
Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.0	27.4	0	1.2	8.1	3.3	267.9	76.7	0.3	17.3
2	15.1	20.6	0	1.3	8.1	3.0	305.9	78.7	0.3	16.5
3	15.4	23.6	0	1.3	7.8	3.3	266.8	87.0	0.3	17.1
4										
AV	15.5	23.9	0.0	1.3	8.0	3.2	280.2	80.8	0.3	17.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV	51	9	175	38	17	20	-2	72	1963	48	678	149



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Stone
 Object: Adze
 Type: 1-A (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	19			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.6	16.0	0	0.5	9.8	3.1	361.3	241.7	0.2	16.7	GREEN* VACUUM
2	14.6	19.7	0	0.5	9.2	3.1	360.7	228.7	0.2	17.0	
3	13.6	20.0	4	0.3	13.7	2.6	317.8	0.0	0.2	14.1	
4											
AV	14.3	18.6	1.3	0.5	10.9	2.9	346.6	156.8	0.2	15.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	171	32	131	26	14	16	2	30	759	38	253	90	YELLOW
	179	48	125	28	13	15	3	31	678	37	262	92	
	132	10	138	27	17	16	1	36	856	37	240	84	
AV	161	30	131	27	15	16	2	32	764	37	252	89	



Accession No. BM Oc1925.1019.57

Record No. 94

pXRF_0048_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Akamaru, Tokani district,

Material Stone

Object Adze

Type 3-A (finished)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	29			Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.2	29.1	0	0.7	13.4	3.5	278.9	28.5	0.1	10.8	GREEN* VACUUM
2	16.2	36.9	0	0.7	13.7	3.2	306.2	0.0	0.2	11.1	
3	14.1	19.8	0	0.5	13.9	2.7	290.3	0.0	0.1	10.4	
4											
AV	15.2	28.6	0.0	0.6	13.7	3.1	291.8	9.5	0.1	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	83	34	107	26	13	14	3	19	546	35	225	51	YELLOW
	99	31	104	25	13	16	3	19	548	35	233	49	
	102	37	107	26	15	16	3	24	536	35	238	48	
AV	94	34	106	26	13	15	3	20	543	35	232	50	



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Mamu, Austral
 Material: Stone
 Object: Adze
 Type: 3-F (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	26			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.0	25.5	0	1.3	13.4	4.7	82.5	0.0	0.1	7.8
2	15.7	26.6	0	1.2	13.3	5.0	34.5	63.1	0.1	9.0
3	16.7	27.2	0	1.1	12.0	5.1	12.0	142.6	0.1	9.6
4										
AV	15.8	26.4	0.0	1.2	12.9	4.9	43.0	68.6	0.1	8.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV	78	34	145	32	14	17	2	37	991	43	299	108



Accession No. BM Oc1925.1019.2

Record No. 96

pXRF_0050_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Tubuai, Mamu, Austral

Material Stone

Object Adze

Type 3-F (unfinished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	35			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.5	38.0	1	1.0	11.7	2.9	322.2	0.0	0.2	13.1	VACUUM GREEN*
2	17.8	41.3	1	1.0	12.2	3.0	291.6	0.0	0.2	13.7	
3	14.6	25.0	0	1.1	11.4	2.7	270.4	0.0	0.2	11.8	
4											
AV	16.3	34.8	0.8	1.0	11.8	2.9	294.7	0.0	0.2	12.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
43	20	148	100	3	67	-17	43	1189	53	388	147	YELLOW	
35	185	140	33	20	20	2	46	1225	42	391	142		
39	22	134	31	19	19	2	57	1201	40	380	134		
AV	39	76	141	55	14	35	-4	49	1205	45	386	141	

Accession No. BM Oc1925.1019.3

Record No. 97

pXRF_0051_BM

Museum British Museum
 Date Acquired by Museum 1925
 Collector W.S. & K. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Tubuai, Austral Islands
 Material Stone
 Object Adze
 Type 3-F (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	24			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.0	23.0	0	0.3	14.5	3.0	303.4	0.0	0.2	13.0	▲ GREEN* VACUUM ▼
2	13.5	23.6	0	0.6	14.2	3.2	302.9	0.0	0.2	14.0	
3	13.8	24.2	0	0.3	13.6	3.4	322.5	0.0	0.3	14.4	
4											
AV	13.4	23.6	0.0	0.4	14.1	3.2	309.6	0.0	0.2	13.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ GREEN ▼
AV	77	668	182	38	27	27	0	37	1111	42	350	130	▲ YELLOW ▼

Accession No. BM Oc1925.1019.6

Record No. 98

pXRF_0052_BM

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Stone
 Object: Adze
 Type: 3-H (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	15			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.0	14.3	1	2.7	37.6	0.3	118.2	228.6	0.0	3.1	VACUUM* GREEN*
2	12.9	20.6	0	0.1	19.6	2.2	257.6	0.0	0.1	10.0	
3	13.3	10.4	0	3.0	42.9	0.3	119.6	282.9	0.0	2.4	
4											
AV	13.1	15.1	0.2	2.0	33.4	0.9	165.1	170.5	0.1	5.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
	44	99	150	21	32	31	-3	50	1481	34	249	89	
	65	16	118	27	13	17	2	41	1173	42	331	120	
	68	75	160	24	32	31	-0	50	1274	35	286	102	
AV	59	63	143	24	26	26	-0	47	1309	37	289	103	

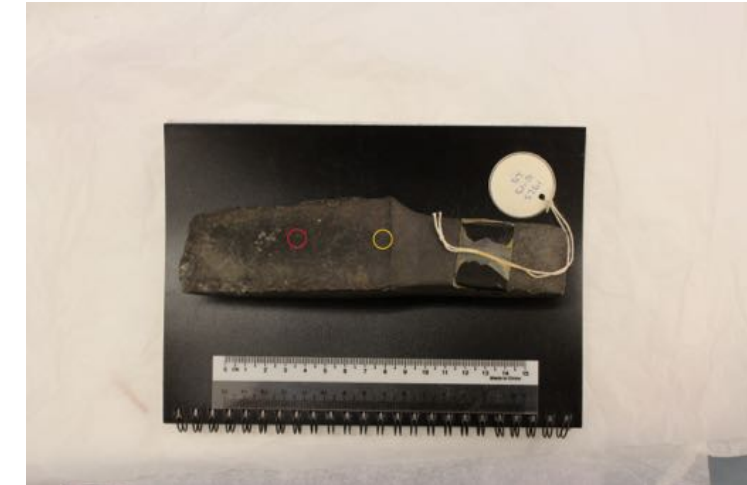
Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Stone
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	30			Cross Section Shape	Triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.4	27.0	0	1.2	9.3	3.8	181.1	0.0	0.2	15.2	V A C U U M * G R E E N
2	14.7	30.5	0	1.3	9.0	4.2	146.9	0.0	0.2	15.9	
3	14.5	31.3	0	1.3	8.8	4.1	174.8	0.0	0.2	16.3	
4											
AV	14.5	29.6	0.0	1.3	9.0	4.0	167.6	0.0	0.2	15.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	79	48	143	31	18	20	2	57	1295	45	485	124	Y E L L O W

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Stone
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	19			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.3	17.7	0	0.7	2.2	6.0	0.0	519.0	0.3	28.0	VACUUM GREEN*
2	15.4	19.0	0	0.6	8.1	4.1	325.0	25.7	0.3	18.2	
3	14.9	19.4	0	0.6	7.5	3.7	323.7	16.2	0.2	18.8	
4											
AV	16.2	18.7	0.0	0.6	5.9	4.6	216.3	186.9	0.3	21.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
													YELLOW
AV	133	197	125	33	12	13	1	23	187	30	376	158	



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Raivavae,
 Material: Stone
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	29			Cross Section Shape	Triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.2	30.1	0	1.2	11.8	2.7	315.2	309.5	0.2	11.6	▲ GREEN * V A C U U M ▼
2	14.7	29.5	0	1.3	11.5	2.7	313.7	289.0	0.2	10.6	
3	14.1	27.5	0	1.0	11.2	2.5	309.1	368.8	0.2	12.3	
4											
AV	14.3	29.0	0.0	1.2	11.5	2.6	312.7	322.4	0.2	11.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	176	34	133	26	16	17	4	42	775	33	291	79	▲ GREEN Y E L L O W ▼
	152	59	119	27	13	13	3	41	761	31	288	76	
	174	26	122	26	12	15	4	40	737	32	269	72	
AV	167	40	124	27	14	15	4	41	758	32	283	76	



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Raivavae, Anatonu,
 Material: Stone
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	21			Cross Section Shape	Triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.4	18.8	0	0.0	14.9	2.2	324.1	962.2	0.2	14.3	VACUUM GREEN*
2	12.3	22.4	0	0.0	14.0	2.2	318.4	1078.5	0.3	16.2	
3	12.3	20.8	0	-0.0	13.7	2.1	318.2	737.9	0.2	14.3	
4											
AV	12.3	20.6	0.0	-0.0	14.2	2.2	320.2	926.2	0.2	14.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	481	112	111	22	13	14	1	22	929	38	226	116	YELLOW
	605	137	122	21	14	15	2	23	941	39	230	123	
	563	112	109	21	12	13	1	22	991	37	229	120	
AV	550	120	114	21	13	14	1	22	954	38	228	120	



Accession No. BM Oc1925.1019.28

Record No. 103

pXRF_0057_BM

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Stone
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	20			Cross Section Shape	Triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.9	12.6	0	1.7	19.8	1.3	183.4	0.0	0.1	7.6	V A C U U M * G R E E N
2	13.4	22.8	0	1.3	13.0	2.4	283.6	236.4	0.2	10.8	
3	13.8	23.4	0	1.1	12.3	2.7	303.9	362.6	0.2	11.6	
4											
AV	13.4	19.6	0.0	1.4	15.1	2.1	257.0	199.7	0.1	10.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	175	30	106	25	14	16	4	41	732	32	286	73	G R E E N
	235	23	111	25	11	13	4	39	727	30	269	69	
	220	20	107	24	11	14	3	43	749	30	287	75	
AV	210	24	108	25	12	14	4	41	736	31	280	73	Y E L L O W



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Marae Tonohae,
 Material: Stone
 Object: Adze
 Type: 2-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	25			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.5	29.5	0	0.5	12.3	3.5	305.7	0.0	0.2	14.0	V A C U U M * G R E E N
2	14.1	27.5	0	0.6	12.3	3.4	314.1	0.0	0.2	14.3	
3	13.0	19.3	0	0.5	9.7	2.9	356.2	0.0	0.2	17.8	
4											
AV	13.9	25.4	0.0	0.5	11.5	3.3	325.3	0.0	0.2	15.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	68	28	140	30	19	19	2	31	1027	41	277	96	Y E L L O W
	74	21	153	30	18	19	3	35	1063	40	287	99	
	67	28	133	29	18	20	2	36	979	37	274	96	
AV	70	26	142	30	18	19	2	34	1023	40	279	97	



Accession No. BM Oc1925.1019.10

Record No. 105

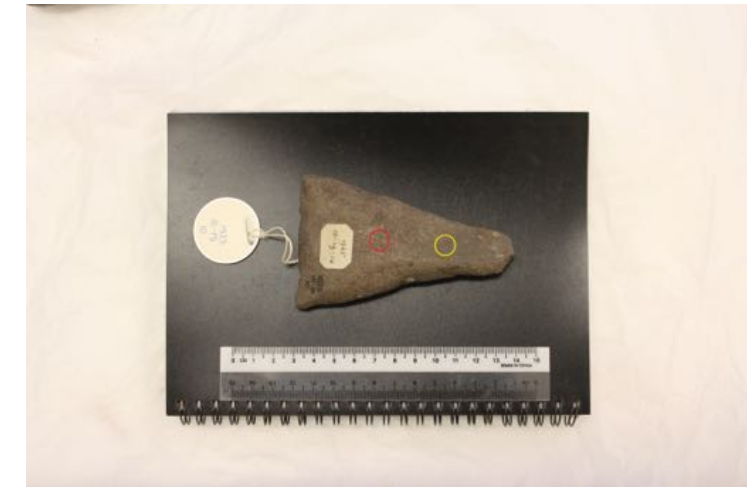
pXRF_0059_BM

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Stone
 Object: Adze
 Type: 3-E (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Austral Islands	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	23	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.1	23.7	0	0.6	12.7	2.8	302.1	0.0	0.2	12.5	VACUUM * GREEN
2	13.4	20.2	0	0.5	13.3	2.9	331.7	12.7	0.2	13.4	
3	13.3	24.1	0	0.4	14.0	2.9	352.6	7.2	0.2	13.2	
4											
AV	13.2	22.6	0.0	0.5	13.3	2.9	328.8	6.6	0.2	13.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	117	36	147	27	26	24	2	28	814	38	233	81	YELLOW
	106	59	144	27	18	18	2	31	786	40	240	84	
	108	67	159	28	22	22	2	28	805	37	240	85	
AV	110	54	150	27	22	21	2	29	802	39	238	83	



Museum: British Museum
 Date Acquired by Museum: 1920
 Collector: W.S. & K. Routledge
 Date Collected: 1913 - 1915
 Collection Method: Surface
 Place Collected: South end of Arongo
 Material: Stone
 Object: Specimen (image/head)
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Easter Island	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	27			Cross Section Shape	no_data

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Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.3	26.4	0	0.7	9.5	3.5	323.9	198.1	0.2	14.5	▲ GREEN* VACUUM ▼
2	16.7	29.9	0	0.8	9.9	3.6	306.5	157.5	0.2	13.5	
3	15.6	24.1	0	0.7	9.0	3.6	281.4	147.0	0.2	14.4	
4											
AV	16.2	26.8	0.0	0.7	9.5	3.6	303.9	167.5	0.2	14.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ GREEN ▼
AV	45	43	100	19	15	12	2	8	528	40	230	33	▲ YELLOW ▼



Accession No. BM Oc1925.1019.48

Record No. 107

pXRF_0063_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Temoe, Gambier Islands

Material Stone

Object Adze

Type 2-A (unfinished)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	24			Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.9	28.1	0	0.8	10.2	3.1	354.0	414.7	0.2	14.2
2	16.8	24.2	0	0.8	10.1	3.1	368.8	465.4	0.2	14.6
3	16.0	20.0	0	0.9	7.9	3.5	341.0	505.0	0.2	16.6
4										
AV	16.5	24.1	0.0	0.8	9.4	3.2	354.6	461.7	0.2	15.1

VACUUM*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV	150	52	107	22	10	11	3	22	452	33	213	41

GREEN

YELLOW



Accession No. BM Oc1925.1019.62

Record No. 108

pXRF_0064_BM

Museum British Museum
 Date Acquired by Museum 1925
 Collector W.S. & K. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Gambier Islands
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	20			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.7	16.5	0	-0.0	11.9	3.5	288.1	264.9	0.2	15.8
2	19.9	23.5	0	0.4	7.0	4.3	285.1	538.8	0.2	20.8
3	17.0	20.9	0	0.5	7.5	3.7	320.7	427.4	0.2	19.9
4										
AV	17.8	20.3	0.0	0.3	8.8	3.8	298.0	410.4	0.2	18.9

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV	136	98	130	28	13	13	3	13	271	30	282	50



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Riteta, Mangareva Island,
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	24			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.0	30.6	0	0.8	10.2	3.4	411.3	152.9	0.2	13.8	V A C U U M * G R E E N
2	14.7	17.1	0	0.9	7.7	3.4	307.0	214.4	0.2	15.8	
3	15.8	23.4	0	0.7	10.1	3.0	323.2	163.6	0.2	13.7	
4											
AV	15.1	23.7	0.0	0.8	9.3	3.3	347.1	177.0	0.2	14.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
													Y E L L O W
AV	91	77	125	25	16	16	4	24	455	33	206	39	



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Temoe, Gambier Islands
 Material: Stone
 Object: Tool
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	26			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.6	27.4	0	0.7	11.3	2.7	292.8	508.3	0.2	12.0	VACUUM GREEN*
2	15.6	22.7	0	0.8	10.9	2.6	296.0	380.6	0.1	11.2	
3	16.5	27.7	0	0.7	12.2	2.8	296.0	444.2	0.2	11.5	
4											
AV	16.2	25.9	0.0	0.7	11.5	2.7	294.9	444.4	0.1	11.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
													YELLOW
AV	142	64	114	23	10	11	4	23	422	29	179	32	



Accession No. BM Oc1925.1019.72

Record No. 111

pXRF_0067_BM

Museum British Museum
 Date Acquired by Museum 1925
 Collector W.S. & K. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Gambier Islands
 Material Stone
 Object Knife
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	18			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.3	16.1	0	0.7	8.8	3.4	397.0	391.6	0.2	16.6	V A C U U M * G R E E N
2	11.9	16.7	0	0.8	8.1	3.0	336.8	182.3	0.2	15.5	
3	11.7	22.4	0	0.6	8.2	3.8	359.4	397.3	0.3	21.1	
4											
AV	12.0	18.4	0.0	0.7	8.4	3.4	364.4	323.7	0.2	17.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
													Y E L L O W
AV	136	67	128	23	12	13	3	22	312	38	278	49	

Museum: British Museum
 Date Acquired by Museum: 1920
 Collector: W.S. & K. Routledge
 Date Collected: 1913 - 1915
 Collection Method: Surface
 Place Collected: Pitcairn Island
 Material: Stone
 Object: Adze
 Type: 1-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	25			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.1	30.0	0	1.7	5.8	3.3	260.9	132.2	0.2	15.8	VACUUM* GREEN*
2	15.1	22.0	0	1.7	5.7	3.0	272.2	32.9	0.2	14.1	
3	14.9	22.6	0	1.8	6.2	3.0	277.0	14.7	0.2	13.8	
4											
AV	15.7	24.9	0.0	1.7	5.9	3.1	270.0	59.9	0.2	14.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN YELLOW
	33	27	131	37	21	22	3	59	725	50	425	85	
	30	22	123	32	17	20	1	54	688	50	416	84	
	27	25	128	37	18	21	1	47	708	54	425	86	
	34	57	123	33	17	19	3	49	692	48	414	84	
AV	31	33	126	35	18	21	2	52	703	51	420	85	



Accession No. BM Oc1920.0506.208

Record No. 113

pXRF_0069_BM

Museum: British Museum
 Date Acquired by Museum: 1920
 Collector: W.S. & K. Routledge
 Date Collected: 1913 - 1915
 Collection Method: Surface
 Place Collected: Pitcairn Island
 Material: Stone
 Object: Adze
 Type: 1-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	26			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.9	24.7	0	1.6	5.5	3.3	285.1	137.6	0.2	16.4
2	15.7	29.7	0	1.7	6.4	3.1	286.2	94.9	0.2	15.4
3	15.4	22.8	0	1.7	6.1	3.3	255.2	56.2	0.2	14.7
4										
AV	15.7	25.7	0.0	1.6	6.0	3.2	275.5	96.2	0.2	15.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV	35	76	128	34	18	19	4	54	695	52	419	85

GREEN

YELLOW



Accession No. BM Oc1920.0506.203

Record No. 114

pXRF_0070_BM

Museum British Museum

Date Acquired by Museum 1920

Collector W.S. & K. Routledge

Date Collected 1913 - 1915

Collection Method Surface

Place Collected Pitcairn Island

Material Stone

Object Adze

Type 5-C (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO2) Material	35			Cross Section Shape	Trapezoidal

foidite

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.4	29.3	0	1.6	6.9	3.1	297.6	110.8	0.2	15.1	▲ GREEN * V A C U U M ▼
2	18.8	36.9	0	1.8	6.2	3.1	310.8	147.7	0.2	14.6	
3	17.0	38.1	1	1.6	7.8	3.3	252.0	98.4	0.2	15.2	
4											
AV	17.0	34.8	0.2	1.7	7.0	3.2	286.8	119.0	0.2	15.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ GREEN G R E E N ▼
AV	31	21	124	37	15	16	3	58	722	52	437	86	▲ YELLOW Y E L L O W ▼



Accession No. BM Oc1920.0506.213

Record No. 115

pXRF_0071_BM

Museum British Museum

Date Acquired by Museum 1920

Collector W.S. & K. Routledge

Date Collected 1913 - 1915

Collection Method Surface

Place Collected Pitcairn Island

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	28			Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.0	32.9	0	1.7	6.1	3.3	268.0	122.1	0.2	15.2	VACUUM GREEN*
2	17.6	26.7	0	1.6	5.9	3.2	286.6	85.6	0.2	15.6	
3	17.6	24.5	0	1.7	5.7	3.3	257.5	83.7	0.2	15.0	
4											
AV	17.8	28.1	0.0	1.7	5.9	3.3	270.7	97.2	0.2	15.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
													YELLOW
AV	36	77	154	39	16	17	3	54	725	49	412	86	

Accession No. BM Oc1920.0506.198

Record No. 116

pXRF_0072_BM

Museum British Museum
 Date Acquired by Museum 1920
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1915
 Collection Method Surface
 Place Collected Pitcairn Island
 Material Stone
 Object Adze
 Type 3-E (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge no_data Shoulder Back Max Width no_data
 Max Width no_data Bevel Max Thickness no_data Shoulder Max Thickness no_data
 Max Thickness no_data Middle Width no_data Middle Max Thickness no_data
 Weight (g) Middle Thickness no_data Top Max Width no_data
 Middle Max Front no_data Top Max Thickness no_data
 Island Group Pitcairn Islands Shoulder Front Max Width no_data Cutting Edge to Bevel no_data
 Middle Max Back no_data Length Rightangle to Bevel no_data
 TAS (SiO2) Material 14 Cross Section Shape Trapezoidal

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.6	15.4	0	1.9	5.8	2.7	263.2	0.0	0.2	11.6	VACUUM* GREEN
2	14.2	20.0	0	1.9	6.0	2.9	283.5	0.0	0.2	12.4	
3	13.1	6.7	0	1.9	5.6	2.3	237.8	0.0	0.1	9.1	
4											
AV	13.6	14.1	0.0	1.9	5.8	2.6	261.5	0.0	0.2	11.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
	26	17	113	35	17	18	3	49	657	46	403	80	
	32	16	114	32	9	13	4	49	667	47	400	75	
	33	17	123	35	12	15	4	62	724	50	429	83	
AV	30	17	117	34	13	15	4	53	683	48	411	79	



Accession No. BM Oc1920.0506.205

Record No. 117

pXRF_0073_BM

Museum: British Museum
 Date Acquired by Museum: 1920
 Collector: W.S. & K. Routledge
 Date Collected: 1913 - 1915
 Collection Method: Surface
 Place Collected: Easter Island
 Material: Stone
 Object: Adze
 Type: 1-C (broken) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Easter Island	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	22			Cross Section Shape	Quadrangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.3	20.1	0	1.8	5.2	3.5	239.9	0.0	0.2	12.8	VACUUM * GREEN
2	18.4	23.0	0	1.8	5.3	3.8	220.1	68.4	0.2	13.9	
3	17.8	22.3	0	1.8	4.9	3.6	215.8	20.8	0.2	13.7	
4											
AV	17.8	21.8	0.0	1.8	5.1	3.6	225.3	29.7	0.2	13.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
													YELLOW
AV	32	19	136	38	13	16	3	68	702	45	423	78	

Accession No. BM Oc1920.0506.206

Record No. 118

pXRF_0074_BM

Museum British Museum

Date Acquired by Museum 1920

Collector W.S. & K. Routledge

Date Collected 1913 - 1915

Collection Method Surface

Place Collected Pitcairn Island

Material Stone

Object Adze

Type 2-A (unfinished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Pitcairn Islands	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	29	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.0	27.5	0	1.8	5.9	3.5	235.1	52.6	0.2	13.7
2	18.3	28.4	0	1.8	6.0	3.5	250.1	88.9	0.2	14.3
3	18.3	30.3	0	1.8	6.0	3.7	238.2	120.9	0.2	14.8
4										
AV	18.2	28.7	0.0	1.8	6.0	3.6	241.1	87.5	0.2	14.3

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	30	19	130	38	14	16	4	55	736	50	422	82
	29	20	126	38	15	16	5	59	739	51	426	83
	37	19	127	36	14	15	3	55	744	54	427	83
AV	32	19	127	38	14	15	4	57	740	52	425	83

GREEN

YELLOW

Accession No. BM Oc1920.0506.207

Record No. 119

pXRF_0075_BM

Museum British Museum

Date Acquired by Museum 1920

Collector W.S. & K. Routledge

Date Collected 1913 - 1915

Collection Method Surface

Place Collected Pitcairn Island

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	22			Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.1	18.8	0	1.8	5.4	3.0	269.1	15.9	0.2	13.6
2	18.5	19.7	0	1.6	5.0	3.5	251.8	66.9	0.2	15.7
3	20.7	28.5	0	1.5	5.2	3.5	256.2	143.7	0.3	17.0
4										
AV	18.4	22.3	0.0	1.6	5.2	3.3	259.0	75.5	0.2	15.4

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	40	88	158	37	18	18	5	68	623	40	421	64
	34	155	161	39	21	20	3	47	705	49	397	80
	37	63	169	44	23	23	4	46	734	53	387	80
AV	37	102	163	40	21	20	4	54	687	47	402	75

GREEN

YELLOW



Museum	British Museum
Date Acquired by Museum	1920
Collector	W.S. & K. Routledge
Date Collected	1913 - 1915
Collection Method	Surface
Place Collected	Pitcairn Island
Material	Stone
Object	Adze
Type	3-A (unfinished) (F&S)
Additional Museum Notes	<input checked="" type="radio"/> Yes <input type="radio"/> No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	23			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.6	29.4	0	1.8	4.9	3.4	252.0	77.2	0.2	15.3
2	16.4	21.8	0	1.8	4.5	3.2	257.3	28.9	0.2	14.8
3	15.8	19.0	0	1.8	5.1	3.0	262.6	0.0	0.2	13.4
4										
AV	16.9	23.4	0.0	1.8	4.9	3.2	257.3	35.4	0.2	14.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	29	16	132	36	19	19	5	56	725	47	424	86
	33	12	123	35	14	16	4	46	717	51	414	87
	29	14	128	34	15	17	4	49	703	51	418	83
AV	30	14	128	35	16	17	4	51	715	50	419	85

GREEN

YELLOW



Museum: British Museum
 Date Acquired by Museum: 1920
 Collector: W.S. & K. Routledge
 Date Collected: 1913 - 1915
 Collection Method: Surface
 Place Collected: Pitcairn Island
 Material: Stone
 Object: Adze
 Type: 2-A (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	18			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA
 Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA
 Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA
 No Filter

Obsidian: 40 kV 34 microA
 Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.5	18.9	0	1.7	5.0	3.8	197.5	58.7	0.2	14.6	V A C U U M * G R E E N
2	15.4	18.6	0	1.7	5.4	3.4	219.3	0.0	0.2	13.2	
3	16.0	15.9	0	1.8	4.7	3.6	193.8	2.0	0.2	13.5	
4											
AV	16.0	17.8	0.0	1.7	5.0	3.6	203.5	20.2	0.2	13.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
	29	17	126	35	12	14	3	54	712	48	421	89	
	51	14	127	37	12	15	4	61	713	45	411	81	
	27	27	118	34	11	14	3	50	680	47	417	82	
AV	36	19	124	35	12	14	3	55	702	47	417	84	

Museum: British Museum
 Date Acquired by Museum: 1899
 Collector: F.W. Christian
 Date Collected: 1895 - 1896
 Collection Method: Surface
 Place Collected: Ua Huka, Marquesas
 Material: Basalt
 Object: Pounder
 Type: Phallic
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Marquesas	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	37			Cross Section Shape	Round

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04

Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.2	36.1	0	1.8	8.8	2.8	242.8	0.0	0.1	8.6	V A C U U M * G R E E N
2	13.9	39.5	0	1.8	9.2	3.0	257.5	0.0	0.1	9.2	
3	13.5	34.7	0	1.8	8.8	3.0	258.1	0.0	0.1	9.2	
4	14.1	36.1	-0	1.8	8.8	2.8	247.9	-250.2	0.1	8.6	
AV	14.0	36.7	0.2	1.8	8.9	2.9	256.0	-129.5	0.1	9.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	102.5	168.9	223.1	24.5	61.5	54.2	8.2	53.7	794.1	35.0	311.3	45.5	G R E E N
	93.4	150.9	226.8	28.1	59.0	56.7	9.3	57.3	811.3	33.2	329.9	46.1	
	137.7	167.9	249.2	23.3	63.0	59.1	11.3	66.7	846.4	31.3	335.1	52.7	
AV	111	163	233	25	61	57	10	59	817	33	325	48	

														Y E L L O W

AV



Museum: British Museum
 Date Acquired by Museum: 1920
 Collector: W.S. & K. Routledge
 Date Collected: By 1920
 Collection Method: Surface
 Place Collected: Tahiti, Society Islands
 Material: Basalt
 Object: Pounder
 Type: Maupiti
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	165.1	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	125.9	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	62.5	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	43.3
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Society Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	38			Cross Section Shape	Circular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.8	39.5	0	1.7	7.0	2.9	274.8	19.7	0.2	14.7	VACUUM GREEN*
2	15.8	36.9	1	1.8	6.8	2.7	263.8	195.7	0.2	13.4	
3	15.0	37.0	0	1.7	6.8	2.7	277.5	0.0	0.2	14.1	
4	16.0	39.5	-0	1.7	7.0	2.9	282.3	18.4	0.2	14.7	
AV	15.8	37.8	0.2	1.7	6.8	2.8	275.1	65.2	0.2	14.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	36.2	93.1	241.3	29.3	68.2	69.1	7.8	49.9	728.4	40.4	396.4	83.8	GREEN
	65.8	131.7	256.0	27.0	85.3	74.6	10.2	60.8	694.2	34.8	428.3	87.8	
	49.9	138.6	297.0	31.4	67.6	62.7	7.7	49.7	721.5	39.8	413.1	77.8	
AV	51	121	265	29	74	69	9	53	715	38	413	83	



													YELLOW
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AV

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Austral Islands
 Material: Stone
 Object: Pounder
 Type: Type 3 (Mulloy)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	152.4	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	138.3	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	54.8	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	27.4
		Middle Max Front	no_data	Top Max Thickness	45.0
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	31			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.2	22.9	4	1.8	11.1	3.0	234.2	0.0	0.1	6.9	▲ GREEN* V A C U U M ▼
2	16.1	35.7	0	1.9	9.3	3.4	202.3	0.0	0.1	8.6	
3	15.4	34.4	3	1.9	11.1	3.1	225.7	0.0	0.1	8.0	
4	15.1	22.9	4	1.8	11.1	3.0	240.9	-175.8	0.1	6.9	
AV	15.6	31.0	2.1	1.9	10.5	3.1	225.2	-59.5	0.1	7.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	80.5	113.8	268.5	34.1	325.4	326.3	9.8	56.9	1321.2	33.4	323.9	66.1	▲ GREEN ▼
	168.3	218.3	318.3	1363.3	0.0	0.0	0.0	68.4	1389.5	28.0	309.4	69.6	
	34.5	114.3	412.7	31.2	125.6	124.5	8.2	50.6	1235.7	35.2	300.5	60.9	
AV	94	149	333	476	150	150	6	59	1315	32	311	66	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Museum: British Museum
 Date Acquired by Museum: 1920
 Collector: W.S & K. Routledge
 Date Collected: 1913 - 1915
 Collection Method: Surface
 Place Collected: Easter Island
 Material: Stone
 Object: Fish-hook, disc
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	65.6	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	29.5	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	14.9	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Easter Island	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	44			Cross Section Shape	Sub-rectangular

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	19.2	42.3	0	1.8	4.8	2.0	283.5	126.3	0.2	14.8	VACUUM GREEN*
2	18.0	47.4	0	1.8	4.7	1.9	273.3	151.0	0.2	15.0	
3	17.6	42.4	0	1.8	5.1	2.0	267.1	136.0	0.2	13.8	
4	18.7	42.3	-0	1.8	4.8	2.0	283.6	123.8	0.2	14.8	
AV	18.1	44.0	-0.2	1.8	4.9	2.0	274.7	136.6	0.2	14.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	90.5	92.8	221.7	31.9	29.4	31.3	5.8	40.3	335.5	59.4	535.0	77.1	GREEN
	61.7	54.5	214.5	31.0	22.3	22.1	6.1	41.6	314.5	54.6	528.7	66.0	
	53.2	96.4	255.8	33.9	26.7	25.7	8.1	49.2	345.3	50.1	538.2	80.6	
AV	68	81	231	32	26	26	7	44	332	55	534	75	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													



Accession No. K-T 2635

Record No. 130

pXRF_0001_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Nukuhiva, Marquesas
 Material Stone
 Object Pounder
 Type Double Tiki
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	44	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	no_data

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.1	41.6	2	2.3	6.6	2.7	280.7	0.0	0.1	9.4
2	16.6	47.3	4	2.3	6.7	3.1	259.6	0.0	0.1	9.9
3	16.4	44.2	1	2.4	6.1	2.8	288.5	0.0	0.1	9.7
4										
AV	16.0	44.3	2.1	2.3	6.5	2.9	276.3	0.0	0.1	9.6

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	163.7	185.8	1330.1	25.6	87.0	82.5	12.5	83.2	726.7	24.1	410.9	65.4
	174.8	161.0	838.1	24.1	86.7	85.9	16.1	90.9	737.5	20.9	412.3	63.7
	162.6	212.5	587.5	32.5	83.2	78.0	15.8	93.6	735.8	19.7	417.9	67.1
AV	167	186	919	27	86	82	15	89	733	22	414	65

GREEN

YELLOW



AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Stone
 Object: Pounder
 Type: Y-shaped
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	42			Cross Section Shape	no_data

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	19.5	45.6	1	1.0	8.0	3.6	293.0	178.7	0.2	17.7
2	18.5	42.7	1	1.0	7.9	3.6	304.0	104.5	0.2	17.0
3	17.3	37.9	0	1.2	7.6	4.0	286.7	86.2	0.2	15.2
4										
AV	18.4	42.1	0.7	1.0	7.8	3.7	294.6	123.1	0.2	16.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	217.6	78.7	212.2	25.9	37.7	38.8	5.4	36.8	550.2	35.4	252.9	52.9
	256.7	69.0	161.5	29.6	28.3	30.3	4.6	32.6	512.8	37.3	233.7	51.0
	268.0	67.9	240.2	26.0	27.3	26.6	6.2	42.1	519.3	36.7	272.9	55.7
AV	247	72	205	27	31	32	5	37	527	36	253	53

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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. K-T 2615

Record No. 148

pXRF_0019_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Rapa Iti, Marquesas
 Material: Stone
 Object: Pounder
 Type: Type 3 (Mulloy)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	26			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.0	28.4	0	1.7	4.4	3.7	268.5	61.2	0.1	14.3
2	17.8	26.5	0	1.6	4.8	4.3	103.2	96.9	0.1	13.8
3	16.9	22.7	0	1.5	4.6	3.8	194.7	66.6	0.1	13.8
4										
AV	17.3	25.9	0.0	1.6	4.6	3.9	188.8	74.9	0.1	14.0

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	218.4	88.0	179.2	23.5	24.5	28.4	9.0	54.7	909.4	31.9	337.4	68.5
	276.6	111.1	160.0	27.5	26.2	21.7	8.0	52.4	951.0	33.1	349.4	74.0
	234.0	80.0	150.7	29.3	16.0	20.6	7.6	49.6	996.0	34.5	340.8	74.6
AV	243	93	163	27	22	24	8	52	952	33	343	72

GREEN

YELLOW



AV

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Nukuhiva, Marquesas
 Material Stone
 Object Pounder
 Type Opu
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Marquesas	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	41			Cross Section Shape	no_data

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.7	42.3	0	1.4	10.3	3.1	256.7	0.0	0.1	7.6	V A C U U M * G R E E N
2	14.7	41.8	0	1.3	10.7	3.3	257.2	0.0	0.1	8.1	
3	13.0	39.4	0	1.5	9.7	2.8	263.0	0.0	0.1	7.7	
4											
AV	14.1	41.2	0.0	1.4	10.2	3.1	259.0	0.0	0.1	7.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	289.6	162.8	151.0	29.6	21.3	30.2	3.6	26.7	591.2	41.3	320.9	35.2	G R E E N
	303.3	169.0	187.5	26.4	25.5	21.4	3.2	25.2	554.9	39.6	301.3	36.9	
	276.2	153.8	161.2	26.5	27.5	25.7	4.0	29.2	606.1	41.1	324.5	40.3	
AV	290	162	167	28	25	26	4	27	584	41	316	37	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Nukuhiva, Marquesas
 Material: Stone
 Object: Pounder
 Type: base
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width
Max Width		Bevel Max Thickness		Shoulder Max Thickness
Max Thickness		Middle Width		Middle Max Thickness
Weight (g)		Middle Thickness		Top Max Width
		Middle Max Front		Top Max Thickness
		Shoulder Front Max Width		Cutting Edge to Bevel
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel
TAS (SiO ₂) Material	40	foidite		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.5	39.2	3	1.9	9.8	3.4	276.6	0.0	0.2	10.2	V A C U U M * G R E E N
2	18.6	39.0	1	1.9	9.4	3.5	274.4	0.0	0.1	10.2	
3	18.3	43.2	1	2.2	8.6	3.5	267.9	0.0	0.1	9.9	
4											
AV	18.4	40.4	1.7	2.0	9.3	3.4	273.0	0.0	0.2	10.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	235.5	116.6	171.8	31.4	27.5	26.6	12.8	72.2	694.3	29.3	335.7	52.2	G R E E N
	249.1	101.3	190.4	39.6	28.2	32.2	23.3	124.3	593.8	0.0	425.9	61.4	
	234.2	115.2	177.7	32.6	22.6	22.4	10.2	62.4	687.1	33.3	341.5	53.0	
AV	240	111	180	35	26	27	15	86	658	21	368	56	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. K-T 611

Record No. 175

pXRF_0046_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Mangareva, Gambier
 Material Basalt
 Object Adze
 Type 2-B (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	91.1	Width Cutting Edge	45	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	25.2	Shoulder Max Thickness	no_data
Max Thickness	26	Middle Width	42	Middle Max Thickness	26
Weight (g)		Middle Thickness	25.4	Top Max Width	34.2
		Middle Max Front	28	Top Max Thickness	12.2
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	45.1
Island Group	Gambier Islands	Middle Max Back	42.5	Length Rightangle to Bevel	42
TAS (SiO ₂) Material	40			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.3	40.8	0	0.7	10.3	2.3	277.6	296.2	0.1	12.0	▲ GREEN* V A C U U M ▼
2	17.6	42.0	1	0.7	11.2	2.3	286.6	287.5	0.2	11.9	
3	16.3	38.0	0	0.7	10.8	2.2	262.8	322.3	0.1	11.4	
4											
AV	17.1	40.3	0.2	0.7	10.7	2.2	275.7	302.0	0.1	11.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	318.6	241.0	565.1	33.0	292.7	288.5	0.0	14.7	405.6	27.0	146.9	25.9	▲ GREEN ▼
	322.5	180.6	620.1	29.7	186.4	175.7	0.8	15.6	445.2	28.3	148.9	19.9	
	265.0	159.8	546.9	26.3	187.0	178.6	0.3	13.5	425.0	25.7	141.1	25.0	
AV	302	194	577	30	222	214	0	15	425	27	146	24	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Mangareva, Gambier
 Material Basalt
 Object Adze
 Type 5-B (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	184	Width Cutting Edge	72.6	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	20.5	Shoulder Max Thickness	no_data
Max Thickness	42.3	Middle Width	69.8	Middle Max Thickness	38
Weight (g)		Middle Thickness	39.8	Top Max Width	39.7
		Middle Max Front	56.2	Top Max Thickness	9.8
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	42.1
Island Group	Gambier Islands	Middle Max Back	69.7	Length Rightangle to Bevel	34.3
TAS (SiO ₂) Material	47			Cross Section Shape	Lenticular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.7	45.6	0	0.9	11.2	3.2	297.3	84.6	0.2	12.4	VACUUM GREEN*
2	19.1	47.3	0	0.9	11.4	3.1	333.5	8.9	0.2	12.5	
3	19.1	48.3	1	0.9	11.3	3.0	316.6	41.9	0.2	12.4	
4											
AV	18.9	47.1	0.3	0.9	11.3	3.1	315.8	45.1	0.2	12.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	253.5	136.9	205.9	27.8	47.0	47.4	3.1	24.0	472.0	36.7	221.7	40.2	GREEN
	318.7	137.8	208.1	28.2	27.6	25.8	3.1	24.9	462.6	32.5	234.6	48.0	
	299.5	116.1	178.1	22.9	27.4	23.3	3.6	27.7	469.1	29.9	219.1	37.7	
AV	291	130	197	26	34	32	3	26	468	33	225	42	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													



Accession No. K-T 651

Record No. 181

pXRF_0052_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Rapa Iti, Marquesas
 Material Basalt
 Object Adze
 Type 1-B (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	71.7	Width Cutting Edge	35.5	Shoulder Back Max Width	34.2
Max Width	no_data	Bevel Max Thickness	10	Shoulder Max Thickness	10.8
Max Thickness	11	Middle Width	29.4	Middle Max Thickness	10.6
Weight (g)		Middle Thickness	no_data	Top Max Width	17.2
Island Group	Marquesas	Middle Max Front	no_data	Top Max Thickness	6.1
TAS (SiO ₂) Material	38	Shoulder Front Max Width	23.2	Cutting Edge to Bevel	26.2
	foidite	Middle Max Back	no_data	Length Rightangle to Bevel	21.2
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.5	38.8	0	1.8	8.8	4.2	152.1	0.0	0.1	10.6
2	16.3	38.2	0	1.8	8.5	4.1	156.9	0.0	0.1	11.3
3	17.5	36.1	1	1.7	6.8	4.5	95.8	0.0	0.2	13.7
4										
AV	16.4	37.7	0.4	1.8	8.0	4.3	134.9	0.0	0.2	11.9

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	278.9	266.6	387.9	31.2	45.0	50.7	9.9	58.2	1133.6	33.2	347.5	86.7
	242.5	158.2	328.3	24.1	39.8	43.4	9.3	56.2	1111.2	34.6	352.0	86.8
	241.4	164.2	400.8	27.7	63.5	62.9	9.8	57.1	1106.0	33.0	334.9	86.9
AV	254	196	372	28	49	52	10	57	1117	34	345	87



AV												

AV

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Rapa Iti, Marquesas
 Material Basalt
 Object Adze
 Type 1-E (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	192	Width Cutting Edge	no_data	Shoulder Back Max Width	36.4
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	60.2
Max Thickness	61.2	Middle Width	37.4	Middle Max Thickness	58.8
Weight (g)		Middle Thickness	no_data	Top Max Width	16.8
		Middle Max Front	no_data	Top Max Thickness	32.6
		Shoulder Front Max Width	24.4	Cutting Edge to Bevel	no_data
Island Group	Marquesas	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	38			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.1	37.6	0	1.5	9.1	3.9	195.2	70.9	0.2	13.2
2	18.1	39.6	1	1.6	9.6	3.9	210.1	0.0	0.1	11.9
3	16.7	36.5	0	1.6	8.9	3.8	205.0	0.0	0.1	11.7
4										
AV	17.6	37.9	0.3	1.6	9.2	3.9	203.4	23.6	0.1	12.3

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	250.2	169.1	478.3	29.4	38.9	39.2	8.6	51.3	1092.6	34.1	338.6	84.5
	261.0	138.0	337.9	27.6	29.6	28.0	7.6	47.0	1057.4	34.9	339.2	81.8
	246.5	118.8	243.1	27.0	33.8	38.5	8.9	52.9	1075.4	33.2	345.2	81.9
AV	253	142	353	28	34	35	8	50	1075	34	341	83

GREEN

YELLOW



Accession No. K-T 647

Record No. 183

pXRF_0054_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Rapa Iti, Marquesas
 Material Basalt
 Object Adze
 Type 1-E (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	226	Width Cutting Edge	45.4	Shoulder Back Max Width	32.2
Max Width	no_data	Bevel Max Thickness	52.6	Shoulder Max Thickness	67.3
Max Thickness	67	Middle Width	46.5	Middle Max Thickness	65.4
Weight (g)		Middle Thickness	no_data	Top Max Width	24.1
		Middle Max Front	no_data	Top Max Thickness	28
Island Group	Marquesas	Shoulder Front Max Width	36.6	Cutting Edge to Bevel	79.6
TAS (SiO ₂) Material	44	Middle Max Back	no_data	Length Rightangle to Bevel	67.1
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	21.1	45.6	1	1.7	9.2	4.1	236.0	0.0	0.2	11.6
2	20.8	45.1	0	1.8	9.3	4.1	214.9	0.0	0.2	10.9
3	17.2	40.6	0	1.8	9.6	4.1	224.5	0.0	0.1	10.1
4										
AV	19.7	43.8	0.3	1.8	9.4	4.1	225.1	0.0	0.2	10.8

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	262.3	99.8	246.0	29.8	21.3	26.5	9.0	54.1	1126.5	34.3	364.5	87.2
	253.6	110.1	222.4	33.9	19.9	24.5	7.0	47.5	1042.4	34.5	343.9	81.3
	267.0	117.5	402.2	28.2	35.4	30.1	7.7	48.4	1064.3	35.6	339.8	78.7
AV	261	109	290	31	26	27	8	50	1078	35	349	82

GREEN

YELLOW



AV

Accession No. K-T 652

Record No. 184

pXRF_0055_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Rapa Iti, Marquesas
 Material: Basalt
 Object: Chisel
 Type: 6 (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	67.9	Width Cutting Edge	10.7	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	8.9	Shoulder Max Thickness	no_data
Max Thickness	14.8	Middle Width	14	Middle Max Thickness	13.1
Weight (g)		Middle Thickness	12.8	Top Max Width	no_data
		Middle Max Front	13.2	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	9.8
Island Group	Marquesas	Middle Max Back	12.8	Length Rightangle to Bevel	7.3
TAS (SiO ₂) Material	37			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	20.0	42.4	0	1.7	9.3	4.7	48.7	0.0	0.1	10.2
2	15.4	27.5	0	1.5	6.2	4.2	192.5	0.0	0.1	13.0
3	19.5	40.9	0	1.7	9.4	5.1	5.2	0.0	0.1	10.3
4										
AV	18.3	36.9	0.0	1.6	8.3	4.7	82.1	0.0	0.1	11.2

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	259.9	124.6	239.8	24.4	31.3	32.2	6.3	42.3	1059.0	35.9	351.6	80.5
	325.7	132.1	276.6	25.6	32.4	34.0	6.2	40.8	1042.3	37.2	349.6	81.8
AV	293	128	258	25	32	33	6	42	1051	37	351	81

GREEN

YELLOW



AV

Accession No. K-T 616

Record No. 185

pXRF_0056_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Raivavae, Austral Islands
 Material Basalt
 Object Adze
 Type 3-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	247	Width Cutting Edge	49.7	Shoulder Back Max Width	53.7
Max Width	no_data	Bevel Max Thickness	37.5	Shoulder Max Thickness	40.2
Max Thickness	40.1	Middle Width	53.6	Middle Max Thickness	37.2
Weight (g)		Middle Thickness	no_data	Top Max Width	36
		Middle Max Front	no_data	Top Max Thickness	20.3
		Shoulder Front Max Width	0	Cutting Edge to Bevel	100.6
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	85.1
TAS (SiO ₂) Material	37			Cross Section Shape	Triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.1	34.0	0	0.8	11.2	4.4	224.7	0.0	0.2	14.5	V A C U U M * G R E E N
2	16.0	37.9	1	0.8	12.3	4.4	218.3	0.0	0.2	14.2	
3	16.1	37.7	1	0.8	12.2	4.4	227.5	0.0	0.2	14.0	
4											
AV	15.7	36.6	0.4	0.8	11.9	4.4	223.5	0.0	0.2	14.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	249.2	77.5	258.3	29.3	28.8	24.8	7.8	47.9	1052.5	35.1	291.4	108.3	G R E E N
	208.4	166.5	249.0	23.9	18.0	14.6	7.0	45.7	1001.7	37.4	286.3	102.6	
	232.1	88.3	219.7	25.6	18.9	25.3	5.6	38.0	979.6	37.3	279.4	109.3	
AV	230	111	242	26	22	22	7	44	1011	37	286	107	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. K-T 620

Record No. 189

pXRF_0060_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	179	Width Cutting Edge	43.1	Shoulder Back Max Width	37.3
Max Width	no_data	Bevel Max Thickness	40.6	Shoulder Max Thickness	42.5
Max Thickness	49.8	Middle Width	40.4	Middle Max Thickness	40
Weight (g)		Middle Thickness	no_data	Top Max Width	27.5
		Middle Max Front	no_data	Top Max Thickness	27.7
		Shoulder Front Max Width	5.8	Cutting Edge to Bevel	75.2
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	60.7
TAS (SiO ₂) Material	38			Cross Section Shape	Triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.4	40.4	2	1.1	11.3	2.5	258.9	0.0	0.2	11.3
2	14.9	37.4	0	1.2	10.0	2.8	252.7	0.0	0.2	12.7
3	13.9	35.3	0	1.2	9.0	2.5	258.0	0.0	0.2	11.8
4										
AV	14.4	37.7	1.1	1.2	10.1	2.6	256.5	0.0	0.2	11.9

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	219.8	102.5	319.3	32.7	152.4	143.7	6.1	42.5	1421.4	43.2	359.3	100.7
	202.9	112.2	460.2	58.4	536.6	580.2	0.0	52.4	1458.4	40.0	369.1	109.7
	186.8	83.7	268.2	39.4	218.0	212.3	7.8	50.2	1390.8	36.4	356.1	105.6
AV	203	99	349	43	302	312	5	48	1424	40	362	105

GREEN

YELLOW



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AV

Accession No. K-T 621

Record No. 190

pXRF_0061_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	174	Width Cutting Edge	32.4	Shoulder Back Max Width	39.8
Max Width	no_data	Bevel Max Thickness	45.2	Shoulder Max Thickness	44.1
Max Thickness	44.6	Middle Width	42	Middle Max Thickness	45.1
Weight (g)		Middle Thickness	no_data	Top Max Width	34.1
		Middle Max Front	no_data	Top Max Thickness	34.1
Island Group	Austral Islands	Shoulder Front Max Width	0	Cutting Edge to Bevel	94.8
TAS (SiO ₂) Material	38	Middle Max Back	no_data	Length Rightangle to Bevel	77.6
				Cross Section Shape	Triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.8	37.3	0	1.3	9.6	2.6	300.0	231.6	0.1	10.6	▲ GREEN* V A C U U M ▼
2	17.1	38.4	0	1.2	9.4	2.8	267.6	342.2	0.2	13.0	
3	15.9	37.5	0	1.3	9.4	2.7	280.6	265.8	0.1	10.8	
4											
AV	15.9	37.7	0.0	1.3	9.5	2.7	282.7	279.9	0.1	11.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	290.1	102.4	301.6	28.5	18.8	22.3	7.1	48.7	687.3	32.0	271.8	68.4	▲ GREEN G R E E N ▼
	320.8	68.7	288.9	24.2	28.9	30.3	6.8	45.7	674.4	33.0	267.9	70.9	
	345.1	138.6	314.0	24.5	68.3	65.4	6.0	40.2	693.2	32.7	275.8	77.8	
AV	319	103	301	26	39	39	7	45	685	33	272	72	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW Y E L L O W ▼
AV													

AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (finished)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	149	Width Cutting Edge	41.3	Shoulder Back Max Width	54.4
Max Width	no_data	Bevel Max Thickness	40	Shoulder Max Thickness	46.3
Max Thickness	46.2	Middle Width	53.2	Middle Max Thickness	45.5
Weight (g)		Middle Thickness	no_data	Top Max Width	34.2
		Middle Max Front	no_data	Top Max Thickness	32.6
		Shoulder Front Max Width	3.2	Cutting Edge to Bevel	67.8
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	53.7
TAS (SiO ₂) Material	34			Cross Section Shape	Triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	12.3	35.4	1	0.1	10.6	1.5	273.9	545.3	0.2	16.6
2	12.3	35.1	7	0.0	13.3	1.8	243.4	378.4	0.2	12.4
3	12.3	32.8	1	0.0	13.8	2.0	266.3	632.2	0.2	13.2
4										
AV	12.3	34.5	3.0	0.1	12.6	1.8	261.2	518.7	0.2	14.1

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	510.5	163.1	1250.1	25.7	66.9	61.9	1.0	22.1	947.6	37.6	213.7	97.1
	484.6	132.6	998.2	28.2	85.8	77.6	1.4	25.2	994.7	38.9	196.5	91.5
	461.6	120.1	693.3	22.3	64.4	63.5	1.9	21.3	942.4	37.7	196.5	91.8
AV	486	139	981	25	72	68	1	23	962	38	202	93



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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. K-T 624

Record No. 193

pXRF_0064_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (finished)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	151	Width Cutting Edge	37.5	Shoulder Back Max Width	41.4
Max Width	no_data	Bevel Max Thickness	38.1	Shoulder Max Thickness	38.3
Max Thickness	38.1	Middle Width	42.7	Middle Max Thickness	36.1
Weight (g)		Middle Thickness	no_data	Top Max Width	25.6
		Middle Max Front	no_data	Top Max Thickness	28.7
		Shoulder Front Max Width	5	Cutting Edge to Bevel	91.5
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	86.8
TAS (SiO ₂) Material	45			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.1	47.0	8	2.5	6.4	1.0	156.2	0.0	0.2	9.1
2	13.7	41.5	0	2.6	4.4	0.9	134.9	0.0	0.2	8.8
3	15.5	46.5	0	2.6	2.8	1.0	166.7	37.4	0.2	10.6
4										
AV	14.8	45.0	2.8	2.6	4.5	0.9	152.6	12.5	0.2	9.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	207.6	104.1	516.4	34.0	59.0	55.0	14.2	80.3	549.4	26.4	470.3	124.5
	218.7	136.3	392.9	25.8	48.9	44.9	12.9	78.4	540.6	27.4	486.1	135.0
	205.2	103.4	429.0	34.3	49.8	45.7	13.1	81.5	550.1	26.3	494.3	145.7
AV	210	115	446	31	53	49	13	80	547	27	484	135

GREEN

YELLOW



AV

Accession No. K-T 626

Record No. 195

pXRF_0066_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	141	Width Cutting Edge	42.8	Shoulder Back Max Width	43.2
Max Width	no_data	Bevel Max Thickness	37.1	Shoulder Max Thickness	37
Max Thickness	37.1	Middle Width	45.7	Middle Max Thickness	37.1
Weight (g)		Middle Thickness	no_data	Top Max Width	28.1
		Middle Max Front	no_data	Top Max Thickness	28.1
Island Group	Austral Islands	Shoulder Front Max Width	5.1	Cutting Edge to Bevel	88.8
TAS (SiO ₂) Material	38	Middle Max Back	no_data	Length Rightangle to Bevel	78.9
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.6	37.9	0	0.1	11.9	2.3	315.6	1312.1	0.2	16.2
2	14.3	39.4	2	0.3	12.2	2.4	330.8	543.9	0.2	14.6
3	13.8	35.7	0	0.2	11.8	2.2	288.1	537.4	0.2	15.8
4										
AV	14.2	37.6	0.6	0.2	12.0	2.3	311.5	797.8	0.2	15.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	378.5	75.7	214.6	28.6	27.3	22.6	2.6	26.3	878.2	37.9	235.0	101.0
	346.8	78.8	355.1	23.7	37.7	35.5	2.4	24.2	894.2	38.0	247.3	104.1
	358.1	71.5	273.6	24.5	30.4	32.0	2.3	23.2	890.9	41.2	236.0	104.0
AV	361	75	281	26	32	30	2	25	888	39	239	103

GREEN

YELLOW



AV												
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AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	126.7	Width Cutting Edge	49.3	Shoulder Back Max Width	45.7
Max Width	no_data	Bevel Max Thickness	38.6	Shoulder Max Thickness	38.7
Max Thickness	38.6	Middle Width	48	Middle Max Thickness	37.9
Weight (g)		Middle Thickness	no_data	Top Max Width	32.2
		Middle Max Front	no_data	Top Max Thickness	27.5
		Shoulder Front Max Width	6.8	Cutting Edge to Bevel	90
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	80.5
TAS (SiO ₂) Material	35			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.8	37.4	0	0.2	15.1	1.9	280.1	486.8	0.2	10.9	▲ GREEN* V A C U U M ▼
2	14.8	34.4	0	0.3	15.3	2.0	276.8	484.5	0.2	10.9	
3	14.1	31.9	0	0.2	14.4	2.1	282.7	366.7	0.2	10.7	
4											
AV	14.5	34.6	0.0	0.2	14.9	2.0	279.9	446.0	0.2	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	368.2	125.4	209.5	28.0	13.9	16.8	2.8	22.3	511.7	32.1	171.5	54.3	▲ GREEN ▼
	421.2	114.0	202.3	22.5	17.0	18.5	3.7	28.2	599.9	31.6	189.9	62.4	
	377.9	233.9	559.4	23.5	21.5	21.5	3.5	27.1	556.0	30.2	174.3	58.2	
AV	389	158	324	25	17	19	3	26	556	31	179	58	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Accession No. K-T 628

Record No. 197

pXRF_0068_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Raivavae, Austral Islands
 Material Basalt
 Object Adze
 Type 3-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	104.7	Width Cutting Edge	35.1	Shoulder Back Max Width	34.2
Max Width	no_data	Bevel Max Thickness	27.4	Shoulder Max Thickness	29.5
Max Thickness	29.5	Middle Width	36	Middle Max Thickness	29.2
Weight (g)		Middle Thickness	no_data	Top Max Width	24.7
		Middle Max Front	no_data	Top Max Thickness	23.5
		Shoulder Front Max Width	0	Cutting Edge to Bevel	46.6
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	37.3
TAS (SiO ₂) Material	37			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.1	37.0	1	1.2	9.1	4.1	145.4	0.0	0.2	15.5
2	15.1	37.2	1	1.4	8.7	4.0	155.5	0.0	0.2	14.3
3	15.2	36.9	1	1.3	8.7	4.2	105.7	0.0	0.2	15.1
4										
AV	15.2	37.0	1.2	1.3	8.8	4.1	135.5	0.0	0.2	15.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	223.7	126.0	333.8	25.6	32.6	36.7	9.6	64.8	1505.8	31.6	357.4	110.0
	244.8	87.9	346.4	24.6	29.5	26.7	11.3	62.3	1418.0	32.4	376.9	112.6
	217.1	103.3	288.5	34.0	24.3	27.4	11.7	63.9	1551.4	32.9	364.1	109.1
AV	229	106	323	28	29	30	11	64	1492	32	366	111



AV												
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AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	97.9	Width Cutting Edge	29.9	Shoulder Back Max Width	33.1
Max Width	no_data	Bevel Max Thickness	29.4	Shoulder Max Thickness	28.3
Max Thickness	29.1	Middle Width	34.3	Middle Max Thickness	28.4
Weight (g)		Middle Thickness	no_data	Top Max Width	21.6
		Middle Max Front	no_data	Top Max Thickness	20.5
		Shoulder Front Max Width	5.6	Cutting Edge to Bevel	61.2
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	47.9
TAS (SiO ₂) Material	46			Cross Section Shape	Sub-triangular

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	19.9	38.1	0	1.3	9.4	2.6	305.3	235.1	0.2	10.9
2	17.8	45.7	0	1.3	11.3	2.9	286.4	432.3	0.2	10.7
3	16.4	52.8	1	1.3	10.0	2.3	240.0	36.6	0.1	9.3
4										
AV	18.0	45.5	0.4	1.3	10.2	2.6	277.2	234.7	0.1	10.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	319.7	78.6	157.1	24.0	20.9	20.4	7.1	44.7	771.2	34.6	291.1	84.2
	332.6	115.8	164.2	22.1	21.0	14.7	6.2	41.4	815.4	33.4	275.5	79.5
	343.3	74.0	175.2	23.6	26.2	34.3	7.0	44.5	820.3	35.8	277.7	76.4
AV	332	89	165	23	23	23	7	44	802	35	281	80



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AV

Accession No. K-T 631

Record No. 200

pXRF_0071_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Raivavae, Austral Islands
 Material Basalt
 Object Adze
 Type 3-A (unfinished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	95	Width Cutting Edge	27.6	Shoulder Back Max Width	29
Max Width	no_data	Bevel Max Thickness	26.9	Shoulder Max Thickness	27.7
Max Thickness	27.8	Middle Width	29	Middle Max Thickness	26.6
Weight (g)		Middle Thickness	no_data	Top Max Width	20.7
		Middle Max Front	no_data	Top Max Thickness	20.4
Island Group	Austral Islands	Shoulder Front Max Width	2.2	Cutting Edge to Bevel	44.9
TAS (SiO ₂) Material	37	Middle Max Back	no_data	Length Rightangle to Bevel	32.3
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.0	37.0	0	1.1	11.4	2.6	281.8	201.8	0.1	9.2
2	16.0	39.9	0	1.2	11.6	2.9	284.2	185.3	0.1	9.1
3	14.5	34.7	0	1.2	11.0	2.7	295.0	223.1	0.1	10.0
4										
AV	15.2	37.2	0.0	1.2	11.3	2.7	287.0	203.4	0.1	9.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	303.1	192.6	322.4	23.4	112.8	99.8	4.5	33.5	771.3	35.8	276.8	78.2
	308.5	94.2	365.1	27.4	86.9	81.2	5.0	34.4	725.7	35.0	283.6	71.5
	326.5	124.2	330.4	30.0	138.0	131.2	4.5	35.8	756.4	36.1	275.5	73.2
AV	313	137	339	27	113	104	5	35	751	36	279	74



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												

AV

Accession No. K-T 634

Record No. 203

pXRF_0074_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	85	Width Cutting Edge	29	Shoulder Back Max Width	31.7
Max Width	no_data	Bevel Max Thickness	19.6	Shoulder Max Thickness	22.2
Max Thickness	22.2	Middle Width	32.2	Middle Max Thickness	21.8
Weight (g)		Middle Thickness	no_data	Top Max Width	9.8
		Middle Max Front	no_data	Top Max Thickness	8.8
		Shoulder Front Max Width	1.4	Cutting Edge to Bevel	28.9
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	22.6
TAS (SiO ₂) Material	43			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.2	38.8	1	1.8	8.1	3.6	208.0	0.0	0.2	11.3
2	17.6	45.0	3	1.7	8.6	3.7	224.6	0.0	0.2	11.7
3	17.0	43.8	4	2.0	7.9	3.6	225.8	0.0	0.1	10.6
4										
AV	16.6	42.5	2.7	1.8	8.2	3.7	219.4	0.0	0.2	11.2

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	224.1	88.1	292.1	26.1	59.0	61.0	11.7	63.4	1734.0	33.8	405.1	136.5
	207.0	111.2	405.1	33.6	55.0	58.4	11.9	64.8	1792.1	33.3	407.3	146.8
	285.7	83.2	332.9	33.6	46.9	47.6	11.8	63.8	1796.0	33.7	406.8	136.9
AV	239	94	343	31	54	56	12	64	1774	34	406	140

GREEN

YELLOW



AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A Broken (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	98.5	Width Cutting Edge	47.8	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	38.2	Shoulder Max Thickness	no_data
Max Thickness	37	Middle Width	54.2	Middle Max Thickness	31.7
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	86.5
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	74.6
TAS (SiO ₂) Material	45			Cross Section Shape	Sub-triangular

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

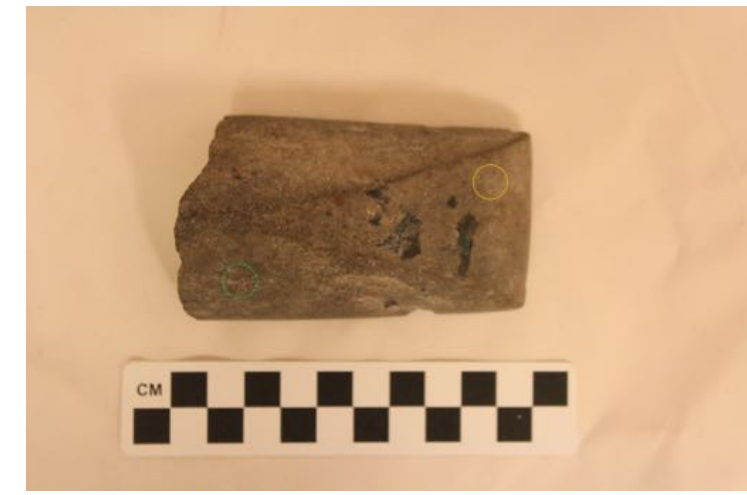
Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.6	43.8	1	1.2	10.9	3.0	244.0	0.0	0.1	10.2
2	14.8	48.2	1	1.2	11.1	2.9	239.1	0.0	0.1	9.6
3	14.1	42.4	0	1.2	11.2	3.0	223.0	0.0	0.1	9.9
4										
AV	14.5	44.8	0.7	1.2	11.0	3.0	235.4	0.0	0.1	9.9

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	238.0	134.7	483.5	27.1	29.7	33.8	4.7	34.6	918.8	39.7	265.7	93.4
	192.5	157.5	742.5	22.7	37.6	42.9	3.4	26.3	957.0	39.1	243.1	90.1
	205.5	187.4	503.8	24.0	23.1	33.7	5.9	39.5	911.3	36.8	270.6	98.2
AV	212	160	577	25	30	37	5	33	929	39	260	94



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												



AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-H (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	72	Width Cutting Edge	34.6	Shoulder Back Max Width	38.9
Max Width	no_data	Bevel Max Thickness	21.6	Shoulder Max Thickness	22.2
Max Thickness	22.2	Middle Width	39	Middle Max Thickness	21.5
Weight (g)		Middle Thickness	no_data	Top Max Width	21.5
		Middle Max Front	no_data	Top Max Thickness	12.8
Island Group	Austral Islands	Shoulder Front Max Width	28.5	Cutting Edge to Bevel	35.2
TAS (SiO ₂) Material	34	Middle Max Back	no_data	Length Rightangle to Bevel	30.1
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.1	34.1	1	1.2	8.0	4.4	70.4	0.0	0.2	16.6
2	19.3	34.9	0	1.2	7.1	4.7	37.5	0.0	0.2	17.2
3	17.4	32.8	-1	1.3	6.8	4.4	96.0	0.0	0.2	15.4
4										
AV	17.6	34.0	-0.0	1.2	7.3	4.5	68.0	0.0	0.2	16.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	190.6	104.6	269.9	23.6	38.0	34.9	7.5	46.9	1213.7	38.2	390.1	118.0
	217.9	60.8	251.6	26.2	35.6	47.5	9.3	54.4	1174.5	35.4	383.7	119.0
	229.1	91.5	257.4	33.9	34.3	42.4	9.7	56.4	1232.3	35.5	389.8	122.7
AV	213	86	260	28	36	42	9	53	1207	36	388	120



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AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3 Aberrants (finished)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	74	Width Cutting Edge	47.7	Shoulder Back Max Width	48.4
Max Width	no_data	Bevel Max Thickness	16.5	Shoulder Max Thickness	20
Max Thickness	21.9	Middle Width	25.2	Middle Max Thickness	19.7
Weight (g)		Middle Thickness	no_data	Top Max Width	18.4
		Middle Max Front	no_data	Top Max Thickness	13.5
		Shoulder Front Max Width	29.9	Cutting Edge to Bevel	23.2
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	27
TAS (SiO ₂) Material	39			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.6	37.1	0	0.7	11.0	3.4	344.6	0.0	0.2	13.6	▲ GREEN* V A C U U M ▼
2	18.6	39.9	0	0.6	11.4	3.6	354.6	0.0	0.2	14.5	
3	18.2	39.7	0	0.6	11.5	3.6	353.4	0.0	0.2	14.4	
4											
AV	17.8	38.9	0.0	0.6	11.3	3.5	350.9	0.0	0.2	14.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	278.0	123.8	161.0	23.4	27.7	24.9	3.4	25.6	833.1	36.3	237.2	71.0	▲ GREEN ▼
	252.7	76.1	197.1	28.1	29.5	24.0	4.5	32.3	871.6	37.2	247.4	82.3	
	251.3	108.7	209.8	22.6	28.1	20.3	4.3	32.9	881.2	36.2	233.0	70.6	
AV	261	103	189	25	28	23	4	30	862	37	239	75	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Accession No. K-T 641

Record No. 210

pXRF_0081_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3 Aberrants (finished)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	76.6	Width Cutting Edge	39.7	Shoulder Back Max Width	30.4
Max Width	no_data	Bevel Max Thickness	12.2	Shoulder Max Thickness	19.2
Max Thickness	19.9	Middle Width	26.6	Middle Max Thickness	19.7
Weight (g)		Middle Thickness	no_data	Top Max Width	14.4
		Middle Max Front	no_data	Top Max Thickness	15.9
		Shoulder Front Max Width	13.7	Cutting Edge to Bevel	38.5
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	29.8
TAS (SiO ₂) Material	41			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.3	42.9	0	1.4	8.6	3.4	262.3	7.2	0.2	14.5
2	16.8	39.5	0	1.4	8.5	3.4	262.6	0.0	0.2	14.2
3	16.0	42.0	1	1.4	9.3	3.4	268.9	0.0	0.2	14.2
4										
AV	16.7	41.5	0.4	1.4	8.8	3.4	264.6	2.4	0.2	14.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	221.3	79.9	323.1	29.6	65.6	66.1	7.5	46.9	1425.0	40.2	362.7	109.8
	226.2	133.0	349.3	27.6	42.4	43.5	7.5	46.9	1400.0	40.0	355.7	104.5
	239.1	108.8	282.2	26.3	42.4	46.1	8.1	49.8	1436.8	37.5	366.4	106.0
AV	229	107	318	28	50	52	8	48	1421	39	362	107



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AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3 Aberrants (finished)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	53.1	Width Cutting Edge	33.8	Shoulder Back Max Width	29.6
Max Width	no_data	Bevel Max Thickness	16.6	Shoulder Max Thickness	16.6
Max Thickness	16.5	Middle Width	25.5	Middle Max Thickness	16.6
Weight (g)		Middle Thickness	no_data	Top Max Width	15.6
		Middle Max Front	no_data	Top Max Thickness	12
Island Group	Austral Islands	Shoulder Front Max Width	6.9	Cutting Edge to Bevel	25.8
TAS (SiO ₂) Material	42	Middle Max Back	no_data	Length Rightangle to Bevel	21.8
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.9	42.6	2	1.4	8.4	3.1	240.2	0.0	0.2	13.0	▲ GREEN* V A C U U M ▼
2	14.4	40.8	1	1.4	8.6	2.6	259.7	0.0	0.2	11.1	
3	15.0	43.3	1	1.4	8.4	2.6	251.8	0.0	0.2	11.5	
4											
AV	15.1	42.2	1.7	1.4	8.5	2.8	250.5	0.0	0.2	11.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	216.5	84.6	229.3	25.2	70.0	81.9	9.1	54.5	1561.2	36.6	355.6	104.5	▲ GREEN ▼
	232.2	95.3	438.2	31.0	146.8	144.0	7.5	51.8	1586.2	37.2	354.7	113.5	
	213.2	114.9	442.0	29.7	200.8	199.2	8.9	52.4	1516.4	36.3	360.7	105.0	
AV	221	98	370	29	139	142	8	53	1555	37	357	108	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3 Aberrants (finished)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	91.2	Width Cutting Edge	31.6	Shoulder Back Max Width	38.3
Max Width	no_data	Bevel Max Thickness	21.1	Shoulder Max Thickness	21.8
Max Thickness	21.1	Middle Width	29.3	Middle Max Thickness	19.5
Weight (g)		Middle Thickness	no_data	Top Max Width	21.2
		Middle Max Front	no_data	Top Max Thickness	12.7
Island Group	Austral Islands	Shoulder Front Max Width	5	Cutting Edge to Bevel	30.7
TAS (SiO ₂) Material	32	Middle Max Back	no_data	Length Rightangle to Bevel	20.4
				Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.4	32.5	0	0.9	12.1	3.0	277.8	0.0	0.1	12.7	▲ GREEN* V A C U U M ▼
2	13.3	30.8	0	0.7	12.9	3.2	325.8	0.0	0.2	13.9	
3	14.8	34.1	0	0.7	13.0	3.3	321.4	0.0	0.2	15.2	
4											
AV	13.8	32.4	0.0	0.8	12.7	3.2	308.4	0.0	0.2	13.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	272.2	68.1	273.1	21.7	28.8	30.0	4.1	30.3	693.6	37.1	210.2	62.0	▲ GREEN ▼
	230.6	89.9	281.6	25.1	25.6	31.3	4.4	31.3	671.1	37.9	202.8	57.3	
	260.6	98.0	238.0	26.4	22.4	30.3	3.5	26.6	709.3	38.5	223.5	56.6	
AV	254	85	264	24	26	31	4	29	691	38	212	59	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Accession No. K-T 644

Record No. 213

pXRF_0084_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3 Aberrants (finished)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	69.9	Width Cutting Edge	26.2	Shoulder Back Max Width	23.6
Max Width	no_data	Bevel Max Thickness	14.8	Shoulder Max Thickness	14.5
Max Thickness	14.8	Middle Width	20.6	Middle Max Thickness	14.1
Weight (g)		Middle Thickness	no_data	Top Max Width	14.2
Island Group	Austral Islands	Middle Max Front	no_data	Top Max Thickness	7.4
TAS (SiO ₂) Material	32	Shoulder Front Max Width	9.5	Cutting Edge to Bevel	27.6
	foidite	Middle Max Back	no_data	Length Rightangle to Bevel	21.8
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.6	28.9	0	1.4	10.0	2.9	288.9	0.0	0.2	12.2	V A C U U M * G R E E N
2	17.9	34.2	0	1.1	8.8	3.3	279.6	0.0	0.2	14.6	
3	16.8	33.6	0	1.1	9.7	3.0	271.2	0.0	0.2	13.4	
4											
AV	16.8	32.3	0.0	1.2	9.5	3.0	279.9	0.0	0.2	13.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	214.0	109.3	234.4	26.8	34.1	32.8	12.1	67.1	1263.1	30.9	297.6	114.2	G R E E N
	206.0	103.1	251.9	28.0	41.1	38.6	8.0	48.8	1079.7	36.8	310.9	120.4	
	254.0	122.7	198.3	25.0	27.4	26.8	4.7	34.8	834.4	37.1	270.8	91.5	
AV	225	112	228	27	34	33	8	50	1059	35	293	109	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 4 Finished (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	86.5	Width Cutting Edge	18.7	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	17.6	Shoulder Max Thickness	no_data
Max Thickness	22.8	Middle Width	22.2	Middle Max Thickness	22.3
Weight (g)		Middle Thickness	22.3	Top Max Width	16.9
		Middle Max Front	14.3	Top Max Thickness	13.5
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	23.8
Island Group	Austral Islands	Middle Max Back	21.2	Length Rightangle to Bevel	16.2
TAS (SiO ₂) Material	36			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.5	36.1	0	1.3	7.5	3.8	178.9	0.0	0.2	15.1
2	15.7	37.5	0	1.4	7.4	3.8	190.0	0.0	0.2	14.4
3	14.9	35.8	0	1.3	7.6	3.6	196.0	0.0	0.2	15.0
4										
AV	15.4	36.5	0.0	1.3	7.5	3.7	188.3	0.0	0.2	14.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	222.0	86.4	263.8	26.0	47.7	47.6	6.6	42.4	1197.4	38.8	328.3	89.5
	244.9	101.0	284.7	35.4	137.0	133.1	8.0	49.4	1173.7	36.5	336.4	90.0
	265.2	94.2	279.1	26.4	42.7	40.0	7.0	45.8	1172.8	36.7	331.8	92.9
AV	244	94	276	29	76	74	7	46	1181	37	332	91

VACUUM GREEN*

GREEN

YELLOW

AV

Accession No. K-T 654

Record No. 216

pXRF_0087_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	147	Width Cutting Edge	32.8	Shoulder Back Max Width	36.2
Max Width	no_data	Bevel Max Thickness	31.8	Shoulder Max Thickness	33.7
Max Thickness	33.6	Middle Width	38.8	Middle Max Thickness	33.3
Weight (g)		Middle Thickness	no_data	Top Max Width	28
		Middle Max Front	no_data	Top Max Thickness	20.3
		Shoulder Front Max Width	8.4	Cutting Edge to Bevel	63
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	54.9
TAS (SiO ₂) Material	35			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.6	38.0	1	1.1	11.2	2.6	286.4	0.0	0.2	13.0
2	14.2	33.2	0	1.0	10.3	2.5	279.8	0.0	0.2	13.3
3	14.7	33.5	0	1.1	11.5	2.6	268.5	0.0	0.2	11.1
4										
AV	14.8	34.9	0.3	1.0	11.0	2.6	278.2	0.0	0.2	12.5

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	223.3	143.8	706.7	31.3	61.3	56.7	9.4	55.1	1033.9	34.0	311.5	116.2
	253.3	152.1	1596.7	23.1	43.2	47.6	9.9	56.7	1003.4	33.4	298.2	116.5
	197.0	137.1	530.7	29.6	34.4	33.0	11.4	62.6	1066.0	31.8	321.8	115.4
AV	225	144	945	28	46	46	10	58	1034	33	310	116



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AV

Accession No. K-T 656

Record No. 218

pXRF_0089_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Tubuai, Austral Islands

Material Basalt

Object Adze

Type 3-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	135	Width Cutting Edge	50.7	Shoulder Back Max Width	41.1
Max Width	no_data	Bevel Max Thickness	30.9	Shoulder Max Thickness	33.1
Max Thickness	32.9	Middle Width	44.3	Middle Max Thickness	31.3
Weight (g)		Middle Thickness	no_data	Top Max Width	24.2
		Middle Max Front	no_data	Top Max Thickness	17.6
		Shoulder Front Max Width	4.9	Cutting Edge to Bevel	72.7
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	63.4
TAS (SiO ₂) Material	29			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.7	32.0	0	0.6	13.5	3.6	294.6	0.0	0.2	11.9	▲ GREEN* V A C U U M ▼
2	15.4	31.6	0	0.3	16.9	3.4	269.5	0.0	0.1	10.3	
3	14.0	23.9	0	0.0	18.4	2.8	272.9	0.0	0.1	8.9	
4											
AV	15.0	29.2	0.0	0.3	16.3	3.2	279.0	0.0	0.1	10.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	232.2	95.6	205.1	28.9	31.9	29.9	5.1	36.2	980.6	37.6	256.4	88.1	▲ GREEN ▼
	238.1	97.4	273.9	22.8	71.0	81.7	4.4	31.6	983.1	39.0	261.5	93.7	
	239.4	117.4	219.0	27.1	36.9	39.2	5.4	36.8	1011.5	37.2	259.6	91.5	
AV	237	103	233	26	47	50	5	35	992	38	259	91	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													

AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	130.9	Width Cutting Edge	25.9	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	38.5	Shoulder Max Thickness	no_data
Max Thickness	39.9	Middle Width	39.1	Middle Max Thickness	29.6
Weight (g)		Middle Thickness	25.8	Top Max Width	16.5
		Middle Max Front	3	Top Max Thickness	8.3
Island Group	Austral Islands	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	67.2
TAS (SiO ₂) Material	32	Middle Max Back	39.3	Length Rightangle to Bevel	52.3
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	13.8	32.4	0	0.9	10.3	2.7	274.6	0.0	0.2	12.1
2	13.9	33.4	0	0.9	9.9	2.4	271.1	0.0	0.2	12.7
3	14.1	29.3	0	1.0	10.1	2.5	280.4	0.0	0.2	12.1
4										
AV	13.9	31.7	0.0	0.9	10.1	2.5	275.4	0.0	0.2	12.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	219.3	120.6	650.4	33.2	63.1	54.3	6.0	40.0	1262.5	39.7	300.7	121.2
	208.6	175.7	885.4	28.4	83.8	83.1	7.9	48.3	1321.1	36.2	306.6	128.5
	142.8	138.5	846.8	23.9	81.1	78.8	7.0	48.8	1156.6	35.5	321.1	121.6
AV	190	145	794	28	76	72	7	46	1247	37	309	124



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AV

YELLOW

Accession No. K-T 658

Record No. 220

pXRF_0091_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Tubuai, Austral Islands

Material Basalt

Object Adze

Type 3-F (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	229	Width Cutting Edge	17.8	Shoulder Back Max Width	29.5
Max Width	no_data	Bevel Max Thickness	38.2	Shoulder Max Thickness	47.8
Max Thickness	48.2	Middle Width	36.6	Middle Max Thickness	47
Weight (g)		Middle Thickness	no_data	Top Max Width	23.7
		Middle Max Front	no_data	Top Max Thickness	14.1
Island Group	Austral Islands	Shoulder Front Max Width	29.9	Cutting Edge to Bevel	57.2
TAS (SiO ₂) Material	34	Middle Max Back	no_data	Length Rightangle to Bevel	47.6
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.3	33.1	0	0.3	13.5	2.7	344.3	0.0	0.2	13.3	▲ GREEN* VACUUM ▼
2	15.6	35.7	0	0.2	13.8	2.9	333.9	0.0	0.2	13.6	
3	15.6	34.3	1	0.0	14.2	2.8	339.0	0.0	0.2	13.8	
4											
AV	15.5	34.4	0.4	0.2	13.8	2.8	339.1	0.0	0.2	13.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	232.9	105.6	334.7	27.2	30.5	28.6	4.6	32.6	738.2	36.0	226.5	74.7	▲ GREEN ▼
	220.5	132.8	320.6	23.0	62.1	68.2	1.8	27.9	745.3	37.5	243.4	75.0	
	323.1	251.8	503.4	24.5	72.4	73.2	3.2	25.3	748.3	37.0	222.8	69.6	
AV	259	163	386	25	55	57	3	29	744	37	231	73	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Accession No. K-T 659

Record No. 221

pXRF_0092_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-F (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	225	Width Cutting Edge	37.4	Shoulder Back Max Width	37.5
Max Width	no_data	Bevel Max Thickness	37.2	Shoulder Max Thickness	37
Max Thickness	39.3	Middle Width	41.4	Middle Max Thickness	39.5
Weight (g)		Middle Thickness	no_data	Top Max Width	21.6
		Middle Max Front	no_data	Top Max Thickness	8.5
		Shoulder Front Max Width	0	Cutting Edge to Bevel	78.4
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	67.3
TAS (SiO ₂) Material	38			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.1	39.1	0	1.2	11.7	2.8	289.7	0.0	0.2	13.1
2	15.4	38.3	0	0.9	12.6	2.8	290.6	0.0	0.2	12.9
3	15.2	36.8	0	1.0	12.7	2.7	292.7	0.0	0.2	12.9
4										
AV	15.6	38.1	0.2	1.1	12.3	2.8	291.0	0.0	0.2	13.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	207.2	76.6	603.9	30.8	39.8	38.9	10.2	59.3	1007.4	32.0	302.7	113.8
	194.5	62.9	596.3	26.3	36.8	29.3	9.9	57.4	1035.3	34.0	319.4	120.6
	182.3	112.1	548.2	28.0	43.9	40.7	12.3	71.3	1028.2	29.6	319.0	125.7
AV	195	84	583	28	40	36	11	63	1024	32	314	120



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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. K-T 662

Record No. 224

pXRF_0095_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-F (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	176	Width Cutting Edge	43.8	Shoulder Back Max Width	40.8
Max Width	no_data	Bevel Max Thickness	34.5	Shoulder Max Thickness	37.8
Max Thickness	37.4	Middle Width	43.5	Middle Max Thickness	37.1
Weight (g)		Middle Thickness	no_data	Top Max Width	21.7
		Middle Max Front	no_data	Top Max Thickness	10.3
Island Group	Austral Islands	Shoulder Front Max Width	11.9	Cutting Edge to Bevel	60.9
TAS (SiO ₂) Material	32	Middle Max Back	no_data	Length Rightangle to Bevel	47.8
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.5	34.0	0	1.1	10.1	2.8	280.0	0.0	0.2	13.5
2	14.6	27.5	0	1.1	9.8	2.6	279.9	0.0	0.2	13.3
3	16.1	34.8	0	1.1	9.6	2.7	298.6	0.0	0.2	13.5
4										
AV	15.4	32.1	0.0	1.1	9.9	2.7	286.1	0.0	0.2	13.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	206.4	183.6	597.6	39.9	242.9	235.9	6.2	52.2	1177.8	37.9	313.6	123.6
	213.0	123.6	510.4	24.6	91.5	92.2	13.1	70.6	1300.8	29.8	296.6	117.6
	202.3	105.9	498.8	28.3	85.3	82.4	8.7	51.8	1282.5	36.1	291.0	123.6
AV	207	138	536	31	140	137	9	58	1254	35	300	122



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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. K-T 664

Record No. 225

pXRF_0096_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Tubuai, Austral Islands
 Material Basalt
 Object Adze
 Type 3-F (unfinished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	266	Width Cutting Edge	51.2	Shoulder Back Max Width	50.4
Max Width	no_data	Bevel Max Thickness	48.6	Shoulder Max Thickness	54.1
Max Thickness	54.7	Middle Width	52.6	Middle Max Thickness	55.2
Weight (g)		Middle Thickness	no_data	Top Max Width	30.1
		Middle Max Front	no_data	Top Max Thickness	15.9
Island Group	Austral Islands	Shoulder Front Max Width	0	Cutting Edge to Bevel	82.6
TAS (SiO ₂) Material	35	Middle Max Back	no_data	Length Rightangle to Bevel	69.6
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.4	31.9	0	0.5	13.5	2.9	320.1	0.0	0.2	11.6	V A C U U M * G R E E N
2	14.8	35.2	0	0.5	13.8	3.0	299.2	0.0	0.2	11.5	
3	15.8	38.6	0	0.5	14.0	3.1	317.7	0.0	0.2	12.5	
4											
AV	15.0	35.2	0.0	0.5	13.8	3.0	312.3	0.0	0.2	11.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	273.9	130.0	163.8	24.0	24.0	24.3	3.2	24.6	726.3	36.2	239.0	79.7	G R E E N
	295.8	168.1	176.9	32.2	145.5	138.9	4.1	30.6	750.6	38.5	241.2	78.1	
	278.1	174.3	158.8	29.6	19.7	31.6	4.5	32.5	739.8	36.0	240.1	79.6	
AV	283	157	166	29	63	65	4	29	739	37	240	79	

AV

Accession No. K-T 665

Record No. 226

pXRF_0097_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Tubuai, Austral Islands
 Material Basalt
 Object Adze
 Type 3-F (unfinished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	217	Width Cutting Edge	55.4	Shoulder Back Max Width	43.5
Max Width	no_data	Bevel Max Thickness	41.5	Shoulder Max Thickness	46.8
Max Thickness	47.4	Middle Width	46.9	Middle Max Thickness	46
Weight (g)		Middle Thickness	no_data	Top Max Width	34.1
		Middle Max Front	no_data	Top Max Thickness	19.2
Island Group	Austral Islands	Shoulder Front Max Width	0	Cutting Edge to Bevel	68
TAS (SiO ₂) Material	30	Middle Max Back	no_data	Length Rightangle to Bevel	47.5
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.7	30.2	1	0.6	13.5	2.8	296.5	0.0	0.2	11.1
2	14.0	28.1	0	0.6	13.9	2.7	290.6	0.0	0.1	10.6
3	14.6	31.0	0	0.7	13.2	2.8	309.5	0.0	0.2	11.1
4										
AV	14.4	29.8	0.3	0.6	13.5	2.8	298.9	0.0	0.1	10.9

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	252.2	95.6	652.7	24.0	370.8	370.1	0.5	28.1	801.9	43.1	238.3	73.4
	276.7	78.7	352.7	24.9	59.4	52.7	3.7	27.8	774.2	35.5	226.9	76.7
	259.3	99.4	1429.7	28.1	87.0	87.2	2.4	28.6	790.7	36.2	240.2	72.8
AV	263	91	812	26	172	170	2	28	789	38	235	74



AV												

AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-F (unfinished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	157	Width Cutting Edge	46.4	Shoulder Back Max Width	49.8
Max Width	no_data	Bevel Max Thickness	34.8	Shoulder Max Thickness	46.4
Max Thickness	46.6	Middle Width	5.5	Middle Max Thickness	45.8
Weight (g)		Middle Thickness	no_data	Top Max Width	36.1
		Middle Max Front	no_data	Top Max Thickness	21.2
		Shoulder Front Max Width	22.2	Cutting Edge to Bevel	37.5
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	33.7
TAS (SiO ₂) Material	30			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	13.5	27.5	0	0.6	11.5	2.8	284.2	0.0	0.2	12.6
2	13.7	29.7	0	0.6	12.4	3.1	315.2	0.0	0.2	13.5
3	14.5	32.6	1	0.5	13.4	3.2	303.6	0.0	0.2	13.8
4										
AV	13.9	29.9	0.3	0.6	12.4	3.0	301.0	0.0	0.2	13.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	222.7	97.6	589.4	36.4	275.1	270.1	0.0	33.2	1010.6	40.6	289.6	104.2
	236.3	102.7	645.3	29.2	76.5	71.7	4.3	32.4	988.7	38.6	304.1	110.9
	249.7	109.9	1658.1	29.7	64.8	57.5	3.5	33.0	1087.2	40.3	304.3	108.6
AV	236	103	964	32	139	133	3	33	1029	40	299	108



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AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-H (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	127.43	Width Cutting Edge	49	Shoulder Back Max Width	43.1
Max Width	no_data	Bevel Max Thickness	34.7	Shoulder Max Thickness	35.2
Max Thickness	35.5	Middle Width	44.7	Middle Max Thickness	33.8
Weight (g)		Middle Thickness	no_data	Top Max Width	20
		Middle Max Front	no_data	Top Max Thickness	18.6
Island Group	Austral Islands	Shoulder Front Max Width	0	Cutting Edge to Bevel	59.3
TAS (SiO ₂) Material	31	Middle Max Back	no_data	Length Rightangle to Bevel	58.2
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.1	33.6	0	0.5	13.6	3.0	313.5	0.0	0.2	12.0
2	14.2	26.9	0	0.6	12.5	3.0	305.5	0.0	0.1	10.8
3	15.5	33.2	0	0.5	13.6	3.2	289.0	28.7	0.1	11.1
4										
AV	14.9	31.2	0.0	0.6	13.2	3.0	302.7	9.6	0.1	11.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	278.1	88.2	412.4	23.6	49.9	51.8	3.9	29.6	813.9	35.6	243.3	79.5
	270.1	117.4	1235.2	22.2	34.7	39.1	3.2	28.4	780.0	33.5	231.7	72.3
	238.6	118.3	394.0	23.4	32.8	32.8	4.0	28.9	795.4	36.7	225.3	71.7
AV	262	108	681	23	39	41	4	29	796	35	233	75



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AV

GREEN*
V
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GREEN

YELLOW

Accession No. K-T 668

Record No. 229

pXRF_0100_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-H (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	125	Width Cutting Edge	56.1	Shoulder Back Max Width	39.9
Max Width	no_data	Bevel Max Thickness	27.5	Shoulder Max Thickness	28.4
Max Thickness	27.5	Middle Width	42	Middle Max Thickness	28.1
Weight (g)		Middle Thickness	no_data	Top Max Width	20.5
		Middle Max Front	no_data	Top Max Thickness	14.9
		Shoulder Front Max Width	10.2	Cutting Edge to Bevel	48.4
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	47.2
TAS (SiO ₂) Material	30			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.3	27.8	0	0.6	11.0	2.3	299.4	0.0	0.2	13.3
2	14.5	26.0	0	0.5	10.7	2.8	315.4	0.0	0.2	13.7
3	15.7	35.4	0	0.4	12.0	2.7	336.7	0.0	0.2	14.5
4										
AV	14.9	29.8	0.0	0.5	11.2	2.6	317.2	0.0	0.2	13.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	220.3	197.6	882.6	33.5	231.1	225.4	0.0	24.5	751.2	43.3	233.9	75.3
	251.8	125.0	418.4	25.8	92.4	88.1	1.5	22.1	701.2	38.6	239.4	75.7
	260.8	110.8	477.9	28.2	50.2	52.1	3.1	24.3	709.8	38.3	231.3	69.0
AV	244	144	593	29	125	122	2	24	721	40	235	73



AV												

AV

Accession No. K-T 669

Record No. 230

pXRF_0101_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Tubuai, Austral Islands

Material Basalt

Object Adze

Type 3-H (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	114.5	Width Cutting Edge	49.3	Shoulder Back Max Width	44.4
Max Width	no_data	Bevel Max Thickness	17.6	Shoulder Max Thickness	27.2
Max Thickness	27.2	Middle Width	45.5	Middle Max Thickness	26.9
Weight (g)		Middle Thickness	no_data	Top Max Width	24.9
		Middle Max Front	no_data	Top Max Thickness	15.7
		Shoulder Front Max Width	20.9	Cutting Edge to Bevel	58.5
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	51.2
TAS (SiO ₂) Material	37			Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.8	36.6	1	0.9	11.8	3.6	242.7	0.0	0.2	12.6
2	15.1	39.1	2	1.1	12.7	3.1	230.3	0.0	0.2	9.3
3	15.1	34.2	0	1.3	12.3	3.2	214.6	0.0	0.1	8.7
4										
AV	15.4	36.7	0.9	1.1	12.3	3.3	229.2	0.0	0.2	10.2

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	242.9	78.1	278.7	30.9	54.1	47.9	5.5	38.1	1039.7	39.5	308.3	105.8
	252.5	70.7	327.8	56.6	434.4	567.6	0.0	48.0	1087.8	40.6	312.6	116.3
	239.0	92.5	289.2	30.5	139.5	132.6	6.5	45.4	1106.9	38.3	293.1	119.1
AV	245	80	299	39	209	249	4	44	1078	39	305	114



AV												

AV

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Tubuai, Austral Islands
 Material Basalt
 Object Adze
 Type 3-H (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	112.5	Width Cutting Edge	49.6	Shoulder Back Max Width	33
Max Width	no_data	Bevel Max Thickness	17.6	Shoulder Max Thickness	30.5
Max Thickness	30.5	Middle Width	40.8	Middle Max Thickness	30.8
Weight (g)		Middle Thickness	no_data	Top Max Width	21.2
		Middle Max Front	no_data	Top Max Thickness	16.8
Island Group	Austral Islands	Shoulder Front Max Width	25.6	Cutting Edge to Bevel	15.6
TAS (SiO ₂) Material	27	Middle Max Back	no_data	Length Rightangle to Bevel	8.2
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.7	25.5	0	0.8	10.0	3.2	286.0	37.9	0.2	13.3
2	14.5	26.5	0	0.7	10.8	3.1	281.6	0.0	0.2	12.7
3	15.9	30.0	0	0.7	11.1	3.2	282.7	4.1	0.2	14.1
4										
AV	15.1	27.3	0.0	0.7	10.6	3.2	283.4	14.0	0.2	13.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	222.1	153.2	544.5	24.9	33.8	35.2	3.5	26.9	712.3	36.0	241.7	75.0
	267.4	183.2	459.4	20.9	38.4	40.2	3.7	32.0	694.0	35.4	250.0	84.2
	259.4	143.9	476.7	28.8	37.1	44.4	4.0	29.1	736.9	38.6	254.1	75.8
AV	250	160	494	25	36	40	4	29	714	37	249	78



AV												
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Accession No. K-T 671

Record No. 232

pXRF_0103_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Tubuai, Austral Islands
 Material: Basalt
 Object: Adze
 Type: 3-H (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	111.7	Width Cutting Edge	47	Shoulder Back Max Width	37.2
Max Width	no_data	Bevel Max Thickness	47.8	Shoulder Max Thickness	28.7
Max Thickness	28.6	Middle Width	40.6	Middle Max Thickness	29.2
Weight (g)		Middle Thickness	no_data	Top Max Width	23.4
		Middle Max Front	no_data	Top Max Thickness	10.2
		Shoulder Front Max Width	6	Cutting Edge to Bevel	49.5
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	43.4
TAS (SiO ₂) Material	32			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.5	33.5	0	1.3	9.6	2.7	294.2	0.0	0.2	13.3
2	19.3	32.1	0	1.1	10.0	2.8	288.7	0.0	0.2	12.4
3	17.7	29.5	0	1.2	9.4	2.8	281.7	0.0	0.2	13.2
4										
AV	17.5	31.7	0.0	1.2	9.7	2.8	288.2	0.0	0.2	13.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	213.9	171.3	457.4	26.5	88.9	86.9	9.4	55.7	1030.9	34.4	316.2	122.7
	244.2	106.7	461.9	29.0	129.0	127.2	7.5	46.5	1032.7	37.8	315.2	133.7
	198.5	91.5	612.7	25.4	136.1	128.7	8.1	50.1	1008.3	36.9	310.7	119.6
AV	219	123	511	27	118	114	8	51	1024	36	314	125



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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. K-T 672

Record No. 233

pXRF_0104_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Tubuai, Austral Islands

Material Basalt

Object Adze

Type 3-H (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	147	Width Cutting Edge	62.4	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	33.4	Shoulder Max Thickness	no_data
Max Thickness	33.1	Middle Width	43.1	Middle Max Thickness	33.9
Weight (g)		Middle Thickness	33.8	Top Max Width	27.8
		Middle Max Front	9.5	Top Max Thickness	21.4
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	57.2
Island Group	Austral Islands	Middle Max Back	41.3	Length Rightangle to Bevel	44.2
TAS (SiO ₂) Material	32			Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.9	34.8	1	0.7	12.2	3.6	278.5	0.0	0.2	12.7
2	14.3	30.2	2	0.7	14.0	3.3	279.8	0.0	0.2	11.8
3	14.9	30.5	0	0.7	13.1	3.7	272.6	0.0	0.2	12.9
4										
AV	14.7	31.9	1.0	0.7	13.1	3.5	277.0	0.0	0.2	12.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	262.0	216.0	693.5	24.2	38.6	42.0	5.5	37.1	1022.3	38.3	265.9	98.9
	266.4	82.3	304.4	27.8	51.0	51.1	8.9	52.7	1089.6	34.8	281.9	106.0
	250.5	123.6	352.9	27.2	42.3	46.5	6.6	43.1	1091.8	35.9	281.3	112.8
AV	260	141	450	26	44	47	7	44	1068	36	276	106

GREEN

YELLOW



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AV

Accession No. K-T 674

Record No. 235

pXRF_0106_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Tubuai, Austral Islands

Material Basalt

Object Adze

Type 3-E (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	187	Width Cutting Edge	84.2	Shoulder Back Max Width	35.7
Max Width	no_data	Bevel Max Thickness	38.7	Shoulder Max Thickness	38.5
Max Thickness	38.4	Middle Width	50.4	Middle Max Thickness	32.4
Weight (g)		Middle Thickness	no_data	Top Max Width	19.2
		Middle Max Front	no_data	Top Max Thickness	17.3
		Shoulder Front Max Width	13.4	Cutting Edge to Bevel	114.3
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	96.6
TAS (SiO ₂) Material	29			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.8	27.2	3	1.0	11.9	2.9	273.4	0.0	0.1	10.1	▲ GREEN* V A C U U M ▼
2	13.4	30.2	0	0.8	13.2	3.4	288.2	0.0	0.2	11.4	
3	13.2	30.7	0	0.8	12.7	3.2	249.1	0.0	0.1	11.0	
4											
AV	13.1	29.4	1.0	0.9	12.6	3.2	270.2	0.0	0.1	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	243.9	139.0	471.9	36.6	238.3	232.7	6.5	49.9	1079.2	36.8	273.0	111.6	▲ GREEN ▼
	226.8	108.6	455.9	25.5	114.5	113.2	6.4	41.8	1102.7	36.6	277.2	102.8	
	257.2	136.9	387.2	28.0	121.8	114.6	6.1	42.1	1104.9	37.3	277.2	107.5	
AV	243	128	438	30	158	154	6	45	1096	37	276	107	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Accession No. K-T 675

Record No. 236

pXRF_0107_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Tubuai, Austral Islands
 Material Basalt
 Object Adze
 Type 3-E (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	116	Width Cutting Edge	39.2	Shoulder Back Max Width	24.5
Max Width	no_data	Bevel Max Thickness	21.8	Shoulder Max Thickness	21.8
Max Thickness	21.8	Middle Width	29.2	Middle Max Thickness	21.6
Weight (g)		Middle Thickness	no_data	Top Max Width	16.8
		Middle Max Front	no_data	Top Max Thickness	12.1
		Shoulder Front Max Width	0	Cutting Edge to Bevel	58.9
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	47.2
TAS (SiO ₂) Material	34			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.2	35.8	2	1.1	10.8	2.5	284.5	0.0	0.2	13.3
2	15.6	35.7	1	1.1	11.5	2.7	340.7	0.0	0.2	13.5
3	14.5	31.1	0	1.1	10.3	2.6	289.1	0.0	0.2	12.2
4										
AV	15.1	34.2	0.8	1.1	10.9	2.6	304.8	0.0	0.2	13.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	202.0	75.5	374.6	32.6	222.8	217.1	8.7	58.6	1310.9	34.3	299.1	122.8
	208.0	99.1	531.1	33.5	190.0	179.8	10.2	58.7	1069.2	34.0	322.0	127.9
	182.5	108.5	448.9	30.9	166.0	158.3	8.5	52.0	1062.4	36.5	317.5	129.9
AV	198	94	452	32	193	185	9	56	1148	35	313	127



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AV

Accession No. K-T 676

Record No. 237

pXRF_0108_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Tubuai, Austral Islands
 Material Basalt
 Object Adze
 Type 1-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	198	Width Cutting Edge	46.3	Shoulder Back Max Width	43.1
Max Width	no_data	Bevel Max Thickness	25.3	Shoulder Max Thickness	30.2
Max Thickness	30	Middle Width	46.6	Middle Max Thickness	26.4
Weight (g)		Middle Thickness	no_data	Top Max Width	43.2
		Middle Max Front	no_data	Top Max Thickness	24.3
Island Group	Austral Islands	Shoulder Front Max Width	32.5	Cutting Edge to Bevel	45.6
TAS (SiO ₂) Material	41	Middle Max Back	no_data	Length Rightangle to Bevel	26.7
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.8	36.2	0	0.9	11.6	3.6	291.4	0.0	0.2	11.6
2	18.0	42.4	0	0.6	13.0	3.8	312.6	0.0	0.1	11.6
3	18.4	43.7	0	0.7	13.0	3.9	330.4	0.0	0.2	12.2
4										
AV	17.4	40.8	0.2	0.7	12.5	3.8	311.5	0.0	0.2	11.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	283.4	41.8	145.1	33.8	23.3	22.2	4.5	33.1	949.3	37.3	267.2	94.5
	254.1	38.1	175.0	28.1	24.2	16.5	3.1	24.2	1013.1	45.0	256.8	87.8
	235.0	90.4	176.3	24.5	24.2	27.8	4.8	34.0	960.3	39.6	271.4	86.5
AV	257	57	165	29	24	22	4	30	974	41	265	90



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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. K-T 677

Record No. 238

pXRF_0109_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 1-A (finished) & 2-A
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	161	Width Cutting Edge	53.4	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	22.4	Shoulder Max Thickness	no_data
Max Thickness	23.2	Middle Width	51.9	Middle Max Thickness	26.3
Weight (g)		Middle Thickness	25.7	Top Max Width	46.2
		Middle Max Front	32.2	Top Max Thickness	24.9
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	38.4
Island Group	Marquesas	Middle Max Back	51.9	Length Rightangle to Bevel	30.9
TAS (SiO ₂) Material	37			Cross Section Shape	Quadrangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.9	34.5	0	1.2	7.5	4.9	97.3	90.4	0.2	14.5
2	21.7	39.9	0	1.3	7.8	4.9	55.8	185.9	0.2	15.0
3	21.6	36.1	0	1.2	7.1	4.9	113.9	209.0	0.2	15.4
4										
AV	20.4	36.8	0.1	1.2	7.4	4.9	89.0	161.7	0.2	15.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	265.0	119.0	432.6	30.1	30.2	30.7	5.3	37.3	690.5	43.2	333.5	37.7
	266.6	94.6	519.0	30.6	46.2	43.1	5.4	36.9	681.6	42.3	334.6	39.8
	316.0	70.2	371.1	31.9	27.7	29.5	4.1	37.1	680.8	45.8	329.4	41.1
AV	283	95	441	31	35	34	5	37	684	44	333	40

VACUUM GREEN*

GREEN

YELLOW

AV

Accession No. K-T 678

Record No. 239

pXRF_0110_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 1-A (finished) & 2-A
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	101.1	Width Cutting Edge	33.6	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	17.8	Shoulder Max Thickness	no_data
Max Thickness	18.3	Middle Width	31.2	Middle Max Thickness	17.9
Weight (g)		Middle Thickness	18.4	Top Max Width	19.8
		Middle Max Front	17.1	Top Max Thickness	3.9
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	25.2
TAS (SiO ₂) Material	37	Middle Max Back	30.8	Length Rightangle to Bevel	18.5
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.3	36.1	0	1.3	9.3	4.3	180.4	49.1	0.1	12.6
2	17.3	38.0	0	1.1	9.0	4.3	223.6	173.6	0.2	13.4
3	17.4	37.3	0	1.3	9.2	4.3	194.8	56.4	0.2	13.0
4										
AV	17.4	37.1	0.0	1.2	9.2	4.3	199.6	93.0	0.2	13.0

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	260.2	83.1	172.7	33.0	25.0	20.3	5.9	41.7	679.8	38.9	316.5	37.6
	254.6	104.2	179.6	29.1	44.8	46.3	6.5	42.5	715.3	39.7	333.8	40.5
	248.5	102.0	275.1	30.0	64.1	67.7	6.2	42.0	724.1	38.0	340.8	37.8
AV	254	96	209	31	45	45	6	42	706	39	330	39

GREEN

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YELLOW

AV

Accession No. K-T 679

Record No. 240

pXRF_0111_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Marquesas

Material Basalt

Object Adze

Type 1-A (finished) & 2-A

Additional Museum Notes Yes No

Measurements (mm)

Max Length	93.5	Width Cutting Edge	40.4	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	21	Shoulder Max Thickness	no_data
Max Thickness	21.9	Middle Width	42.5	Middle Max Thickness	22.5
Weight (g)		Middle Thickness	22.2	Top Max Width	5.8
		Middle Max Front	17.4	Top Max Thickness	17.4
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	35.1
Island Group	Marquesas	Middle Max Back	42.2	Length Rightangle to Bevel	26.8
TAS (SiO ₂) Material	38			Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	19.1	35.3	0	1.4	9.2	4.1	244.0	26.8	0.1	12.2
2	18.9	42.5	0	1.2	10.4	4.4	219.9	129.9	0.2	13.4
3	17.0	37.6	0	1.0	9.9	4.3	179.3	112.7	0.2	13.1
4										
AV	18.3	38.5	0.0	1.2	9.8	4.3	214.4	89.8	0.2	12.9

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	256.4	95.1	121.0	27.7	9.5	17.3	4.8	34.4	675.9	44.0	337.2	41.2
	228.1	77.9	185.5	30.3	22.7	23.0	6.0	42.7	710.9	37.4	328.6	38.5
	221.8	75.1	175.6	24.6	19.0	24.5	4.2	32.3	687.1	42.3	337.4	42.3
AV	235	83	161	28	17	22	5	36	691	41	334	41

GREEN

YELLOW



AV

Museum	Kon Tiki
Date Acquired by Museum	1957
Collector	Thor Heyerdahl
Date Collected	1955 - 1956
Collection Method	Surface
Place Collected	Marquesas
Material	Basalt
Object	Adze
Type	1-A (finished) & 2-A
Additional Museum Notes	<input checked="" type="radio"/> Yes <input type="radio"/> No

Measurements (mm)			
Max Length	90.4	Width Cutting Edge	30.7
Max Width	no_data	Bevel Max Thickness	19.9
Max Thickness	20.3	Middle Width	30.9
Weight (g)		Middle Thickness	17.7
		Middle Max Front	8.8
		Shoulder Front Max Width	no_data
Island Group	Marquesas	Middle Max Back	32.2
TAS (SiO ₂) Material	38	foidite	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.3	32.5	0	1.1	9.5	3.5	296.2	333.6	0.2	12.3
2	17.7	39.6	0	0.9	10.6	3.9	269.4	611.8	0.2	13.9
3	17.5	40.6	0	1.1	10.4	3.9	277.4	650.7	0.2	13.6
4										
AV	17.2	37.6	0.0	1.0	10.2	3.8	281.0	532.0	0.2	13.2

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	309.3	91.9	207.4	24.2	100.9	99.6	6.2	41.0	537.6	37.0	312.4	41.4
	312.2	84.4	259.4	29.2	59.4	55.6	3.2	25.8	571.7	44.7	281.6	36.9
	338.7	151.5	214.5	23.4	46.0	41.4	5.4	37.9	556.0	38.5	308.6	39.4
AV	320	109	227	26	69	66	5	35	555	40	301	39



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AV

Accession No. K-T 682

Record No. 242

pXRF_0113_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 1-A (finished) & 2-A
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	85.2	Width Cutting Edge	25.5	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	22.4	Shoulder Max Thickness	no_data
Max Thickness	22.5	Middle Width	23.7	Middle Max Thickness	22.5
Weight (g)		Middle Thickness	21.6	Top Max Width	15.9
		Middle Max Front	0	Top Max Thickness	11
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	41.2
Island Group	Marquesas	Middle Max Back	23.4	Length Rightangle to Bevel	28.3
TAS (SiO ₂) Material	41			Cross Section Shape	Quadrangular

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.8	39.9	0	1.1	10.0	4.0	279.8	566.3	0.2	13.4
2	17.9	42.4	0	1.1	10.0	4.0	256.9	549.9	0.2	13.5
3	17.9	40.0	0	1.2	9.9	4.0	234.0	589.8	0.2	13.6
4										
AV	17.8	40.8	0.0	1.1	10.0	4.0	256.9	568.7	0.2	13.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	336.4	108.1	185.2	27.7	17.7	21.2	5.2	37.9	570.0	36.0	307.7	38.6
	338.8	82.9	187.9	26.5	21.3	23.9	5.0	34.8	568.3	36.1	310.6	43.0
	319.6	112.4	173.9	26.6	23.8	25.5	6.6	43.4	590.6	36.8	321.5	44.3
AV	332	101	182	27	21	24	6	39	576	36	313	42

GREEN

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YELLOW

AV



Accession No. K-T 683

Record No. 243

pXRF_0114_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 1-A (finished) & 2-A
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	73	Width Cutting Edge	29.6	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	15.2	Shoulder Max Thickness	no_data
Max Thickness	20	Middle Width	27.3	Middle Max Thickness	18.5
Weight (g)		Middle Thickness	19.4	Top Max Width	23.6
		Middle Max Front	16.4	Top Max Thickness	11.8
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	18.4
Island Group	Marquesas	Middle Max Back	27.2	Length Rightangle to Bevel	14.9
TAS (SiO ₂) Material	40			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.4	39.5	0	1.3	9.2	4.5	164.1	48.7	0.1	12.9
2	18.7	44.2	0	1.4	9.1	4.4	180.6	34.3	0.2	12.8
3	17.3	36.5	0	1.2	9.1	4.4	162.0	0.8	0.1	12.5
4										
AV	18.1	40.1	0.0	1.3	9.1	4.4	168.9	27.9	0.1	12.8

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	212.2	73.5	251.3	27.7	30.8	34.7	4.2	41.3	707.0	36.1	310.4	41.1
	261.2	98.2	334.6	22.0	26.5	23.8	6.2	41.0	643.5	35.6	338.5	32.7
	222.4	81.7	299.2	26.5	28.7	29.2	1.1	26.7	665.8	40.4	318.0	36.9
AV	232	84	295	25	29	29	4	36	672	37	322	37

GREEN

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YELLOW

AV



Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 1-A (finished) & 2-A
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	86.8	Width Cutting Edge	24.4	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	17.5	Shoulder Max Thickness	no_data
Max Thickness	17.3	Middle Width	28.2	Middle Max Thickness	19
Weight (g)		Middle Thickness	19.5	Top Max Width	22.3
		Middle Max Front	7.4	Top Max Thickness	17.4
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	23.9
Island Group	Marquesas	Middle Max Back	28.4	Length Rightangle to Bevel	15.2
TAS (SiO ₂) Material	33			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.3	34.8	0	0.6	7.7	5.8	0.0	282.4	0.3	21.5
2	17.3	32.4	0	0.9	5.9	5.0	28.7	80.4	0.2	17.5
3	19.2	31.5	0	0.7	6.0	5.9	0.0	396.7	0.3	21.8
4										
AV	17.0	32.9	0.0	0.7	6.6	5.6	9.6	253.2	0.3	20.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	261.3	46.4	196.8	30.5	18.2	22.1	3.8	28.0	504.1	43.4	389.8	44.2
	239.8	39.9	243.1	27.5	17.5	18.4	4.0	30.8	499.2	39.5	400.5	45.2
	255.3	35.3	195.6	25.2	19.8	24.0	3.6	26.9	544.1	42.5	388.3	46.9
AV	252	40	212	28	19	21	4	29	516	42	393	45



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												

AV

Accession No. K-T 684

Record No. 245

pXRF_0116_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 1-A (finished) & 2-A
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	71.2	Width Cutting Edge	26.4	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	17.3	Shoulder Max Thickness	no_data
Max Thickness	17.3	Middle Width	26.6	Middle Max Thickness	18.3
Weight (g)		Middle Thickness	18.5	Top Max Width	22.3
		Middle Max Front	12.7	Top Max Thickness	7.4
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	24.7
TAS (SiO ₂) Material	41	Middle Max Back	26.1	Length Rightangle to Bevel	20.2
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.1	39.7	0	1.2	8.8	4.5	175.6	116.6	0.2	13.8
2	17.8	40.4	0	1.3	8.5	4.3	256.6	129.9	0.2	14.0
3	18.5	43.0	0	1.3	9.1	4.4	198.9	165.6	0.2	13.9
4										
AV	18.1	41.0	0.0	1.3	8.8	4.4	210.3	137.4	0.2	13.9

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	261.0	133.9	316.4	29.8	161.4	152.1	4.2	30.2	687.4	40.3	340.2	35.6
	247.8	96.4	285.1	28.6	124.9	119.8	6.4	42.4	697.4	40.4	362.7	38.7
	269.7	110.9	274.2	25.6	92.2	86.1	5.6	38.3	672.0	38.9	345.7	37.9
AV	259	114	292	28	126	119	5	37	686	40	350	37

GREEN

YELLOW



AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 1-A (finished) & 2-A
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	61.8	Width Cutting Edge	32.4	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	15.8	Shoulder Max Thickness	no_data
Max Thickness	16.2	Middle Width	27.9	Middle Max Thickness	14.6
Weight (g)		Middle Thickness	14.9	Top Max Width	23.2
		Middle Max Front	12.6	Top Max Thickness	11.2
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	35.9
Island Group	Marquesas	Middle Max Back	28.4	Length Rightangle to Bevel	32.4
TAS (SiO ₂) Material	42			Cross Section Shape	Quadrangular

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.3	43.0	1	1.2	9.4	4.4	176.6	120.6	0.2	13.8
2	20.0	42.0	0	1.1	9.2	4.6	147.2	148.2	0.2	14.2
3	19.6	42.1	0	1.3	9.0	4.5	115.3	141.9	0.2	14.0
4										
AV	19.3	42.4	0.2	1.2	9.2	4.5	146.4	136.9	0.2	14.0

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	321.1	117.9	264.5	32.0	29.3	29.3	5.4	37.2	681.6	40.0	334.5	36.7
	270.7	86.3	309.7	30.1	23.7	20.2	3.5	26.3	687.4	43.2	338.7	37.2
	313.0	116.1	372.7	25.1	31.2	28.0	4.9	36.9	669.2	40.1	305.8	33.7
AV	302	107	316	29	28	26	5	33	679	41	326	36

GREEN

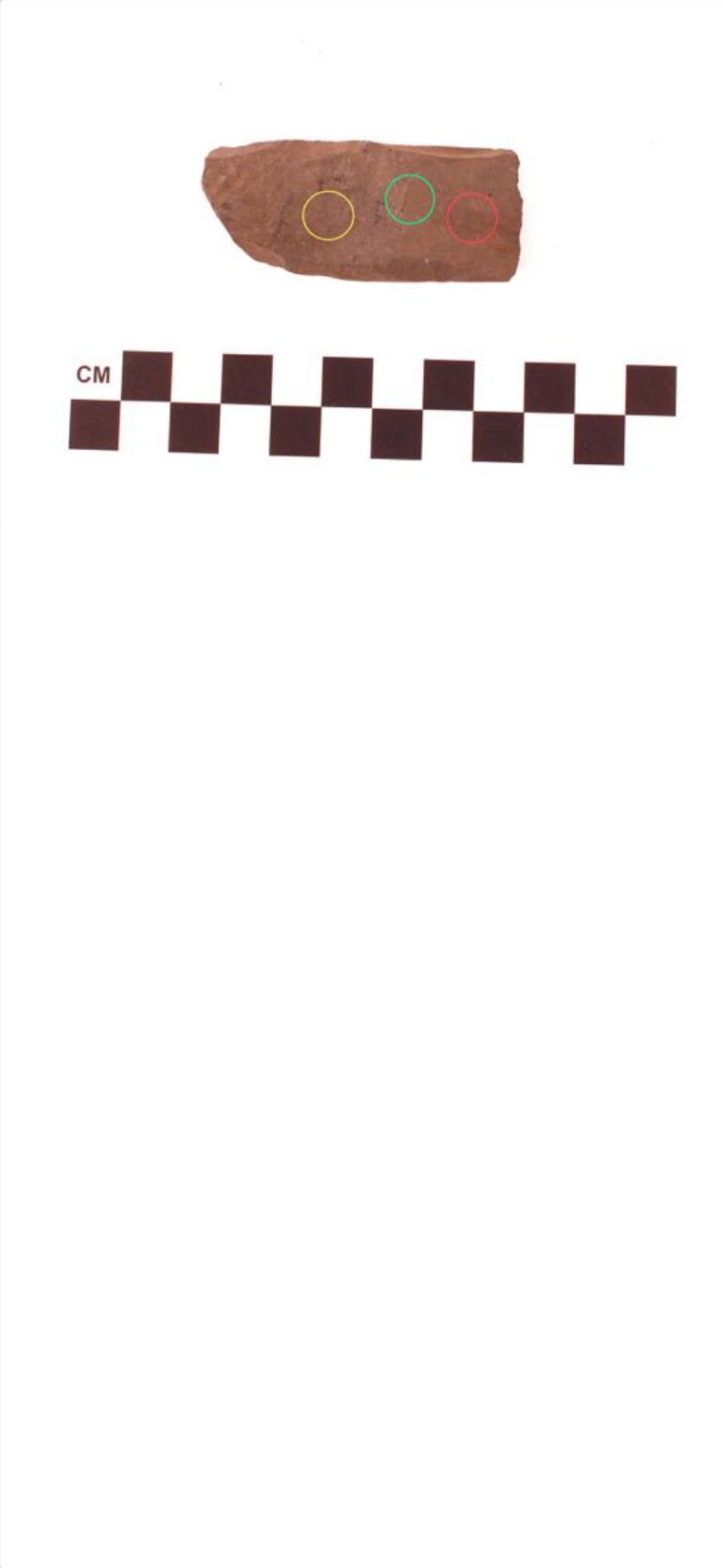
YELLOW

AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 1-A (finished) & 2-A
 Additional Museum Notes: Yes No

Measurements (mm)			
Max Length	62.9	Width Cutting Edge	25.6
Max Width	no_data	Bevel Max Thickness	no_data
Max Thickness	10.3	Middle Width	no_data
Weight (g)		Middle Thickness	no_data
		Middle Max Front	no_data
		Shoulder Front Max Width	no_data
Island Group	Marquesas	Middle Max Back	no_data
TAS (SiO ₂) Material	39	foidite	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	21.6	42.7	0	1.1	8.9	5.0	112.5	181.3	0.2	14.2
2	17.8	35.8	0	1.4	8.6	4.8	190.8	55.2	0.1	12.3
3	19.6	38.0	0	1.4	8.6	4.9	52.0	41.3	0.1	12.1
4										
AV	19.6	38.8	0.0	1.3	8.7	4.9	118.4	92.6	0.2	12.9

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	196.6	94.7	167.9	26.4	18.6	19.1	4.5	32.0	702.5	38.6	335.4	39.7
	225.5	83.6	186.2	25.2	18.9	11.2	5.3	36.9	746.0	39.4	353.8	43.4
	209.9	97.5	214.8	26.3	21.6	22.4	5.4	38.9	704.9	38.7	354.0	41.4
AV	211	92	190	26	20	18	5	36	718	39	348	41

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AV

Accession No. K-T 692

Record No. 252

pXRF_0123_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 2-B (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	132.6	Width Cutting Edge	48.9	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	20.6	Shoulder Max Thickness	no_data
Max Thickness	26.2	Middle Width	42.1	Middle Max Thickness	26.9
Weight (g)		Middle Thickness	26.6	Top Max Width	33.3
		Middle Max Front	40	Top Max Thickness	10.6
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	26.1
TAS (SiO ₂) Material	39	Middle Max Back	41.6	Length Rightangle to Bevel	19.7
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.0	37.6	0	1.1	8.8	4.6	190.6	278.6	0.2	13.8
2	17.7	37.2	0	1.1	8.5	4.5	181.4	265.4	0.2	14.5
3	19.9	41.6	0	1.2	8.6	4.7	222.7	207.8	0.2	14.6
4										
AV	18.5	38.8	0.0	1.1	8.7	4.6	198.3	250.6	0.2	14.3

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	223.7	78.5	185.7	29.2	24.6	31.0	3.9	29.4	675.9	41.5	329.3	38.7
	235.8	84.1	261.3	20.0	37.5	42.7	2.5	24.3	689.2	41.8	325.5	41.4
	205.0	110.8	247.8	27.7	42.5	36.2	4.0	29.3	679.5	41.0	321.2	35.7
AV	221	91	232	26	35	37	3	28	682	41	325	39

GREEN

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YELLOW

AV

Accession No. K-T 693

Record No. 253

pXRF_0124_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 2-B (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	99	Width Cutting Edge	34.6	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	14	Shoulder Max Thickness	no_data
Max Thickness	15.2	Middle Width	34.6	Middle Max Thickness	16.7
Weight (g)		Middle Thickness	15.7	Top Max Width	20.8
		Middle Max Front	0	Top Max Thickness	9.7
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	25.1
TAS (SiO ₂) Material	35	Middle Max Back	34.5	Length Rightangle to Bevel	15.6
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.6	33.6	0	0.9	7.6	4.2	162.0	0.0	0.2	15.2
2	15.3	35.2	0	1.1	7.5	3.9	195.6	0.0	0.1	12.8
3	17.2	36.2	0	1.1	7.3	4.4	156.2	31.1	0.2	15.5
4										
AV	16.4	35.0	0.0	1.1	7.5	4.2	171.3	10.4	0.2	14.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	259.3	74.6	453.4	23.1	26.9	21.4	4.4	31.6	592.8	42.1	354.0	42.9
	256.9	82.9	400.6	30.8	73.8	69.5	5.8	38.6	638.1	39.2	358.5	43.1
	229.9	92.8	1198.3	29.4	35.3	31.2	4.3	31.2	646.4	43.9	342.7	41.8
AV	249	83	684	28	45	41	5	34	626	42	352	43

GREEN

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YELLOW

AV



Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 2-B (broken) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	53.6	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	22.8	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Marquesas	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	43			Cross Section Shape	Quadrangular

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	20.5	41.4	0	1.2	8.9	5.1	50.7	112.5	0.2	12.9
2	21.0	42.8	0	1.4	8.8	5.0	90.1	93.4	0.1	12.2
3	20.8	43.7	0	1.4	9.0	5.0	107.8	83.1	0.2	12.6
4										
AV	20.8	42.6	0.0	1.3	8.9	5.0	82.9	96.3	0.1	12.6

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	238.0	51.3	201.2	29.0	12.7	16.3	3.6	27.0	710.8	43.8	320.5	38.9
	225.5	74.1	228.0	27.0	27.4	23.9	3.3	25.1	687.6	42.3	320.1	40.0
	225.7	101.5	208.8	26.1	17.1	17.7	4.2	32.6	713.4	42.9	325.6	38.5
AV	230	76	213	27	19	19	4	28	704	43	322	39

GREEN

YELLOW

AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 2-B (broken) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	50.4	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	16.7	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Marquesas	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	43			Cross Section Shape	Quadrangular

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.5	37.8	0	1.4	9.8	4.5	200.0	0.0	0.1	10.7
2	19.7	46.3	0	1.3	10.3	4.8	123.8	55.3	0.1	12.1
3	18.5	45.9	0	1.3	10.1	4.8	104.5	94.3	0.1	12.4
4										
AV	18.2	43.3	0.0	1.3	10.1	4.7	142.8	49.9	0.1	11.7

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	250.0	60.7	180.0	30.3	20.7	23.5	5.2	35.7	711.8	41.6	320.9	37.9
	226.5	103.1	165.8	35.2	11.5	13.4	5.5	37.1	705.2	39.7	322.6	39.2
	234.9	94.3	187.6	22.4	25.1	26.3	5.4	36.7	723.9	41.8	340.1	36.1
AV	237	86	178	29	19	21	5	36	714	41	328	38



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb

AV

VACUUM

GREEN*

YELLOW

Accession No. K-T 696

Record No. 256

pXRF_0127_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 6 (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	86.2	Width Cutting Edge	10.8	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	13.9	Shoulder Max Thickness	no_data
Max Thickness	15.2	Middle Width	18	Middle Max Thickness	15
Weight (g)		Middle Thickness	14.6	Top Max Width	12.8
		Middle Max Front	7	Top Max Thickness	3.8
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	22.3
Island Group	Marquesas	Middle Max Back	18	Length Rightangle to Bevel	17.8
TAS (SiO ₂) Material	43			Cross Section Shape	Rounded

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.6	44.1	0	1.1	10.0	4.2	207.6	136.1	0.2	13.6
2	19.7	45.7	1	1.1	9.7	4.1	286.5	110.1	0.2	13.9
3	16.8	39.6	0	1.1	9.4	3.9	244.7	31.7	0.2	12.9
4										
AV	18.4	43.1	0.2	1.1	9.7	4.0	246.3	92.6	0.2	13.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	245.9	132.3	230.2	27.5	23.6	19.5	3.6	31.7	700.6	43.1	323.1	34.7
	238.5	81.8	227.9	26.5	26.0	25.4	2.9	22.6	612.2	41.2	314.9	35.9
	272.2	110.5	188.1	22.2	26.0	26.5	3.2	25.7	679.4	42.5	318.9	38.8
AV	252	108	215	25	25	24	3	27	664	42	319	36

GREEN

YELLOW

AV

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Raivavae
 Material: Basalt
 Object: Adze
 Type: 3-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	199	Width Cutting Edge	46.2	Shoulder Back Max Width	52.8
Max Width	no_data	Bevel Max Thickness	46.5	Shoulder Max Thickness	51.4
Max Thickness	51.4	Middle Width	52.2	Middle Max Thickness	49.9
Weight (g)		Middle Thickness	no_data	Top Max Width	34.8
		Middle Max Front	no_data	Top Max Thickness	30.4
		Shoulder Front Max Width	0	Cutting Edge to Bevel	77.4
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	66.6
TAS (SiO ₂) Material	35			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.4	34.5	0	1.3	12.3	3.1	248.1	158.1	0.2	10.9
2	14.5	33.0	0	1.2	12.8	3.3	295.1	207.9	0.2	11.0
3	15.0	36.5	0	1.2	13.2	3.4	289.1	177.5	0.2	11.2
4										
AV	14.7	34.7	0.0	1.2	12.8	3.3	277.4	181.2	0.2	11.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	281.4	87.4	163.2	23.8	18.0	16.5	7.2	48.0	770.9	32.1	264.3	49.8
	245.9	103.8	172.4	22.9	18.5	18.0	6.5	42.4	769.0	36.1	264.8	49.1
	274.2	119.0	175.4	31.1	18.6	22.3	6.4	42.3	790.2	34.8	263.3	51.0
AV	267	103	170	26	18	19	7	44	777	34	264	50

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AV

VACUUM

GREEN

YELLOW

Accession No. K-T 703

Record No. 262

pXRF_0133_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 4-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	108.8	Width Cutting Edge	21.1	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	25.7	Shoulder Max Thickness	no_data
Max Thickness	25.6	Middle Width	27.3	Middle Max Thickness	22.6
Weight (g)		Middle Thickness	21.8	Top Max Width	22.6
		Middle Max Front	0	Top Max Thickness	21.7
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	32.1
TAS (SiO ₂) Material	35	Middle Max Back	26.4	Length Rightangle to Bevel	26.6
				Cross Section Shape	Triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.5	35.7	0	1.1	8.1	4.7	141.1	98.4	0.2	14.6
2	17.6	33.4	0	1.2	8.0	4.8	169.0	148.6	0.2	14.3
3	17.5	34.9	0	1.1	7.7	4.6	194.4	238.5	0.2	16.0
4										
AV	17.5	34.7	0.0	1.2	7.9	4.7	168.2	161.8	0.2	15.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	221.5	94.6	452.6	24.7	45.0	45.1	4.1	29.7	681.7	41.1	344.2	36.8
	243.7	107.3	454.5	22.5	49.0	50.6	3.2	24.9	658.6	39.9	343.8	36.2
	230.5	85.0	500.9	22.0	54.9	56.1	4.0	29.2	670.3	39.4	339.1	39.2
AV	232	96	469	23	50	51	4	28	670	40	342	37



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AV

Accession No. K-T 700

Record No. 265

pXRF_0136_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 4-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	126.5	Width Cutting Edge	19	Shoulder Back Max Width	29.6
Max Width	no_data	Bevel Max Thickness	27.8	Shoulder Max Thickness	no_data
Max Thickness	28	Middle Width	31.4	Middle Max Thickness	29.1
Weight (g)		Middle Thickness	27.9	Top Max Width	20
		Middle Max Front	no_data	Top Max Thickness	19.5
Island Group	Marquesas	Shoulder Front Max Width	7.8	Cutting Edge to Bevel	11.6
TAS (SiO ₂) Material	43	Middle Max Back	no_data	Length Rightangle to Bevel	7.4
				Cross Section Shape	Trapezoidal

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.3	43.9	1	1.6	11.6	4.0	274.2	0.0	0.1	10.9
2	17.4	43.7	0	1.6	11.9	4.1	213.4	0.0	0.1	11.0
3	17.5	42.3	0	1.7	11.9	4.1	251.4	0.0	0.1	10.2
4										
AV	17.4	43.3	0.5	1.6	11.8	4.1	246.3	0.0	0.1	10.7

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	261.2	124.0	425.9	32.9	26.4	36.7	11.6	65.1	1204.7	31.7	366.8	79.2
	214.6	131.2	242.6	23.1	20.2	25.8	11.5	66.6	1149.8	31.2	358.0	77.2
	228.8	108.8	450.0	26.3	36.0	30.1	11.7	67.1	1189.2	31.2	361.7	76.7
AV	235	121	373	27	28	31	12	66	1181	31	362	78

GREEN

YELLOW

AV

Accession No. K-T 704

Record No. 266

pXRF_0137_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 4-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	102.4	Width Cutting Edge	11.9	Shoulder Back Max Width	42.2
Max Width	no_data	Bevel Max Thickness	38.6	Shoulder Max Thickness	38.2
Max Thickness	38.4	Middle Width	34.2	Middle Max Thickness	31.2
Weight (g)		Middle Thickness	no_data	Top Max Width	17.4
Island Group	Marquesas	Middle Max Front	no_data	Top Max Thickness	24
TAS (SiO ₂) Material	36	Shoulder Front Max Width	7.6	Cutting Edge to Bevel	43.1
		Middle Max Back	no_data	Length Rightangle to Bevel	43.8
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.3	36.9	0	1.1	9.6	3.5	273.3	390.6	0.2	13.0
2	16.1	35.4	0	1.1	9.7	3.2	307.0	348.9	0.2	12.9
3	16.4	36.0	0	1.1	10.0	3.5	271.2	477.1	0.2	12.3
4										
AV	16.3	36.1	0.1	1.1	9.8	3.4	283.8	405.5	0.2	12.7

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	351.2	179.0	303.7	24.2	32.7	37.5	5.3	36.4	554.4	38.1	296.4	44.6
	314.4	168.5	481.5	25.4	88.8	83.0	5.8	40.1	569.1	35.4	300.6	36.0
	323.1	212.5	320.8	23.4	47.0	49.3	5.6	43.1	558.4	37.2	292.4	42.0
AV	330	187	369	24	56	57	6	40	561	37	296	41

AV												

VACUUM GREEN*

GREEN

YELLOW

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 4-A (broken) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	60.5	Width Cutting Edge	12.7	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	27.2	Shoulder Max Thickness	no_data
Max Thickness	27.2	Middle Width	26.5	Middle Max Thickness	23.6
Weight (g)		Middle Thickness	23.8	Top Max Width	28.2
		Middle Max Front	10	Top Max Thickness	26.6
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	56.2
Island Group	Marquesas	Middle Max Back	26.2	Length Rightangle to Bevel	51.9
TAS (SiO ₂) Material	39			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.6	42.8	0	1.1	11.3	3.3	272.9	200.2	0.1	11.1
2	16.8	38.9	0	1.1	11.0	3.3	266.9	186.1	0.1	11.4
3	18.5	36.8	0	1.3	9.4	3.2	275.9	106.4	0.1	11.6
4										
AV	17.6	39.5	0.0	1.2	10.6	3.3	271.9	164.2	0.1	11.4

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	215.4	83.2	175.5	25.1	15.1	14.4	2.7	21.4	497.7	40.1	272.7	33.3
	255.8	121.1	164.8	25.9	19.6	18.5	3.0	23.3	490.2	37.4	279.7	28.4
	235.4	95.9	181.4	23.6	20.8	18.0	2.7	21.3	489.6	41.7	277.3	29.5
AV	236	100	174	25	18	17	3	22	493	40	277	30

GREEN

YELLOW



Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 4-A (broken) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)			
Max Length	56.5	Width Cutting Edge	14.8
Max Width	no_data	Bevel Max Thickness	26.8
Max Thickness	26.8	Middle Width	24.2
Weight (g)		Middle Thickness	22.3
		Middle Max Front	9.2
		Shoulder Front Max Width	no_data
Island Group	Marquesas	Middle Max Back	21.9
TAS (SiO ₂) Material	42		
		picro-basalt / basanite	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

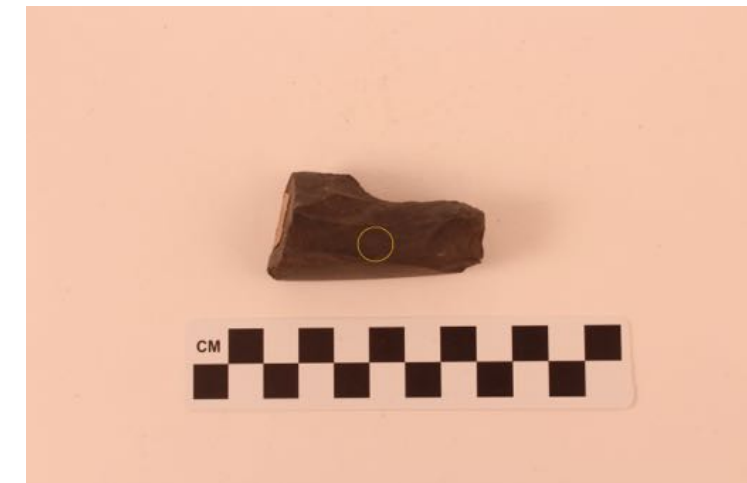
Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

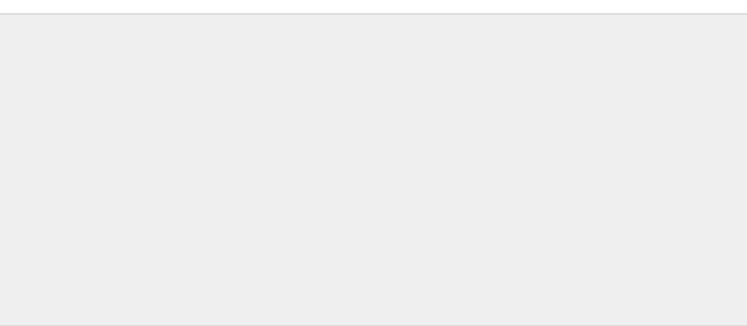
	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	19.6	41.2	0	1.3	9.4	4.7	139.5	51.4	0.1	12.4
2	20.9	44.7	0	1.2	9.6	4.7	134.7	116.1	0.2	13.4
3	19.3	40.1	0	1.2	9.8	4.6	166.2	82.0	0.2	13.1
4										
AV	19.9	42.0	0.0	1.2	9.6	4.7	146.8	83.2	0.2	13.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	262.2	70.1	179.8	23.2	20.5	25.0	3.6	27.2	706.2	45.4	329.3	39.8
	261.1	75.1	155.1	24.8	14.8	10.0	4.3	32.0	702.9	43.4	321.2	37.0
	260.2	87.1	156.4	24.9	16.9	16.4	3.9	28.9	693.4	40.1	320.8	37.1
AV	261	77	164	24	17	17	4	29	701	43	324	38



AV												
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Accession No. K-T 707

Record No. 269

pXRF_0140_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Marquesas
 Material: Basalt
 Object: Adze
 Type: 4-A (broken) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	43.6	Width Cutting Edge	20	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	13.4	Shoulder Max Thickness	no_data
Max Thickness	13.3	Middle Width	38.6	Middle Max Thickness	9.6
Weight (g)		Middle Thickness	7.4	Top Max Width	27.7
		Middle Max Front	12.8	Top Max Thickness	14.4
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	43.4
TAS (SiO ₂) Material	37	Middle Max Back	28.5	Length Rightangle to Bevel	41.3
				Cross Section Shape	Trapezoidal

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	20.3	41.4	0	1.3	9.4	4.8	147.5	151.9	0.1	12.4
2	17.2	34.7	0	1.4	8.9	4.5	189.1	0.0	0.1	11.0
3	17.3	34.8	0	1.4	8.9	4.5	137.4	0.0	0.1	10.8
4										
AV	18.3	37.0	0.0	1.4	9.1	4.6	158.0	50.6	0.1	11.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	247.7	114.3	186.9	32.0	22.3	21.3	5.7	38.2	699.3	38.4	332.9	36.7
	253.6	116.5	208.3	29.7	12.4	20.6	6.2	41.8	714.8	36.9	330.7	38.2
	230.6	99.9	241.3	24.0	26.7	31.5	7.2	45.4	708.3	37.3	344.2	45.0
AV	244	110	212	29	20	24	6	42	707	38	336	40

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AV

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Accession No. K-T 711

Record No. 270

pXRF_0141_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 4-B (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	53.5	Width Cutting Edge	25.6	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	20.1	Shoulder Max Thickness	no_data
Max Thickness	19.8	Middle Width	37.2	Middle Max Thickness	14.7
Weight (g)		Middle Thickness	14.1	Top Max Width	38.4
Island Group	Marquesas	Middle Max Front	17.1	Top Max Thickness	20
TAS (SiO ₂) Material	45	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	50.5
	basalt	Middle Max Back	36.8	Length Rightangle to Bevel	41.1
				Cross Section Shape	Trapezoidal

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.3	42.7	0	0.9	10.9	3.9	249.2	320.0	0.2	12.2
2	19.4	45.7	0	0.8	11.5	4.0	236.6	402.3	0.2	12.9
3	18.5	45.1	0	0.9	10.9	3.6	231.1	304.0	0.1	11.4
4										
AV	18.7	44.5	0.1	0.9	11.1	3.8	239.0	342.1	0.2	12.2

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	235.0	95.8	170.2	20.7	13.9	17.3	3.3	25.7	495.3	38.7	286.7	30.9
	205.6	82.9	178.7	30.1	16.8	17.9	3.3	25.4	513.9	40.8	279.0	31.3
	249.8	102.9	188.6	25.8	15.1	22.0	3.5	26.4	487.7	41.7	264.7	31.8
AV	230	94	179	26	15	19	3	26	499	40	277	31

AV												

VACUUM

GREEN*

YELLOW

Accession No. K-T 712

Record No. 271

pXRF_0142_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 6 (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	78.2	Width Cutting Edge	36.4	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	20.5	Shoulder Max Thickness	no_data
Max Thickness	25.3	Middle Width	37.1	Middle Max Thickness	24.6
Weight (g)		Middle Thickness	24.1	Top Max Width	30.9
Island Group	Marquesas	Middle Max Front	12.9	Top Max Thickness	25.3
TAS (SiO ₂) Material	40	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	29.8
	foidite	Middle Max Back	37.4	Length Rightangle to Bevel	22.4
				Cross Section Shape	Rounded

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

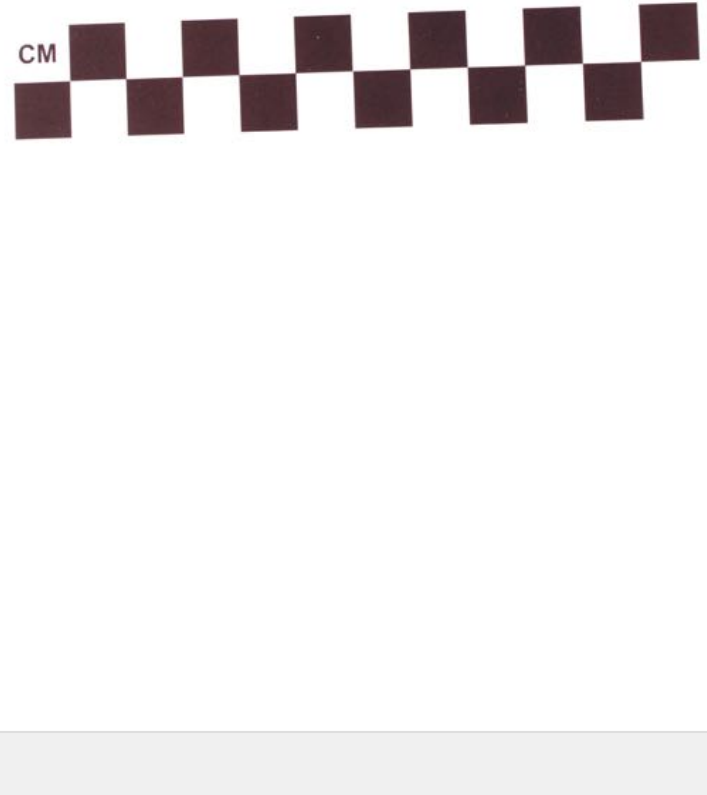
	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.8	40.5	0	1.5	10.9	3.9	254.8	226.2	0.1	10.1
2	19.2	40.0	0	1.4	10.1	4.0	252.7	270.0	0.2	11.2
3	18.6	39.1	0	1.4	10.0	4.0	241.4	224.3	0.1	10.8
4										
AV	18.2	39.9	0.0	1.4	10.3	4.0	249.7	240.2	0.1	10.7

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	227.3	116.7	162.7	23.9	10.8	10.5	4.8	40.2	694.4	47.1	328.5	51.9
	274.8	83.2	200.3	29.6	18.6	13.6	7.7	48.8	732.3	45.3	340.3	53.1
	287.6	105.5	157.6	27.3	18.9	18.3	6.1	42.8	719.3	45.9	327.4	46.7
AV	263	102	174	27	16	14	6	44	715	46	332	51



AV												
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Accession No. K-T 714

Record No. 272

pXRF_0143_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 6 (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	48.6	Width Cutting Edge	26.6	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	21.2	Shoulder Max Thickness	no_data
Max Thickness	21.6	Middle Width	27.6	Middle Max Thickness	19.9
Weight (g)		Middle Thickness	19.9	Top Max Width	26.8
Island Group	Marquesas	Middle Max Front	17	Top Max Thickness	21.4
TAS (SiO ₂) Material	40	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	43.6
	foidite	Middle Max Back	27.4	Length Rightangle to Bevel	37.3
				Cross Section Shape	Rounded

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	19.2	38.7	0	1.2	8.9	4.5	151.7	122.3	0.2	13.4
2	20.4	43.3	0	1.2	9.3	4.6	167.6	69.4	0.2	13.7
3	19.0	39.5	0	1.2	9.0	4.5	150.1	69.7	0.1	13.0
4										
AV	19.5	40.5	0.0	1.2	9.1	4.5	156.5	87.1	0.2	13.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	243.7	101.7	215.1	36.1	37.9	33.9	5.2	36.0	689.8	42.0	329.3	36.4
	231.3	88.7	264.3	32.2	78.1	75.4	4.9	37.0	705.1	40.7	314.8	34.6
	256.8	69.1	266.7	26.9	42.1	42.9	3.7	27.4	732.1	44.6	326.6	39.5
AV	244	86	249	32	53	51	5	34	709	42	324	37

AV												

AV

Accession No. K-T 716

Record No. 274

pXRF_0145_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 6 (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	80.6	Width Cutting Edge	41.9	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	24.1	Shoulder Max Thickness	no_data
Max Thickness	29.4	Middle Width	38.8	Middle Max Thickness	24.8
Weight (g)		Middle Thickness	26.3	Top Max Width	29.5
		Middle Max Front	20.9	Top Max Thickness	25.1
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	32.8
TAS (SiO ₂) Material	32	Middle Max Back	38.6	Length Rightangle to Bevel	23.2
				Cross Section Shape	Rounded

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.9	29.3	0	2.2	8.2	4.2	221.6	0.0	0.1	8.9
2	14.4	27.6	0	2.2	8.3	3.8	266.7	0.0	0.1	8.7
3	18.1	39.5	0	1.9	8.2	4.3	274.2	0.0	0.2	12.2
4										
AV	15.8	32.1	0.0	2.1	8.2	4.1	254.2	0.0	0.1	9.9

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	241.3	142.2	180.5	29.6	15.7	15.1	11.7	75.0	955.4	28.3	382.9	69.2
	232.6	188.0	216.8	31.9	38.9	43.1	15.2	81.7	1008.1	25.3	398.4	60.3
	219.5	121.7	167.6	28.2	25.3	23.7	12.4	80.8	1008.9	26.3	395.6	60.9
AV	231	151	188	30	27	27	13	79	991	27	392	63

GREEN

YELLOW



AV

Accession No. K-T 717

Record No. 275

pXRF_0146_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Adze
 Type 4-B (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	74.1	Width Cutting Edge	17.9	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	19.8	Shoulder Max Thickness	no_data
Max Thickness	20.2	Middle Width	20.7	Middle Max Thickness	19
Weight (g)		Middle Thickness	18.6	Top Max Width	18.4
		Middle Max Front	16.5	Top Max Thickness	12.9
Island Group	Marquesas	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	34.4
TAS (SiO ₂) Material	38	Middle Max Back	18.6	Length Rightangle to Bevel	31.9
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.0	38.5	0	1.1	9.3	4.3	174.6	77.5	0.2	13.0
2	17.3	37.6	0	1.2	9.3	4.5	169.9	127.1	0.2	13.1
3										
4										
AV	17.2	38.0	0.0	1.1	9.3	4.4	172.2	102.3	0.2	13.1

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	229.5	65.3	285.9	30.1	26.3	30.3	4.4	31.4	698.5	38.4	320.8	39.3
	235.5	122.5	177.6	27.7	59.6	57.4	3.7	28.0	684.7	41.9	325.2	37.2
	210.7	91.5	215.0	33.5	198.0	196.0	3.8	31.9	720.8	42.6	326.0	41.2
AV	225	93	226	30	95	95	4	30	701	41	324	39



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AV

Accession No. K-T 663

Record No. 276

pXRF_0147_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Tubuai
 Material Basalt
 Object Adze
 Type 3-F (unfinished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	268	Width Cutting Edge	26.6	Shoulder Back Max Width	33.4
Max Width	no_data	Bevel Max Thickness	34.3	Shoulder Max Thickness	45.5
Max Thickness	45.7	Middle Width	37.6	Middle Max Thickness	44.8
Weight (g)		Middle Thickness	no_data	Top Max Width	16.2
		Middle Max Front	no_data	Top Max Thickness	13.2
Island Group	Austral Islands	Shoulder Front Max Width	18.4	Cutting Edge to Bevel	59.1
TAS (SiO ₂) Material	35	Middle Max Back	no_data	Length Rightangle to Bevel	50.5
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.7	33.9	0	1.8	9.7	4.4	188.6	0.0	0.2	12.6
2	15.7	36.2	0	1.7	9.8	4.5	150.1	0.0	0.2	12.4
3	16.0	35.1	0	1.8	10.6	4.8	89.4	0.0	0.1	11.3
4										
AV	15.8	35.1	0.0	1.8	10.0	4.6	142.7	0.0	0.2	12.1

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	178.7	100.8	335.8	26.9	49.0	47.7	16.6	98.9	907.2	20.0	378.4	67.6
	198.3	112.6	297.6	27.4	55.8	51.6	17.3	97.9	855.7	20.4	373.2	64.7
	215.4	98.4	275.4	26.3	47.0	53.9	15.8	83.8	959.1	24.2	386.2	75.2
AV	197	104	303	27	51	51	17	94	907	22	379	69

GREEN

YELLOW



AV

Accession No. K-T 568

Record No. 278

pXRF_0149_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Pitcairn
 Material: Basalt
 Object: Adze
 Type: 1-A (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	102.9	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	30.7	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	27.2
		Middle Max Front	no_data	Top Max Thickness	14.8
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	31			Cross Section Shape	Quadrangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.2	27.6	2	1.9	3.8	3.4	202.5	0.0	0.2	14.2
2	18.3	32.6	3	1.9	4.2	3.5	180.1	0.0	0.2	14.3
3	19.5	31.5	2	1.4	5.0	3.7	147.4	0.0	0.2	14.3
4										
AV	18.7	30.6	2.2	1.8	4.4	3.5	176.7	0.0	0.2	14.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	17.2	54.8	289.2	23.9	40.6	34.2	6.6	47.2	667.0	39.3	424.8	85.9
	1.2	60.9	285.0	25.5	24.3	30.3	7.4	46.3	705.3	40.6	411.3	82.3
	15.5	48.8	249.3	29.5	29.5	23.1	6.7	46.4	711.6	40.2	422.8	80.6
AV	11	55	275	26	31	29	7	47	695	40	420	83



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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. K-T 569

Record No. 279

pXRF_0150_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Pitcairn
 Material Basalt
 Object Adze
 Type 1-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	143	Width Cutting Edge	61.1	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	40.6	Shoulder Max Thickness	no_data
Max Thickness	37.2	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	101.5
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	94.8
TAS (SiO ₂) Material	39			Cross Section Shape	Quadrangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	19.9	37.6	0	1.7	5.9	3.4	275.1	59.8	0.2	14.2
2	20.1	43.3	0	1.7	6.1	3.2	290.0	91.5	0.2	15.1
3	20.4	36.1	0	1.7	5.8	3.2	261.0	34.0	0.2	13.8
4										
AV	20.1	39.0	0.0	1.7	5.9	3.3	275.4	61.7	0.2	14.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	0.0	34.3	229.7	32.7	21.2	26.9	7.0	46.2	719.7	41.5	401.2	80.8
	0.0	52.0	205.3	29.6	32.6	36.1	6.5	46.3	668.7	41.2	386.3	75.8
	29.1	62.1	222.0	30.5	25.8	26.0	9.6	58.0	729.3	36.4	437.2	87.2
AV	10	49	219	31	27	30	8	50	706	40	408	81



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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. K-T 575

Record No. 285

pXRF_0156_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Pitcairn

Material Basalt

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	107.8	Width Cutting Edge	42.8	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	19.5	Shoulder Max Thickness	no_data
Max Thickness	19.3	Middle Width	31.4	Middle Max Thickness	19.6
Weight (g)		Middle Thickness	19.6	Top Max Width	15.8
		Middle Max Front	18.4	Top Max Thickness	5.1
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	47.6
Island Group	Pitcairn Islands	Middle Max Back	31.7	Length Rightangle to Bevel	43.6
TAS (SiO ₂) Material	43			Cross Section Shape	Quadrangular

picro-basalt / basanite

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	20.9	42.2	0	1.9	6.0	3.3	285.0	145.1	0.2	13.6
2	21.2	44.4	0	1.9	6.0	3.3	282.1	127.2	0.2	13.8
3	18.7	43.8	0	2.0	6.1	3.2	248.6	0.0	0.2	11.6
4										
AV	20.3	43.5	0.0	1.9	6.0	3.3	271.9	90.8	0.2	13.0

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	23.8	37.5	220.1	33.6	76.9	76.5	9.9	60.0	735.8	35.4	418.6	85.7
	40.6	75.9	212.1	26.9	37.2	38.9	10.3	65.5	696.5	32.1	414.3	84.2
	68.2	92.6	645.2	34.9	64.4	59.4	10.5	60.3	736.1	35.3	410.9	88.8
AV	44	69	359	32	59	58	10	62	723	34	415	86

GREEN

YELLOW

AV

Accession No. K-T 590

Record No. 299

pXRF_0170_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Pitcairn
 Material Basalt
 Object Adze
 Type 2-A (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	35.3	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	7	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
Island Group	Pitcairn Islands	Middle Max Front	no_data	Top Max Thickness	no_data
TAS (SiO ₂) Material	43	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
	<input type="text" value="picro-basalt / basanite"/>	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	20.8	45.6	0	1.9	5.8	3.3	252.2	18.5	0.2	13.2
2	20.3	39.6	0	1.9	5.6	3.1	293.6	22.0	0.2	13.5
3	20.4	43.9	0	1.9	5.8	3.2	284.5	24.5	0.2	13.2
4										
AV	20.5	43.0	0.0	1.9	5.7	3.2	276.8	21.7	0.2	13.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	42.2	90.0	213.8	35.1	46.7	44.2	12.0	71.0	741.8	29.9	455.9	92.1
	46.0	142.5	241.5	25.1	23.7	22.4	9.8	66.8	717.2	31.9	434.2	82.8
	31.8	70.8	187.5	24.4	37.4	31.5	10.8	60.9	722.7	34.1	435.6	83.4
AV	40	101	214	28	36	33	11	66	727	32	442	86



AV												

AV

Accession No. K-T 595

Record No. 304

pXRF_0175_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Pitcairn
 Material: Basalt
 Object: Adze
 Type: 3-C (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	110.2	Width Cutting Edge	20.7	Shoulder Back Max Width	29
Max Width	no_data	Bevel Max Thickness	15.8	Shoulder Max Thickness	17
Max Thickness	17.2	Middle Width	28.3	Middle Max Thickness	17
Weight (g)		Middle Thickness	no_data	Top Max Width	17.4
		Middle Max Front	no_data	Top Max Thickness	9.9
		Shoulder Front Max Width	12.4	Cutting Edge to Bevel	32.6
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	262
TAS (SiO ₂) Material	43			Cross Section Shape	Sub-triangular

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	19.3	38.1	0	1.8	5.8	3.1	277.9	37.3	0.2	13.5	V A C U U M * G R E E N
2	22.2	43.5	0	1.8	6.1	3.2	282.0	56.6	0.2	14.1	
3	24.0	47.1	1	1.7	6.2	3.3	284.0	85.8	0.2	14.7	
4											
AV	21.8	42.9	0.2	1.8	6.0	3.2	281.3	59.9	0.2	14.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	22.9	27.9	217.4	36.9	20.1	16.8	7.6	53.7	708.4	38.3	430.4	87.9	G R E E N
	4.7	42.0	216.4	25.8	19.8	17.1	6.8	43.5	726.8	40.9	405.5	77.7	
	9.1	51.8	237.6	35.4	27.8	35.4	7.2	50.7	705.2	39.2	423.3	83.6	
AV	12	41	224	33	23	23	7	49	713	39	420	83	

													Y E L L O W

AV

Accession No. K-T 601

Record No. 310

pXRF_0181_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Pitcairn
 Material Basalt
 Object Adze
 Type 4-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	73.1	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	26.9	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	17.9
		Middle Max Front	no_data	Top Max Thickness	18.1
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	33			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.7	28.6	0	1.9	5.8	2.6	253.4	0.0	0.2	10.7	V A C U U M * G R E E N
2	17.8	40.9	0	1.8	6.1	3.0	260.0	0.0	0.2	12.5	
3	15.3	29.0	0	1.8	5.8	2.8	245.3	0.0	0.2	11.3	
4											
AV	16.0	32.8	0.0	1.8	5.9	2.8	252.9	0.0	0.2	11.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	15.3	51.5	161.3	28.2	19.1	19.8	6.4	56.7	677.8	35.2	418.2	81.5	G R E E N
	13.2	77.8	166.9	30.5	15.3	9.2	6.5	64.4	696.9	33.4	425.9	89.9	
	50.0	38.0	146.2	27.6	5.8	9.6	8.2	49.5	659.5	40.5	416.0	82.5	
AV	26	56	158	29	13	13	7	57	678	36	420	85	

AV														

AV

Accession No. K-T 56.2.206

Record No. 320

pXRF_0191_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Easter Island
 Material: Obsidian
 Object: Adze
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	92.8	Width Cutting Edge	30	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	30.9	Middle Width	29.7	Middle Max Thickness	19.3
Weight (g)		Middle Thickness	9.7	Top Max Width	19.5
		Middle Max Front	20	Top Max Thickness	11.2
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Easter Island	Middle Max Back	29	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	37			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.3	36.5	0	1.5	4.6	2.6	362.7	280.4	0.3	16.8	VACUUM GREEN*
2	16.7	36.8	0	1.5	4.6	2.6	346.7	346.5	0.3	17.0	
3	16.5	37.5	0	1.5	4.6	2.6	340.2	292.2	0.3	16.9	
4											
AV	16.5	36.9	0.0	1.5	4.6	2.6	349.8	306.4	0.3	16.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	20.6	34.6	175.8	29.9	10.1	8.3	5.3	37.8	320.5	57.6	492.5	73.7	GREEN
	15.1	46.6	218.7	23.8	9.3	6.0	3.1	27.0	325.7	67.6	485.2	72.8	
	0.0	49.4	179.8	28.9	13.2	8.1	5.5	38.4	330.9	57.8	496.2	69.8	
AV	12	44	191	28	11	7	5	34	326	61	491	72	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													



AV

Accession No. K-T 56.2.205

Record No. 321

pXRF_0192_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Easter Island

Material Obsidian

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	100.4	Width Cutting Edge	27.2	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	19	Shoulder Max Thickness	no_data
Max Thickness	20.6	Middle Width	24.6	Middle Max Thickness	21.2
Weight (g)		Middle Thickness	21.5	Top Max Width	16
		Middle Max Front	20	Top Max Thickness	14.4
Island Group	Easter Island	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	28.5
TAS (SiO ₂) Material	24	Middle Max Back	24.6	Length Rightangle to Bevel	17.4
				Cross Section Shape	no_data

foidite

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.4	21.8	0	1.4	5.3	2.0	281.5	119.3	0.3	14.7	▲ GREEN* V A C U U M ▼
2	13.9	25.8	0	1.4	5.0	2.2	301.7	194.6	0.3	16.5	
3	13.9	24.6	0	1.4	5.0	2.1	288.7	180.8	0.3	16.2	
4											
AV	13.7	24.1	0.0	1.4	5.1	2.1	290.6	164.9	0.3	15.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	0.0	40.1	188.4	30.9	9.0	7.9	5.3	38.1	324.2	56.8	491.8	67.9	▲ GREEN ▼
	13.0	44.8	182.8	25.3	15.4	13.9	3.9	29.5	341.3	61.9	493.9	66.9	
	0.0	51.0	177.0	32.9	9.0	9.7	4.5	33.6	344.2	61.9	483.2	63.6	
AV	4	45	183	30	11	11	5	34	337	60	490	66	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Easter Island
 Material: Basalt
 Object: Fish hook
 Type: n/a
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Easter Island	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	36			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.8	36.6	0	1.9	2.8	1.3	259.0	294.9	0.2	14.8
2	14.1	34.3	0	1.9	2.6	1.3	242.4	241.0	0.2	15.0
3	13.8	37.1	0	2.0	2.4	1.4	239.2	273.1	0.2	14.5
4										
AV	14.3	36.0	0.0	1.9	2.6	1.3	246.9	269.7	0.2	14.8

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	9.5	29.2	211.6	27.9	15.4	17.5	6.6	48.6	282.7	48.8	554.1	87.5
	24.2	35.4	226.9	25.8	9.4	10.7	5.7	41.3	286.8	53.6	543.1	85.0
	10.2	24.0	208.8	28.7	14.8	14.6	5.7	44.7	287.4	51.2	550.0	84.7
AV	15	30	216	27	13	14	6	45	286	51	549	86

GREEN

YELLOW



AV

Accession No. K-T 222

Record No. 328

pXRF_0200_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Easter Island
 Material Basalt (sampled)
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	77.7	Width Cutting Edge	59.6	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	29.8	Shoulder Max Thickness	no_data
Max Thickness	31.4	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
Island Group	Easter Island	Middle Max Front	no_data	Top Max Thickness	no_data
TAS (SiO ₂) Material	34	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	40.8
	foidite	Middle Max Back	no_data	Length Rightangle to Bevel	25.6
				Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.2	29.1	0	1.6	4.7	1.7	244.5	101.8	0.2	13.5
2	16.2	32.4	0	1.6	4.5	1.8	254.3	115.7	0.3	14.0
3	17.5	40.4	0	1.5	4.5	1.8	277.8	172.3	0.3	15.8
4										
AV	16.3	34.0	0.0	1.6	4.5	1.8	258.9	130.0	0.3	14.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	12.5	50.4	219.4	26.5	9.7	9.1	5.4	40.5	319.5	59.2	538.6	75.6
	12.2	58.9	231.6	29.9	14.2	11.3	4.3	35.2	323.7	66.5	531.4	82.9
	17.3	35.1	220.4	32.5	22.9	21.5	6.1	43.4	331.8	57.5	536.0	77.9
AV	14	48	224	30	16	14	5	40	325	61	535	79



AV												

AV

Museum Cambridge MAA
 Date Acquired by Museum 1950
 Collector G. K. Roth
 Date Collected 1945
 Collection Method Surface
 Place Collected Nacaugai, Taveuni
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	88	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	54	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	24	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Fiji	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	35	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	Sub rectangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.7	39.2	0	1.2	7.5	1.0	207.8	10.6	0.2	12.4	V A C U U M * G R E E N
2	14.0	34.7	-1	1.2	7.2	1.0	189.8	-40.6	0.2	11.9	
3	13.7	29.6	1	1.5	6.0	0.7	118.9	-27.6	0.1	8.9	
4											
AV	14.1	34.5	0.1	1.3	6.9	0.9	172.2	-19.2	0.2	11.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	39	65	219	21	24	20	4	27	178	31	65	8	Y E L L O W
	42	55	225	28	29	27	4	22	181	32	73	8	
	43	71	244	216	-127	28	-16	21	181	49	68	10	
AV	41	64	229	88	-25	25	-3	23	180	37	69	9	



Accession No. CMAA 1950.313 A

Record No. 333

pXRF_0002_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1950
 Collector G. K. Roth
 Date Collected 1945
 Collection Method Surface
 Place Collected Lovoni, Lovoni, Lomaiviti
 Material Diorite
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	241	Width Cutting Edge	no_data	Shoulder Back Max Width	
Max Width	48	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	48	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness		Top Max Width	
		Middle Max Front		Top Max Thickness	
Island Group	Fiji	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	
TAS (SiO ₂) Material	34	Middle Max Back		Length Rightangle to Bevel	no_data
				Cross Section Shape	Oval

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.1	34.9	-1	2.0	9.2	1.0	164.7	-127.2	0.1	8.4	V A C U U M * G R E E N
2	16.0	32.4	-1	2.1	9.8	0.9	142.1	-77.9	0.1	7.0	
3	16.8	34.2	-1	2.1	8.5	0.9	160.4	-106.5	0.1	8.9	
4											
AV	16.6	33.8	-0.7	2.1	9.2	1.0	155.7	-103.9	0.1	8.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	36	76	129	22	14	16	5	46	939	25	-18	12	Y E L L O W



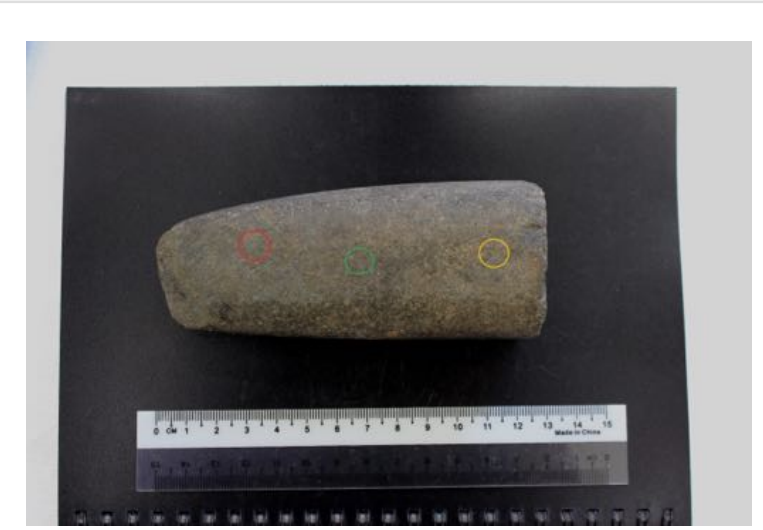
Museum Cambridge MAA
 Date Acquired by Museum 1950
 Collector G.K. Roth
 Date Collected 1945
 Collection Method Surface
 Place Collected Visoto, Lovoni, Lomaiviti,
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	126	Width Cutting Edge	no_data	Shoulder Back Max Width	
Max Width	51	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	38	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness		Top Max Width	
		Middle Max Front		Top Max Thickness	
Island Group	Fiji	Shoulder Front Max Width		Cutting Edge to Bevel	
TAS (SiO ₂) Material	31	Middle Max Back		Length Rightangle to Bevel	
				Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.1	30.3	-1	1.7	11.2	1.0	171.3	-171.1	0.1	7.4	V A C U U M * G R E E N
2	15.9	30.4	-1	2.1	9.8	1.0	150.0	-132.3	0.1	6.4	
3	15.7	33.3	-1	2.2	9.3	1.1	160.9	-112.8	0.1	6.4	
4											
AV	15.6	31.4	-0.8	2.0	10.1	1.0	160.7	-138.7	0.1	6.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
													Y E L L O W
AV	28	77	126	22	15	16	6	61	932	29	26	13	

Museum Cambridge MAA
 Date Acquired by Museum 1950
 Collector G. K. Roth
 Date Collected 1945
 Collection Method Surface
 Place Collected Visoto, Lovoni, Lomaiviti,
 Material Diorite
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	126	Width Cutting Edge	no_data	Shoulder Back Max Width
Max Width	51	Bevel Max Thickness		Shoulder Max Thickness
Max Thickness	38	Middle Width		Middle Max Thickness
Weight (g)		Middle Thickness		Top Max Width
		Middle Max Front		Top Max Thickness
		Shoulder Front Max Width		Cutting Edge to Bevel
Island Group	Fiji	Middle Max Back		Length Rightangle to Bevel
TAS (SiO ₂) Material	34		foidite	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.2	31.2	-1	2.3	7.6	0.7	127.7	-111.6	0.1	9.6	V A C U U M * G R E E N
2	15.2	33.3	-1	2.4	7.8	0.8	131.3	-99.2	0.1	9.1	
3	16.1	37.7	-0	2.3	7.4	0.7	124.4	-61.8	0.1	10.0	
4											
AV	15.5	34.1	-0.7	2.3	7.6	0.7	127.8	-90.9	0.1	9.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	35	166	158	23	17	18	6	82	1423	19	-21	14	Y E L L O W



Museum Cambridge MAA
 Date Acquired by Museum 1950
 Collector G. K. Roth
 Date Collected 1945
 Collection Method Surface
 Place Collected Dokidoki, Nasau, Mudu,
 Material Dolorite
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	21.1	Width Cutting Edge	no_data	Shoulder Back Max Width
Max Width	4.3	Bevel Max Thickness		Shoulder Max Thickness
Max Thickness	3.8	Middle Width		Middle Max Thickness
Weight (g)		Middle Thickness		Top Max Width
		Middle Max Front		Top Max Thickness
Island Group	Fiji	Shoulder Front Max Width		Cutting Edge to Bevel
TAS (SiO ₂) Material	46	Middle Max Back		Length Rightangle to Bevel
				Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.6	39.5	-0	0.4	10.9	1.0	176.3	-92.0	0.2	10.6	V A C U U M * G R E E N
2	17.7	48.1	0	0.2	11.5	1.0	198.3	-30.5	0.2	11.7	
3	17.3	50.4	0	0.3	11.3	1.0	206.8	0.8	0.3	12.0	
4											
AV	16.9	46.0	0.0	0.3	11.2	1.0	193.8	-40.6	0.2	11.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	28	22	136	22	19	18	2	10	341	26	45	7	Y E L L O W

Accession No. CMAA 1950.313D

Record No. 337

pXRF_0006_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1950
 Collector G. K. Roth
 Date Collected 1945
 Collection Method Surface
 Place Collected Nasesara, Moturiki,
 Material Diorite
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	94	Width Cutting Edge	no_data	Shoulder Back Max Width
Max Width	51	Bevel Max Thickness		Shoulder Max Thickness
Max Thickness	19	Middle Width		Middle Max Thickness
Weight (g)		Middle Thickness		Top Max Width
		Middle Max Front		Top Max Thickness
		Shoulder Front Max Width		Cutting Edge to Bevel
Island Group	Fiji	Middle Max Back		Length Rightangle to Bevel
TAS (SiO ₂) Material	33			Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.3	31.6	1	1.9	6.2	1.0	144.4	88.6	0.1	6.2	▲ GREEN * V A C U U M ▼
2	16.4	33.1	8	1.2	9.9	1.8	264.7	153.5	0.1	10.9	
3	15.3	33.6	-1	1.5	10.5	1.8	231.5	54.6	0.1	7.5	
4											
AV	16.7	32.8	2.7	1.5	8.9	1.5	213.5	98.9	0.1	8.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ GREEN G R E E N ▼
AV	134	81	128	24	20	20	3	29	1009	36	207	39	▲ YELLOW Y E L L O W ▼



Accession No. CMAA 1950.314A

Record No. 338

pXRF_0007_MAA

Museum Cambridge MAA

Date Acquired by Museum 1950

Collector G. K. Roth

Date Collected 1945

Collection Method Surface

Place Collected Manuku, Batiki, Lomaiviti,

Material Diorite

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	154	Width Cutting Edge	no_data	Shoulder Back Max Width	
Max Width	45	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	32	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness		Top Max Width	
Island Group	Fiji	Middle Max Front		Top Max Thickness	
TAS (SiO ₂) Material	33	Shoulder Front Max Width		Cutting Edge to Bevel	
		Middle Max Back		Length Rightangle to Bevel	
				Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.0	35.2	-0	1.0	7.2	0.9	196.3	-25.9	0.3	12.5	V A C U U M * G R E E N
2	12.9	32.2	-0	1.0	7.3	1.0	181.1	-68.9	0.2	11.2	
3	13.1	32.8	-0	0.9	7.1	0.9	192.1	-39.2	0.3	12.7	
4	13.0	33.4	-0.2	1.0	7.2	0.9	189.9	-44.7	0.2	12.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	32	24	105	18	10	11	3	15	203	28	64	12	Y E L L O W
	28	25	114	19	10	11	3	14	202	27	65	8	
	32	26	112	20	11	10	3	13	211	30	61	10	
AV	31	25	110	19	10	11	3	14	206	29	64	10	

Museum Cambridge MAA
 Date Acquired by Museum 1950
 Collector G. K. Roth
 Date Collected 1945
 Collection Method Surface
 Place Collected Yavu, Batiki, Lomaiviti, Fiji
 Material Diorite
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	118	Width Cutting Edge	no_data	Shoulder Back Max Width
Max Width	66	Bevel Max Thickness		Shoulder Max Thickness
Max Thickness	23	Middle Width		Middle Max Thickness
Weight (g)		Middle Thickness		Top Max Width
		Middle Max Front		Top Max Thickness
Island Group	Fiji	Shoulder Front Max Width		Cutting Edge to Bevel
TAS (SiO ₂) Material	47	Middle Max Back		Length Rightangle to Bevel
				Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.6	42.2	0	0.8	7.2	1.1	236.2	9.1	0.2	13.8	V A C U U M * G R E E N
2	13.9	42.7	0	1.0	6.0	1.1	249.6	79.6	0.2	16.0	
3	16.7	56.0	0	0.9	6.5	1.2	309.0	176.4	0.3	17.6	
4											
AV	15.1	47.0	0.1	0.9	6.6	1.1	264.9	88.4	0.3	15.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	28	30	106	21	12	12	3	14	167	34	91	9	Y E L L O W



Accession No. CMAA 1950.314C

Record No. 340

pXRF_0009_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1950
 Collector G. K. Roth
 Date Collected 1945
 Collection Method Surface
 Place Collected Mua, Batiki, Lomaiviti, Fiji
 Material Diorite
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	95	Width Cutting Edge	no_data	Shoulder Back Max Width
Max Width	47	Bevel Max Thickness		Shoulder Max Thickness
Max Thickness	22	Middle Width		Middle Max Thickness
Weight (g)		Middle Thickness		Top Max Width
		Middle Max Front		Top Max Thickness
		Shoulder Front Max Width		Cutting Edge to Bevel
Island Group	Fiji	Middle Max Back		Length Rightangle to Bevel
TAS (SiO ₂) Material	30			Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.5	31.1	-1	1.2	10.3	0.6	97.4	68.6	0.2	10.2	V A C U U M * G R E E N
2	12.5	31.9	-1	1.3	10.6	0.6	103.0	92.8	0.2	10.5	
3	12.6	26.1	-1	1.2	9.5	0.5	86.6	31.4	0.1	9.6	
4											
AV	12.5	29.7	-0.7	1.2	10.2	0.6	95.7	64.3	0.1	10.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	85	145	118	19	12	15	5	51	1010	21	-56	14	Y E L L O W
	101	293	120	19	15	17	4	43	1076	24	-60	12	
	82	226	238	22	26	25	3	47	1045	22	-68	15	
AV	89	221	159	20	17	19	4	47	1044	22	-61	14	

Accession No. CMAA 1950.315A

Record No. 341

pXRF_0010_MAA

Museum Cambridge MAA

Date Acquired by Museum 1950

Collector G. K. Roth

Date Collected 1945

Collection Method Surface

Place Collected Vanuaso, Vanuaso,

Material Diorite

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	204	Width Cutting Edge	no_data	Shoulder Back Max Width	
Max Width	54	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	34	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness		Top Max Width	
		Middle Max Front		Top Max Thickness	
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Fiji	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	37			Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.4	38.5	-0	1.3	12.7	0.7	145.4	189.4	0.2	11.0	GREEN* V A C U U M
2	12.8	36.5	-1	1.4	11.3	0.6	108.1	94.6	0.1	10.2	
3	12.9	35.0	-1	1.3	11.7	0.6	108.3	114.5	0.1	10.4	
4											
AV	13.0	36.7	-0.5	1.3	11.9	0.6	120.6	132.8	0.1	10.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	80	136	160	20	15	18	7	100	1044	15	-65	14	YELLOW
	84	105	200	16	13	16	6	95	1055	17	-60	14	
	83	115	129	18	14	17	6	78	1066	19	-58	14	
AV	82	119	163	18	14	17	6	91	1055	17	-61	14	



Museum Cambridge MAA
 Date Acquired by Museum 1950
 Collector G. K. Roth
 Date Collected 1931
 Collection Method Surface
 Place Collected Solevu, Bua Province,
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	175	Width Cutting Edge	no_data	Shoulder Back Max Width
Max Width	25	Bevel Max Thickness		Shoulder Max Thickness
Max Thickness	38	Middle Width		Middle Max Thickness
Weight (g)		Middle Thickness		Top Max Width
		Middle Max Front		Top Max Thickness
		Shoulder Front Max Width		Cutting Edge to Bevel
Island Group	Fiji	Middle Max Back		Length Rightangle to Bevel
TAS (SiO ₂) Material	28			Cross Section Shape

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.9	29.4	-1	1.0	10.9	1.3	223.8	146.0	0.2	11.4	GREEN* V A C U U M
2	15.6	28.2	-1	1.1	10.2	1.1	184.8	104.1	0.1	11.1	
3	15.5	25.2	-1	1.1	9.6	1.0	170.2	61.8	0.1	10.6	
4											
AV	15.7	27.6	-1.0	1.1	10.2	1.1	192.9	103.9	0.1	11.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													GREEN
													YELLOW
AV	95	118	151	20	20	22	4	47	1116	24	-58	13	



Accession No. CMAA 1916.108

Record No. 343

pXRF_0012_MAA

Museum Cambridge MAA

Date Acquired by Museum 1916

Collector J. Y. Buchanan

Date Collected 1895

Collection Method Surface

Place Collected Fiji

Material Stone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	200	Width Cutting Edge	no_data	Shoulder Back Max Width	
Max Width	47	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	38	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness		Top Max Width	
		Middle Max Front		Top Max Thickness	
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Fiji	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	34			Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.6	27.4	-1	1.8	10.6	0.7	104.7	-102.2	0.1	6.7	GREEN* VACUUM
2	17.1	32.0	-1	2.0	10.0	0.7	107.4	-23.2	0.1	6.6	
3	17.5	42.1	0	1.8	12.7	1.0	157.6	-75.7	0.2	8.1	
4											
AV	16.4	33.8	-0.6	1.9	11.1	0.8	123.2	-67.1	0.1	7.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb		
													GREEN	
														YELLOW
AV	30	262	92	23	23	21	4	44	867	26	-10	11		

Museum Cambridge MAA
 Date Acquired by Museum 1917
 Collector A. Von Hügel
 Date Collected 1875
 Collection Method Surface
 Place Collected Fiji / New Caledonia
 Material Dolerite, glassy andesite
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	236	Width Cutting Edge	no_data	Shoulder Back Max Width
Max Width	105	Bevel Max Thickness		Shoulder Max Thickness
Max Thickness	25	Middle Width		Middle Max Thickness
Weight (g)		Middle Thickness		Top Max Width
		Middle Max Front		Top Max Thickness
		Shoulder Front Max Width		Cutting Edge to Bevel
Island Group	Fiji_New Caledonia	Middle Max Back		Length Rightangle to Bevel
TAS (SiO ₂) Material	32			Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	12.9	28.4	0	0.8	8.7	0.9	146.0	-119.4	0.2	9.6
2	13.9	36.1	-0	0.6	9.0	0.9	179.8	-40.9	0.2	11.5
3	12.9	31.6	0	0.7	8.8	0.9	165.1	-113.6	0.2	10.6
4										
AV	13.3	32.0	0.1	0.7	8.8	0.9	163.6	-91.3	0.2	10.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV	34	48	98	19	12	12	2	11	124	32	86	10



Accession No. CMAA 1918.20

Record No. 345

pXRF_0014_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1918
 Collector F.J.H. Jenkinson
 Date Collected By 1918
 Collection Method Surface
 Place Collected New Caledonia
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	95	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	New Caledonia	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	36			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	2.4	36.4	-0	0.4	13.5	0.1	20.7	56.2	0.1	5.6	GREEN* VACUUM
2	1.8	37.3	-0	0.3	13.6	0.1	15.5	139.1	0.1	5.5	
3	2.5	34.2	-0	0.3	13.3	0.1	20.5	289.9	0.1	5.5	
4											
AV	2.2	36.0	-0.4	0.3	13.5	0.1	18.9	161.7	0.1	5.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	912	54	76	15	11	9	0	4	117	10	7	6	YELLOW
	1779	59	71	15	15	10	2	6	94	8	15	4	
	2223	56	60	16	26	9	2	11	102	11	14	5	
AV	1638	56	69	15	17	10	1	7	104	10	12	5	



Accession No. CMAA 98506

Record No. 346

pXRF_0015_MAA

Museum Cambridge MAA

Date Acquired by Museum 1918

Collector F.J.H. Jenkinson

Date Collected By 1918

Collection Method Surface

Place Collected New Caledonia

Material Greenstone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	New Caledonia	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	33	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	no_data

foidite

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	4.7	30.8	-1	0.3	14.8	0.2	39.2	296.4	0.1	4.0	V A C U U M * G R E E N
2	3.0	36.6	-0	0.2	15.2	0.1	37.9	119.6	0.0	4.2	
3	4.6	32.5	-0	0.3	14.6	0.2	41.3	293.4	0.1	4.0	
4											
AV	4.1	33.3	-0.5	0.3	14.9	0.2	39.5	236.5	0.1	4.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	2159	62	66	16	21	25	2	5	235	12	-18	6	Y E L L O W
	1036	59	62	16	10	9	1	4	234	9	-17	5	
	2400	59	59	16	11	11	1	3	224	9	-22	6	
AV	1865	60	62	16	14	15	1	4	231	10	-19	6	

Accession No. CMAA Z 6873

Record No. 347

pXRF_0016_MAA

Museum Cambridge MAA

Date Acquired by Museum Unknown

Collector S.P. Oliver

Date Collected By 1892

Collection Method Surface

Place Collected New Caledonia

Material Greenstone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group New Caledonia Middle Max Front Top Max Thickness

TAS (SiO₂) Material 45 basalt Shoulder Front Max Width Cutting Edge to Bevel

Middle Max Back Length Rightangle to Bevel

Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.0	46.2	0	2.8	6.4	0.4	52.4	115.5	0.1	5.6	V A C U U M * G R E E N
2	14.7	44.2	0	3.1	5.7	0.4	53.7	114.9	0.1	5.9	
3	14.6	45.7	0	3.2	5.1	0.4	48.0	56.6	0.1	5.6	
4											
AV	14.8	45.4	0.3	3.0	5.7	0.4	51.3	95.6	0.1	5.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	65	71	79	19	12	8	6	43	59	16	178	6	Y E L L O W



Museum Cambridge MAA
 Date Acquired by Museum 1918
 Collector F.J.H. Jenkinson
 Date Collected By 1918
 Collection Method Surface
 Place Collected New Caledonia
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group New Caledonia Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 32 foidite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	4.2	34.8	-1	0.1	15.8	0.2	38.4	230.9	0.1	4.2	V A C U U M * G R E E N
2	4.5	31.7	-1	0.2	15.4	0.2	39.5	61.3	0.1	4.2	
3	5.6	30.8	-0	0.3	14.2	0.2	49.5	207.2	0.1	4.1	
4											
AV	4.8	32.4	-0.6	0.2	15.1	0.2	42.5	166.5	0.1	4.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
													Y E L L O W
AV	919	64	72	16	13	10	1	3	118	9	15	3	

Museum Cambridge MAA
 Date Acquired by Museum 1918
 Collector A. Von Hügel
 Date Collected By 1918
 Collection Method Surface
 Place Collected New Caledonia
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group New Caledonia Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 30 foidite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.9	27.7	1	1.2	5.3	1.1	214.6	-71.4	0.1	11.5	VACUUM GREEN*
2	12.7	29.5	-0	1.2	5.2	1.0	207.8	-74.4	0.1	12.4	
3	13.1	33.4	0	1.1	5.0	0.9	235.1	71.5	0.1	14.1	
4											
AV	12.9	30.2	0.3	1.2	5.2	1.0	219.2	-24.8	0.1	12.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
37		11891	83	19	14	14	3	12	133	28	69	8	
38		15380	84	20	16	15	3	12	139	27	69	8	
39		5203	82	20	12	13	3	14	132	29	74	11	
AV	38	10825	83	20	14	14	3	12	135	28	71	9	



Accession No. CMAA 1918.31

Record No. 350

pXRF_0019_MAA

Museum Cambridge MAA

Date Acquired by Museum 1918

Collector A. Von Hügel

Date Collected By 1918

Collection Method Surface

Place Collected New Caledonia

Material Greenstone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group New Caledonia Middle Max Front Top Max Thickness

TAS (SiO₂) Material 29 foidite Shoulder Front Max Width Cutting Edge to Bevel

Middle Max Back Length Rightangle to Bevel

Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	4.4	36.3	-0	0.6	12.9	0.1	64.1	157.2	0.0	4.4	V A C U U M * G R E E N
2	7.0	22.9	0	0.8	11.8	0.2	54.6	199.6	0.0	3.9	
3	7.2	28.8	0	0.6	12.3	0.1	75.6	31.1	0.0	3.7	
4											
AV	6.2	29.3	0.2	0.7	12.3	0.1	64.8	129.3	0.0	4.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	793	59	65	16	15	10	0	3	229	9	-22	3	Y E L L O W
	551	60	67	16	12	9	1	5	258	8	-27	3	
	834	56	59	16	10	9	1	4	163	9	-2	4	
AV	726	58	63	16	12	9	1	4	217	9	-17	3	

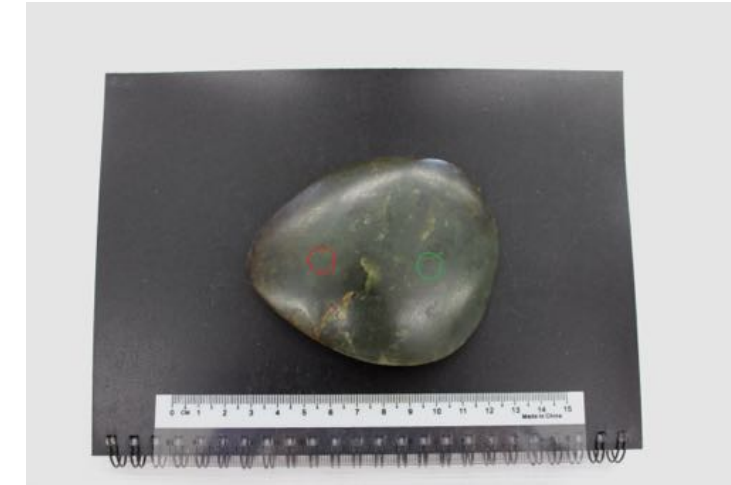


Museum Cambridge MAA
 Date Acquired by Museum 1918
 Collector A. Von Hügel
 Date Collected By 1918
 Collection Method Surface
 Place Collected New Caledonia
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group New Caledonia Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 32 foidite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	4.1	29.8	0	0.5	12.8	0.2	56.3	114.9	0.1	3.9	V A C U U M * G R E E N
2	3.4	32.2	-0	0.5	13.0	0.2	51.7	160.6	0.1	4.0	
3	2.6	34.9	-0	0.4	13.5	0.2	39.5	120.2	0.1	4.1	
4											
AV	3.4	32.3	-0.1	0.5	13.1	0.2	49.2	131.9	0.1	4.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	774	59	58	17	8	7	-0	3	73	8	22	5	Y E L L O W
	568	60	63	16	11	8	0	2	74	9	23	4	
	558	59	64	16	11	10	-1	2	75	8	20	3	
AV	633	59	62	16	10	8	-0	2	74	8	22	4	



Accession No. CMAA 1917.118.44

Record No. 352

pXRF_0021_MAA

Museum Cambridge MAA

Date Acquired by Museum 1917

Collector P.D. Montague

Date Collected 1914

Collection Method Surface

Place Collected Oubatche, New Caledonia

Material Greenstone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group New Caledonia Middle Max Front Top Max Thickness

TAS (SiO₂) Material 34 foidite Shoulder Front Max Width Cutting Edge to Bevel

Length Rightangle to Bevel

Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	4.3	33.6	-0	0.4	13.0	0.2	35.8	405.7	0.1	5.5	VACUUM GREEN*
2	4.4	30.5	-0	0.4	13.0	0.2	34.7	147.4	0.0	5.1	
3	2.0	38.5	-0	0.3	13.6	0.1	24.1	353.5	0.0	5.7	
4											
AV	3.5	34.2	-0.3	0.3	13.2	0.2	31.6	302.2	0.0	5.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	1804	61	65	16	15	9	1	3	97	13	62	5	YELLOW
	1475	55	65	16	9	7	-0	4	94	8	13	5	
	1947	54	60	16	11	7	-0	2	93	9	14	2	
AV	1742	56	63	16	12	8	0	3	95	10	30	4	



Accession No. CMAA 1917.118.45

Record No. 353

pXRF_0022_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1917
 Collector P.D. Montague
 Date Collected 1914
 Collection Method Surface
 Place Collected New Caledonia
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group New Caledonia Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 30 foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	5.2	26.4	-0	0.5	12.4	0.1	42.1	238.0	0.1	4.5	V A C U U M * G R E E N
2	5.0	29.7	-0	0.5	12.5	0.1	40.1	288.1	0.1	4.5	
3	4.2	32.8	-0	0.4	13.0	0.1	27.6	287.9	0.1	4.9	
4											
AV	4.8	29.6	-0.1	0.5	12.6	0.1	36.6	271.3	0.1	4.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
1972	58	82	15	9	7	-0	3	88	8	16	2	Y E L L O W	
2201	57	81	15	10	7	-0	2	87	8	13	2		
1671	58	92	14	17	10	1	5	89	9	20	5		
AV	1948	58	85	15	12	8	0	3	88	8	16	3	



Accession No. CMAA 1918.29

Record No. 354

pXRF_0023_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1918
 Collector A. Von Hügel
 Date Collected By 1918
 Collection Method Surface
 Place Collected New Caledonia
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group New Caledonia Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 30 foidite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	5.0	33.3	-1	0.5	14.1	0.2	38.2	219.8	0.1	4.3	VACUUM GREEN*
2	8.3	27.5	-1	0.5	13.8	0.2	40.4	161.0	0.1	4.2	
3	5.4	28.4	-0	0.6	13.2	0.2	50.5	130.5	0.0	4.0	
4											
AV	6.2	29.7	-0.7	0.5	13.7	0.2	43.0	170.4	0.0	4.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	1881	63	59	16	25	25	2	5	358	9	-49	3	YELLOW
	793	61	59	16	15	11	0	4	324	10	-38	5	
	1841	64	50	16	14	12	2	5	331	9	-36	5	
AV	1505	62	56	16	18	16	1	4	338	9	-41	4	



Accession No. CMAA 1917.118.48

Record No. 355

pXRF_0024_MAA

Museum Cambridge MAA

Date Acquired by Museum 1917

Collector P.D. Montague

Date Collected 1914

Collection Method Surface

Place Collected New Caledonia

Material Serpentine

Object Knife

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group New Caledonia Middle Max Front Top Max Thickness

TAS (SiO₂) Material 31 foidite Shoulder Front Max Width Cutting Edge to Bevel

Middle Max Back Length Rightangle to Bevel

Cross Section Shape

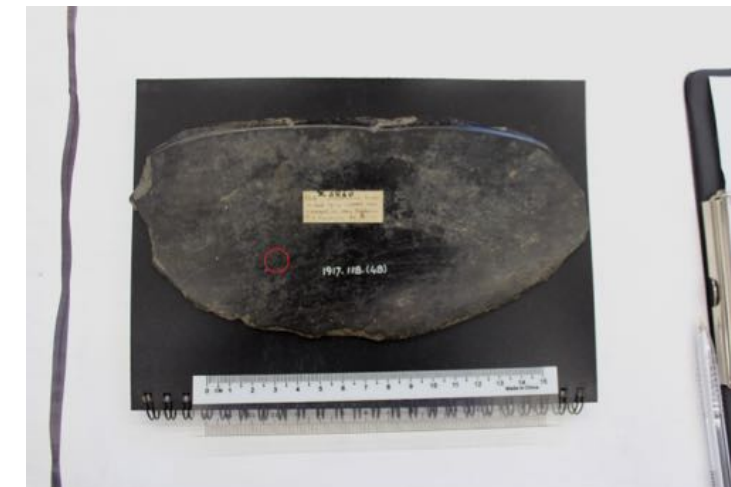
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	8.1	28.5	-0	0.8	12.2	0.2	50.1	351.7	0.1	4.7	V A C U U M * G R E E N
2	3.2	33.2	-0	0.4	13.1	0.1	39.3	221.1	0.1	4.6	
3	3.9	32.2	-0	0.5	13.0	0.2	40.1	354.4	0.1	4.6	
4											
AV	5.1	31.3	-0.3	0.6	12.8	0.2	43.2	309.1	0.1	4.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	1574	56	92	14	15	8	0	3	101	10	15	6	Y E L L O W
	1165	56	82	15	11	7	-0	3	102	9	13	3	
	1488	56	85	14	17	7	0	4	100	9	11	4	
AV	1409	56	86	15	14	8	0	3	101	10	13	4	



Museum Cambridge MAA
 Date Acquired by Museum 1918
 Collector A. Von Hügel
 Date Collected By 1918
 Collection Method Surface
 Place Collected New Caledonia
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group New Caledonia	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 33	<input type="text" value="foidite"/>	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	3.3	32.7	-0	0.4	13.3	0.2	27.6	345.4	0.1	4.6	V A C U U M * G R E E N
2	3.4	31.5	-0	0.4	13.2	0.1	34.3	266.7	0.1	4.6	
3	2.3	36.0	-0	0.4	13.5	0.1	29.4	214.4	0.1	4.8	
4											
AV	3.0	33.4	-0.3	0.4	13.3	0.2	30.5	275.5	0.1	4.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
	1399	57	108	13	15	13	0	2	72	8	17	3	
	1374	58	59	16	11	9	0	4	72	8	21	4	
	1095	57	64	16	11	9	0	2	71	7	21	4	
AV	1289	57	77	15	12	10	0	3	72	8	20	4	



Accession No. CMAA 1930.69

Record No. 357

pXRF_0026_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1930
 Collector H.J. Hughes (Miss)
 Date Collected 1896
 Collection Method Purchased
 Place Collected New Zealand
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length 93 Width Cutting Edge 41 Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group New Zealand Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 42

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.9	44.5	0	2.8	5.3	1.0	149.8	20.4	0.1	6.3	VACUUM* GREEN*
2	12.9	39.3	-0	2.6	5.9	0.9	136.2	82.4	0.1	6.3	
3	13.1	41.6	0	2.7	5.4	0.9	132.6	-23.6	0.1	6.3	
4											
AV	13.0	41.8	0.1	2.7	5.5	1.0	139.5	26.4	0.1	6.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
	28	119	88	23	29	26	8	103	522	17	331	15	
	27	72	93	22	26	22	8	106	544	15	204	15	
	24	60	90	21	23	21	9	105	507	15	183	15	
AV	26	84	91	22	26	23	8	105	524	16	239	15	



Accession No. CMAA 1922.55

Record No. 358

pXRF_0027_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1922
 Collector S.G. Perceval
 Date Collected By 1921
 Collection Method Surface
 Place Collected New Zealand
 Material Greenstone, Jade,
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length 220 Width Cutting Edge 75 Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group New Zealand Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 40 foidite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	2.4	33.1	-0	0.3	13.3	0.2	27.8	20.2	0.1	5.1	VACUUM* GREEN*
2	0.3	41.4	-0	0.2	13.8	0.1	6.6	-8.8	0.1	5.3	
3	-0.8	44.3	-0	0.1	14.2	0.1	9.0	7.7	0.1	5.7	
4											
AV	0.6	39.6	-0.2	0.2	13.8	0.1	14.5	6.4	0.1	5.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	360	55	68	16	8	7	1	4	65	11	21	5	YELLOW
	345	55	72	16	8	7	0	2	65	12	21	3	
	341	54	73	16	8	8	0	3	64	12	24	1	
AV	349	55	71	16	8	8	0	3	64	12	22	3	



Museum Cambridge MAA
 Date Acquired by Museum 1922
 Collector Hocken
 Date Collected By 1922
 Collection Method Surface
 Place Collected Henley, Otago, New
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length 334 Width Cutting Edge 56 Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group New Zealand Length Rightangle to Bevel
 Middle Max Back
 TAS (SiO₂) Material 33 foidite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil Vacuum: 15 kV 25 microA No Filter Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.7	38.7	-0	1.2	7.2	0.8	145.5	39.4	0.2	10.7	V A C U U M * G R E E N
2	12.6	32.0	0	1.0	7.5	0.8	136.2	11.6	0.2	9.5	
3	12.3	26.9	0	1.1	7.2	0.7	116.1	-32.9	0.1	8.7	
4											
AV	12.9	32.5	0.1	1.1	7.3	0.8	132.6	6.0	0.2	9.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
													Y E L L O W
AV	56	140	102	20	31	28	3	16	270	24	60	8	



Accession No. CMAA 1951.1008D

Record No. 361

pXRF_0030_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1951
 Collector J.H. Warcup
 Date Collected By 1951
 Collection Method Surface
 Place Collected New Zealand
 Material Greenstone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge no_data Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group New Zealand Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 34 foidite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	2.3	37.7	-0	0.3	13.5	0.1	22.4	497.1	0.1	5.7	GREEN* VACUUM
2	4.2	30.4	-0	0.5	13.0	0.2	21.7	555.2	0.1	5.4	
3	3.4	32.9	-0	0.3	13.2	0.1	20.8	513.5	0.1	5.6	
4											
AV	3.3	33.6	-0.3	0.4	13.2	0.1	21.7	521.9	0.1	5.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	2175	55	126	12	9	9	0	4	59	9	27	3	YELLOW
	2106	53	113	13	9	8	1	5	60	8	21	4	
	2337	55	123	13	9	10	1	5	62	9	23	4	
AV	2206	54	121	13	9	9	1	4	61	9	24	4	



Museum Cambridge MAA
 Date Acquired by Museum 1923
 Collector F. Ransom
 Date Collected By 1923
 Collection Method Surface
 Place Collected New Zealand (?)
 Material Jade
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length 47 Width Cutting Edge no_data Shoulder Back Max Width
 Max Width 22 Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group New Zealand Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 62 andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	-5.7	61.8	1	0.1	14.8	0.1	12.9	15.5	0.2	5.8	V A C U U M * G R E E N
2	-5.6	61.3	1	0.1	14.8	0.1	14.1	17.5	0.2	5.8	
3	-5.7	61.7	1	0.1	14.8	0.1	11.4	15.5	0.2	5.8	
4	-5.7	61.7	1	0.1	14.8	0.1	11.4	15.5	0.2	5.8	
AV	-5.7	61.6	0.6	0.1	14.8	0.1	12.8	16.2	0.2	5.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
255	58	70	16	7	5	-2	1	57	21	25	2	Y E L L O W	
257	58	70	16	8	5	-1	0	57	23	29	2		
268	58	71	16	7	5	-1	1	57	21	28	2		
AV	260	58	70	16	7	5	-1	1	57	22	27	2	

Accession No. CMAA 1923.338

Record No. 363

pXRF_0032_MAA

Museum Cambridge MAA
 Date Acquired by Museum 1923
 Collector F. Ransom
 Date Collected By 1923
 Collection Method Surface
 Place Collected New Zealand (?)
 Material Jade
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	New Zealand	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	41	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	0.8	39.1	-0	0.1	14.2	0.1	28.7	359.9	0.2	6.4
2	0.9	39.4	-0	0.1	14.2	0.1	26.1	381.4	0.2	6.4
3	-0.5	45.9	-0	0.1	14.8	0.1	15.5	562.0	0.2	6.5
4										
AV	0.4	41.5	-0.4	0.1	14.4	0.1	23.4	434.5	0.2	6.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV	1191	52	127	12	7	6	1	4	66	9	23	3
	1196	51	129	12	7	6	0	4	66	9	22	5
	1211	54	77	15	15	14	1	5	66	10	22	6
AV	1199	52	111	13	10	9	1	4	66	9	22	5

Accession No. CMAA 1923.338C

Record No. 364

pXRF_0033_MAA

Museum Cambridge MAA

Date Acquired by Museum 1923

Collector F. Ransom

Date Collected By 1923

Collection Method Surface

Place Collected New Zealand (?)

Material Jade

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group New Zealand Middle Max Front Top Max Thickness

TAS (SiO₂) Material 54 basaltic andesite Shoulder Front Max Width Cutting Edge to Bevel

Length Rightangle to Bevel

Cross Section Shape no_data

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	-2.3	50.5	0	0.1	14.8	0.1	11.8	30.8	0.2	5.4	V A C U U M * G R E E N
2	-5.0	59.6	0	-0.0	15.5	0.1	8.4	37.6	0.2	5.8	
3	-3.1	53.0	0	0.1	14.9	0.1	9.8	45.3	0.2	5.5	
4											
AV	-3.4	54.3	0.2	0.0	15.1	0.1	10.0	37.9	0.2	5.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
													Y E L L O W
AV	1302	55	69	15	7	5	-1	3	63	8	22	1	
	1313	55	69	16	7	6	-1	2	62	8	21	2	
	1368	55	67	16	7	4	-0	2	62	8	22	4	
AV	1328	55	68	16	7	5	-1	2	62	8	22	2	

Museum Cambridge MAA
 Date Acquired by Museum 1923
 Collector F. Ransom
 Date Collected By 1923
 Collection Method Surface
 Place Collected New Zealand (?)
 Material Jade
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group New Zealand Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 56 basaltic andesite Cross Section Shape no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	-2.7	55.1	0	0.2	14.5	0.1	36.7	201.5	0.1	5.1
2	-3.4	56.7	0	0.2	14.8	0.1	31.7	289.4	0.1	5.2
3	-3.5	57.2	0	0.1	14.8	0.1	29.1	298.1	0.1	5.2
4										
AV	-3.2	56.3	0.3	0.2	14.7	0.1	32.5	263.0	0.1	5.2

GREEN*
V
A
C
U
U
M

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	1661	55	114	13	8	7	1	4	63	9	24	5
	1833	54	114	13	7	4	-1	2	58	7	27	3
	1869	55	116	13	7	5	-1	2	59	7	19	3
AV	1787	55	115	13	7	5	-0	3	60	8	23	4

GREEN

YELLOW



Museum Cambridge MAA
 Date Acquired by Museum 1970
 Collector H. Wayne
 Date Collected 1970
 Collection Method Purchased from Ralph
 Place Collected Kiriwina, Trobriand
 Material Greenstone
 Object Adze
 Type Ceremonial
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group PNG Length Rightangle to Bevel
 Middle Max Back Cross Section Shape no_data
 TAS (SiO₂) Material 33 foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.8	33.3	-1	0.9	10.0	1.2	188.8	84.7	0.1	10.1
2	15.1	32.2	-1	1.0	9.6	1.1	184.3	98.4	0.1	10.4
3	14.3	32.8	-1	0.8	10.2	1.2	188.4	85.2	0.1	10.2
4										
AV	14.7	32.8	-0.6	0.9	10.0	1.2	187.2	89.4	0.1	10.2

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	82	40	99	20	12	13	2	11	392	30	76	13
	74	31	107	21	11	13	4	33	364	25	95	16
	77	29	101	21	11	12	3	23	392	27	89	16
AV	78	33	102	20	11	13	3	22	383	27	87	15



Museum Cambridge Sedgwick
 Date Acquired by Museum 1700
 Collector William Dampier
 Date Collected 1699 - 1700
 Collection Method Surface
 Place Collected Guam Island, Mariana
 Material Stone
 Object Sling shot
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group Mariana Islands Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 15 Cross Section Shape no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.2	14.9	9	-3.2	51.1	0.2	176.9	517.4	-0.0	1.8	V A C U U M * G R E E N
2	16.4	14.8	7	-3.3	51.2	0.2	174.2	507.4	-0.0	1.8	
3	16.3	14.9	5	-3.1	48.6	0.2	181.3	530.1	-0.0	1.8	
4											
AV	16.3	14.9	7.1	-3.2	50.3	0.2	177.4	518.3	-0.0	1.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	26	116	76	16	29	26	2	7	204	15	-1	8	Y E L L O W



Museum Cambridge Sedgwick
 Date Acquired by Museum 1700
 Collector William Dampier
 Date Collected 1699 - 1700
 Collection Method Surface
 Place Collected New Britain, Papua New
 Material Basalt
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group PNG Middle Max Front Top Max Thickness
 TAS (SiO₂) Material 37 foidite Shoulder Front Max Width Cutting Edge to Bevel
 Cross Section Shape no_data
 Middle Max Back Length Rightangle to Bevel

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.2	35.3	-0	0.6	10.7	0.6	98.2	41.8	0.1	9.7	V A C U U M * G R E E N
2	15.4	36.7	-0	0.5	10.9	0.6	100.1	22.2	0.1	9.7	
3	15.3	37.5	-0	0.5	11.0	0.6	98.1	74.4	0.1	9.8	
4											
AV	15.3	36.5	-0.3	0.5	10.9	0.6	98.8	46.1	0.1	9.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	67	87	88	20	17	16	2	9	271	19	13	6	Y E L L O W
	59	68	88	19	17	17	2	8	278	19	15	7	
	63	60	87	22	33	29	2	7	280	20	11	5	
AV	63	72	87	20	23	21	2	8	276	19	13	6	



Museum Cambridge MAA
 Date Acquired by Museum 1903
 Collector MacGregor
 Date Collected By 1903
 Collection Method Surface
 Place Collected Taboru, Papua New
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group PNG Middle Max Front Top Max Thickness
 Material foidite Shoulder Front Max Width Cutting Edge to Bevel
 Cross Section Shape no_data
 TAS (SiO₂) Material 29

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	13.5	34.9	-0	0.7	10.6	1.0	163.9	55.1	0.1	9.0
2	13.7	32.7	-0	0.7	10.5	1.1	171.6	52.9	0.1	8.8
3	13.1	28.3	-0	0.9	10.0	1.1	163.7	-3.5	0.1	7.9
4	13.8	22.0	-2	0.9	10.0	0.8	113.1	46.8	0.1	6.9
AV	13.5	29.5	-0.6	0.8	10.3	1.0	153.1	37.8	0.1	8.2

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
74	32	88	20	10	10	2	10	617	26	94	14	
73	32	98	22	16	16	2	10	619	29	84	14	
76	36	98	19	11	11	3	12	631	26	77	14	
94	43	176	50	27	18	2	17	669	27	73	15	
AV	80	36	115	28	16	14	2	634	27	82	14	



Accession No. CMAA Z 9854

Record No. 370

pXRF_0039_MAA

Museum Cambridge MAA

Date Acquired by Museum Unknown

Collector A. C. Haddon

Date Collected Unknown

Collection Method Surface

Place Collected Papua New Guinea

Material Stone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group PNG Middle Max Front Top Max Thickness

TAS (SiO₂) Material 30 foidite Cutting Edge to Bevel

Length Rightangle to Bevel

Cross Section Shape no_data

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	10.4	34.8	-0	0.3	11.1	0.8	140.6	156.2	0.2	11.0	V A C U U M * G R E E N
2	9.8	29.6	-0	0.3	11.2	1.0	157.0	136.1	0.1	9.2	
3	10.7	25.7	-1	0.5	10.7	0.9	144.9	92.0	0.1	9.4	
4											
AV	10.3	30.0	-0.5	0.4	11.0	0.9	147.5	128.1	0.2	9.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	82	34	92	18	43	40	2	7	108	21	73	7	Y E L L O W
	57	35	95	17	26	26	2	6	97	23	102	11	
	72	38	93	18	26	26	2	8	81	19	123	8	
AV	70	36	93	18	32	31	2	7	95	21	99	9	



Museum	Cambridge MAA
Date Acquired by Museum	1922
Collector	W. Cooke Daniels & C.G.
Date Collected	By 1922
Collection Method	Surface
Place Collected	Quarry, Mekeo District,
Material	Stone
Object	Adze
Type	n/a
Additional Museum Notes	<input checked="" type="radio"/> Yes <input type="radio"/> No

Measurements (mm)	
Max Length	no_data
Max Width	
Max Thickness	
Weight (g)	
Island Group	PNG
TAS (SiO ₂) Material	51 <input type="text" value="basalt"/>

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	5.3	50.1	0	0.9	9.9	0.6	72.9	-22.3	-0.2	4.9	V A C U U M * G R E E N
2	7.3	51.0	0	1.0	9.2	0.6	74.2	-11.6	-0.1	5.2	
3	8.1	50.8	0	1.1	8.8	0.6	76.1	-14.3	-0.1	5.2	
4											
AV	6.9	50.6	0.3	1.0	9.3	0.6	74.4	-16.0	-0.1	5.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	42	58	84	16	9	5	0	8	146	20	72	7	Y E L L O W
	45	57	90	15	8	5	1	10	107	16	87	5	
	53	57	91	15	8	4	-0	9	112	17	99	4	
AV	47	57	89	15	8	5	0	9	122	18	86	6	

Museum Cambridge MAA
 Date Acquired by Museum 1922
 Collector C.G. Seligman
 Date Collected By 1922
 Collection Method Surface
 Place Collected Papua New Guinea
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group PNG Length Rightangle to Bevel
 Middle Max Back Cross Section Shape no_data
 TAS (SiO₂) Material 32 foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.3	31.6	-1	1.7	7.2	1.9	247.0	68.1	0.1	9.9	V A C U U M * G R E E N
2	14.2	32.6	-0	1.9	7.0	1.8	241.5	55.7	0.1	9.4	
3	14.2	30.6	-0	1.9	6.5	1.7	236.7	75.8	0.1	9.0	
4	14.2	31.6	-0.5	1.8	6.9	1.8	241.8	66.5	0.1	9.4	
AV	14.2	31.6	-0.5	1.8	6.9	1.8	241.8	66.5	0.1	9.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	142	31	109	22	15	15	4	68	659	26	287	24	Y E L L O W
	123	26	101	24	14	14	5	67	679	26	287	25	
	136	31	94	21	11	12	6	68	695	25	307	24	
AV	134	29	102	22	13	13	5	68	678	26	294	24	



Accession No. CMAA 1922.306

Record No. 373

pXRF_0042_MAA

Museum Cambridge MAA

Date Acquired by Museum 1922

Collector C.G. Seligman

Date Collected By 1922

Collection Method Surface

Place Collected Fly River, Western

Material Stone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group PNG Middle Max Front Top Max Thickness

TAS (SiO₂) Material 41 Shoulder Front Max Width Cutting Edge to Bevel

Micro-basalt / basanite Length Rightangle to Bevel

Cross Section Shape no_data

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.0	39.3	-0	2.3	5.7	1.6	234.9	168.9	0.1	9.9	V A C U U M * G R E E N
2	14.6	37.3	-0	2.3	6.4	1.8	234.6	34.3	0.1	8.6	
3	14.5	47.6	0	2.1	7.3	2.0	256.2	58.8	0.1	8.5	
4											
AV	14.7	41.4	-0.1	2.2	6.5	1.8	241.9	87.3	0.1	9.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	123	32	107	24	14	15	5	99	791	20	308	22	Y E L L O W
	130	30	107	24	13	13	4	73	709	26	315	24	
	55	45	91	22	13	13	5	51	883	32	438	31	
AV	103	36	102	23	13	13	5	74	795	26	354	26	

Museum Cambridge MAA
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Length Rightangle to Bevel
 Middle Max Back
 TAS (SiO₂) Material 37 foidite Cross Section Shape no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.3	33.6	-1	0.3	10.4	1.3	230.2	-3.6	0.2	12.8	V A C U U M * G R E E N
2	15.8	42.1	-0	0.2	10.5	1.5	306.1	157.8	0.2	15.8	
3	13.8	34.9	-1	0.2	10.5	1.4	271.5	68.2	0.2	13.3	
4											
AV	14.6	36.9	-0.4	0.2	10.5	1.4	269.2	74.1	0.2	13.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	104	108	144	51	50	71	-1	11	171	44	143	13	Y E L L O W
	109	117	119	49	57	67	-1	9	169	45	138	19	
	95	128	106	25	23	22	2	7	142	37	137	16	
AV	102	118	123	41	44	53	-0	9	161	42	139	16	



Museum Cambridge MAA
 Date Acquired by Museum 1902
 Collector R.W. Abbott
 Date Collected By 1902
 Collection Method Surface
 Place Collected Bouvgainville Island,
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group PNG Middle Max Front Top Max Thickness
 TAS (SiO₂) Material 33 foidite Cutting Edge to Bevel
 Length Rightangle to Bevel
 Cross Section Shape no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.1	32.7	-0	1.4	9.1	0.8	128.9	-65.3	0.1	8.5
2	15.3	35.8	-0	2.0	10.6	0.7	107.8	-44.5	0.1	7.5
3	14.9	30.9	-1	1.9	9.8	0.7	112.0	-69.7	0.1	7.7
4										
AV	14.8	33.1	-0.5	1.8	9.9	0.7	116.2	-59.8	0.1	7.9

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
38		134	162	25	25	21	4	26	553	25	19	13
46		229	151	24	27	23	3	26	565	25	10	12
41		288	144	22	23	20	4	27	579	24	16	13
AV	42	217	152	23	25	22	4	26	565	25	15	13



Museum National Museums
 Date Acquired by Museum 1899
 Collector F. W. Christian
 Date Collected 1896-1898
 Collection Method Surface
 Place Collected Yap, Caroline Islands,
 Material Basalt
 Object Adze
 Type Pecked
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Caroline Islands Length Rightangle to Bevel
 Middle Max Back
 Cross Section Shape no_data
 TAS (SiO₂) Material 67 dacite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.2	71.9	1	3.6	2.9	1.1	157.3	69.9	0.1	5.1	V A C U U M * G R E E N
2	18.6	70.4	0	3.4	2.7	1.1	160.3	79.9	0.1	6.0	
3	16.5	59.1	0	3.3	3.1	1.1	165.5	86.1	0.1	6.3	
4											
AV	17.4	67.1	0.4	3.5	2.9	1.1	161.1	78.6	0.1	5.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
AV	24	57	98	21	20	16	13	157	526	6	205	16	Y E L L O W



Accession No. NMS A.1889.345

Record No. 377

pXRF_0002_NMS

Museum National Museums

Date Acquired by Museum 1889

Collector Lawrie

Date Collected

Collection Method Surface

Place Collected New Hebrides (Vanuatu)

Material Jade

Object Pendant

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Vanuatu	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO2) Material	57			Cross Section Shape	no_data

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	-3.4	58.0	1	-0.7	22.9	0.2	46.7	115.5	0.0	3.3
2	-1.6	50.8	0	-0.7	22.7	0.2	52.8	121.1	0.0	3.3
3	-5.6	63.3	2	-1.0	24.5	0.2	44.3	85.5	0.0	3.3
4										
AV	-3.5	57.4	1.2	-0.8	23.4	0.2	47.9	107.4	0.0	3.3

V A C U U M * G R E E N

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	1357	65	49	17	11	10	1	4	177	12	-1	5
	626	64	62	16	10	10	1	5	170	10	-4	5
	766	63	57	17	9	8	1	4	199	10	-11	5
AV	917	64	56	16	10	9	1	4	182	10	-5	5

G R E E N

Y E L L O W



Accession No. NMS A.1889.344

Record No. 378

pXRF_0003_NMS

Museum National Museums
 Date Acquired by Museum 1889
 Collector Lawrie
 Date Collected
 Collection Method Surface
 Place Collected New Hebrides (Vanuatu)
 Material Jade
 Object Pendant
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back
 TAS (SiO₂) Material 60 andesite Cross Section Shape no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	-2.5	52.4	0	0.3	14.5	0.1	23.2	56.0	0.1	5.4	V A C U U M * G R E E N
2	-5.6	64.7	1	0.4	15.0	0.1	26.9	257.3	0.1	4.5	
3	-4.9	61.7	0	0.4	15.1	0.1	16.2	578.0	0.1	4.6	
4											
AV	-4.3	59.6	0.4	0.4	14.9	0.1	22.1	297.1	0.1	4.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	900	57	61	16	21	16	-1	2	85	7	12	-0	Y E L L O W
	1186	61	55	16	11	8	-2	1	82	7	14	0	
	1143	60	57	16	11	8	-1	2	87	6	14	2	
AV	1076	59	58	16	14	11	-1	2	85	7	14	1	



Accession No. NMS A.1889.346

Record No. 379

pXRF_0004_NMS

Museum National Museums
 Date Acquired by Museum 1889
 Collector Lawrie
 Date Collected
 Collection Method Surface
 Place Collected New Hebrides
 Material Serpentine
 Object Pendant
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back
 Cross Section Shape no_data
 TAS (SiO₂) Material 55 basaltic andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	-4.3	58.0	0	0.2	15.0	0.1	31.7	84.1	0.1	5.7	VACUUM* GREEN
2	0.6	50.1	0	0.4	15.2	0.1	-0.8	1738.1	0.1	6.4	
3	-3.7	55.9	0	0.3	15.5	0.1	14.1	78.9	0.1	5.2	
4											
AV	-2.5	54.7	0.2	0.3	15.3	0.1	15.0	633.7	0.1	5.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
	547	55	66	16	14	10	-1	2	152	7	4	1	
	886	62	84	15	23	17	0	3	175	9	-10	1	
	614	62	70	16	17	13	-1	1	168	7	-7	0	
AV	682	60	73	16	18	13	-1	2	165	7	-5	1	



Accession No. NMS A.1889.580

Record No. 380

pXRF_0005_NMS

Museum National Museums
 Date Acquired by Museum 1889
 Collector Lawrie
 Date Collected
 Collection Method Surface
 Place Collected Aneityum, Vanuatu
 Material Stone
 Object Pendant
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back
 TAS (SiO₂) Material 92 Cross Section Shape no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	5.1	94.7	0	1.2	6.5	0.6	94.0	262.4	0.2	7.9	V A C U U M * G R E E N
2	5.8	92.0	0	1.3	6.5	0.7	106.7	260.4	0.2	7.6	
3	5.4	90.6	0	1.3	6.4	0.7	105.8	228.5	0.2	7.9	
4											
AV	5.4	92.5	0.2	1.3	6.5	0.6	102.2	250.5	0.2	7.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
													Y E L L O W
AV	47	54	90	18	26	20	-0	0	131	19	124	5	

Museum National Museums
 Date Acquired by Museum 1889
 Collector Lawrie
 Date Collected
 Collection Method Surface
 Place Collected Aneityum, Vanuatu
 Material Stone
 Object Pendant
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back
 Cross Section Shape no_data
 TAS (SiO₂) Material 68 dacite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.4	69.0	0	3.0	-1.8	1.1	193.2	211.4	0.2	10.2	V A C U U M * G R E E N
2	16.0	71.5	0	3.0	-1.9	1.2	191.2	206.4	0.2	9.7	
3	13.2	64.0	0	3.1	-0.6	1.0	161.7	91.3	0.2	8.8	
4	14.9	68.2	0.3	3.0	-1.5	1.1	182.0	169.7	0.2	9.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	35	105	124	28	30	24	11	138	112	13	345	26	Y E L L O W
	38	62	138	30	37	31	11	138	113	12	343	25	
	35	47	105	73	17	72	-4	140	112	17	343	26	
AV	36	71	122	44	28	42	6	139	112	14	344	26	



Accession No. NMS A.1897-229-22

Record No. 382

pXRF_0007_NMS

Museum National Museums
 Date Acquired by Museum 1897
 Collector Lawrie
 Date Collected
 Collection Method Surface
 Place Collected Aneityum, Vanuatu
 Material Jade
 Object Pendant
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length no_data Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back
 Cross Section Shape no_data
 TAS (SiO₂) Material 74 dacite/rhyolite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	-2.7	79.9	1	1.1	7.3	0.4	53.4	180.4	-2.3	8.5	GREEN* VANUATUM
2	-3.2	82.4	1	1.0	7.3	0.3	51.7	204.2	-2.8	9.4	
3	10.3	59.6	1	0.8	8.2	1.0	187.7	265.6	-3.6	11.9	
4											
AV	1.5	73.9	0.6	0.9	7.6	0.6	97.6	216.7	-2.9	9.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
	54	75	89	18	46	42	1	2	88	25	79	4	
	55	63	91	16	34	31	0	2	89	25	83	4	
	138	38	115	19	30	24	2	6	149	55	216	17	
AV	82	59	98	18	37	33	1	3	109	35	126	9	



Museum	National Museums
Date Acquired by Museum	1897
Collector	Lawrie
Date Collected	
Collection Method	Surface
Place Collected	Aneityum, Vanuatu
Material	Serpentine
Object	Pendant
Type	n/a
Additional Museum Notes	<input checked="" type="radio"/> Yes <input type="radio"/> No

Measurements (mm)	
Max Length	no_data
Max Width	no_data
Max Thickness	no_data
Weight (g)	
Island Group	Vanuatu
TAS (SiO ₂) Material	38
	<input type="text" value="foidite"/>

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	2.6	43.3	1	2.1	7.5	0.4	-13.9	218.0	0.1	1.9	V A C U U M * G R E E N
2	5.1	35.8	1	2.0	7.5	0.4	-9.5	210.6	0.1	1.9	
3	5.4	35.6	1	2.1	7.4	0.4	-7.8	200.3	0.1	2.0	
4											
AV	4.4	38.2	0.7	2.1	7.5	0.4	-10.4	209.6	0.1	1.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													G R E E N
													Y E L L O W
AV	81723078	243357	-53	19	21	21	2	14	66	355	112	15	

Accession No. PRM 1916.36.21

Record No. 385

pXRF_0002_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Basalt

Object Adze

Type 3-E (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	355	Width Cutting Edge	124	Shoulder Back Max Width	54.1
Max Width	no_data	Bevel Max Thickness	20.8	Shoulder Max Thickness	39.6
Max Thickness	39.6	Middle Width	60.5	Middle Max Thickness	31.4
Weight (g)		Middle Thickness	no_data	Top Max Width	36.7
		Middle Max Front	no_data	Top Max Thickness	16.1
		Shoulder Front Max Width	27.5	Cutting Edge to Bevel	21.9
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	24.1
TAS (SiO ₂) Material	45			Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.9	45.7	0	2.0	5.9	3.0	244.9	0.0	0.2	12.1
2	17.8	47.2	0	2.0	5.9	3.1	239.8	0.0	0.2	12.0
3	16.7	41.9	0	2.1	5.7	2.9	246.8	0.0	0.2	11.0
4										
AV	17.4	44.9	0.1	2.0	5.8	3.0	243.8	0.0	0.2	11.7

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	142.1	124.4	218.5	33.1	51.0	49.0	8.6	51.3	694.7	37.9	426.6	80.0
	163.6	119.7	295.4	28.4	56.3	50.0	10.6	62.1	716.0	34.9	413.0	85.5
	137.5	129.4	240.0	29.1	59.8	68.2	7.3	57.2	697.2	35.6	415.0	87.8
AV	148	125	251	30	56	56	9	57	703	36	418	84

GREEN

YELLOW



AV

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 29.03.1914 - 18.08.1915
 Collection Method Surface
 Place Collected Easter Is. Rapa Nui
 Material Stone
 Object Bird incised stone
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	370	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	90	Middle Width	no_data	Middle Max Thickness	160
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Easter Island	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	46			Cross Section Shape	no_data

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.4	45.8	0	2.0	5.6	1.7	219.1	0.0	0.2	10.1
2	16.7	46.4	0	1.9	5.3	1.8	232.1	0.0	0.2	11.0
3	14.7	45.6	0	2.1	5.3	1.5	208.7	0.0	0.2	9.8
4										
AV	15.3	45.9	0.2	2.0	5.4	1.6	220.0	0.0	0.2	10.3

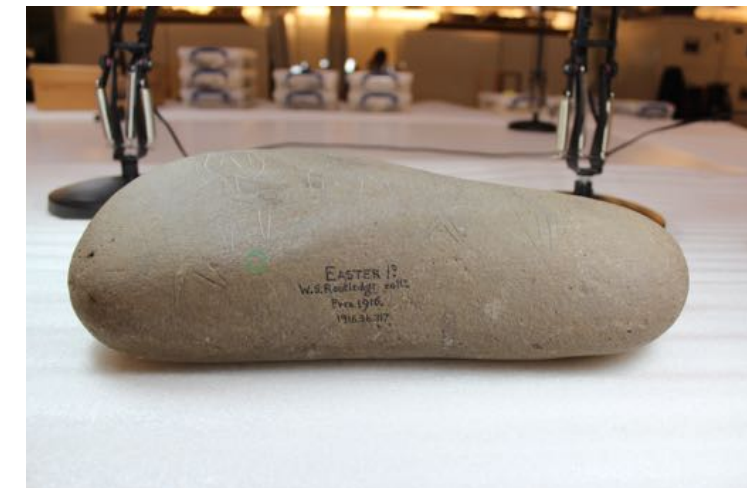
VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	122.3	92.5	294.8	47.6	88.8	81.3	4.5	33.5	348.4	70.2	530.1	80.2
	146.0	96.8	418.4	30.0	88.1	68.1	5.0	35.1	334.8	61.2	532.9	85.3
	146.1	79.5	273.2	31.6	85.5	79.3	4.1	30.1	343.9	67.6	536.4	81.7
AV	138	90	329	36	87	76	5	33	342	66	533	82

GREEN

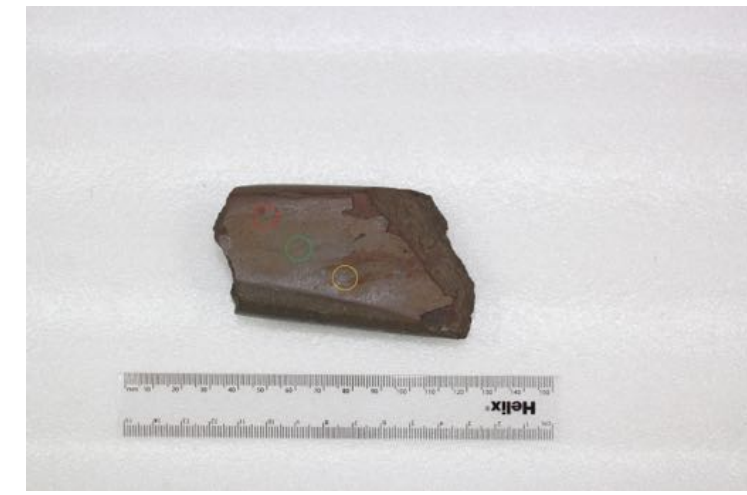
YELLOW



Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 29.03.1914 - 18.08.1915
 Collection Method Surface
 Place Collected Maunga, Easter Island,
 Material Stone
 Object Adze
 Type 2-A (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)			
Max Length	93.9	Width Cutting Edge	no_data
Max Width	48.8	Bevel Max Thickness	no_data
Max Thickness	28	Middle Width	no_data
Weight (g)		Middle Thickness	no_data
		Middle Max Front	no_data
		Shoulder Front Max Width	no_data
Island Group	Easter Island	Middle Max Back	no_data
TAS (SiO ₂) Material	54	Shoulder Back Max Width	no_data
	basaltic andesite	Shoulder Max Thickness	no_data
		Middle Max Thickness	no_data
		Top Max Width	no_data
		Top Max Thickness	no_data
		Cutting Edge to Bevel	no_data
		Length Rightangle to Bevel	no_data
		Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.0	53.0	0	2.7	2.4	1.8	242.6	35.7	0.1	9.7	▲ GREEN* V A C U U M ▼
2	16.5	56.8	0	2.6	3.2	1.7	239.7	31.5	0.1	9.7	
3	15.1	51.8	0	2.6	2.6	1.7	235.7	69.2	0.1	10.3	
4											
AV	15.5	53.9	0.3	2.6	2.7	1.8	239.3	45.5	0.1	9.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	149.8	102.7	226.9	30.6	23.7	22.5	9.6	63.5	296.7	35.2	547.2	82.9	▲ GREEN G R E E N ▼
	111.7	114.4	227.4	34.0	26.4	22.8	8.1	57.7	305.7	39.7	545.9	86.8	
	156.7	89.5	230.0	31.6	28.0	35.5	9.7	61.6	292.8	36.8	549.6	82.4	
AV	139	102	228	32	26	27	9	61	298	37	548	84	

													▲ YELLOW Y E L L O W ▼
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AV

Accession No. PRM 1954.8.132.13

Record No. 390

pXRF_0007_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1954
 Collector F.W. Christian
 Date Collected 1896
 Collection Method Excavation
 Place Collected Nan Madol, Pohnpei
 Material Stone
 Object Tool
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	105.2	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	12.1	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	13.1	Top Max Width	16.8
		Middle Max Front	0	Top Max Thickness	13.2
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Caroline Islands	Middle Max Back	32.3	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	35			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.3	33.8	0	0.5	10.2	3.0	244.3	367.5	0.1	11.5	▲ GREEN* V A C U U M ▼
2	17.5	38.5	0	0.1	10.6	3.2	253.8	687.3	0.2	14.9	
3	14.7	33.3	0	0.4	10.7	2.9	249.4	433.8	0.2	12.1	
4											
AV	15.8	35.2	0.0	0.3	10.5	3.0	249.2	496.2	0.2	12.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	408.2	148.7	153.4	21.2	28.5	32.4	4.6	38.5	686.6	33.1	319.6	101.1	▲ GREEN G R E E N ▼
	441.7	144.6	157.9	29.7	35.5	36.2	8.8	54.4	561.1	30.4	296.2	88.4	
	381.2	155.7	168.5	25.2	40.9	44.0	4.7	36.0	684.5	34.0	299.0	80.3	
AV	410	150	160	25	35	38	6	43	644	32	305	90	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW Y E L L O W ▼
AV													

AV

Accession No. PRM 1925.29.58

Record No. 391

pXRF_0008_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Commissioned Object
 Place Collected Mangareva, Gambier
 Material Stone
 Object Axe (copy of steel axe)
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	210	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	160	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	35			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.4	40.7	0	0.8	12.1	2.0	235.8	27.1	0.1	7.5
2	13.3	28.7	0	0.9	11.2	1.6	207.4	39.2	0.1	6.3
3	14.1	34.2	0	1.0	10.2	1.8	224.6	70.5	0.1	7.3
4										
AV	14.6	34.5	0.0	0.9	11.2	1.8	222.6	45.6	0.1	7.0

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	208.5	147.5	135.4	24.3	26.2	25.8	1.4	12.4	507.9	33.2	191.4	34.6
	230.2	203.5	121.0	35.8	348.4	415.3	0.0	8.6	522.5	36.9	167.6	33.1
	212.1	137.8	118.7	23.5	27.2	27.1	1.6	11.8	498.4	31.6	172.2	34.3
AV	217	163	125	28	134	156	1	11	510	34	177	34

GREEN

YELLOW



AV

Accession No. PRM 1925.29.38

Record No. 393

pXRF_0010_PRM

Museum Pitt Rivers

Date Acquired by Museum 1925

Collector W.S. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Aukena Island, Gambier

Material Stone

Object Chisel

Type 6 (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	55.4	Width Cutting Edge	10.9	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	10.9	Shoulder Max Thickness	no_data
Max Thickness	14.9	Middle Width	16.2	Middle Max Thickness	13.9
Weight (g)		Middle Thickness	14.3	Top Max Width	16.3
		Middle Max Front	9.4	Top Max Thickness	12.9
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	14.7
Island Group	Gambier Islands	Middle Max Back	16.4	Length Rightangle to Bevel	13.1
TAS (SiO ₂) Material	45			Cross Section Shape	no_data

Material:

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.2	45.4	0	1.3	9.7	4.2	174.3	0.0	0.1	10.6
2	17.3	43.1	0	1.3	9.7	4.1	188.5	0.0	0.1	10.1
3	18.2	45.7	0	1.3	9.8	4.3	150.2	0.0	0.1	10.6
4										
AV	17.9	44.7	0.2	1.3	9.7	4.2	171.0	0.0	0.1	10.4

VACUUM GREEN*

Trace elements (ppm)

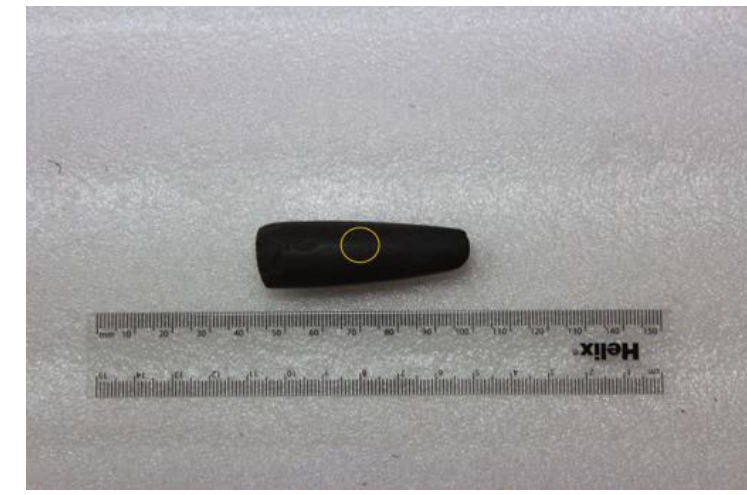
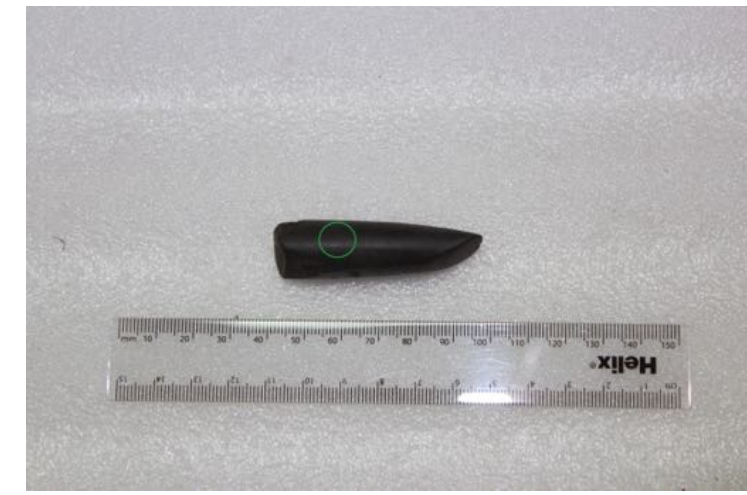
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	460.8	132.6	228.5	28.1	37.9	39.9	6.7	45.7	612.8	35.7	304.0	31.7
	215.7	121.1	244.7	29.3	41.7	37.5	4.2	30.4	707.8	40.2	328.5	39.4
	183.9	143.2	251.8	23.6	57.6	53.8	3.5	26.1	695.9	42.3	319.4	39.3
AV	287	132	242	27	46	44	5	34	672	39	317	37

GREEN

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YELLOW

AV



Accession No. PRM 1925.29.32

Record No. 394

pXRF_0011_PRM

Museum Pitt Rivers

Date Acquired by Museum 1925

Collector W.S. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Akamuru, Gambier Island

Material Stone

Object Chisel (double ended)

Type 6 (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	76.9	Width Cutting Edge	13.2	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	13.4	Shoulder Max Thickness	no_data
Max Thickness	19.7	Middle Width	23.2	Middle Max Thickness	16.5
Weight (g)		Middle Thickness	16.8	Top Max Width	no_data
		Middle Max Front	4.3	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	13.8/20.8
Island Group	Gambier Islands	Middle Max Back	20.5	Length Rightangle to Bevel	10.1/13.8
TAS (SiO ₂) Material	49			Cross Section Shape	no_data

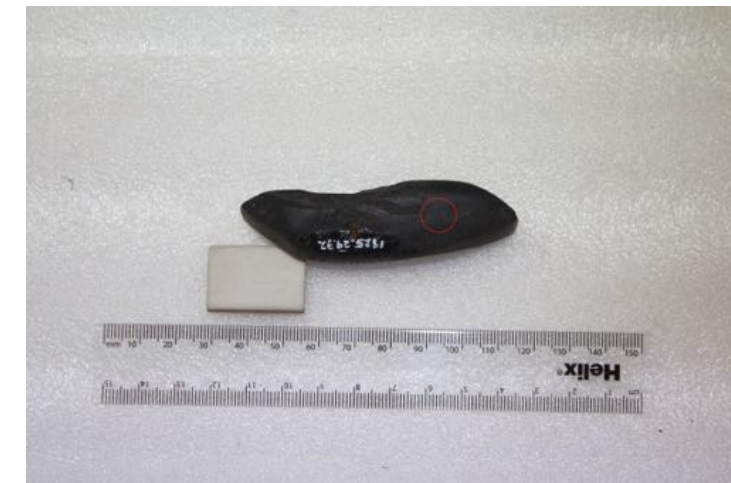
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.9	48.1	0	1.3	10.4	4.2	193.2	0.0	0.1	10.8
2	17.6	47.8	0	1.1	9.8	4.0	209.5	0.0	0.1	12.3
3	19.5	50.3	1	1.2	10.7	4.5	132.9	0.0	0.1	11.1
4										
AV	18.3	48.7	0.5	1.2	10.3	4.2	178.6	0.0	0.1	11.4

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	245.2	124.5	244.9	27.5	53.4	53.6	5.7	40.3	677.8	39.3	328.9	38.7
	253.2	133.7	218.4	21.6	32.4	32.5	5.6	37.8	710.4	38.4	319.6	39.0
	194.5	111.4	264.8	26.0	35.3	34.3	4.1	29.9	725.9	43.4	329.5	36.1
AV	231	123	243	25	40	40	5	36	705	40	326	38

GREEN

YELLOW



AV

Accession No. PRM 1925.29.42

Record No. 398

pXRF_0015_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Mangareva Rikitea,
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	88.9	Width Cutting Edge	32	Shoulder Back Max Width	28.5
Max Width	no_data	Bevel Max Thickness	6.8	Shoulder Max Thickness	20.3
Max Thickness	21.5	Middle Width	42.6	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	28.5
		Middle Max Front	no_data	Top Max Thickness	13
		Shoulder Front Max Width	25.7	Cutting Edge to Bevel	17.3
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	14.3
TAS (SiO ₂) Material	48			Cross Section Shape	no_data

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.4	49.1	0	1.0	10.1	3.2	295.3	0.0	0.1	12.1	▲ GREEN* V A C U U M ▼
2	17.1	47.4	0	0.9	10.2	3.2	285.7	0.0	0.2	12.4	
3	17.2	47.9	0	0.9	10.2	3.2	284.3	0.0	0.2	12.6	
4											
AV	17.2	48.1	0.2	1.0	10.2	3.2	288.4	0.0	0.2	12.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	197.6	136.6	163.6	26.8	79.6	71.1	2.7	21.6	489.2	38.4	229.3	41.0	▲ GREEN ▼
	152.0	126.0	169.6	26.4	193.3	185.0	2.9	26.4	472.3	40.8	240.9	45.3	
	218.9	109.5	169.1	27.5	20.0	18.4	2.8	23.1	487.8	39.4	241.3	47.8	
AV	189	124	167	27	98	91	3	24	483	40	237	45	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Tara-vai Island, Gambier
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	117.5	Width Cutting Edge	37.4	Shoulder Back Max Width	39
Max Width	no_data	Bevel Max Thickness	11.8	Shoulder Max Thickness	26.1
Max Thickness	25.7	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	16.6
		Middle Max Front	no_data	Top Max Thickness	6.7
		Shoulder Front Max Width	32.3	Cutting Edge to Bevel	23.5
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	17.5
TAS (SiO ₂) Material	46			Cross Section Shape	no_data

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.6	45.9	1	0.9	13.3	2.6	258.7	137.9	0.1	7.2
2	16.8	47.5	1	0.9	13.0	2.7	267.2	137.0	0.1	7.5
3	18.7	45.4	0	0.7	13.9	2.4	257.4	188.6	0.1	7.8
4										
AV	17.4	46.3	0.5	0.8	13.4	2.6	261.1	154.5	0.1	7.5

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N

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	262.4	146.8	172.7	43.9	324.3	344.9	1.4	23.2	496.5	38.6	181.6	34.5
	247.3	138.9	150.2	30.2	163.4	150.8	2.7	21.0	506.7	36.9	180.5	34.9
	274.8	207.0	165.9	21.7	34.9	38.0	2.7	21.1	504.4	33.8	188.4	34.1
AV	262	164	163	32	174	178	2	22	503	36	183	35

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AV

Accession No. PRM 1925.29.53

Record No. 401

pXRF_0018_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Mangareva
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	225	Width Cutting Edge	58.8	Shoulder Back Max Width	26.6
Max Width	90	Bevel Max Thickness	35	Shoulder Max Thickness	62.1
Max Thickness	62.1	Middle Width	78.3	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	35.2
		Middle Max Front	no_data	Top Max Thickness	12.5
		Shoulder Front Max Width	48.3	Cutting Edge to Bevel	79.9
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	67.5
TAS (SiO ₂) Material	36			Cross Section Shape	no_data

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.8	36.2	0	0.7	12.6	2.6	287.4	286.9	0.1	10.3	▲ GREEN* VACUUM ▼
2	17.8	37.4	0	0.8	11.6	2.8	307.7	379.8	0.2	11.8	
3	17.2	35.5	0	0.6	13.1	2.6	296.9	397.2	0.2	11.0	
4											
AV	17.3	36.4	0.0	0.7	12.4	2.7	297.4	354.6	0.2	11.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	274.3	138.6	132.5	23.8	63.4	62.9	1.9	19.0	470.0	36.1	188.3	33.3	▲ GREEN ▼
	277.1	141.9	196.1	27.7	113.3	110.9	2.7	22.2	440.1	37.1	192.5	35.5	
	209.0	152.3	148.8	24.2	22.7	18.8	2.3	20.5	479.4	38.9	188.5	37.4	
AV	253	144	159	25	66	64	2	21	463	37	190	35	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Accession No. PRM 1925.29.78

Record No. 405

pXRF_0022_PRM

Museum Pitt Rivers

Date Acquired by Museum 1925

Collector W.S. Routledge

Date Collected 1922

Collection Method Requested from

Place Collected Pitcairn Island, Pitcairn

Material Basalt

Object Adze

Type 5-C (unfinished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	205	Width Cutting Edge	55.9	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	29.4	Shoulder Max Thickness	no_data
Max Thickness	36.6	Middle Width	48.6	Middle Max Thickness	36.2
Weight (g)		Middle Thickness	36.2	Top Max Width	23.3
		Middle Max Front	18.7	Top Max Thickness	16
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	69.4
Island Group	Pitcairn Islands	Middle Max Back	48.4	Length Rightangle to Bevel	68.2
TAS (SiO ₂) Material	41			Cross Section Shape	Trapezoidal

Material:

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.8	39.4	0	1.9	5.6	3.1	218.1	0.0	0.2	12.1	▲ GREEN* V A C U U M ▼
2	20.3	40.8	0	1.8	5.6	3.2	217.3	0.0	0.2	12.5	
3	18.8	43.9	0	2.1	5.6	3.0	240.4	0.0	0.2	11.6	
4											
AV	19.3	41.4	0.0	1.9	5.6	3.1	225.3	0.0	0.2	12.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	62.1	31.8	375.7	26.2	26.5	28.2	12.6	76.9	688.4	27.2	403.5	72.2	▲ GREEN ▼
	94.3	95.6	350.7	24.3	29.8	28.1	9.7	64.0	702.2	33.0	391.8	80.4	
	105.4	63.3	196.2	27.9	24.3	30.5	10.2	73.2	673.6	28.9	426.8	86.1	
AV	87	64	308	26	27	29	11	71	688	30	407	80	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



AV

Accession No. PRM 1925.29.79

Record No. 406

pXRF_0023_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected 1922
 Collection Method Requested from
 Place Collected Pitcairn Island, Pitcairn
 Material Basalt
 Object Adze
 Type 5-C (unfinished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	200	Width Cutting Edge	57.7	Shoulder Back Max Width	57.2
Max Width	65	Bevel Max Thickness	36.5	Shoulder Max Thickness	43.8
Max Thickness	43.7	Middle Width	60.9	Middle Max Thickness	41.2
Weight (g)		Middle Thickness	no_data	Top Max Width	25.5
		Middle Max Front	no_data	Top Max Thickness	14.4
		Shoulder Front Max Width	11.2	Cutting Edge to Bevel	56.4
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	42.9
TAS (SiO ₂) Material	41			Cross Section Shape	Trapezoidal

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.5	42.4	1	1.8	6.0	2.9	257.7	0.0	0.2	12.6
2	18.4	43.0	1	1.8	6.2	3.0	241.1	0.0	0.2	13.1
3	16.1	37.0	0	1.8	6.2	3.0	215.9	0.0	0.2	11.9
4										
AV	17.6	40.8	0.8	1.8	6.1	3.0	238.2	0.0	0.2	12.5

GREEN*
 V
A
C
U
U
M



Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	45.5	52.8	200.5	33.6	26.4	30.7	7.1	45.1	735.5	43.7	398.1	86.3
	72.1	54.7	196.6	29.3	30.8	27.8	6.4	41.6	656.8	42.4	378.2	78.7
	89.8	65.7	193.0	26.1	20.3	18.1	4.9	34.3	651.8	45.9	366.8	82.7
AV	69	58	197	30	26	26	6	40	681	44	381	83

GREEN

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												

YELLOW

AV

Accession No. PRM 1925.29.80

Record No. 407

pXRF_0024_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected 1922
 Collection Method Requested from
 Place Collected Pitcairn Island, Pitcairn
 Material Basalt
 Object Adze
 Type 4-B (unfinished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	185	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	50	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	36.3	Middle Width	47.7	Middle Max Thickness	34
Weight (g)		Middle Thickness	34.8	Top Max Width	24.5
		Middle Max Front	0	Top Max Thickness	14.2
Island Group	Pitcairn Islands	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	39	Middle Max Back	47.6	Length Rightangle to Bevel	no_data
				Cross Section Shape	Triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.1	41.1	0	1.9	6.4	2.8	239.4	0.0	0.2	11.9
2	15.2	39.9	0	1.9	6.2	2.7	245.4	0.0	0.2	11.2
3	15.3	36.6	0	1.9	6.3	2.7	235.3	0.0	0.2	11.3
4										
AV	15.5	39.2	0.1	1.9	6.3	2.8	240.0	0.0	0.2	11.5

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	97.9	75.6	229.7	28.6	33.0	39.2	11.3	62.4	779.1	34.2	470.8	95.6
	101.8	88.2	192.5	34.3	16.2	16.2	8.4	51.1	676.7	37.1	380.1	76.3
	81.3	72.3	199.8	27.4	22.2	22.6	6.8	44.9	668.4	41.2	399.0	81.3
AV	94	79	207	30	24	26	9	53	708	37	417	84



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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. PRM 1925.29.81

Record No. 408

pXRF_0025_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected 1922
 Collection Method Requested from
 Place Collected Pitcairn Island, Pitcairn
 Material Basalt
 Object Adze
 Type 5-C (unfinished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	152.5	Width Cutting Edge	52.1	Shoulder Back Max Width	52.5
Max Width	65	Bevel Max Thickness	14.9	Shoulder Max Thickness	24.3
Max Thickness	25	Middle Width	54.7	Middle Max Thickness	23.9
Weight (g)		Middle Thickness	no_data	Top Max Width	34.6
		Middle Max Front	no_data	Top Max Thickness	12.3
Island Group	Pitcairn Islands	Shoulder Front Max Width	27.5	Cutting Edge to Bevel	29.2
TAS (SiO ₂) Material	40	Middle Max Back	no_data	Length Rightangle to Bevel	19.9
				Cross Section Shape	Trapezoidal

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.0	41.6	0	1.9	6.2	2.7	247.8	0.0	0.2	11.0
2	15.2	39.1	0	1.9	6.1	2.8	254.5	0.0	0.2	11.0
3	15.7	39.4	0	1.8	6.1	2.8	232.9	0.0	0.2	12.1
4										
AV	15.6	40.0	0.0	1.9	6.1	2.8	245.0	0.0	0.2	11.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	72.5	54.0	207.9	27.4	33.0	31.6	7.1	47.4	686.2	41.8	425.6	83.4
	61.3	43.4	218.0	34.0	31.3	27.7	7.5	47.3	698.0	41.7	425.0	83.7
	90.3	25.6	188.1	30.0	27.3	27.1	8.3	50.5	705.0	40.2	411.6	84.0
AV	75	41	205	30	31	29	8	48	696	41	421	84



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												

AV

Accession No. PRM 1925.29.81

Record No. 409

pXRF_0026_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected 1922
 Collection Method Requested from
 Place Collected Pitcairn Island
 Material Basalt
 Object Adze
 Type 5-C (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	151.8	Width Cutting Edge	62.3	Shoulder Back Max Width	46.4
Max Width	63	Bevel Max Thickness	33.4	Shoulder Max Thickness	23.8
Max Thickness	25.5	Middle Width	53.6	Middle Max Thickness	24.3
Weight (g)		Middle Thickness	no_data	Top Max Width	27.4
		Middle Max Front	no_data	Top Max Thickness	11.7
		Shoulder Front Max Width	16.4	Cutting Edge to Bevel	86.4
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	85.1
TAS (SiO ₂) Material	47			Cross Section Shape	Trapezoidal

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.7	46.6	1	1.9	6.4	3.1	246.6	0.0	0.2	12.4	V A C U U M * G R E E N
2	17.4	48.0	1	1.8	6.7	3.0	226.8	0.0	0.2	12.1	
3	16.5	44.9	1	2.0	6.1	2.8	244.7	0.0	0.2	11.2	
4											
AV	17.2	46.5	0.7	1.9	6.4	2.9	239.4	0.0	0.2	11.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	69.5	31.7	171.0	24.1	21.9	20.0	8.1	53.6	659.4	36.5	438.8	88.5	G R E E N
	60.4	60.4	198.4	27.1	25.7	24.3	7.1	45.2	680.8	42.0	433.5	82.9	
	88.3	75.5	195.7	26.1	21.5	15.3	7.6	50.5	664.8	38.2	400.5	84.0	
AV	73	56	188	26	23	20	8	50	668	39	424	85	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1925.29.83

Record No. 411

pXRF_0028_PRM

Museum Pitt Rivers

Date Acquired by Museum 1925

Collector W.S. Routledge

Date Collected 1922

Collection Method Requested by inhabitants

Place Collected Pitcairn Island, Pitcairn

Material Basalt

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	149.5	Width Cutting Edge	51.5	Shoulder Back Max Width	no_data
Max Width	50	Bevel Max Thickness	22.9	Shoulder Max Thickness	no_data
Max Thickness	24.6	Middle Width	39.9	Middle Max Thickness	22
Weight (g)		Middle Thickness	23.5	Top Max Width	21.5
		Middle Max Front	30.6	Top Max Thickness	20.3
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	64.7
Island Group	Pitcairn Islands	Middle Max Back	40.2	Length Rightangle to Bevel	53.7
TAS (SiO ₂) Material	45			Cross Section Shape	no_data

basalt

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.1	47.3	1	1.8	6.2	3.0	242.0	0.0	0.2	13.0	▲ GREEN * V A C U U M ▼
2	16.1	42.1	0	1.8	6.1	2.9	233.6	0.0	0.2	12.7	
3	18.3	46.1	1	1.8	6.4	2.9	258.6	0.0	0.2	13.1	
4											
AV	17.5	45.2	0.8	1.8	6.2	2.9	244.7	0.0	0.2	13.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	78.9	46.1	224.2	28.0	28.4	32.1	6.7	43.4	696.4	42.1	405.4	81.6	▲ GREEN G R E E N ▼
	75.6	62.2	235.4	25.0	24.7	28.0	7.1	49.2	727.5	41.3	361.7	75.8	
	102.6	24.3	200.7	29.7	28.5	27.9	6.2	45.8	665.5	41.6	388.7	82.2	
AV	86	44	220	28	27	29	7	46	696	42	385	80	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW Y E L L O W ▼
AV													



Accession No. PRM 1925.29.85

Record No. 412

pXRF_0029_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected 1922
 Collection Method Requested from
 Place Collected Pitcairn Island, Pitcairn
 Material Basalt
 Object Adze
 Type 5-A (unfinished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)			
Max Length	142.2	Width Cutting Edge	56.4
Max Width	58	Bevel Max Thickness	25.3
Max Thickness	26.3	Middle Width	43.3
Weight (g)		Middle Thickness	no_data
Island Group	Pitcairn Islands	Middle Max Front	no_data
TAS (SiO ₂) Material	45	Shoulder Front Max Width	25.2
	basalt	Middle Max Back	no_data
		Shoulder Back Max Width	39.4
		Shoulder Max Thickness	23
		Middle Max Thickness	24.1
		Top Max Width	22.1
		Top Max Thickness	16.3
		Cutting Edge to Bevel	86
		Length Rightangle to Bevel	85.2
		Cross Section Shape	Trapezoidal

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.5	48.1	1	1.8	6.1	3.0	245.4	0.0	0.2	13.4	V A C U U M * G R E E N
2	16.6	46.1	1	1.9	6.2	2.8	243.2	0.0	0.2	12.1	
3	15.9	41.9	0	1.9	6.4	2.8	248.5	0.0	0.2	11.6	
4											
AV	17.0	45.4	0.5	1.8	6.2	2.9	245.7	0.0	0.2	12.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	83.8	50.5	216.0	32.0	30.3	27.3	8.1	51.0	721.8	39.8	384.6	81.0	G R E E N
	76.1	86.4	207.7	26.5	21.4	21.5	6.4	44.0	663.7	41.1	385.2	76.4	
	75.4	74.8	199.2	29.8	22.4	18.0	8.0	50.2	676.3	39.9	397.9	79.5	
AV	78	71	208	29	25	22	7	48	687	40	389	79	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1925.29.85

Record No. 413

pXRF_0030_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected 1922
 Collection Method Requested from
 Place Collected Pitcairn Island, Pitcairn
 Material Basalt
 Object Adze
 Type 3-E (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	140.4	Width Cutting Edge	67.2	Shoulder Back Max Width	no_data
Max Width	65	Bevel Max Thickness	18.4	Shoulder Max Thickness	no_data
Max Thickness	18.4	Middle Width	43.9	Middle Max Thickness	18.1
Weight (g)		Middle Thickness	18.4	Top Max Width	28.7
		Middle Max Front	17.6	Top Max Thickness	9
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	85.6
Island Group	Pitcairn Islands	Middle Max Back	37.8	Length Rightangle to Bevel	80.8
TAS (SiO ₂) Material	39			Cross Section Shape	Sub-triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.0	35.8	0	2.1	5.9	3.1	216.1	0.0	0.1	9.8	▲ GREEN* V A C U U M ▼
2	16.0	40.3	0	2.1	5.8	3.0	227.0	0.0	0.1	10.4	
3	15.9	40.1	0	2.1	6.0	2.9	217.8	0.0	0.1	9.7	
4											
AV	16.0	38.7	0.0	2.1	5.9	3.0	220.3	0.0	0.1	10.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	79.8	107.3	190.8	32.6	17.3	18.1	7.4	48.9	697.0	41.3	425.8	89.9	▲ GREEN ▼
	64.5	47.5	180.4	24.3	22.1	17.5	6.5	48.0	668.6	40.0	423.9	83.4	
	81.3	124.0	219.1	30.8	14.2	15.4	7.6	48.7	682.6	38.2	367.7	81.5	
AV	75	93	197	29	18	17	7	49	683	40	406	85	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



AV

Accession No. PRM 1925.29.87

Record No. 414

pXRF_0031_PRM

Museum Pitt Rivers

Date Acquired by Museum 1925

Collector W.S. Routledge

Date Collected 1922

Collection Method Requested from

Place Collected Pitcairn Island, Pitcairn

Material Basalt

Object Adze

Type 2-C (unfinished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	118.3	Width Cutting Edge	56.6	Shoulder Back Max Width	46.4
Max Width	60	Bevel Max Thickness	22.7	Shoulder Max Thickness	22.6
Max Thickness	22.6	Middle Width	51.2	Middle Max Thickness	21.6
Weight (g)		Middle Thickness	no_data	Top Max Width	29.9
		Middle Max Front	no_data	Top Max Thickness	10
Island Group	Pitcairn Islands	Shoulder Front Max Width	21.1	Cutting Edge to Bevel	75
TAS (SiO ₂) Material	43	Middle Max Back	no_data	Length Rightangle to Bevel	71.7
				Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.3	40.5	0	1.8	6.4	2.8	226.5	0.0	0.2	11.6	VACUUM GREEN*
2	18.2	45.3	1	1.8	6.2	3.1	249.3	0.0	0.2	13.0	
3	16.9	44.4	0	1.9	5.7	3.0	239.6	0.0	0.2	12.7	
4											
AV	16.8	43.4	0.3	1.9	6.1	3.0	238.5	0.0	0.2	12.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	63.4	38.8	182.3	30.5	18.5	20.5	7.3	55.5	659.9	36.8	400.1	79.3	GREEN
	62.2	43.0	186.2	28.2	27.2	27.4	7.0	45.1	707.1	41.9	428.0	91.2	
	74.8	41.3	201.6	28.4	21.6	20.9	6.6	44.5	656.9	41.1	372.4	71.5	
AV	67	41	190	29	22	23	7	48	675	40	400	81	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													



Accession No. PRM 1916.36.49

Record No. 417

pXRF_0034_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	165	Width Cutting Edge	68.5	Shoulder Back Max Width	52.7
Max Width	70	Bevel Max Thickness	12.8	Shoulder Max Thickness	23.1
Max Thickness	28.5	Middle Width	60.7	Middle Max Thickness	26.2
Weight (g)		Middle Thickness	no_data	Top Max Width	32.6
		Middle Max Front	no_data	Top Max Thickness	17
Island Group	Pitcairn Islands	Shoulder Front Max Width	19.8	Cutting Edge to Bevel	28.9
TAS (SiO ₂) Material	44	Middle Max Back	no_data	Length Rightangle to Bevel	15
				Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.2	42.3	0	2.1	6.3	3.1	246.6	0.0	0.2	10.6	V A C U U M * G R E E N
2	17.2	43.9	0	2.1	6.2	3.1	234.0	0.0	0.2	10.6	
3	18.5	46.1	0	2.1	6.3	3.2	240.4	0.0	0.2	11.1	
4											
AV	17.6	44.1	0.1	2.1	6.3	3.1	240.3	0.0	0.2	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	78.6	58.6	222.6	30.3	28.0	25.4	7.7	48.2	692.7	40.1	404.9	86.9
	105.6	80.0	167.8	25.5	17.4	20.5	7.5	49.5	705.5	39.9	418.2	88.1
	88.6	63.5	184.1	27.9	32.0	29.0	5.6	38.7	678.7	44.5	408.8	80.0
AV	91	67	192	28	26	25	7	45	692	42	411	85

AV												

AV

Accession No. PRM 1916.36.51

Record No. 418

pXRF_0035_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1913

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 3-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	170	Width Cutting Edge	64.5	Shoulder Back Max Width	70.5
Max Width	80	Bevel Max Thickness	15.5	Shoulder Max Thickness	28.4
Max Thickness	28.5	Middle Width	69.2	Middle Max Thickness	57
Weight (g)		Middle Thickness	no_data	Top Max Width	42.3
		Middle Max Front	no_data	Top Max Thickness	18.7
Island Group	Pitcairn Islands	Shoulder Front Max Width	45.5	Cutting Edge to Bevel	32.7
TAS (SiO ₂) Material	43	Middle Max Back	no_data	Length Rightangle to Bevel	17.9
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.1	48.0	0	2.0	6.0	3.1	240.0	0.0	0.2	12.4	V A C U U M * G R E E N
2	16.2	41.1	0	2.0	6.0	3.1	262.1	0.0	0.2	11.8	
3	16.2	40.7	0	2.1	6.1	3.0	222.7	0.0	0.1	10.8	
4											
AV	16.5	43.3	0.1	2.0	6.0	3.1	241.6	0.0	0.2	11.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	85.3	60.7	235.4	23.1	41.2	41.7	9.6	57.5	686.5	35.7	404.1	81.2	G R E E N
	70.0	74.8	215.8	31.1	38.9	37.4	9.9	59.0	700.7	35.4	392.7	78.8	
	127.4	76.6	174.0	19.9	15.4	12.6	4.7	42.5	583.1	39.5	346.5	71.5	
AV	94	71	208	25	32	31	8	53	657	37	381	77	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



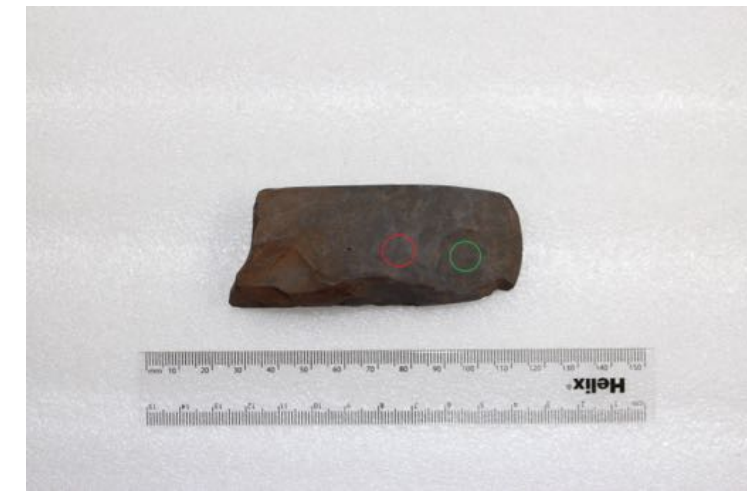
Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1916
 Collection Method Surface
 Place Collected Pitcairn Islands
 Material Stone
 Object Adze
 Type 2-E (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	87.8	Width Cutting Edge	28.8	Shoulder Back Max Width	no_data
Max Width	36	Bevel Max Thickness	21.1	Shoulder Max Thickness	no_data
Max Thickness	25.9	Middle Width	36	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	57.7
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	50
TAS (SiO ₂) Material	47			Cross Section Shape	Quadrangular

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	19.7	48.0	0	2.1	6.3	3.3	213.3	0.0	0.2	11.0
2	17.2	40.5	0	2.0	6.4	3.2	212.5	0.0	0.2	10.9
3	21.4	52.5	1	2.1	6.4	3.2	242.2	0.0	0.2	11.0
4										
AV	19.5	47.0	0.4	2.1	6.4	3.2	222.6	0.0	0.2	11.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	104.0	72.7	218.1	33.8	26.3	22.3	8.2	52.5	715.1	39.2	413.4	82.5
	116.4	78.9	196.8	29.1	21.9	22.6	6.3	44.9	665.9	41.1	397.6	85.3
	103.3	53.0	215.6	26.9	40.3	37.1	9.5	58.4	736.1	37.1	422.5	89.8
AV	108	68	210	30	30	27	8	52	706	39	411	86



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AV

VACUUM GREEN*

GREEN

YELLOW

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1916
 Collection Method Surface
 Place Collected Pitcairn Islands
 Material Stone
 Object Adze
 Type 2-A (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	66.4	Width Cutting Edge	45.9	Shoulder Back Max Width	no_data
Max Width	46	Bevel Max Thickness	7.3	Shoulder Max Thickness	no_data
Max Thickness	9.6	Middle Width	34.6	Middle Max Thickness	8.6
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
Island Group	Pitcairn Islands	Middle Max Front	no_data	Top Max Thickness	no_data
TAS (SiO ₂) Material	48	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	14.6
	basalt	Middle Max Back	no_data	Length Rightangle to Bevel	14.5
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	20.5	52.1	1	2.2	6.7	3.4	243.9	0.0	0.1	10.4
2	19.0	46.2	0	2.1	6.5	3.1	234.8	0.0	0.1	10.4
3	19.4	47.0	0	2.3	5.9	3.2	231.8	0.0	0.2	11.3
4										
AV	19.6	48.4	0.3	2.2	6.4	3.2	236.9	0.0	0.2	10.7

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	116.1	73.9	194.3	29.4	24.8	20.9	7.3	51.3	740.1	40.2	388.9	81.3
	93.7	99.2	203.9	35.7	30.2	23.5	8.8	55.1	726.3	37.6	389.6	82.5
	92.4	91.7	164.5	31.5	28.4	34.1	7.9	53.1	660.6	37.7	446.0	90.6
AV	101	88	188	32	28	26	8	53	709	39	408	85

GREEN

YELLOW



AV

Accession No. PRM 1916.36.24

Record No. 427

pXRF_0044_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	126.1	Width Cutting Edge	46.2	Shoulder Back Max Width	28.8
Max Width	49	Bevel Max Thickness	11.2	Shoulder Max Thickness	16.5
Max Thickness	16.9	Middle Width	38.4	Middle Max Thickness	17.6
Weight (g)		Middle Thickness	no_data	Top Max Width	16.7
Island Group	Pitcairn Islands	Middle Max Front	no_data	Top Max Thickness	10.5
TAS (SiO ₂) Material	47	Shoulder Front Max Width	18.7	Cutting Edge to Bevel	17.8
	basalt	Middle Max Back	no_data	Length Rightangle to Bevel	12.3
				Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.6	47.2	1	1.9	5.6	3.2	225.3	0.0	0.3	13.0	V A C U U M * G R E E N
2	18.3	48.7	0	1.9	5.9	3.3	220.2	0.0	0.2	12.7	
3	16.6	44.4	0	2.0	5.9	3.1	265.2	0.0	0.2	12.0	
4											
AV	17.9	46.8	0.3	1.9	5.8	3.2	236.9	0.0	0.2	12.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	54.5	52.2	200.2	29.0	49.0	45.3	7.5	54.9	690.1	37.8	399.1	83.3	G R E E N
	73.3	67.5	217.9	32.6	39.0	45.7	7.4	48.6	714.0	42.1	458.0	91.8	
	70.9	89.4	246.2	29.1	34.4	41.4	7.4	46.3	699.4	40.1	402.2	84.6	
AV	66	70	221	30	41	44	7	50	701	40	420	87	



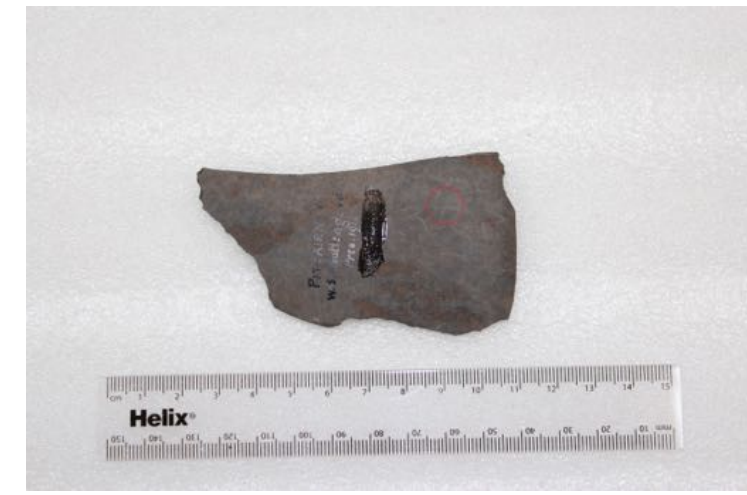
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1916
 Collection Method Surface
 Place Collected Pitcairn Islands
 Material Stone
 Object Adze
 Type 2-A (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)	
Max Length	85.1
Max Width	54
Max Thickness	8.4
Weight (g)	
Island Group	Pitcairn Islands
TAS (SiO ₂) Material	47 <input type="text" value="basalt"/>
Width Cutting Edge	45.6
Bevel Max Thickness	7.5
Middle Width	no_data
Middle Thickness	no_data
Middle Max Front	no_data
Shoulder Front Max Width	no_data
Middle Max Back	no_data
Shoulder Back Max Width	no_data
Shoulder Max Thickness	no_data
Middle Max Thickness	no_data
Top Max Width	no_data
Top Max Thickness	no_data
Cutting Edge to Bevel	22.3
Length Rightangle to Bevel	18.9
Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

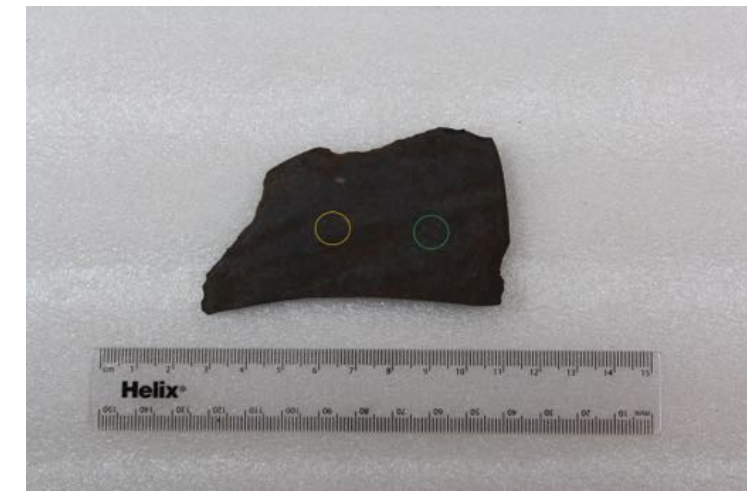
	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.5	47.2	0	2.0	6.1	3.1	237.0	0.0	0.2	11.9	▲ GREEN* V A C U U M ▼
2	15.9	44.1	0	2.0	5.8	3.0	240.7	0.0	0.2	11.4	
3	18.0	48.5	0	2.0	6.0	3.2	234.2	0.0	0.2	12.3	
4											
AV	17.1	46.6	0.1	2.0	6.0	3.1	237.3	0.0	0.2	11.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	72.4	65.6	304.5	28.2	33.7	34.9	11.3	69.1	697.6	30.8	376.8	79.6	▲ GREEN ▼
	95.7	66.3	337.0	31.3	30.4	34.8	11.4	72.4	720.9	29.2	423.9	84.2	
	96.2	60.6	264.9	30.6	27.3	29.4	8.2	60.2	694.0	34.3	413.8	87.7	
AV	88	64	302	30	30	33	10	67	704	31	405	84	

													▲ YELLOW ▼
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AV



Accession No. PRM 1916.36.27

Record No. 430

pXRF_0047_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	95.1	Width Cutting Edge	45.3	Shoulder Back Max Width	28.7
Max Width	48	Bevel Max Thickness	9.2	Shoulder Max Thickness	16.7
Max Thickness	17.1	Middle Width	35.7	Middle Max Thickness	15.5
Weight (g)		Middle Thickness	no_data	Top Max Width	11.4
Island Group	Pitcairn Islands	Middle Max Front	no_data	Top Max Thickness	12.8
TAS (SiO ₂) Material	53	Shoulder Front Max Width	16.4	Cutting Edge to Bevel	11.4
	basaltic andesite	Middle Max Back	no_data	Length Rightangle to Bevel	11.1
				Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.7	52.1	0	2.2	5.7	3.1	236.4	0.0	0.2	11.7	▲ GREEN* V A C U U M ▼
2	19.4	53.5	1	2.1	5.8	3.0	241.7	0.0	0.2	12.4	
3	18.9	52.3	0	2.1	5.7	3.1	236.0	0.0	0.2	11.8	
4											
AV	19.0	52.6	0.6	2.1	5.7	3.1	238.0	0.0	0.2	11.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	119.6	102.1	201.5	25.9	54.5	47.2	10.7	65.5	689.2	32.0	419.3	83.1	▲ GREEN ▼
	107.1	89.7	226.1	40.7	46.9	47.6	10.7	61.5	743.5	34.9	417.3	81.1	
	93.8	82.6	224.8	33.9	31.5	32.3	12.5	70.8	690.8	30.0	465.3	101.8	
AV	107	91	217	33	44	42	11	66	708	32	434	89	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Accession No. PRM 1916.36.28

Record No. 431

pXRF_0048_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1916
 Collection Method Surface
 Place Collected Pitcairn Islands
 Material Stone
 Object Adze
 Type 2-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	35.8	Width Cutting Edge	48.9	Shoulder Back Max Width	36.2
Max Width	50	Bevel Max Thickness	12	Shoulder Max Thickness	18.6
Max Thickness	21	Middle Width	40.7	Middle Max Thickness	21
Weight (g)		Middle Thickness	no_data	Top Max Width	21.2
		Middle Max Front	no_data	Top Max Thickness	7.8
Island Group	Pitcairn Islands	Shoulder Front Max Width	20.7	Cutting Edge to Bevel	17.5
TAS (SiO ₂) Material	44	Middle Max Back	no_data	Length Rightangle to Bevel	14.6
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.2	45.1	0	2.0	5.0	3.0	235.4	0.0	0.2	12.7	V A C U U M * G R E E N
2	17.5	44.1	0	2.0	5.2	3.4	207.0	0.0	0.2	12.7	
3	16.4	43.0	0	2.2	4.9	2.9	223.9	0.0	0.1	10.6	
4											
AV	16.7	44.0	0.1	2.0	5.1	3.1	222.1	0.0	0.2	12.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	80.4	79.8	239.3	30.0	27.8	30.9	11.6	68.4	724.8	30.9	392.2	82.9	G R E E N
	87.4	95.4	228.5	32.5	34.5	31.9	11.6	65.6	713.9	32.7	471.3	92.4	
	65.8	111.8	209.7	28.1	29.9	26.4	8.0	59.4	716.2	34.7	388.6	71.8	
AV	78	96	226	30	31	30	10	64	718	33	417	82	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1916
 Collection Method Surface
 Place Collected Pitcairn Islands
 Material Stone
 Object Adze
 Type 2-A (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	119.4	Width Cutting Edge	no_data	Shoulder Back Max Width	58.1
Max Width	70	Bevel Max Thickness	no_data	Shoulder Max Thickness	33
Max Thickness	33.8	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	34.8	Cutting Edge to Bevel	no_data
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	48			Cross Section Shape	Quadrangular

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.4	52.4	0	2.1	6.2	3.1	262.0	0.0	0.2	11.7	VACUUM GREEN*
2	17.6	50.4	0	2.1	6.3	3.1	253.7	0.0	0.2	11.8	
3	16.6	41.9	0	2.2	5.8	3.0	227.2	0.0	0.1	10.4	
4											
AV	17.5	48.2	0.3	2.1	6.1	3.1	247.6	0.0	0.2	11.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	125.5	83.1	189.0	26.9	23.1	19.2	9.2	56.4	693.0	36.7	406.0	82.3	GREEN
	85.4	71.9	236.9	26.7	29.6	35.0	9.8	62.3	699.7	33.7	409.1	86.0	
	75.6	75.4	206.2	33.5	40.1	41.5	10.9	66.9	728.5	32.1	428.7	86.1	
AV	96	77	211	29	31	32	10	62	707	34	415	85	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													



Accession No. PRM 1916.36.30

Record No. 433

pXRF_0050_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	85	Width Cutting Edge	36	Shoulder Back Max Width	30.7
Max Width	43	Bevel Max Thickness	30	Shoulder Max Thickness	27.3
Max Thickness	29	Middle Width	35.7	Middle Max Thickness	28
Weight (g)		Middle Thickness	no_data	Top Max Width	19.9
		Middle Max Front	no_data	Top Max Thickness	15.2
		Shoulder Front Max Width	16.1	Cutting Edge to Bevel	33.9
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	21.4
TAS (SiO ₂) Material	44			Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.8	41.7	0	2.0	5.9	3.1	249.3	0.0	0.2	12.0	V A C U U M * G R E E N
2	18.5	44.7	0	1.9	5.8	3.1	224.9	0.0	0.2	12.8	
3	16.9	44.4	0	1.9	6.1	2.9	235.7	0.0	0.2	11.8	
4											
AV	17.4	43.6	0.1	1.9	5.9	3.0	236.6	0.0	0.2	12.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	94.1	125.4	261.3	28.4	35.4	31.5	8.2	50.0	727.4	41.2	418.0	84.0	G R E E N
	91.6	100.2	226.2	29.3	43.9	39.2	7.4	46.6	697.6	39.3	415.5	81.2	
	100.9	170.3	267.4	26.7	44.1	46.7	8.8	54.8	730.2	38.2	412.5	85.9	
AV	96	132	252	28	41	39	8	50	718	40	415	84	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1916.36.34

Record No. 437

pXRF_0054_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1916
 Collection Method Surface
 Place Collected Pitcairn Islands
 Material Stone
 Object Adze
 Type 2-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)			
Max Length	93.6	Width Cutting Edge	34.8
		Shoulder Back Max Width	27.1
Max Width	35	Bevel Max Thickness	9.4
		Shoulder Max Thickness	9.2
Max Thickness	9.4	Middle Width	27.6
		Middle Max Thickness	8.9
Weight (g)		Middle Thickness	no_data
		Top Max Width	16
		Middle Max Front	no_data
		Top Max Thickness	6.6
Island Group	Pitcairn Islands	Shoulder Front Max Width	17.1
		Cutting Edge to Bevel	35.1
TAS (SiO ₂) Material	43	Middle Max Back	no_data
		Length Rightangle to Bevel	32.9
		Cross Section Shape	Quadrangular
			<input type="text" value="picro-basalt / basanite"/>

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.4	44.3	0	2.0	6.1	3.0	228.9	0.0	0.2	11.2
2	17.5	45.9	1	2.0	6.4	3.0	239.1	0.0	0.2	11.6
3	15.0	38.3	0	2.1	6.3	2.7	233.6	0.0	0.1	9.6
4										
AV	16.3	42.8	0.2	2.0	6.3	2.9	233.9	0.0	0.2	10.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	86.3	95.1	234.7	31.6	36.6	44.0	7.3	50.0	708.6	39.1	410.0	87.5
	86.1	67.0	221.1	27.3	72.7	70.2	7.6	47.0	684.3	41.5	407.7	76.6
	104.6	94.9	221.5	33.6	51.6	48.2	7.5	47.2	732.8	42.7	420.8	85.6
AV	92	86	226	31	54	54	7	48	709	41	413	83



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AV

GREEN*
VACUUM

GREEN

YELLOW

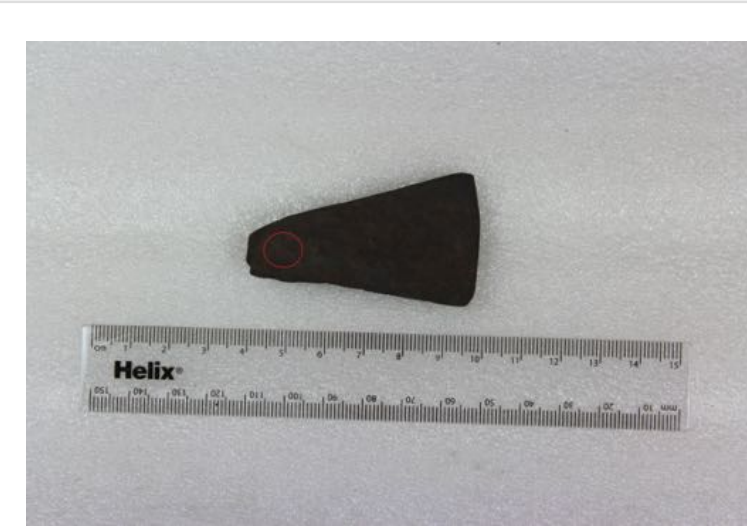
Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1916
 Collection Method Surface
 Place Collected Pitcairn Islands
 Material Stone
 Object Adze
 Type 3-E (unfinihsed) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	59.6	Width Cutting Edge	34.6	Shoulder Back Max Width	19.1
Max Width	35	Bevel Max Thickness	6.3	Shoulder Max Thickness	7.8
Max Thickness	9.6	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	11
		Middle Max Front	no_data	Top Max Thickness	4.2
		Shoulder Front Max Width	18.7	Cutting Edge to Bevel	9.7
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	7.6
TAS (SiO ₂) Material	46			Cross Section Shape	Sub-triangular

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

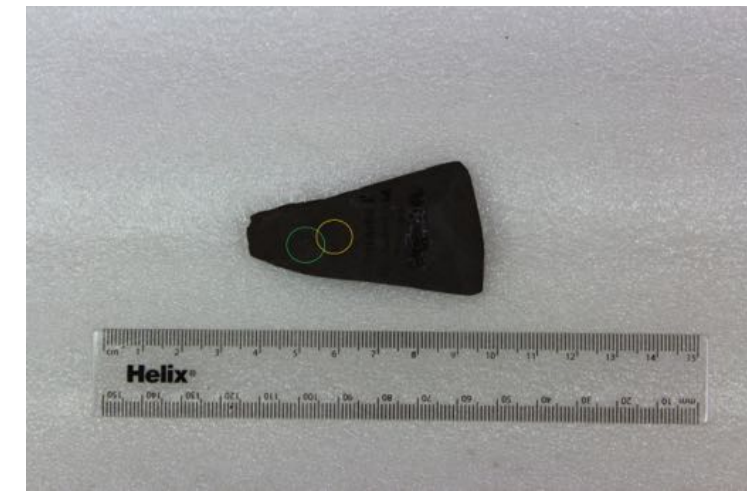
Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.9	49.6	0	2.1	5.7	3.3	229.1	0.0	0.2	11.4	▲ GREEN* V A C U U M ▼
2	18.7	46.8	0	2.0	6.2	3.3	225.7	0.0	0.2	11.9	
3	17.1	41.8	0	2.1	6.2	3.2	218.2	0.0	0.2	10.7	
4											
AV	18.2	46.1	0.1	2.1	6.0	3.3	224.3	0.0	0.2	11.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	56.4	66.2	192.1	32.7	22.9	23.7	8.1	62.3	675.0	33.5	412.6	82.7	▲ GREEN G R E E N ▼
	78.1	35.7	242.2	27.7	24.9	24.1	8.4	58.8	709.5	35.1	388.0	86.5	
	62.8	65.6	212.8	27.7	17.8	16.2	8.0	50.8	720.4	38.7	391.7	83.2	
AV	66	56	216	29	22	21	8	57	702	36	397	84	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW Y E L L O W ▼
AV													



Accession No. PRM 1916.36.36

Record No. 439

pXRF_0056_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1916
 Collection Method Surface
 Place Collected Pitcairn Islands
 Material Stone
 Object Adze
 Type 3-E (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	96.1	Width Cutting Edge	no_data	Shoulder Back Max Width	38.4
Max Width	46	Bevel Max Thickness	no_data	Shoulder Max Thickness	22.3
Max Thickness	22.7	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	25.3
		Middle Max Front	no_data	Top Max Thickness	13.9
Island Group	Pitcairn Islands	Shoulder Front Max Width	18.2	Cutting Edge to Bevel	no_data
TAS (SiO ₂) Material	44	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.5	44.3	0	1.9	6.0	2.8	263.3	0.0	0.2	11.6	V A C U U M * G R E E N
2	14.1	38.7	0	1.6	4.2	2.1	266.9	0.0	0.2	16.1	
3	18.8	49.6	1	1.8	6.6	2.9	257.6	0.0	0.2	12.7	
4											
AV	16.5	44.2	0.5	1.8	5.6	2.6	262.6	0.0	0.2	13.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	49.0	74.6	237.5	31.0	23.5	23.9	8.3	50.7	681.7	40.3	416.7	87.5	G R E E N
	51.3	59.5	206.3	28.1	37.7	34.2	8.4	52.1	698.8	40.5	427.6	89.1	
	70.1	69.1	220.5	27.9	28.6	22.1	7.3	45.5	710.3	42.6	414.9	84.0	
AV	57	68	221	29	30	27	8	49	697	41	420	87	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1916.36.40

Record No. 443

pXRF_0060_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 1-B (unfinished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	89.2	Width Cutting Edge	39.4	Shoulder Back Max Width	19.9
Max Width	38	Bevel Max Thickness	8.1	Shoulder Max Thickness	11.7
Max Thickness	13.1	Middle Width	32	Middle Max Thickness	12.5
Weight (g)		Middle Thickness	no_data	Top Max Width	6.6
Island Group	Pitcairn Islands	Middle Max Front	no_data	Top Max Thickness	2.2
TAS (SiO ₂) Material	46	Shoulder Front Max Width	26.8	Cutting Edge to Bevel	14.4
	basalt	Middle Max Back	no_data	Length Rightangle to Bevel	10.8
				Cross Section Shape	Quadrangular

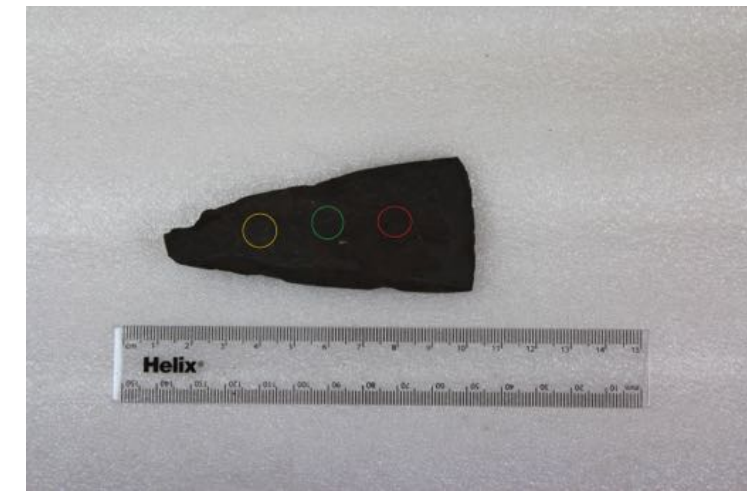
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.6	43.5	0	2.0	5.8	2.9	248.8	0.0	0.2	11.6	V A C U U M * G R E E N
2	17.9	45.5	0	2.0	5.6	3.0	237.0	0.0	0.2	12.1	
3	18.5	48.2	0	2.0	6.0	3.0	254.4	0.0	0.2	11.9	
4											
AV	18.0	45.8	0.3	2.0	5.8	3.0	246.7	0.0	0.2	11.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	56.7	64.7	249.9	31.0	33.7	28.8	10.0	59.1	717.4	35.1	396.4	85.1	G R E E N
	71.0	54.4	203.7	34.7	53.8	53.3	11.8	72.0	684.2	29.4	410.9	75.7	
	62.7	83.6	177.4	29.9	45.8	56.1	13.1	72.9	688.8	29.0	433.3	84.6	
AV	63	68	210	32	44	46	12	68	697	31	414	82	

													Y E L L O W

AV

Accession No. PRM 1916.36.41

Record No. 444

pXRF_0061_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 2-A (broken) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	72.8	Width Cutting Edge	47.8	Shoulder Back Max Width	42.1
Max Width	49	Bevel Max Thickness	19	Shoulder Max Thickness	18.6
Max Thickness	18.6	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
Island Group	Pitcairn Islands	Middle Max Front	no_data	Top Max Thickness	no_data
TAS (SiO ₂) Material	45	Shoulder Front Max Width	27.1	Cutting Edge to Bevel	19.1
	basalt	Middle Max Back	no_data	Length Rightangle to Bevel	10
				Cross Section Shape	Quadrangular

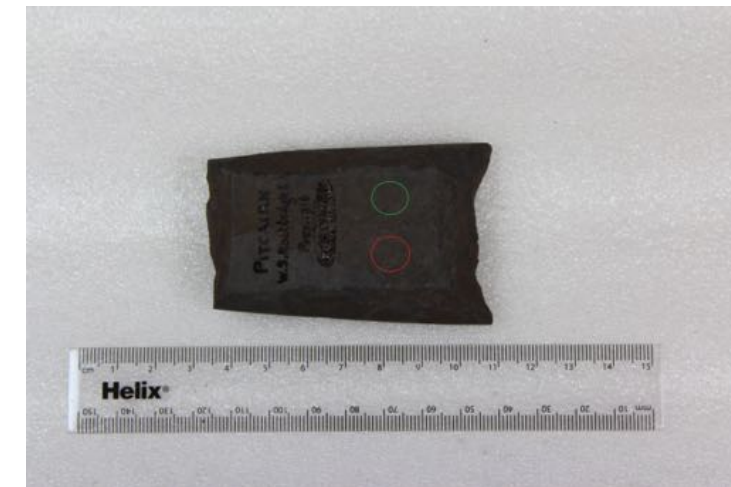
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.3	44.1	0	2.2	5.9	3.2	226.9	0.0	0.2	10.6	▲ GREEN* V A C U U M ▼
2	16.0	40.1	0	2.2	6.0	3.0	236.9	0.0	0.1	9.6	
3	18.9	50.8	0	2.2	5.9	3.4	212.9	0.0	0.2	11.1	
4											
AV	17.4	45.0	0.1	2.2	5.9	3.2	225.5	0.0	0.2	10.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	60.2	79.7	209.4	26.6	21.7	20.6	7.5	55.8	673.8	36.0	440.2	85.7	▲ GREEN ▼
	79.6	70.2	207.1	28.4	14.7	10.3	8.1	53.9	680.3	39.2	430.5	83.7	
	114.7	58.1	209.8	29.0	33.9	26.6	10.1	60.7	748.9	35.2	440.7	90.4	
AV	85	69	209	28	23	19	9	57	701	37	437	87	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



Accession No. PRM 1916.36.42

Record No. 445

pXRF_0062_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 1-B (unfinished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	70	Width Cutting Edge	43.8	Shoulder Back Max Width	28.6
Max Width	45	Bevel Max Thickness	17.4	Shoulder Max Thickness	16.2
Max Thickness	17.6	Middle Width	34.7	Middle Max Thickness	16.5
Weight (g)		Middle Thickness	no_data	Top Max Width	19.3
		Middle Max Front	no_data	Top Max Thickness	18.6
		Shoulder Front Max Width	13.7	Cutting Edge to Bevel	27.7
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	20.3
TAS (SiO ₂) Material	41			Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	21.4	40.0	2	2.3	3.4	3.0	218.3	0.0	0.2	12.3
2	19.0	44.8	2	2.4	5.0	2.9	248.7	0.0	0.2	11.5
3	18.0	37.7	1	2.1	5.0	2.7	222.3	0.0	0.2	11.9
4										
AV	19.5	40.8	1.9	2.3	4.4	2.9	229.8	0.0	0.2	11.9

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	79.0	30.6	245.8	29.6	20.8	22.8	12.4	71.3	705.5	29.7	437.9	88.3
	91.6	69.3	205.1	29.7	22.2	19.7	7.7	52.0	723.1	39.1	409.3	85.2
	47.1	67.5	212.7	30.8	17.8	18.4	7.9	50.8	705.1	40.3	439.9	86.6
AV	73	56	221	30	20	20	9	58	711	36	429	87



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AV

GREEN*

GREEN

YELLOW

Accession No. PRM 1916.36.43

Record No. 446

pXRF_0063_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 2-A (broken) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	171	Width Cutting Edge	84.1	Shoulder Back Max Width	54.7
Max Width	85	Bevel Max Thickness	19.6	Shoulder Max Thickness	38.1
Max Thickness	46.1	Middle Width	73	Middle Max Thickness	46.1
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Pitcairn Islands	Shoulder Front Max Width	29.8	Cutting Edge to Bevel	28.5
TAS (SiO ₂) Material	46	Middle Max Back	no_data	Length Rightangle to Bevel	19.9
				Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.8	45.9	1	2.1	6.7	3.2	228.8	0.0	0.2	10.3
2	15.4	42.2	0	2.2	6.8	3.2	234.8	0.0	0.1	9.8
3	18.6	49.1	1	2.1	7.0	3.3	220.5	0.0	0.2	10.4
4										
AV	17.3	45.7	0.6	2.2	6.8	3.2	228.0	0.0	0.1	10.2

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	75.5	106.8	189.8	37.0	30.0	31.0	9.4	56.9	735.7	35.5	422.3	86.3
	88.3	68.8	199.7	27.3	30.5	31.5	11.8	70.0	728.3	30.4	404.1	81.8
	117.0	122.2	220.7	28.0	35.2	33.3	8.6	59.0	620.3	34.9	397.6	77.6
AV	94	99	203	31	32	32	10	62	695	34	408	82

GREEN

YELLOW



AV												
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AV

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 1913 - 1916
 Collection Method Surface
 Place Collected Pitcairn Islands
 Material Stone
 Object Adze
 Type 2-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	89.7	Width Cutting Edge	28.4	Shoulder Back Max Width	38.5
Max Width	47	Bevel Max Thickness	5.9	Shoulder Max Thickness	9.8
Max Thickness	9.9	Middle Width	31.3	Middle Max Thickness	9.9
Weight (g)		Middle Thickness	no_data	Top Max Width	16.3
		Middle Max Front	no_data	Top Max Thickness	4.7
		Shoulder Front Max Width	20.6	Cutting Edge to Bevel	9.7
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	6.9
TAS (SiO ₂) Material	52			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.2	50.1	0	2.1	6.4	3.1	247.1	0.0	0.2	11.2	V A C U U M * G R E E N
2	19.4	52.4	1	2.0	6.6	3.2	229.7	4.8	0.2	12.2	
3	20.4	54.1	1	2.1	6.3	3.1	232.4	0.0	0.2	11.6	
4											
AV	19.3	52.2	1.0	2.1	6.4	3.2	236.4	1.6	0.2	11.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	79.0	100.6	187.0	30.2	48.3	45.9	6.5	42.6	704.8	42.7	387.1	80.3	G R E E N
	73.1	91.1	259.8	30.3	38.4	40.7	7.8	49.8	719.7	40.2	418.3	82.3	
	114.4	137.0	289.6	25.5	43.9	44.0	8.0	53.3	716.6	37.1	428.6	77.8	
AV	89	110	245	29	44	44	7	49	714	40	411	80	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1925.29.60

Record No. 450

pXRF_0067_PRM

Museum Pitt Rivers

Date Acquired by Museum 1925

Collector W.S Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Marae Harii, Tubuai

Material Stone

Object Adze

Type 3-E (unfinished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	110.4	Width Cutting Edge	46.3	Shoulder Back Max Width	32.6
Max Width	47	Bevel Max Thickness	19	Shoulder Max Thickness	21.3
Max Thickness	21.5	Middle Width	40.2	Middle Max Thickness	19.4
Weight (g)		Middle Thickness	no_data	Top Max Width	17.6
		Middle Max Front	no_data	Top Max Thickness	15.9
		Shoulder Front Max Width	18.9	Cutting Edge to Bevel	37.1
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	34.5
TAS (SiO ₂) Material	36			Cross Section Shape	Sub-triangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	13.9	36.2	0	0.8	11.7	3.1	255.2	0.0	0.2	11.5
2	14.4	35.7	0	1.3	11.1	3.0	266.6	0.0	0.1	10.6
3	12.7	34.9	0	0.8	14.5	1.9	225.2	0.0	0.1	8.0
4										
AV	13.6	35.6	0.2	1.0	12.5	2.7	249.0	0.0	0.1	10.1

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	170.4	84.4	483.0	25.7	49.0	44.4	6.3	41.3	1043.8	37.5	267.9	99.5
	132.7	119.0	408.4	27.1	43.3	35.4	7.5	47.2	1048.0	35.8	276.4	111.0
	242.7	135.5	876.1	27.5	156.7	146.6	2.7	33.8	1132.1	38.4	255.9	103.7
AV	182	113	589	27	83	75	5	41	1075	37	267	105

GREEN

YELLOW



AV

Accession No. PRM 1925.29.62

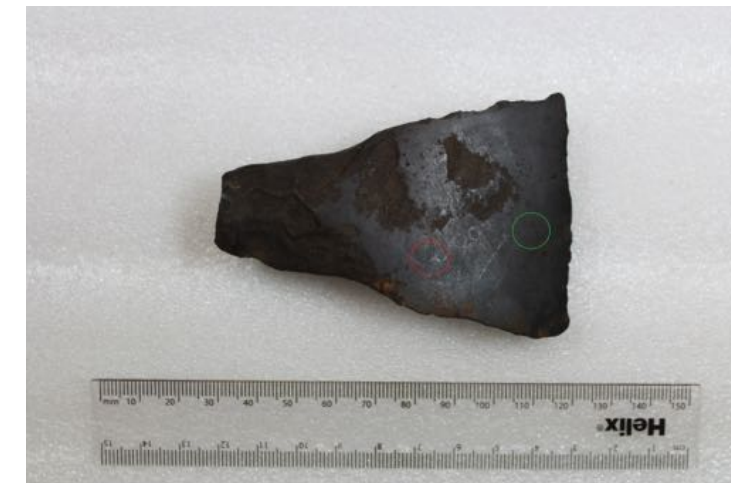
Record No. 452

pXRF_0069_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Marae Harii, Tubuai
 Material Stone
 Object Adze
 Type 3-H (finished)
 Additional Museum Notes Yes No

Measurements (mm)			
Max Length	86.7	Width Cutting Edge	60.2
Max Width	58	Bevel Max Thickness	15.8
Max Thickness	25.5	Middle Width	46.6
Weight (g)		Middle Thickness	no_data
		Middle Max Front	no_data
		Shoulder Front Max Width	23.7
Island Group	Austral Islands	Middle Max Back	no_data
TAS (SiO ₂) Material	38		
			foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.9	44.3	1	1.5	10.4	3.2	255.5	0.0	0.2	11.5
2	15.8	41.5	0	1.3	10.4	3.2	259.6	0.0	0.2	11.4
3	12.7	29.0	0	1.1	14.6	2.1	246.1	0.0	0.1	10.2
4										
AV	15.1	38.3	0.3	1.3	11.8	2.8	253.7	0.0	0.2	11.1

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	153.6	102.1	291.1	34.8	144.1	136.1	6.2	42.3	985.6	38.4	265.9	104.1
	146.9	144.6	254.5	20.5	47.3	53.1	5.5	38.8	964.7	38.0	281.5	100.2
	188.5	211.7	392.1	44.3	344.0	342.8	5.5	45.9	1054.1	36.5	263.4	91.5
AV	163	153	313	33	179	177	6	42	1001	38	270	99



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AV

VACUUM GREEN*

GREEN

YELLOW

Accession No. PRM 1925.29.63

Record No. 453

pXRF_0070_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Marae Vairani, Tubuai
 Material Stone
 Object Adze
 Type 3-H (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	127.4	Width Cutting Edge	54	Shoulder Back Max Width	52.5
Max Width	54	Bevel Max Thickness	21.8	Shoulder Max Thickness	23.6
Max Thickness	23.3	Middle Width	53.1	Middle Max Thickness	22.4
Weight (g)		Middle Thickness	no_data	Top Max Width	21.2
		Middle Max Front	no_data	Top Max Thickness	14.3
		Shoulder Front Max Width	6.5	Cutting Edge to Bevel	66.8
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	57.7
TAS (SiO ₂) Material	39			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.0	36.7	0	1.1	10.3	3.4	250.7	0.0	0.2	12.0
2	14.4	41.6	0	1.1	10.4	3.4	239.3	0.0	0.2	11.9
3	14.2	38.0	0	1.2	10.0	3.3	242.7	0.0	0.2	12.0
4										
AV	14.2	38.7	0.0	1.1	10.2	3.4	244.2	0.0	0.2	11.9

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	210.7	97.0	443.6	35.5	280.9	277.0	4.3	41.8	1051.6	39.5	286.1	103.7
	177.5	118.5	318.0	24.9	60.6	53.6	5.3	36.2	972.1	36.3	263.7	106.1
	215.2	73.6	237.9	23.7	48.7	44.1	6.1	40.3	982.4	37.7	281.5	104.2
AV	201	96	333	28	130	125	5	39	1002	38	277	105



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AV

Accession No. PRM 1925.29.64

Record No. 454

pXRF_0071_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Marae Vairani, Tubuai
 Material Stone
 Object Adze
 Type 3-F (finished)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	107.9	Width Cutting Edge	35.5	Shoulder Back Max Width	40.2
Max Width	no_data	Bevel Max Thickness	26.2	Shoulder Max Thickness	29.5
Max Thickness	28.9	Middle Width	40.2	Middle Max Thickness	29.5
Weight (g)		Middle Thickness	no_data	Top Max Width	26.6
		Middle Max Front	no_data	Top Max Thickness	19.8
Island Group	Austral Islands	Shoulder Front Max Width	9.4	Cutting Edge to Bevel	49.1
TAS (SiO ₂) Material	40	Middle Max Back	no_data	Length Rightangle to Bevel	45.7
				Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.0	40.2	0	1.5	9.8	3.0	246.4	0.0	0.2	11.3	V A C U U M * G R E E N
2	18.0	40.1	0	1.3	9.3	3.1	239.1	0.0	0.2	12.2	
3	17.5	38.6	0	1.5	8.5	3.2	224.9	0.0	0.2	12.1	
4											
AV	17.2	39.6	0.0	1.4	9.2	3.1	236.8	0.0	0.2	11.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	160.2	57.7	196.6	35.5	80.1	73.5	10.0	57.6	1039.4	33.5	311.9	116.3	G R E E N
	155.5	90.8	206.2	24.8	143.2	132.1	6.9	44.4	985.4	38.9	309.4	129.0	
	158.7	76.9	213.7	30.7	117.6	123.7	7.6	48.5	1026.6	34.9	310.1	115.9	
AV	158	75	206	30	114	110	8	50	1017	36	310	120	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1925.29.65

Record No. 455

pXRF_0072_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Temopu, Marae, Tubuai
 Material Stone
 Object Adze
 Type 3-F (finished)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	139.4	Width Cutting Edge	42.2	Shoulder Back Max Width	32.5
Max Width	42.2	Bevel Max Thickness	32.1	Shoulder Max Thickness	31.9
Max Thickness	31.9	Middle Width	33.5	Middle Max Thickness	31.5
Weight (g)		Middle Thickness	no_data	Top Max Width	22.4
		Middle Max Front	no_data	Top Max Thickness	13.9
		Shoulder Front Max Width	13.9	Cutting Edge to Bevel	81.8
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	71.4
TAS (SiO ₂) Material	43			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.5	43.6	0	0.9	11.0	3.4	260.3	0.0	0.2	12.0
2	15.4	43.2	2	1.0	11.0	3.3	272.8	0.0	0.2	11.6
3	15.4	43.3	0	1.6	10.5	3.2	247.0	0.0	0.1	11.3
4										
AV	15.4	43.4	0.7	1.2	10.8	3.3	260.0	0.0	0.1	11.6

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	196.4	215.3	269.2	29.6	75.2	74.4	4.0	33.1	907.0	40.3	251.5	87.5
	192.1	199.5	286.2	27.0	119.9	115.1	3.4	29.5	853.1	35.8	254.5	82.7
	217.3	180.2	341.3	32.0	103.0	97.2	3.9	32.0	934.3	41.7	244.7	81.0
AV	202	198	299	30	99	96	4	32	898	39	250	84

GREEN

YELLOW



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AV

Accession No. PRM 1925.29.68

Record No. 458

pXRF_0075_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Marae Peetau, Tubuai
 Material Stone
 Object Adze
 Type 3-F (finished)
 Additional Museum Notes Yes No

Measurements (mm)			
Max Length	205	Width Cutting Edge	43.7
Max Width	48	Bevel Max Thickness	35.7
Max Thickness	42.9	Middle Width	43.1
Weight (g)		Middle Thickness	no_data
		Middle Max Front	no_data
		Shoulder Front Max Width	16.4
Island Group	Austral Islands	Middle Max Back	no_data
TAS (SiO ₂) Material	39		
			foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.4	39.8	0	0.7	11.7	3.1	281.6	0.0	0.2	12.7	V A C U U M * G R E E N
2	13.8	35.7	0	0.8	11.5	3.0	279.9	0.0	0.2	11.2	
3	14.7	40.5	2	0.7	12.3	3.1	300.3	0.0	0.2	11.9	
4											
AV	14.3	38.6	0.8	0.7	11.8	3.1	287.3	0.0	0.2	11.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	195.7	160.6	181.4	24.1	36.7	35.2	3.4	25.6	685.5	38.3	251.4	80.7
	218.0	116.4	150.8	26.6	42.0	46.7	3.8	28.0	663.7	36.9	251.7	74.5
	230.2	86.5	160.6	37.0	288.4	283.9	3.4	34.5	716.9	38.2	233.4	74.6
AV	215	121	164	29	122	122	4	29	689	38	246	77



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												

AV

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Rimatara, Tubuai Islands
 Material Stone
 Object Adze
 Type 3-F (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	310	Width Cutting Edge	56	Shoulder Back Max Width	60.5
Max Width	68	Bevel Max Thickness	57.3	Shoulder Max Thickness	58.2
Max Thickness	57.5	Middle Width	60.6	Middle Max Thickness	52.7
Weight (g)		Middle Thickness	no_data	Top Max Width	38.3
		Middle Max Front	no_data	Top Max Thickness	37.6
		Shoulder Front Max Width	4.2	Cutting Edge to Bevel	128.8
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	127.2
TAS (SiO ₂) Material	40			Cross Section Shape	Triangular

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.6	38.6	0	1.4	8.0	3.7	154.9	0.0	0.2	13.0	V A C U U M * G R E E N
2	14.8	43.0	2	1.5	8.8	4.1	84.0	0.0	0.2	12.9	
3	14.3	37.9	1	1.2	9.2	4.0	127.2	0.0	0.2	12.7	
4											
AV	14.2	39.9	0.8	1.4	8.7	4.0	122.0	0.0	0.2	12.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	168.0	100.4	224.8	30.7	40.4	39.3	9.3	55.8	1289.1	34.4	372.5	111.1	G R E E N
	183.6	94.4	257.1	29.9	179.1	176.3	10.7	60.4	1353.8	35.1	374.0	117.6	
	164.4	106.6	296.6	29.4	232.3	226.8	9.0	57.3	1414.1	35.5	378.2	113.4	
AV	172	100	260	30	151	147	10	58	1352	35	375	114	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1925.29.72

Record No. 462

pXRF_0079_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Raivavaé, Anatomu,
 Material Stone
 Object Adze
 Type 3-A (finished)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	93	Width Cutting Edge	38.5	Shoulder Back Max Width	32.8
Max Width	39	Bevel Max Thickness	16	Shoulder Max Thickness	26.9
Max Thickness	27.4	Middle Width	31.9	Middle Max Thickness	26.5
Weight (g)		Middle Thickness	no_data	Top Max Width	20.6
		Middle Max Front	no_data	Top Max Thickness	19.3
		Shoulder Front Max Width	9.3	Cutting Edge to Bevel	17.8
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	11.6
TAS (SiO ₂) Material	40			Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.9	40.4	0	0.7	12.7	3.2	270.9	0.0	0.2	11.6
2	14.6	42.8	1	0.7	12.8	3.1	282.8	0.0	0.1	11.2
3	14.0	37.3	0	0.7	13.0	3.1	363.9	0.0	0.1	10.6
4										
AV	14.5	40.2	0.4	0.7	12.9	3.1	305.9	0.0	0.1	11.1

GREEN*
 V
 A
 C
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Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	213.0	98.9	274.5	31.2	71.1	65.7	3.4	27.6	775.7	37.8	234.4	76.4
	232.9	118.3	1847.0	22.8	124.3	116.3	4.0	31.4	756.6	38.9	247.0	75.9
	201.2	87.4	522.1	26.3	93.0	94.1	4.9	35.0	769.1	35.7	239.5	78.2
AV	216	102	881	27	96	92	4	31	767	37	240	77

GREEN

YELLOW

AV

Accession No. PRM 1925.29.73

Record No. 463

pXRF_0080_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Marae Unurau, Raivavae,
 Material Stone
 Object Adze
 Type 1-B (finished)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	101.9	Width Cutting Edge	66	Shoulder Back Max Width	58.6
Max Width	66	Bevel Max Thickness	16.8	Shoulder Max Thickness	17.4
Max Thickness	17.5	Middle Width	63.2	Middle Max Thickness	17.5
Weight (g)		Middle Thickness	no_data	Top Max Width	31.4
Island Group	Austral Islands	Middle Max Front	no_data	Top Max Thickness	17.7
TAS (SiO ₂) Material	44	Shoulder Front Max Width	62.3	Cutting Edge to Bevel	33.3
	<input type="text" value="picro-basalt / basanite"/>	Middle Max Back	no_data	Length Rightangle to Bevel	25.1
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.2	43.7	1	1.5	8.0	3.2	239.1	0.0	0.2	12.0	V A C U U M * G R E E N
2	13.8	44.0	2	1.6	7.9	2.9	237.7	0.0	0.2	11.5	
3	14.5	44.1	1	1.5	7.9	3.2	231.3	0.0	0.2	11.8	
4											
AV	14.2	43.9	1.4	1.5	7.9	3.1	236.0	0.0	0.2	11.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	204.1	72.7	489.5	23.1	109.9	105.1	8.8	52.2	1560.7	36.6	348.8	100.8	G R E E N
	167.4	70.2	502.4	28.0	55.7	52.6	8.0	49.8	1523.5	39.1	368.5	100.8	
	197.1	82.8	696.6	30.3	64.0	56.7	7.6	48.4	1585.6	40.5	360.7	103.3	
AV	190	75	563	27	77	71	8	50	1557	39	359	102	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Akamuru Island, Gambier
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)			
Max Length	125	Width Cutting Edge	no_data
Max Width	70	Bevel Max Thickness	no_data
Max Thickness	29.8	Middle Width	no_data
Weight (g)		Middle Thickness	29.4
		Middle Max Front	44.8
Island Group	Gambier Islands	Shoulder Front Max Width	no_data
TAS (SiO ₂) Material	44	Middle Max Back	61.8
		Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.0	46.8	0	0.8	12.6	2.6	268.0	392.4	0.1	9.6
2	15.7	41.7	0	1.0	11.5	2.4	242.0	56.9	0.1	8.2
3	16.3	42.1	0	0.9	12.4	2.5	261.3	137.0	0.1	8.2
4										
AV	16.3	43.5	0.1	0.9	12.2	2.5	257.1	195.4	0.1	8.7

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	230.2	107.5	285.3	22.5	35.0	33.4	3.5	26.5	451.1	55.6	192.4	38.3
	271.1	103.5	198.2	33.6	164.1	155.9	2.4	21.3	465.3	50.1	187.9	34.7
	285.3	125.9	194.2	64.8	401.5	491.8	0.0	25.3	459.8	50.2	187.9	35.0
AV	262	112	226	40	200	227	2	24	459	52	189	36



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AV

Accession No. PRM 1925.29.34

Record No. 471

pXRF_0088_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Mangareva Atituiti,
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	50.4	Width Cutting Edge	16.8	Shoulder Back Max Width	16.4
Max Width	18	Bevel Max Thickness	8.1	Shoulder Max Thickness	9.5
Max Thickness	9.7	Middle Width	16.4	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	13.4
		Middle Max Front	no_data	Top Max Thickness	9.6
		Shoulder Front Max Width	10.4	Cutting Edge to Bevel	14.5
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	10.4
TAS (SiO ₂) Material	45			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.2	41.3	0	0.9	11.5	2.6	261.4	0.0	0.1	8.9	V A C U U M * G R E E N
2	16.7	48.8	0	0.9	11.4	2.4	246.0	0.0	0.1	7.5	
3	15.6	43.9	0	0.9	10.5	2.6	295.0	0.0	0.1	11.1	
4											
AV	16.2	44.6	0.1	0.9	11.1	2.5	267.4	0.0	0.1	9.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	283.4	217.4	250.8	112.2	140.7	600.2	0.0	26.2	516.2	48.3	199.9	40.5	G R E E N
	216.8	177.8	223.1	39.0	326.0	324.2	0.0	23.1	495.2	36.8	202.5	36.4	
	247.2	188.8	234.9	110.7	3.4	542.0	0.0	23.7	514.7	47.5	212.7	37.9	
AV	249	195	236	87	157	489	0	24	509	44	205	38	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1925.29.36

Record No. 473

pXRF_0090_PRM

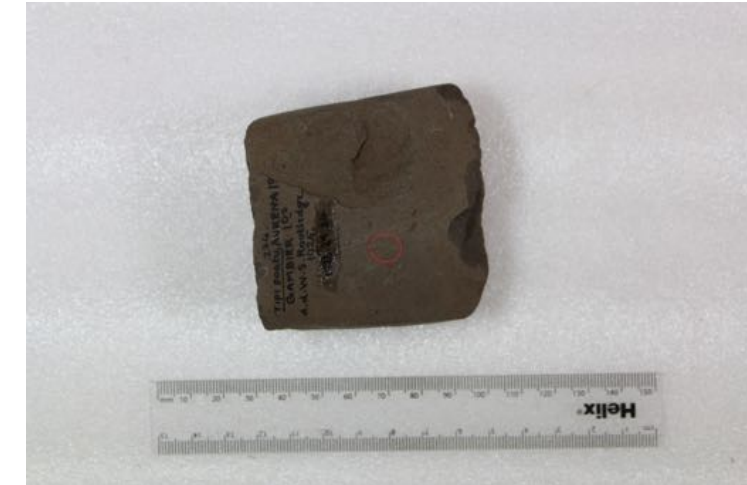
Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Aukena Island
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	58.3	Width Cutting Edge	22	Shoulder Back Max Width	no_data
Max Width	23	Bevel Max Thickness	11.7	Shoulder Max Thickness	no_data
Max Thickness	12.9	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	12.8	Top Max Width	20
		Middle Max Front	9.7	Top Max Thickness	9.7
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	13.7
Island Group	Gambier Islands	Middle Max Back	22.4	Length Rightangle to Bevel	7.1
TAS (SiO ₂) Material	43			Cross Section Shape	no_data

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.1	45.7	0	0.5	10.9	2.1	264.5	431.5	0.2	11.6
2	16.9	42.8	0	0.6	10.6	2.1	256.3	282.0	0.1	10.9
3	16.2	40.7	0	0.6	10.6	2.0	253.4	282.4	0.1	10.8
4										
AV	16.7	43.1	0.0	0.6	10.7	2.1	258.1	331.9	0.1	11.1

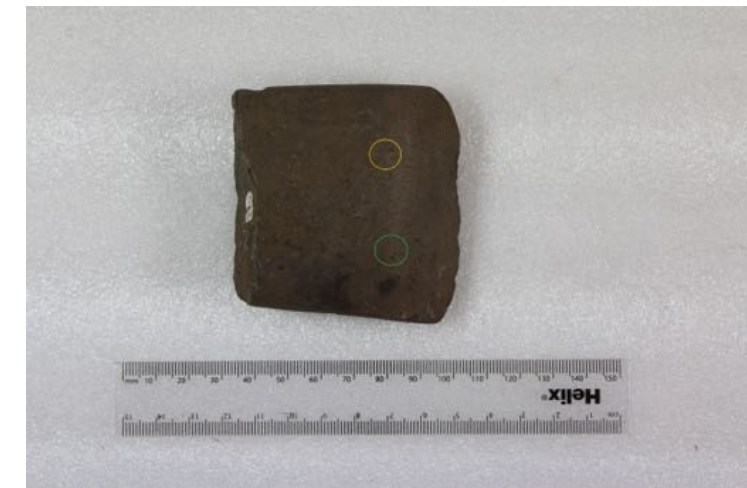
GREEN*
V
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C
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M

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	244.2	108.7	118.1	27.2	41.3	36.2	2.4	19.3	380.2	27.4	112.8	15.4
	279.5	102.0	147.3	22.3	65.9	57.5	2.7	21.1	387.6	26.4	120.2	18.2
	271.6	112.0	159.3	22.0	54.9	44.6	2.7	21.0	385.1	25.5	123.5	17.1
AV	265	108	142	24	54	46	3	20	384	26	119	17

GREEN

YELLOW



AV

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Tara-vai Island
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	108.7	Width Cutting Edge	44.2	Shoulder Back Max Width	no_data
Max Width	48	Bevel Max Thickness	14.6	Shoulder Max Thickness	no_data
Max Thickness	16.2	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	15.6	Top Max Width	26.1
		Middle Max Front	18.5	Top Max Thickness	7
Island Group	Gambier Islands	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	22.9
TAS (SiO ₂) Material	48	Middle Max Back	35.6	Length Rightangle to Bevel	19.2
				Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.8	46.8	1	1.1	11.7	3.0	268.2	0.0	0.1	9.9	▲ GREEN* V A C U U M ▼
2	17.0	48.5	1	1.0	11.8	3.0	260.3	0.0	0.1	9.7	
3	16.6	47.3	1	1.0	11.5	2.9	262.8	0.0	0.1	9.9	
4											
AV	16.5	47.5	0.8	1.0	11.7	3.0	263.8	0.0	0.1	9.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	218.3	123.6	247.6	25.4	52.0	53.4	2.4	19.6	524.1	34.4	238.0	44.0	▲ GREEN ▼
	195.0	158.6	233.7	38.9	313.8	310.7	0.7	17.4	529.3	38.4	248.9	45.6	
	237.0	132.6	234.5	59.5	326.8	368.4	0.0	18.0	513.1	43.4	247.4	46.2	
AV	217	138	239	41	231	244	1	18	522	39	245	45	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													



AV

Accession No. PRM 1925.29.48

Record No. 481

pXRF_0098_PRM

Museum Pitt Rivers

Date Acquired by Museum 1925

Collector W.S. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Tara-vai Island

Material Stone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	141.9	Width Cutting Edge	42.5	Shoulder Back Max Width	no_data
Max Width	42	Bevel Max Thickness	32.7	Shoulder Max Thickness	no_data
Max Thickness	33.7	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	29.6	Top Max Width	34.5
		Middle Max Front	28.6	Top Max Thickness	15.6
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	44.2
Island Group	Gambier Islands	Middle Max Back	39.1	Length Rightangle to Bevel	36.4
TAS (SiO ₂) Material	46			Cross Section Shape	no_data

basalt

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.0	48.3	0	0.5	11.7	2.0	258.8	279.1	0.1	9.8	V A C U U M * G R E E N
2	15.8	44.1	0	0.6	11.0	2.2	263.9	317.4	0.1	9.7	
3	16.1	44.6	0	0.6	11.0	2.1	269.6	318.9	0.1	10.1	
4											
AV	16.3	45.7	0.1	0.6	11.2	2.1	264.1	305.1	0.1	9.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	298.5	164.2	141.4	26.2	68.2	67.5	1.6	13.2	382.1	31.0	105.3	16.3	G R E E N
	277.8	131.5	158.6	31.1	265.3	280.5	0.0	17.9	356.2	30.3	109.7	18.2	
	301.7	158.8	158.2	36.6	274.1	282.3	0.5	19.9	356.3	31.3	125.6	23.2	
AV	293	151	153	31	203	210	1	17	365	31	114	19	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1925.29.49

Record No. 482

pXRF_0099_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Tara-vai Island, Gambier
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	78.5	Width Cutting Edge	27	Shoulder Back Max Width	no_data
Max Width	35	Bevel Max Thickness	40	Shoulder Max Thickness	no_data
Max Thickness	41.7	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	41.7	Top Max Width	no_data
		Middle Max Front	26.4	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	60.1
Island Group	Gambier Islands	Middle Max Back	27.8	Length Rightangle to Bevel	50
TAS (SiO ₂) Material	45			Cross Section Shape	no_data

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.9	44.6	0	0.4	11.8	1.9	252.2	285.2	0.1	10.4	VACUUM GREEN*
2	15.0	45.0	1	0.5	11.3	1.8	250.8	234.7	0.1	10.2	
3	15.9	44.7	0	0.3	11.9	1.9	258.3	273.3	0.1	10.8	
4											
AV	15.6	44.8	0.4	0.4	11.7	1.8	253.8	264.4	0.1	10.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	263.5	123.0	472.7	22.5	59.0	56.6	1.6	12.6	366.3	32.3	117.3	21.1	GREEN
	255.1	159.0	823.8	49.3	402.5	449.9	0.0	14.8	365.6	34.3	116.8	20.7	
	285.2	146.2	268.9	27.6	186.4	176.0	1.2	16.0	382.8	28.5	123.6	19.3	
AV	268	143	522	33	216	227	1	14	372	32	119	20	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													



Accession No. PRM 1925.29.50

Record No. 483

pXRF_0100_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1925
 Collector W.S. Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Tara-vai Island, Gambier
 Material Stone
 Object Adze
 Type n/a
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	170	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	66	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	26.2	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	35.4	Top Max Width	53.5
		Middle Max Front	45.1	Top Max Thickness	31
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	58.2	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	42			Cross Section Shape	no_data

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.4	43.3	0	0.8	10.7	2.5	275.5	224.9	0.1	10.4
2	18.5	44.0	0	0.8	10.6	2.5	298.1	276.5	0.1	10.3
3	16.7	39.0	0	0.9	10.0	2.3	257.7	177.2	0.1	10.0
4										
AV	17.9	42.1	0.0	0.8	10.4	2.4	277.1	226.2	0.1	10.2

GREEN*
V
A
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Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	291.6	122.1	259.5	28.0	124.2	116.9	2.1	16.6	407.0	27.1	159.2	27.8
	259.9	126.2	239.4	44.1	356.1	395.7	0.0	15.7	440.4	33.8	156.9	25.7
	258.7	102.2	166.3	19.5	34.0	28.2	1.9	15.1	404.6	27.0	152.1	23.2
AV	270	117	222	31	171	180	1	16	417	29	156	26

GREEN

YELLOW



AV

Accession No. PRM 1925.29.52

Record No. 485

pXRF_0102_PRM

Museum Pitt Rivers

Date Acquired by Museum 1925

Collector W.S. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Tara-vai Island, Gambier

Material Stone

Object Adze (anthropomorphic)

Type 1-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	114.4	Width Cutting Edge	37.1	Shoulder Back Max Width	no_data
Max Width	45	Bevel Max Thickness	17.7	Shoulder Max Thickness	no_data
Max Thickness	21.2	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	21.5	Top Max Width	23.6
		Middle Max Front	29.6	Top Max Thickness	12.5
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	30.3
Island Group	Gambier Islands	Middle Max Back	41.1	Length Rightangle to Bevel	27.1
TAS (SiO ₂) Material	43			Cross Section Shape	no_data

micro-basalt / basanite

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.5	45.0	0	1.5	10.0	3.9	176.5	206.4	0.1	8.6
2	15.6	40.9	0	1.5	9.9	4.1	148.2	403.9	0.1	10.0
3	16.0	42.0	0	1.4	9.2	3.9	241.8	423.1	0.1	12.4
4										
AV	15.7	42.6	0.3	1.4	9.7	4.0	188.8	344.5	0.1	10.3

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	290.4	118.6	662.2	71.1	649.6	696.6	0.9	44.7	727.2	38.9	294.1	62.0
	225.2	108.6	282.0	30.8	69.7	62.8	4.9	34.4	694.6	34.8	294.6	66.3
	262.4	99.5	287.5	26.2	65.3	56.7	4.5	33.3	721.2	34.7	286.4	58.5
AV	259	109	411	43	262	272	3	37	714	36	292	62

GREEN

YELLOW



AV

Accession No. PRM 1916.36.150

Record No. 491

pXRF_0108_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 29.03.1914 - 18.08.1915

Collection Method Surface

Place Collected Easter Island Rapa Nui

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	180	Width Cutting Edge	55.3	Shoulder Back Max Width	no_data
Max Width	55	Bevel Max Thickness	17.5	Shoulder Max Thickness	no_data
Max Thickness	38.2	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	38.2	Top Max Width	17.7
		Middle Max Front	39.8	Top Max Thickness	13.8
Island Group	Easter Island	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	32.8
TAS (SiO ₂) Material	53	Middle Max Back	48.3	Length Rightangle to Bevel	25.2
				Cross Section Shape	Quadrangular

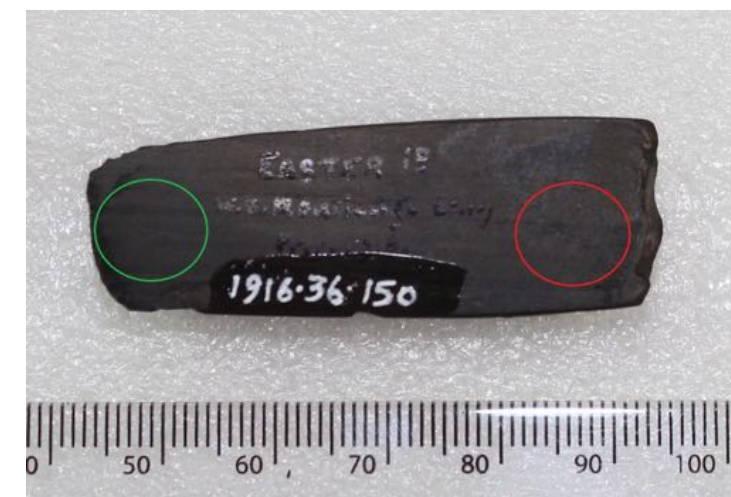
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.1	49.5	0	1.8	5.2	2.5	264.5	0.0	0.2	13.1
2	16.3	51.7	0	1.8	5.3	2.4	267.9	13.2	0.2	13.1
3	18.9	59.0	1	1.8	5.0	2.6	252.4	41.4	0.2	14.0
4										
AV	17.1	53.4	0.3	1.8	5.2	2.5	261.6	18.2	0.2	13.4

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	142.3	80.6	189.8	28.2	23.5	26.3	3.7	35.3	328.7	59.6	479.8	68.3
	138.5	77.8	229.6	25.7	20.5	15.0	4.8	35.1	334.8	60.6	482.6	69.8
	127.2	61.1	258.0	31.0	27.3	24.8	3.6	32.1	322.0	59.7	487.7	68.7
AV	136	73	226	28	24	22	4	34	329	60	483	69

GREEN

YELLOW



AV

Accession No. PRM 1916.36.151

Record No. 492

pXRF_0109_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 29.03.1914 - 18.08.1915

Collection Method Surface

Place Collected Easter Island Rapa Nui

Material Stone

Object Adze

Type 2-A (broken) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	83.4	Width Cutting Edge	35	Shoulder Back Max Width	no_data
Max Width	40	Bevel Max Thickness	15.7	Shoulder Max Thickness	no_data
Max Thickness	17.5	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	16.8	Top Max Width	25.9
		Middle Max Front	25.6	Top Max Thickness	13.2
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	23.8
Island Group	Easter Island	Middle Max Back	35.6	Length Rightangle to Bevel	18.2
TAS (SiO ₂) Material	47			Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	20.2	45.3	1	2.0	5.2	3.1	230.6	0.0	0.2	11.7
2	19.8	46.3	1	2.0	5.4	3.0	243.4	0.0	0.2	11.9
3	20.9	48.2	1	2.0	6.0	3.0	240.1	0.0	0.2	11.9
4										
AV	20.3	46.6	0.8	2.0	5.5	3.0	238.0	0.0	0.2	11.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	139.8	73.0	309.4	61.8	633.2	721.7	0.0	59.0	669.9	37.5	432.6	89.2
	116.9	81.9	346.6	54.9	386.6	413.9	3.3	50.5	660.5	40.2	417.2	80.9
	110.7	64.6	380.7	34.6	59.0	50.3	9.6	59.2	691.3	35.5	396.1	78.8
AV	122	73	346	50	360	395	4	56	674	38	415	83



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AV

Accession No. PRM 1916.36.152

Record No. 493

pXRF_0110_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 29.03.1914 - 18.08.1915

Collection Method Surface

Place Collected Easter Island Rapa Nui

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	66.7	Width Cutting Edge	69.5	Shoulder Back Max Width	no_data
Max Width	70	Bevel Max Thickness	24.2	Shoulder Max Thickness	no_data
Max Thickness	30.6	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
Island Group	Easter Island	Middle Max Front	no_data	Top Max Thickness	no_data
TAS (SiO ₂) Material	51	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	30.5
	basalt	Middle Max Back	no_data	Length Rightangle to Bevel	22.6
				Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

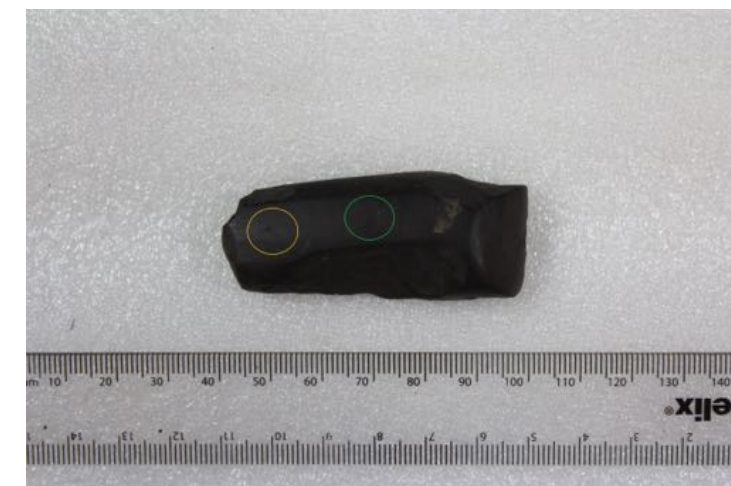
Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.3	50.5	0	1.6	6.2	2.2	261.1	0.0	0.2	13.0
2	16.0	53.4	0	1.6	5.7	2.2	268.8	0.0	0.2	14.0
3	15.6	50.5	0	1.7	6.3	2.2	268.3	0.0	0.2	12.6
4										
AV	15.7	51.5	0.4	1.7	6.1	2.2	266.0	0.0	0.2	13.2

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	132.2	67.8	221.0	34.2	20.1	19.5	6.0	40.3	322.9	57.0	484.3	72.9
	155.5	65.8	213.3	32.1	18.7	20.0	4.3	31.1	322.0	66.4	478.6	66.9
	137.9	71.4	200.8	28.5	24.2	23.6	4.4	34.1	350.6	62.2	485.5	73.5
AV	142	68	212	32	21	21	5	35	332	62	483	71



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AV

VACUUM

GREEN

YELLOW

Accession No. PRM 1916.36.154

Record No. 495

pXRF_0112_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 29.03.1914 - 18.08.1915

Collection Method Surface

Place Collected Easter Island Rapa Nui

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	168	Width Cutting Edge	63.5	Shoulder Back Max Width	63.5
Max Width	73	Bevel Max Thickness	35	Shoulder Max Thickness	38.4
Max Thickness	39.5	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	41.5
		Middle Max Front	no_data	Top Max Thickness	7.6
		Shoulder Front Max Width	35.1	Cutting Edge to Bevel	44.5
Island Group	Easter Island	Middle Max Back	no_data	Length Rightangle to Bevel	31.6
TAS (SiO ₂) Material	48			Cross Section Shape	Quadrangular

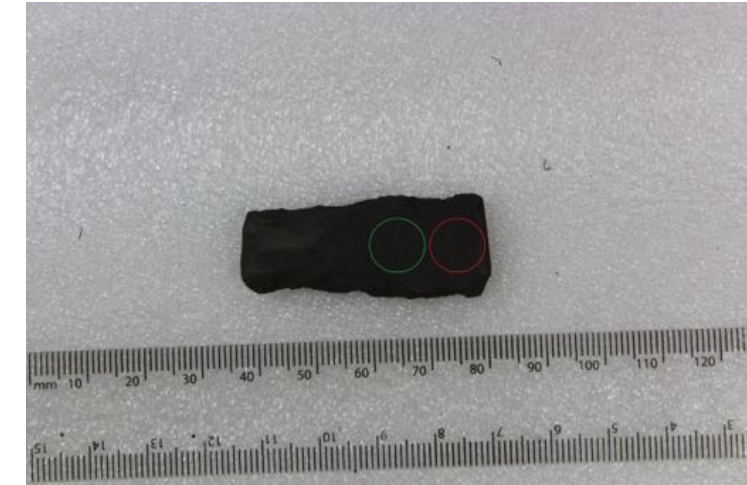
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

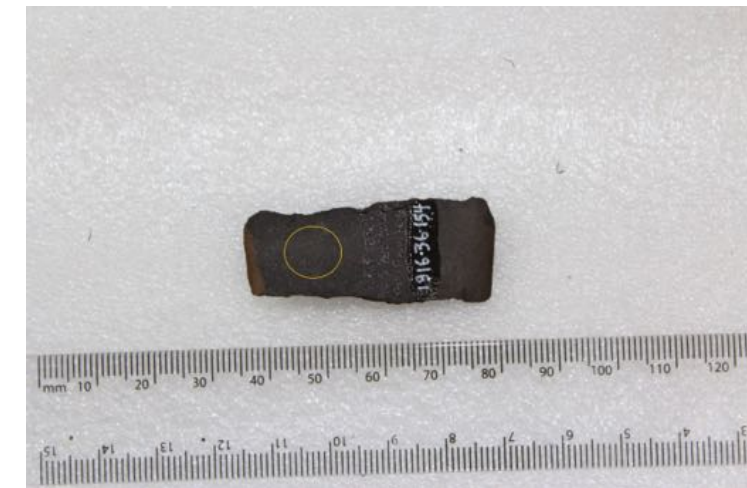
Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.4	48.0	0	1.7	5.9	2.2	266.3	15.1	0.2	13.7
2	16.5	46.4	0	1.8	5.7	2.2	253.0	0.0	0.2	12.7
3	18.4	49.3	0	1.8	5.6	2.3	282.0	0.0	0.2	13.7
4										
AV	17.4	47.9	0.2	1.8	5.7	2.2	267.1	5.0	0.2	13.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	90.8	49.8	211.0	31.0	24.7	22.8	5.1	37.4	330.1	59.0	487.5	66.2
	129.9	71.9	197.4	24.8	18.3	16.9	4.1	31.7	329.1	64.1	480.5	71.2
	109.5	70.0	248.4	30.8	46.7	43.1	4.8	33.8	297.0	58.5	481.3	69.2
AV	110	64	219	29	30	28	5	34	319	61	483	69



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AV

YELLOW

Accession No. PRM 1916.36.156

Record No. 497

pXRF_0114_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 29.03.1914 - 18.08.1915
 Collection Method Surface
 Place Collected Cape Roggeveen, Easter
 Material Stone
 Object Adze
 Type 2-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	105	Width Cutting Edge	52	Shoulder Back Max Width	no_data
Max Width	55	Bevel Max Thickness	21.3	Shoulder Max Thickness	no_data
Max Thickness	24.9	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	25	Top Max Width	16.9
		Middle Max Front	19.7	Top Max Thickness	9.8
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	25.6
Island Group	Easter Island	Middle Max Back	40.5	Length Rightangle to Bevel	20.3
TAS (SiO ₂) Material	37			Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	26.4	34.2	0	1.2	1.8	3.4	178.4	234.3	0.3	20.1
2	25.0	35.0	0	1.2	1.9	3.6	127.5	177.8	0.2	19.9
3	18.1	43.2	0	1.6	2.9	2.2	272.1	81.8	0.2	16.3
4										
AV	23.2	37.5	0.0	1.3	2.2	3.1	192.7	164.6	0.2	18.8

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Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	97.0	61.4	235.5	28.7	27.9	30.9	5.7	43.6	284.2	47.9	533.1	78.8
	106.5	56.5	241.0	29.9	18.9	15.7	5.5	37.3	251.8	76.7	522.3	82.0
	110.4	45.6	220.3	26.4	24.1	16.4	5.8	38.7	298.0	49.0	528.4	72.2
AV	105	55	232	28	24	21	6	40	278	58	528	78

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AV

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 29.03.1914 - 18.08.1915
 Collection Method Surface
 Place Collected Easter Island Rapa Nui
 Material Stone
 Object Adze
 Type 2-B (variant) (broken)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	94.7	Width Cutting Edge	31.7	Shoulder Back Max Width	no_data
Max Width	45	Bevel Max Thickness	14.8	Shoulder Max Thickness	no_data
Max Thickness	26.5	Middle Width	35.5	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	25.2	Top Max Width	28.1
		Middle Max Front	22.9	Top Max Thickness	5.3
Island Group	Easter Island	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	17.3
TAS (SiO ₂) Material	44	Middle Max Back	27.3	Length Rightangle to Bevel	15.3
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.3	45.4	0	1.8	4.5	1.9	236.3	4.2	0.2	13.0	V A C U U M * G R E E N
2	15.9	42.5	1	1.7	3.8	2.3	235.5	0.0	0.2	13.4	
3	18.0	45.0	0	1.8	3.6	2.3	236.3	14.6	0.2	13.5	
4											
AV	16.8	44.3	0.3	1.8	4.0	2.2	236.0	6.3	0.2	13.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	132.0	79.4	257.5	28.1	61.6	48.6	4.7	37.0	297.0	63.9	525.7	74.6	G R E E N
	134.0	81.6	275.5	92.0	532.8	649.1	0.0	40.1	309.0	62.1	534.9	87.3	
	101.2	66.5	343.5	42.8	141.5	132.1	6.1	41.1	316.8	58.2	535.9	79.4	
AV	122	76	292	54	245	277	4	39	308	61	532	80	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. PRM 1916.36.162

Record No. 503

pXRF_0120_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 29.03.1914 - 18.08.1915
 Collection Method Surface
 Place Collected Easter Island Rapa Nui
 Material Stone
 Object Adze
 Type 2-B (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	96.6	Width Cutting Edge	34.1	Shoulder Back Max Width	51
Max Width	55	Bevel Max Thickness	31.9	Shoulder Max Thickness	29
Max Thickness	31.9	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	44.9
		Middle Max Front	no_data	Top Max Thickness	27.2
		Shoulder Front Max Width	38.5	Cutting Edge to Bevel	67.3
Island Group	Easter Island	Middle Max Back	no_data	Length Rightangle to Bevel	68.4
TAS (SiO ₂) Material	55			Cross Section Shape	Rounded

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.4	56.7	1	2.5	3.5	1.3	193.2	37.4	0.2	10.0
2	15.0	54.3	0	2.5	3.4	1.2	189.2	42.0	0.2	10.0
3	16.1	52.8	1	2.4	3.7	1.3	203.0	49.8	0.2	10.0
4										
AV	15.5	54.6	0.8	2.5	3.5	1.3	195.1	43.1	0.2	10.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	137.7	85.7	205.1	31.3	30.4	29.6	9.9	62.1	288.3	36.8	557.1	87.5
	110.0	60.9	188.6	34.2	18.9	18.6	8.4	62.9	279.6	36.2	558.1	82.2
	135.7	83.0	210.4	34.5	23.0	20.1	7.8	55.6	279.5	44.3	558.3	85.3
AV	128	77	201	33	24	23	9	60	282	39	558	85



AV												

VACUUM

GREEN

YELLOW

Accession No. PRM 1916.36.163

Record No. 504

pXRF_0121_PRM

Museum Pitt Rivers
 Date Acquired by Museum 1916
 Collector W.S. & K. Routledge
 Date Collected 29.03.1914 - 18.08.1915
 Collection Method Surface
 Place Collected Easter Island Rapa Nui
 Material Stone
 Object Adze
 Type 2-A (broken) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)			
Max Length	85.6	Width Cutting Edge	43.4
Max Width	45	Bevel Max Thickness	26.8
Max Thickness	27.3	Middle Width	no_data
Weight (g)		Middle Thickness	no_data
		Middle Max Front	no_data
		Shoulder Front Max Width	16.1
Island Group	Easter Island	Middle Max Back	no_data
TAS (SiO ₂) Material	44		
		picro-basalt / basanite	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	19.6	45.8	0	1.5	5.0	2.8	241.1	0.0	0.2	14.4
2	20.1	41.4	0	1.5	4.8	2.8	232.5	0.0	0.2	13.7
3	22.9	43.8	0	1.3	4.3	2.9	237.8	63.0	0.2	16.6
4										
AV	20.9	43.7	0.0	1.4	4.7	2.8	237.1	21.0	0.2	14.9

GREEN*
 V
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Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	112.0	59.3	195.0	27.5	24.7	22.9	4.6	35.5	325.9	59.3	492.1	67.2
	136.9	79.3	230.5	24.1	41.3	37.5	5.0	36.5	329.8	56.4	474.0	65.9
	110.2	105.3	253.7	34.6	34.5	27.6	4.3	31.3	315.3	60.1	494.1	72.1
AV	120	81	226	29	34	29	5	34	324	59	487	68

GREEN

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YELLOW

AV

Accession No. PRM 1916.36.56

Record No. 508

pXRF_0125_PRM

Museum Pitt Rivers

Date Acquired by Museum 1916

Collector W.S. & K. Routledge

Date Collected 1913 - 1916

Collection Method Surface

Place Collected Pitcairn Islands

Material Stone

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	148.7	Width Cutting Edge	35.7	Shoulder Back Max Width	41.2
Max Width	no_data	Bevel Max Thickness	24.4	Shoulder Max Thickness	21.9
Max Thickness	24.4	Middle Width	40.5	Middle Max Thickness	23.7
Weight (g)		Middle Thickness	no_data	Top Max Width	28.2
		Middle Max Front	no_data	Top Max Thickness	10.6
		Shoulder Front Max Width	20	Cutting Edge to Bevel	45.7
Island Group	Pitcairn Islands	Middle Max Back	no_data	Length Rightangle to Bevel	38.2
TAS (SiO ₂) Material	48			Cross Section Shape	Quadrangular

basalt

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.5	44.5	0	1.9	6.5	2.8	244.9	0.0	0.2	11.6	V A C U U M * G R E E N
2	16.4	47.6	1	1.9	6.6	2.9	252.6	0.0	0.2	12.0	
3	17.4	51.4	2	1.8	6.7	2.9	257.3	0.0	0.2	13.1	
4											
AV	16.4	47.9	0.9	1.9	6.6	2.9	251.6	0.0	0.2	12.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	165.8	86.1	198.0	29.3	40.6	40.3	7.3	48.5	673.9	42.0	396.6	86.6	G R E E N
	183.6	65.8	198.1	27.8	40.4	40.5	10.3	60.0	657.2	35.4	427.9	81.3	
	181.9	81.4	233.2	33.0	48.5	50.6	8.3	52.6	696.4	38.4	377.1	78.4	
AV	177	78	210	30	43	44	9	54	676	39	401	82	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. Oc1920.0506.252

Record No. 514

pXRF_0061_BM

Museum British Museum

Date Acquired by Museum 1920

Collector W.S. & K. Routledge

Date Collected 1913 -1915

Collection Method Surface

Place Collected Easter Island

Material Stone

Object Flake

Type Modern flake

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
Island Group	Easter Island	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
TAS (SiO2) Material	43	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
				Cross Section Shape	no_data

micro-basalt / basanite

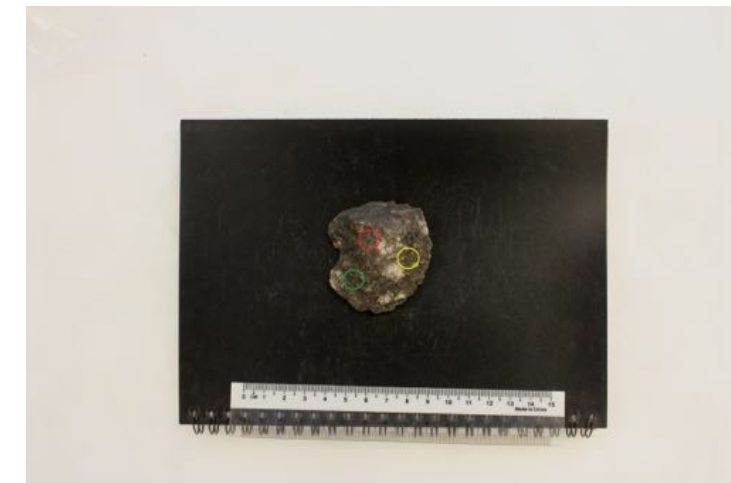
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.4	45.0		0.5	9.2	2.4	276.6	142.5	0.2	11.7
2	13.7	39.1		0.6	9.8	2.0	201.6	-5.4	0.1	9.3
3	16.0	45.3		0.6	9.7	2.8	321.5	67.8	0.2	11.6
4										
AV	15.0	43.1		0.6	9.6	2.4	266.5	68.3	0.2	10.9

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
77	31	91	26	21	21	3	15	401	34	183	24	
45	42	83	23	22	21	3	14	391	27	150	21	
57	35	92	28	17	18	3	16	385	39	216	30	
AV	60	36	89	26	20	20	3	392	33	183	25	

GREEN

YELLOW

Accession No. Oc1925.1019.69

Record No. 515

pXRF_0062_BM

Museum British Museum

Date Acquired by Museum 1925

Collector W.S. & K. Routledge

Date Collected By 1925

Collection Method Surface

Place Collected Tikingaro, Mangareva

Material Stone

Object Adze

Type n/a

Additional Museum Notes Yes No

Measurements (mm)

Max Length	no_data	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Gambier Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	46			Cross Section Shape	no_data

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	19.1	45.2		0.7	7.6	3.9	352.1	156.3	0.2	13.5
2	20.4	46.7		0.8	8.1	4.0	316.1	115.8	0.2	13.3
3	22.8	45.2		0.5	6.2	4.7	322.4	314.9	0.2	13.9
4										
AV	20.8	45.7		0.7	7.3	4.2	330.2	195.7	0.2	13.5

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
84	51	101	26	10	11	4	30	477	40	241	44	
88	60	100	29	9	12	4	29	478	39	256	45	
102	78	104	27	13	14	3	27	486	36	248	44	
AV	91	63	101	27	11	12	4	481	39	248	44	



Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Taku, Mangareva,
 Material: Stone
 Object: Pounder
 Type: Knob
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	203.2	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	104.0	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness		Middle Width	50.4	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	60.5
		Middle Max Front		Top Max Thickness	40.0
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Gambier Islands	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	47			Cross Section Shape	no_data

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		48.0		1.2	9.9	2.5	346.9	365.1	0.2	12.0
2		47.2		0.4	13.5	2.8	346.7	159.0	0.2	12.6
3		45.6		1.1	13.3	2.2	334.2	253.2	0.1	11.2
4										
AV	46.9			0.9	12.2	2.5	342.6	259.1	0.2	11.9

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	233.8	208.1	353.0	2677.5	0.0	0.0	0.0	32.6	561.7	94.9	164.2	38.2
	126.2	248.2	808.7	25.7	248.8	258.2	1.0	12.1	581.5	36.2	181.2	34.5
	175.6	140.8	229.3	22.0	61.7	52.1	0.9	8.6	548.6	28.5	124.3	23.5
AV	179	199	464	908	104	103	1	18	564	53	157	32

GREEN

YELLOW



AV

Accession No. BM Oc1925.1019.41

Record No. 518

pXRF_0091_BM2

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Mangareva, Gambier
 Material: Stone
 Object: Pounder
 Type: Knob
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	226.1	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	81.2	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness		Middle Width	72.1	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	47.8
		Middle Max Front		Top Max Thickness	58.6
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Gambier Islands	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	46			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		44.7		0.9	10.6	2.1	317.2	432.1	0.2	12.9	V A C U U M * G R E E N
2		45.9		0.8	10.6	2.6	344.3	326.0	0.2	13.4	
3		47.9		0.9	10.9	2.4	336.1	368.1	0.2	13.6	
4											
AV		46.2		0.9	10.7	2.4	332.5	375.4	0.2	13.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	202.6	171.8	356.6	23.1	93.2	86.3	1.0	11.3	428.6	22.0	101.1	14.3	G R E E N
	205.6	128.9	252.5	23.2	86.5	79.3	0.7	8.7	409.7	27.8	112.2	18.6	
	199.4	197.1	391.7	26.4	100.1	91.0	1.3	12.7	410.8	24.1	117.3	15.8	
AV	203	166	334	24	93	86	1	11	416	25	110	16	



														Y E L L O W

AV

Museum: British Museum
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Raivavae, Austral Islands
 Material: Stone
 Object: Pounder
 Type: Y-Shaped
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	175.3	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	98.9	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness		Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	77.2	Top Max Width	67.4
		Middle Max Front		Top Max Thickness	21.3
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Islands	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	47	basalt		Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		47.3		1.1	9.4	3.0	328.7	250.1	0.2	13.9	V A C U U M * G R E E N
2		46.3		1.1	8.4	3.1	320.0	77.6	0.2	13.9	
3		47.4		1.2	9.1	3.0	328.6	72.2	0.2	13.8	
4											
AV		47.0		1.1	9.0	3.0	325.8	133.3	0.2	13.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	127.8	163.3	279.9	38.0	106.7	98.0	5.7	39.4	592.6	35.5	269.4	54.6	G R E E N
	101.1	130.4	315.8	27.0	88.5	87.3	5.5	37.6	553.3	34.8	264.5	52.0	
	112.7	162.8	302.4	20.8	40.4	40.7	4.9	34.5	586.3	35.4	249.5	47.1	
AV	114	152	299	29	79	75	5	37	577	35	261	51	

AV

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W

Accession No. BM Oc1925.1019.54

Record No. 523

pXRF_0084_BM2

Museum: British Musuem
 Date Acquired by Museum: 1925
 Collector: W.S. & K. Routledge
 Date Collected: By 1925
 Collection Method: Surface
 Place Collected: Akamaru, Gambier
 Material: Stone
 Object: Pounder
 Type: Knob
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	208.3	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	93.2	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness		Middle Width	no_data	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	70.3	Top Max Width	44.5
		Middle Max Front		Top Max Thickness	40.7
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Gambier Islands	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	47			Cross Section Shape	no_data

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		46.6		1.1	12.2	3.3	314.6	94.4	0.2	12.5	V A C U U M * G R E E N
2		46.2		0.9	10.8	3.1	325.8	-36.7	0.2	12.7	
3		48.4		1.0	11.3	3.3	315.7	187.8	0.2	13.1	
4											
AV		47.1		1.0	11.4	3.2	318.7	81.8	0.2	12.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	111.3	164.7	276.0	24.9	99.1	97.5	0.8	13.6	559.6	34.9	190.8	35.2	G R E E N
	136.9	171.4	216.1	19.8	71.6	67.7	1.8	16.0	498.7	31.2	191.1	32.8	
	106.5	130.0	195.7	28.3	100.3	92.6	2.3	18.5	547.3	36.6	195.4	34.5	
AV	118	155	229	24	90	86	2	16	535	34	192	34	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Accession No. BM Oc1925.1019.13

Record No. 525

pXRF_0086_BM2

Museum British Museum
 Date Acquired by Museum 1925
 Collector W.S. & K Routledge
 Date Collected By 1925
 Collection Method Surface
 Place Collected Austral Islands
 Material Stone
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	93.9	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	85.7	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	no_data	Middle Width	39.2	Middle Max Thickness	no_data
Weight (g)		Middle Thickness	no_data	Top Max Width	no_data
		Middle Max Front	no_data	Top Max Thickness	no_data
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
Island Group	Austral Islands	Middle Max Back	no_data	Length Rightangle to Bevel	no_data
TAS (SiO ₂) Material	46			Cross Section Shape	no_data

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		47.0		1.1	8.8	5.8	-92.5	-219.0	0.2	12.8
2		44.4		1.2	7.8	5.7	2.3	14.3	0.2	13.0
3		46.5		1.1	9.5	5.7	5.5	23.0	0.1	11.8
4										
AV		46.0		1.1	8.7	5.7	-28.2	-60.6	0.2	12.6

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	103.0	135.9	242.8	30.9	109.7	102.0	9.4	55.7	1305.8	33.0	301.3	66.5
	91.2	96.6	244.2	38.2	80.1	80.3	10.0	59.5	1385.7	32.8	316.0	62.7
	83.0	99.3	261.7	32.8	102.2	94.0	10.0	57.0	1301.5	33.3	316.9	59.9
AV 92	111	250	34	97	92	10	57	1331	33	311	63	

GREEN

YELLOW



AV

Accession No. K-T 545

Record No. 526

pXRF_0204_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Easter Island
 Material: Basalt
 Object: Adze
 Type: 4-D (variant) (finished)
 Additional Museum Notes: Yes No

Measurements (mm)	
Max Length	126
Max Width	no_data
Max Thickness	27.5
Weight (g)	
Island Group	Easter Island
TAS (SiO ₂) Material	47 <input type="text" value="basalt"/>
Width Cutting Edge	34.6
Bevel Max Thickness	31.5
Middle Width	27.5
Middle Thickness	no_data
Middle Max Front	no_data
Shoulder Front Max Width	no_data
Middle Max Back	no_data
Shoulder Back Max Width	no_data
Shoulder Max Thickness	no_data
Middle Max Thickness	34.6
Top Max Width	18
Top Max Thickness	30.4
Cutting Edge to Bevel	34.4
Length Rightangle to Bevel	19
Cross Section Shape	Sub-triangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		45.5		1.9	3.5	2.2	328.7	253.8	0.2	13.8	▲ GREEN* V A C U U M ▼
2		50.0		1.9	3.2	2.5	333.0	288.3	0.2	14.5	
3		44.8		1.9	2.3	2.4	328.5	321.5	0.2	14.3	
4											
AV		46.8		1.9	3.0	2.4	330.1	287.9	0.2	14.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	0.0	53.5	198.2	25.7	11.6	11.3	5.9	43.9	306.8	53.9	517.7	76.6	▲ GREEN ▼
	36.3	72.8	226.7	24.3	24.0	19.9	7.6	48.1	329.9	50.9	539.9	80.3	
	18.1	58.3	208.8	26.3	15.3	18.4	5.4	40.1	323.4	59.2	531.8	81.5	
AV	18	62	211	25	17	17	6	44	320	55	530	79	

													▲ YELLOW ▼
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AV

Accession No. K-T 120

Record No. 536

pXRF_0213_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Easter Island

Material Basalt

Object Adze

Type 2-A (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	95.9	Width Cutting Edge	29.6	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	20.5	Shoulder Max Thickness	no_data
Max Thickness	21.6	Middle Width	42.2	Middle Max Thickness	20.6
Weight (g)		Middle Thickness	20.9	Top Max Width	24.9
		Middle Max Front	29.1	Top Max Thickness	8.5
Island Group	Easter Island	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	26.9
TAS (SiO ₂) Material	48	Middle Max Back	42.3	Length Rightangle to Bevel	18.8
				Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		49.7		1.7	4.5	2.7	336.6	257.8	0.2	14.9	V A C U U M * G R E E N
2		45.1		1.7	3.3	2.6	344.8	75.6	0.2	14.8	
3		48.7		1.7	3.9	2.7	339.1	123.8	0.2	14.9	
4											
AV		47.8		1.7	3.9	2.7	340.2	152.4	0.2	14.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	2.9	65.5	183.3	26.8	29.3	32.8	4.3	34.1	337.3	63.9	498.9	71.1	G R E E N
	30.5	36.6	183.7	27.1	26.4	22.7	3.9	36.2	325.7	60.7	491.6	71.6	
	41.7	9.1	201.3	29.6	31.4	28.3	4.1	30.3	340.1	65.9	486.3	75.0	
AV	25	37	189	28	29	28	4	34	334	64	492	73	

AV

Accession No. K-T 108

Record No. 537

pXRF_0214_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Easter Island
 Material Basalt
 Object Adze
 Type 2-A (finished) (F&S)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	133.4	Width Cutting Edge	49	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	18.1	Shoulder Max Thickness	no_data
Max Thickness	21.8	Middle Width	43	Middle Max Thickness	22.2
Weight (g)		Middle Thickness	22.2	Top Max Width	18.2
Island Group	Easter Island	Middle Max Front	no_data	Top Max Thickness	7.3
TAS (SiO ₂) Material	48	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	26.2
	basalt	Middle Max Back	43	Length Rightangle to Bevel	21.6
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		48.2		1.7	4.7	2.6	334.2	176.7	0.2	14.5	V A C U U M * G R E E N
2		46.9		1.7	4.0	2.4	352.2	167.6	0.2	14.4	
3		48.4		1.7	4.2	2.7	333.2	206.7	0.2	14.7	
4											
AV		47.8		1.7	4.3	2.6	339.9	183.7	0.2	14.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	22.6	16.5	237.4	25.2	22.7	20.5	4.4	35.2	328.4	61.6	505.5	71.8	G R E E N
	10.6	68.1	203.0	31.8	18.6	15.7	5.6	37.9	335.9	60.5	513.6	79.5	
	0.0	37.1	236.8	27.8	24.1	28.5	5.2	44.4	349.9	53.6	515.8	77.2	
AV 11	41	41	226	28	22	22	5	39	338	59	512	76	

AV

Accession No. K-T 315

Record No. 552

pXRF_0228_KTM

Museum: Kon Tiki
 Date Acquired by Museum: 1957
 Collector: Thor Heyerdahl
 Date Collected: 1955 - 1956
 Collection Method: Surface
 Place Collected: Easter Island
 Material: Basalt
 Object: Adze
 Type: 2-B (finished) (F&S)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	94.9	Width Cutting Edge	no_data	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	no_data	Shoulder Max Thickness	no_data
Max Thickness	18.9	Middle Width	37.9	Middle Max Thickness	19.3
Weight (g)		Middle Thickness	19.3	Top Max Width	19.8
Island Group	Easter Island	Middle Max Front	no_data	Top Max Thickness	14.1
TAS (SiO ₂) Material	49	Shoulder Front Max Width	no_data	Cutting Edge to Bevel	no_data
	basalt	Middle Max Back	37.9	Length Rightangle to Bevel	no_data
				Cross Section Shape	Quadrangular

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		49.1		1.6	4.0	2.1	337.9	61.8	0.2	14.3	V A C U U M * G R E E N
2		48.2		1.8	4.7	2.1	326.8	208.2	0.2	14.2	
3		49.3		1.8	5.1	2.0	323.1	190.2	0.2	14.1	
4											
AV		48.9		1.7	4.6	2.1	329.3	153.4	0.2	14.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	11.4	33.9	317.8	25.5	24.0	28.7	6.0	43.2	334.3	56.3	535.0	88.3	G R E E N
	0.0	70.4	351.4	25.6	29.5	29.0	5.4	40.3	342.0	62.7	536.3	85.9	
	27.1	44.5	289.2	35.6	27.0	29.4	6.2	43.5	319.1	59.0	536.2	79.0	
AV	13	50	319	29	27	29	6	42	332	59	536	84	

														Y E L L O W

AV

Accession No. K-T 386

Record No. 561

pXRF_0237_KTM

Museum Kon Tiki
 Date Acquired by Museum 1957
 Collector Thor Heyerdahl
 Date Collected 1955 - 1956
 Collection Method Surface
 Place Collected Easter Island
 Material Basalt
 Object Adze
 Type 2-B (variant) (finished)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	99.1	Width Cutting Edge	31.5	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	23	Shoulder Max Thickness	no_data
Max Thickness	24.8	Middle Width	33.4	Middle Max Thickness	24.6
Weight (g)		Middle Thickness	24.6	Top Max Width	27.4
		Middle Max Front	24	Top Max Thickness	9
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	30.4
Island Group	Easter Island	Middle Max Back	28	Length Rightangle to Bevel	20
TAS (SiO ₂) Material	50			Cross Section Shape	Quadrangular

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		50.2		1.6	4.0	3.0	324.0	103.7	0.2	15.6
2		47.0		1.4	4.2	2.9	328.1	275.3	0.2	15.4
3		52.7		1.4	5.0	2.7	332.3	222.0	0.2	15.2
4										
AV		50.0		1.5	4.4	2.9	328.2	200.3	0.2	15.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	27.4	56.9	363.6	27.5	39.1	33.7	5.4	39.3	359.1	58.2	499.3	69.8
	0.0	33.6	478.0	30.9	36.8	31.3	5.2	36.7	331.7	62.2	501.6	71.5
	18.3	47.3	258.8	31.4	13.8	10.6	3.7	31.8	322.5	64.9	496.4	66.2
AV	15	46	367	30	30	25	5	36	338	62	499	69



Empty table area for Yellow sample data.



Accession No. K-T 412

Record No. 565

pXRF_0195_KTM

Museum Kon Tiki

Date Acquired by Museum 1957

Collector Thor Heyerdahl

Date Collected 1955 - 1956

Collection Method Surface

Place Collected Easter Island

Material Basalt

Object Adze

Type 2-C (finished) (F&S)

Additional Museum Notes Yes No

Measurements (mm)

Max Length	87.4	Width Cutting Edge	22	Shoulder Back Max Width	no_data
Max Width	no_data	Bevel Max Thickness	14.8	Shoulder Max Thickness	no_data
Max Thickness	18.6	Middle Width	29	Middle Max Thickness	18
Weight (g)		Middle Thickness	18	Top Max Width	13.6
		Middle Max Front	0	Top Max Thickness	6.2
		Shoulder Front Max Width	no_data	Cutting Edge to Bevel	18.4
Island Group	Easter Island	Middle Max Back	29	Length Rightangle to Bevel	14.6
TAS (SiO ₂) Material	48			Cross Section Shape	Quadrangular

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		48.1		1.7	4.8	2.3	329.9	294.3	0.2	14.5
2		47.8		1.7	4.9	2.3	333.7	134.1	0.2	14.5
3		47.9		1.6	3.5	2.2	329.4	191.5	0.2	14.7
4										
AV		47.9		1.7	4.4	2.3	331.0	206.6	0.2	14.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	10.7	42.9	199.1	24.8	10.5	5.2	2.6	33.3	311.6	63.3	497.9	69.1
	33.6	37.7	214.6	31.3	14.2	6.2	5.3	37.1	309.2	58.9	496.5	70.6
	15.9	20.6	199.7	24.8	15.0	15.6	4.1	32.5	332.2	65.0	496.3	66.2
AV	20	34	204	27	13	9	4	34	318	62	497	69

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AV

Museum Private
 Date Acquired by Museum 1987
 Collector Michel Charleux
 Date Collected 1987
 Collection Method Surface
 Place Collected Eiao (basalt source)
 Material Basalt
 Object Pounder
 Type Double animal
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	93	Width Cutting Edge		Shoulder Back Max Width	
Max Width	74	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	62	Middle Width	41	Middle Max Thickness	
Weight (g)	482	Middle Thickness		Top Max Width	82
		Middle Max Front		Top Max Thickness	45
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	39			Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.4	40.5	0	0.6	9.9	3.8	175.8	354.4	0.1	12.5
2	16.4	37.9	0	0.9	9.4	3.9	137.8	121.1	0.2	11.8
3	18.2	39.2	0	0.9	8.5	4.4	85.2	312.3	0.2	12.5
4										
AV	17.3	39.2	0.0	0.8	9.3	4.1	132.9	262.6	0.2	12.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	237.1	60.1	195.7	18.6	5.4	8.9	1.4	14.5	480.2	49.3	276.7	33.7
	247.5	110.0	193.4	23.2	9.4	12.7	1.7	12.8	441.9	42.7	254.4	31.1
	174.6	123.5	192.3	26.1	14.7	10.8	2.0	16.9	492.8	46.4	282.9	34.6
	267.0	88.8	209.4	22.1	14.5	13.9	2.0	16.7	465.8	44.4	285.2	34.9
AV	232	96	198	22	11	12	2	15	470	46	275	34



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AV

Museum: CIRAP
 Date Acquired by Museum: 1998
 Collector: Eric Conte
 Date Collected: 1998
 Collection Method: Found on a me'ae
 Place Collected: Vainaonao, Ua Huka
 Material: Basalt
 Object: Pounder
 Type: Opu
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	1270	Width Cutting Edge	Shoulder Back Max Width	
Max Width	1060	Bevel Max Thickness	Shoulder Max Thickness	
Max Thickness	1050	Middle Width	Middle Max Thickness	
Weight (g)	1042	Middle Thickness	Top Max Width	480
		Middle Max Front	Top Max Thickness	420
		Shoulder Front Max Width	Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back	Length Rightangle to Bevel	
TAS (SiO ₂) Material	42		Cross Section Shape	

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.9	39.0	0	2.2	7.4	3.7	229.0	0.0	0.2	9.7
2	18.1	45.2	0	2.2	7.5	3.8	232.5	0.0	0.1	9.9
3	15.9	40.9	0	2.4	7.7	3.6	225.5	0.0	0.1	8.7
4										
AV	17.0	41.7	0.1	2.3	7.6	3.7	229.0	0.0	0.2	9.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	8.5	28.9	144.0	31.6	15.3	17.4	11.8	66.0	720.3	31.8	348.6	49.8
	22.0	77.1	183.5	29.0	39.8	42.8	14.0	87.6	743.0	22.7	376.4	58.4
	0.0	65.3	203.9	35.4	22.5	25.0	11.1	78.8	737.3	26.3	360.9	56.9
AV	10	57	177	32	26	28	12	77	734	27	362	55

GREEN

YELLOW

AV

Museum: CIRAP
 Date Acquired by Museum: 1998
 Collector: Eric Conte
 Date Collected: 1998
 Collection Method: Found in a small
 Place Collected: Katoahu, Ua Huka
 Material: Basalt
 Object: Pounder
 Type: blank (preform)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	2360	Width Cutting Edge		Shoulder Back Max Width	
Max Width	1600	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	1490	Middle Width	710	Middle Max Thickness	
Weight (g)		Middle Thickness		Top Max Width	810
		Middle Max Front		Top Max Thickness	710
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	32			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.0	34.4	0	1.7	6.8	3.2	225.0	76.1	0.1	9.9	V A C U U M * G R E E N
2	14.4	32.2	0	1.5	6.9	4.0	171.0	298.6	0.1	12.5	
3	14.2	30.9	0	1.6	7.3	3.8	173.8	207.6	0.1	10.1	
4											
AV	14.5	32.5	0.1	1.6	7.0	3.7	190.0	194.1	0.1	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	174.7	99.3	157.1	22.0	7.8	7.3	6.4	47.2	630.3	35.9	316.6	43.8
	231.4	60.6	146.7	24.2	24.5	27.0	7.1	50.5	688.9	32.4	317.6	43.8
	155.3	84.3	165.6	29.0	15.0	18.4	5.6	49.2	646.7	35.0	304.2	37.8
AV	187	81	156	25	16	18	6	49	655	34	313	42

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												

AV

Museum: CIRAP
 Date Acquired by Museum: 1998
 Collector: Eric Conte
 Date Collected: 1998
 Collection Method: Surface
 Place Collected: Hokatu, Ua Huka
 Material: Basalt
 Object: Pounder
 Type: base
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	1320	Width Cutting Edge		Shoulder Back Max Width	
Max Width	1240	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	1160	Middle Width	390	Middle Max Thickness	
Weight (g)	1363	Middle Thickness		Top Max Width	430
		Middle Max Front		Top Max Thickness	390
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	34			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.7	38.3	0	2.1	8.0	3.7	213.4	0.0	0.1	8.7	V A C U U M * G R E E N
2	14.8	29.9	0	1.8	8.3	3.4	238.1	86.7	0.1	9.5	
3	13.9	34.9	0	1.8	8.0	3.6	241.2	177.8	0.2	10.4	
4											
AV	14.8	34.4	0.0	1.9	8.1	3.6	230.9	88.2	0.1	9.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	144.0	93.5	134.2	28.4	14.2	13.7	8.8	61.6	689.3	31.7	304.7	41.5	G R E E N
	98.7	92.6	100.0	29.1	11.1	15.0	10.4	78.1	747.7	27.7	299.1	46.5	
	55.6	85.1	134.6	29.1	17.9	21.6	13.6	89.8	772.7	24.7	339.5	51.7	
AV	99	90	123	29	14	17	11	77	737	28	314	47	

AV

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Museum Musée de Tahiti et des
 Date Acquired by Museum 08.06.1979
 Collector Unknown
 Date Collected By 1979
 Collection Method Donation
 Place Collected French Polynesia, Society
 Material Basalt
 Object Pounder
 Type Three-finger grip
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	108	Width Cutting Edge	Shoulder Back Max Width	
Max Width	78	Bevel Max Thickness	Shoulder Max Thickness	
Max Thickness	74	Middle Width	26.5	Middle Max Thickness
Weight (g)	686	Middle Thickness	Top Max Width	33
		Middle Max Front	Top Max Thickness	28
		Shoulder Front Max Width	Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back	Length Rightangle to Bevel	
TAS (SiO ₂) Material	45	basalt	Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.0	47.7	1	1.0	8.8	1.4	205.5	98.3	0.1	10.7	GREEN* VACUUM
2	12.9	43.9	1	1.0	8.9	1.5	213.2	277.9	0.1	10.8	
3	13.1	43.6	0	1.1	9.3	1.6	211.3	96.0	0.1	9.0	
4											
AV	12.6	45.1	0.5	1.0	9.0	1.5	210.0	157.4	0.1	10.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	368.8	104.8	303.5	22.2	32.7	30.0	3.4	25.8	981.8	32.0	146.1	20.4	GREEN
	414.7	61.5	292.0	21.7	47.8	41.9	3.9	28.7	1014.1	30.2	143.6	18.0	
	384.8	148.3	322.7	25.7	47.2	45.5	3.0	23.3	968.0	32.7	141.4	21.6	
AV	389	105	306	23	43	39	3	26	988	32	144	20	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													



Museum Musée de Tahiti et des
 Date Acquired by Museum 08.06.1979
 Collector Unknown
 Date Collected By 1979
 Collection Method Donation
 Place Collected French Polynesia, Austral
 Material Basalt
 Object Pounder
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	117.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	79	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	69	Middle Width	37.5	Middle Max Thickness	
Weight (g)	791	Middle Thickness		Top Max Width	43.5
		Middle Max Front		Top Max Thickness	39
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	44	picro-basalt / basanite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.2	42.0	0	2.0	10.2	3.2	233.9	0.0	0.1	9.5	V A C U U M * G R E E N
2	16.0	45.6	0	2.0	10.3	3.4	245.8	0.0	0.1	10.4	
3	15.0	43.9	0	1.9	10.1	3.1	245.1	0.0	0.1	10.2	
4											
AV	15.4	43.9	0.2	2.0	10.2	3.2	241.6	0.0	0.1	10.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	143.6	97.4	1131.5	29.5	92.1	80.7	17.1	89.4	751.7	25.5	321.2	47.5	G R E E N
	88.5	99.2	371.1	28.1	64.3	66.7	15.9	109.6	773.2	18.4	320.8	47.6	
	128.5	96.2	337.0	25.4	68.7	61.8	15.3	102.1	796.9	20.7	308.4	50.8	
AV	120	98	613	28	75	70	16	100	774	22	317	49	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 08.06.1979
 Collector Unknown
 Date Collected By 1979
 Collection Method Unknown (surface?)
 Place Collected Society Is. (?)
 Material Stone
 Object Pounder
 Type Horn
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	131	Width Cutting Edge		Shoulder Back Max Width	
Max Width	69	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	69	Middle Width	25	Middle Max Thickness	
Weight (g)	561	Middle Thickness		Top Max Width	51
		Middle Max Front		Top Max Thickness	22
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	39	foidite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.0	36.4	0	1.8	9.3	3.5	266.5	0.0	0.1	9.4	V A C U U M * G R E E N
2	15.3	41.1	1	1.7	9.0	3.5	248.6	0.0	0.1	9.4	
3	15.0	39.0	0	1.9	8.6	3.2	234.2	0.0	0.1	8.5	
4											
AV	15.1	38.8	0.2	1.8	9.0	3.4	249.7	0.0	0.1	9.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	100.4	120.4	360.4	28.2	85.2	83.2	10.5	79.7	815.0	26.9	351.4	62.1	G R E E N
	113.1	99.8	358.2	27.4	82.8	73.6	10.3	80.7	802.5	26.3	345.9	60.8	
	142.7	117.0	433.2	29.7	84.6	76.3	11.2	72.0	907.4	29.3	343.7	61.1	
AV	119	112	384	28	84	78	11	77	842	28	347	61	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 1982
 Collector Unknown
 Date Collected By 1982
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Stone
 Object Pounder
 Type T-shaped
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	149	Width Cutting Edge		Shoulder Back Max Width	
Max Width	95	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	94	Middle Width	32	Middle Max Thickness	
Weight (g)		Middle Thickness		Top Max Width	72
		Middle Max Front		Top Max Thickness	25
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	43			Cross Section Shape	

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.5	42.9	0	1.0	8.4	2.8	327.3	1409.3	0.1	12.4	▲ GREEN* V A C U U M ▼
2	16.8	41.8	1	1.1	9.1	3.0	347.3	345.5	0.1	11.8	
3	17.4	44.4	0	0.9	8.5	2.9	362.5	850.3	0.1	13.7	
4											
AV	16.9	43.1	0.3	1.0	8.7	2.9	345.7	868.3	0.1	12.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	197.9	141.2	121.1	20.1	12.2	11.9	2.2	19.3	479.8	33.7	213.6	40.0	▲ GREEN ▼
	146.5	147.3	179.8	23.6	15.2	14.9	3.6	27.4	532.2	35.9	229.7	41.4	
	145.0	74.3	138.2	27.9	13.6	6.5	2.0	18.1	456.0	30.0	203.1	40.5	
AV	163	121	146	24	14	11	3	22	489	33	215	41	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 1982
 Collector Unknown
 Date Collected By 1982
 Collection Method Donation
 Place Collected Polynesia (?)
 Material Volcanic stone
 Object Pounder
 Type Rounded
 Additional Museum Notes Yes No

Measurements (mm)	
Max Length	158.5
Max Width	198.5
Max Thickness	195
Weight (g)	1624
Island Group	Unknown
TAS (SiO ₂) Material	37

Width Cutting Edge	Shoulder Back Max Width
Bevel Max Thickness	Shoulder Max Thickness
Middle Width 26	Middle Max Thickness
Middle Thickness	Top Max Width 31
Middle Max Front	Top Max Thickness 42
Shoulder Front Max Width	Cutting Edge to Bevel
Middle Max Back	Length Rightangle to Bevel
	Cross Section Shape

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	13.3	36.2	1	1.3	10.9	1.8	223.6	40.3	0.1	7.1
2	12.9	37.9	1	1.2	9.8	1.5	203.6	285.9	0.1	8.5
3	12.8	37.9	0	1.1	10.1	1.6	209.4	114.4	0.1	8.5
4										
AV	13.0	37.3	0.8	1.2	10.3	1.6	212.2	146.9	0.1	8.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	269.8	100.5	440.0	22.7	9.3	8.6	3.3	28.0	480.3	32.8	153.5	33.8
	454.9	98.1	1367.7	20.9	17.5	22.4	2.8	29.5	436.0	31.3	147.8	27.1
	279.3	136.7	624.8	22.3	15.1	16.2	5.3	40.9	456.4	34.0	162.5	37.9
AV	335	112	811	22	14	16	4	33	458	33	155	33

AV												

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 06.05.1981
 Collector Unknown
 Date Collected By 1981
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type Childrens
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	109	Width Cutting Edge		Shoulder Back Max Width	
Max Width	70	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	57.5	Middle Width	31	Middle Max Thickness	
Weight (g)	435	Middle Thickness		Top Max Width	40
		Middle Max Front		Top Max Thickness	35
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	43			Cross Section Shape	

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.8	45.0	1	2.4	7.9	3.8	178.7	0.0	0.1	10.6	▲ GREEN* V A C U U M ▼
2	17.2	45.0	1	2.4	7.5	3.7	199.9	0.0	0.1	10.6	
3	16.9	40.5	0	2.3	7.1	3.9	177.8	0.0	0.1	10.6	
4											
AV	17.3	43.5	0.6	2.4	7.5	3.8	185.5	0.0	0.1	10.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	78.3	96.4	336.2	26.5	79.0	73.7	22.8	119.6	2014.8	4.5	391.8	97.3	▲ GREEN ▼
	41.5	98.6	325.0	29.8	65.4	67.0	27.4	129.0	1981.2	3.7	386.1	91.4	
	36.7	113.0	304.8	29.3	68.5	64.4	25.5	121.1	1955.9	6.8	392.2	84.6	
AV	52	103	322	29	71	68	25	123	1984	5	390	91	

													▲ YELLOW ▼
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AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 1939
 Collector Unknown
 Date Collected By 1939
 Collection Method old funds (Papeete)
 Place Collected Marquesas (?)
 Material Volcanic stone
 Object Pounder
 Type Upwards face
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	148	Width Cutting Edge		Shoulder Back Max Width	
Max Width	81.5	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	80	Middle Width	37.5	Middle Max Thickness	
Weight (g)	870	Middle Thickness		Top Max Width	61.5
		Middle Max Front		Top Max Thickness	45
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	45			Cross Section Shape	

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.7	44.3	1	1.1	10.9	3.9	186.3	223.2	0.1	8.5	V A C U U M * G R E E N
2	15.6	45.9	1	1.0	11.5	4.0	156.0	239.1	0.1	8.1	
3	15.9	46.3	2	1.3	10.7	4.1	183.7	157.0	0.1	8.5	
4											
AV	15.7	45.5	1.3	1.1	11.1	4.0	175.4	206.4	0.1	8.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	93.4	113.8	354.8	25.2	90.1	75.8	3.1	23.9	610.4	40.4	319.2	38.1	G R E E N
	88.1	136.0	326.0	29.6	80.4	65.9	2.2	18.4	663.4	46.5	305.1	41.1	
	103.4	145.5	301.0	27.2	71.1	61.2	4.7	34.7	608.1	40.7	336.1	51.0	
AV	95	132	327	27	81	68	3	26	627	43	320	43	

														Y E L L O W

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 1939
 Collector Unknown
 Date Collected 1939
 Collection Method old funds (Papeete)
 Place Collected Society Is. îles Sous-le-
 Material Volcanic stone
 Object Pounder
 Type Maupiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	150	Width Cutting Edge		Shoulder Back Max Width	
Max Width	127	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	131.5	Middle Width	41	Middle Max Thickness	
Weight (g)	1851	Middle Thickness		Top Max Width	104
		Middle Max Front		Top Max Thickness	45
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	58			Cross Section Shape	

andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.9	56.1	1	2.2	7.4	3.2	274.7	0.0	0.1	9.4	V A C U U M * G R E E N
2	12.9	61.7	1	2.2	8.1	3.2	268.0	0.0	0.1	9.0	
3	12.8	57.2	1	2.2	8.1	3.0	272.2	0.0	0.1	9.0	
4											
AV	12.9	58.3	1.0	2.2	7.9	3.2	271.6	0.0	0.1	9.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	78.1	128.6	227.8	29.7	78.9	70.5	11.0	67.7	713.4	30.7	353.1	57.7	G R E E N
	72.1	128.7	209.1	30.0	61.5	59.1	12.9	76.3	793.5	27.8	358.2	56.7	
	31.0	120.2	220.9	28.1	71.7	59.0	11.5	72.9	692.0	29.0	343.2	56.4	
AV	60	126	219	29	71	63	12	72	733	29	352	57	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 1939
 Collector Unknown
 Date Collected By 1939
 Collection Method old funds (Papeete)
 Place Collected Society Is. îles Sous-le-
 Material Volcanic stone
 Object Pounder
 Type Maupiti
 Additional Museum Notes Yes No

Measurements (mm)			
Max Length	167.5	Width Cutting Edge	Shoulder Back Max Width
Max Width	105	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	95	Middle Width	40
Weight (g)	1424	Middle Thickness	Top Max Width
		Middle Max Front	114.5
		Shoulder Front Max Width	Top Max Thickness
		Middle Max Back	39
Island Group	Society Is.	Cutting Edge to Bevel	Length Rightangle to Bevel
TAS (SiO ₂) Material	50	Cross Section Shape	
	basalt		

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.4	49.3	1	2.0	9.0	3.2	255.6	0.0	0.1	9.1	▲ GREEN* V A C U U M ▼
2	14.6	48.2	2	2.0	8.7	3.4	283.4	0.0	0.1	9.3	
3	15.7	51.1	1	2.1	8.8	3.3	246.9	0.0	0.1	9.3	
4											
AV	15.3	49.6	1.4	2.0	8.8	3.3	262.0	0.0	0.1	9.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	86.2	105.4	359.1	28.2	74.2	63.1	11.2	70.8	720.7	29.7	343.7	50.7	▲ GREEN ▼
	88.7	88.7	234.4	22.8	88.1	83.4	9.5	60.5	720.8	32.8	347.7	53.1	
	38.4	90.6	212.4	23.8	55.5	53.7	12.2	70.7	694.2	29.3	346.2	49.4	
AV	71	95	269	25	73	67	11	67	712	31	346	51	

													▲ YELLOW ▼
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AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 1953
 Collector Unknown
 Date Collected By 1953
 Collection Method old funds (Papeete)
 Place Collected Gambier Is. Taravai
 Material Volcanic stone
 Object Pounder
 Type Knob
 Additional Museum Notes Yes No

Measurements (mm)			
Max Length	164	Width Cutting Edge	Shoulder Back Max Width
Max Width	96	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	94	Middle Width	51.5
Weight (g)	2002	Middle Thickness	Top Max Width
		Middle Max Front	59
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group	Gambier	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	41		Cross Section Shape
		picro-basalt / basanite	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.1	37.5	0	0.5	8.2	1.5	223.9	1268.9	0.2	15.2	▲ GREEN* V A C U U M ▼
2	14.6	41.8	0	0.7	8.5	1.8	276.1	458.9	0.1	11.8	
3	14.4	42.7	0	0.4	9.4	1.5	219.5	770.0	0.2	14.2	
4											
AV	14.7	40.7	0.1	0.6	8.7	1.6	239.8	832.6	0.2	13.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	573.9	93.2	287.1	26.9	49.0	41.1	1.3	8.7	385.1	21.7	111.7	17.1	▲ GREEN ▼
	584.8	126.0	213.8	22.9	71.8	65.8	1.3	9.5	337.1	18.2	103.7	22.5	
	594.4	93.4	267.0	21.6	111.5	104.7	0.0	4.8	404.9	19.8	95.3	13.2	
AV	584	104	256	24	77	71	1	8	376	20	104	18	

													▲ YELLOW ▼
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AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 1982
 Collector Unknown
 Date Collected By 1982
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Stone
 Object Pounder
 Type Tahiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	200	Width Cutting Edge	Shoulder Back Max Width	
Max Width	142	Bevel Max Thickness	Shoulder Max Thickness	
Max Thickness	141	Middle Width	47	Middle Max Thickness
Weight (g)	1419	Middle Thickness	Top Max Width	143.5
		Middle Max Front	Top Max Thickness	48
		Shoulder Front Max Width	Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back	Length Rightangle to Bevel	
TAS (SiO ₂) Material	38	foidite	Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.4	39.8	0	1.6	8.1	4.2	144.4	0.0	0.2	13.7	V A C U U M * G R E E N
2	18.7	41.1	0	1.5	7.7	4.4	112.9	0.0	0.2	14.4	
3	19.3	34.3	0	1.4	6.1	4.8	0.0	19.1	0.2	15.9	
4											
AV	18.5	38.4	0.0	1.5	7.3	4.5	85.8	6.4	0.2	14.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	125.4	97.3	269.8	24.4	28.7	30.3	8.8	71.5	698.2	29.4	356.9	61.1	G R E E N
	91.0	72.5	210.7	29.8	27.1	24.2	11.5	83.5	550.3	26.0	355.6	57.6	
	113.3	101.0	218.6	23.1	14.9	18.8	9.3	71.2	474.2	29.4	352.6	56.8	
AV	110	90	233	26	24	24	10	75	574	28	355	59	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 06.05.1981
 Collector Unknown
 Date Collected By 1981
 Collection Method Donation
 Place Collected Society Is.
 Material Volcanic stone
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	113.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	66	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	64.5	Middle Width	27	Middle Max Thickness	
Weight (g)	472	Middle Thickness		Top Max Width	36
		Middle Max Front		Top Max Thickness	27
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	46			Cross Section Shape	

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.6	49.1	2	2.7	3.8	3.8	325.1	0.0	0.1	10.6	V A C U U M * G R E E N
2	24.6	46.1	1	2.4	3.3	3.9	148.8	0.0	0.2	11.6	
3	20.3	43.5	0	2.6	3.4	4.0	275.2	0.0	0.2	10.4	
4											
AV	21.2	46.3	1.1	2.6	3.5	3.9	249.7	0.0	0.2	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	6.0	97.1	239.1	29.1	38.5	41.4	82.1	482.3	1352.6	0.0	426.1	83.3	G R E E N
	35.4	78.0	273.2	27.7	53.3	54.3	76.9	521.4	1381.1	0.0	433.6	81.9	
	57.8	53.9	221.1	27.4	28.2	26.5	62.5	428.5	1314.8	0.0	427.3	86.8	
AV	33	76	244	28	40	41	74	477	1350	0	429	84	

														Y E L L O W

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 05.05.2000
 Collector Unknown
 Date Collected By 2000
 Collection Method Purchase
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	103.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	93	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	83.5	Middle Width	54	Middle Max Thickness	
Weight (g)	918	Middle Thickness		Top Max Width	60
		Middle Max Front		Top Max Thickness	54
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	40			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	19.0	40.1	0	1.8	7.4	4.8	592.9	0.0	0.1	11.4	V A C U U M * G R E E N
2	20.4	39.4	0	1.6	6.4	4.7	292.4	0.0	0.2	12.8	
3	17.8	39.2	0	1.6	6.4	4.6	505.0	0.0	0.2	13.0	
4											
AV	19.1	39.6	0.0	1.7	6.7	4.7	463.4	0.0	0.2	12.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	106.4	90.2	195.8	26.6	28.5	26.3	18.1	120.9	1149.5	13.4	303.8	68.9	G R E E N
	116.1	75.0	197.8	22.3	21.6	26.6	16.7	101.7	913.1	18.7	327.5	64.4	
	119.2	39.9	166.6	22.4	20.7	21.3	14.1	112.7	820.3	16.1	323.7	65.6	
AV	114	68	187	24	24	25	16	112	961	16	318	66	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 08.06.1979
 Collector Unknown
 Date Collected By 1979
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type Dumbbell
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	166	Width Cutting Edge		Shoulder Back Max Width	
Max Width	63	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	59	Middle Width	41	Middle Max Thickness	
Weight (g)	801	Middle Thickness		Top Max Width	53
		Middle Max Front		Top Max Thickness	49
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	54			Cross Section Shape	

basaltic andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.6	50.0	1	1.6	8.8	3.6	247.7	0.0	0.1	11.5	V A C U U M * G R E E N
2	16.0	54.3	2	2.0	8.0	3.3	254.7	0.0	0.1	10.8	
3	16.5	56.8	2	2.0	8.1	3.5	266.0	0.0	0.1	10.5	
4	16.4	53.7	1.5	1.9	8.3	3.5	256.1	0.0	0.1	11.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	37.7	181.9	150.8	21.3	18.3	17.3	10.5	70.3	821.6	29.8	331.2	60.6	G R E E N
	56.9	141.3	167.6	24.1	27.5	24.7	11.4	70.2	1014.5	30.0	340.7	65.3	
	72.5	110.1	145.3	26.7	17.6	22.4	9.8	74.6	1085.9	28.4	338.4	69.7	
AV	56	144	155	24	21	21	11	72	974	29	337	65	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
AV													Y E L L O W

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 06.05.1981
 Collector Unknown
 Date Collected By 1981
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	116	Width Cutting Edge		Shoulder Back Max Width	
Max Width	105	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	102	Middle Width	38	Middle Max Thickness	
Weight (g)	1013	Middle Thickness		Top Max Width	38
		Middle Max Front		Top Max Thickness	38
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	45	basalt		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.9	42.6	0	2.3	6.8	3.2	239.6	0.0	0.1	9.8	V A C U U M * G R E E N
2	16.0	46.9	1	2.3	6.9	3.3	241.8	0.0	0.1	10.1	
3	15.8	45.8	1	2.3	6.8	3.3	242.8	0.0	0.1	10.0	
4											
AV	15.6	45.1	0.6	2.3	6.8	3.3	241.4	0.0	0.1	10.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	18.7	74.0	368.6	31.8	45.7	42.5	22.5	153.2	704.1	0.0	440.1	64.4	G R E E N
	53.7	94.9	282.0	31.4	43.3	41.3	19.1	149.2	676.2	0.0	448.0	61.2	
	31.2	53.0	256.7	24.8	44.3	44.8	22.7	141.5	683.7	0.0	438.4	66.2	
AV	35	74	302	29	44	43	21	148	688	0	442	64	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 06.05.1981
 Collector Unknown
 Date Collected By 1981
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	148.5	Width Cutting Edge	Shoulder Back Max Width
Max Width	95	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	86	Middle Width	33
Weight (g)	1227	Middle Thickness	Top Max Width
		Middle Max Front	33
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group	Society Is.	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	43		Cross Section Shape

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.8	43.4	2	0.9	10.3	3.0	247.7	0.0	0.1	9.9	V A C U U M * G R E E N
2	15.6	43.5	0	0.9	10.6	3.1	236.2	0.0	0.1	9.1	
3	14.5	40.8	0	1.0	10.3	3.0	231.0	0.0	0.1	8.3	
4											
AV	15.0	42.6	0.9	0.9	10.4	3.0	238.3	0.0	0.1	9.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	51.5	100.7	241.7	27.3	40.1	35.9	1.6	12.8	602.4	33.4	201.5	38.7	G R E E N
	105.0	126.3	260.6	27.0	38.1	32.0	1.0	13.7	652.9	32.9	208.4	44.6	
	65.6	141.8	263.2	27.9	38.0	34.6	2.5	20.0	599.8	34.2	226.8	43.5	
AV	74	123	255	27	39	34	2	15	618	34	212	42	

														Y E L L O W

AV

Accession No. MTI 81.05.53

Record No. 646

pXRF_0065_MTI

Museum Musée de Tahiti et des
 Date Acquired by Museum 06.05.1981
 Collector Unknown
 Date Collected By 1981
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	118.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	146	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	145	Middle Width	46	Middle Max Thickness	
Weight (g)	1806	Middle Thickness		Top Max Width	46
		Middle Max Front		Top Max Thickness	46
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	38			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.5	38.9	1	1.2	9.5	3.3	224.0	161.4	0.1	10.3	▲ GREEN* V A C U U M ▼
2	14.6	40.3	1	1.2	10.0	3.5	205.8	0.0	0.1	10.4	
3	14.0	35.0	0	1.1	9.6	3.3	232.1	0.0	0.1	10.8	
4											
AV	14.4	38.1	0.5	1.2	9.7	3.3	220.7	53.8	0.1	10.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	300.8	104.2	553.3	23.5	119.2	112.8	3.4	25.9	487.3	33.9	229.7	26.5	▲ GREEN G R E E N ▼
	185.7	100.3	709.7	29.5	115.7	110.1	3.9	29.0	571.2	39.0	271.6	36.8	
	114.6	106.2	625.2	26.7	124.5	119.5	3.0	23.5	541.2	44.3	257.3	31.1	
AV	200	104	629	27	120	114	3	26	533	39	253	31	



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AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 1982
 Collector Unknown
 Date Collected By 1982
 Collection Method Donation
 Place Collected Polynesia (?)
 Material Volcanic stone
 Object Pounder
 Type Tahiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	167	Width Cutting Edge		Shoulder Back Max Width	
Max Width	65	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	69	Middle Width	47	Middle Max Thickness	
Weight (g)	951	Middle Thickness		Top Max Width	54
		Middle Max Front		Top Max Thickness	32
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Unknown	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	39			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.2	43.9	2	2.0	6.9	3.8	277.8	0.0	0.1	13.1	V A C U U M * G R E E N
2	15.8	38.3	0	1.8	7.3	4.1	252.0	0.0	0.2	14.0	
3	15.8	33.8	0	1.9	7.4	3.7	303.5	0.0	0.1	12.6	
4											
AV	16.3	38.7	0.5	1.9	7.2	3.8	277.8	0.0	0.1	13.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	88.3	53.6	294.6	30.6	48.0	53.3	16.3	112.5	852.5	10.7	377.7	65.9	G R E E N
	108.8	85.3	290.3	26.2	30.7	25.3	11.2	98.0	782.3	19.3	373.1	63.1	
	122.9	69.5	242.8	30.0	32.5	37.2	19.0	109.8	775.1	13.4	384.3	68.0	
AV	107	69	276	29	37	39	16	107	803	14	378	66	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Accession No. MTI 81.05.24

Record No. 667

pXRF_0079_MTI

Museum Musée de Tahiti et des
 Date Acquired by Museum 06.05.1981
 Collector Unknown
 Date Collected By 1981
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type Infant
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	121	Width Cutting Edge		Shoulder Back Max Width	
Max Width	84	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	58.5	Middle Width	51	Middle Max Thickness	
Weight (g)	111	Middle Thickness		Top Max Width	63
		Middle Max Front		Top Max Thickness	37
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	45			Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.3	44.5	0	1.1	9.4	2.9	240.6	302.6	0.2	12.7
2	15.1	46.0	1	1.0	10.3	3.0	256.9	581.5	0.1	12.2
3	15.4	43.4	1	1.0	10.0	3.0	273.5	794.8	0.2	13.4
4										
AV	14.9	44.6	0.7	1.0	9.9	3.0	257.0	559.6	0.2	12.8

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	313.4	51.7	373.0	23.8	69.0	72.7	5.3	37.9	791.2	33.5	324.9	48.3
	275.5	88.2	352.8	24.7	67.1	63.1	8.8	55.6	938.0	32.3	355.0	55.6
	328.6	103.7	530.4	27.1	99.2	86.1	7.7	47.8	930.8	34.5	355.3	49.8
AV	306	81	419	25	78	74	7	47	887	33	345	51

GREEN

YELLOW



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AV

Accession No. MTI 47.50.18 (81.05.17)

Record No. 670

pXRF_0081_MTI

Museum Musée de Tahiti et des
 Date Acquired by Museum 06.05.1981
 Collector Unknown
 Date Collected By 1981
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type Dumbbell
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	193	Width Cutting Edge		Shoulder Back Max Width	
Max Width	90	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	65	Middle Width	63	Middle Max Thickness	
Weight (g)	1818	Middle Thickness		Top Max Width	67
		Middle Max Front		Top Max Thickness	59
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	46			Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.8	47.0	1	1.9	10.4	4.5	150.7	0.0	0.1	10.8	V A C U U M * G R E E N
2	17.1	44.6	1	1.9	10.0	4.2	185.3	0.0	0.1	10.2	
3	18.6	46.0	1	1.8	10.0	4.2	214.6	0.0	0.1	11.6	
4											
AV	18.2	45.8	0.7	1.8	10.1	4.3	183.5	0.0	0.1	10.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	92.0	70.9	312.6	32.4	80.9	70.6	10.1	64.4	1007.9	32.4	370.7	58.4	G R E E N
	76.1	103.9	663.6	26.7	139.1	132.4	10.2	59.3	993.0	34.0	376.6	64.3	
	83.5	107.7	368.0	23.6	68.6	63.5	11.1	66.0	1035.2	31.8	362.0	60.5	
AV	84	94	448	28	96	89	10	63	1012	33	370	61	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Musée de Tahiti et des
 Date Acquired by Museum 08.06.1979
 Collector Unknown
 Date Collected By 1979
 Collection Method Donation
 Place Collected Austral Is.
 Material Volcanic stone
 Object Pounder
 Type Opu
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	168.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	132	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	131	Middle Width	42	Middle Max Thickness	
Weight (g)	1816	Middle Thickness		Top Max Width	60.5
		Middle Max Front		Top Max Thickness	50
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	54	basaltic andesite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	19.1	55.9	0	3.7	1.4	1.5	197.5	0.0	0.1	5.0	V A C U U M * G R E E N
2	19.7	54.7	0	3.8	2.5	1.4	186.4	0.0	0.1	4.7	
3	18.5	51.4	0	3.8	1.4	1.5	187.7	0.0	0.1	4.8	
4											
AV	19.1	54.0	0.3	3.8	1.8	1.5	190.5	0.0	0.1	4.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	18.6	92.9	136.8	28.5	35.8	38.2	95.6	424.1	1367.5	0.0	460.3	133.6	G R E E N
	44.6	73.0	149.9	27.8	24.5	27.8	78.7	362.8	1286.4	0.0	468.8	135.7	
	24.5	63.0	151.8	22.4	38.1	49.3	107.3	489.7	1508.7	0.0	451.5	135.3	
AV	29	76	146	26	33	38	94	426	1388	0	460	135	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Accession No. MTI 81.05.27

Record No. 676

pXRF_0085_MTI

Museum Musée de Tahiti et des
 Date Acquired by Museum Unknown
 Collector Unknown
 Date Collected Unknown
 Collection Method Unknown
 Place Collected Unknown
 Material Volcanic stone
 Object Pounder
 Type Dumbbell
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	137	Width Cutting Edge		Shoulder Back Max Width	
Max Width	72.5	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	49	Middle Width	46	Middle Max Thickness	
Weight (g)	915	Middle Thickness		Top Max Width	47
		Middle Max Front		Top Max Thickness	31.5
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Unknown	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	42			Cross Section Shape	

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.7	40.8	0	1.7	5.6	3.7	335.5	20.2	0.2	14.7
2	17.5	40.8	1	1.9	5.7	3.7	284.3	50.9	0.2	13.8
3	17.4	44.2	0	1.9	5.8	3.9	313.0	28.3	0.2	14.1
4										
AV	17.2	42.0	0.4	1.8	5.7	3.8	310.9	33.1	0.2	14.2

GREEN*
VACUUM

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	50.0	58.3	555.4	27.8	100.6	97.8	11.7	68.8	1042.0	30.9	353.1	79.5
	14.9	99.9	514.3	28.4	160.2	151.3	15.2	80.6	1038.1	26.2	341.3	73.7
	27.9	46.0	574.5	28.1	111.2	105.1	12.9	76.5	1049.9	27.6	369.3	77.6
AV	31	68	548	28	124	118	13	75	1043	28	355	77

GREEN

YELLOW

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 06.05.1981
 Collector Unknown
 Date Collected By 1981
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type Dumbbell
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	167	Width Cutting Edge		Shoulder Back Max Width	
Max Width	79.5	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	62	Middle Width	59	Middle Max Thickness	
Weight (g)	1008	Middle Thickness		Top Max Width	49
		Middle Max Front		Top Max Thickness	36
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	44			Cross Section Shape	

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.2	43.8	0	1.2	9.3	3.3	277.4	0.0	0.1	12.2	V A C U U M * G R E E N
2	15.8	44.5	1	1.3	9.3	3.1	296.1	0.0	0.1	11.8	
3	16.3	43.3	0	1.3	9.9	3.2	293.6	6.9	0.2	12.0	
4											
AV	16.1	43.9	0.5	1.3	9.5	3.2	289.0	2.3	0.1	12.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	47.0	67.8	306.7	24.7	43.0	39.5	4.3	31.0	660.5	41.2	317.0	55.5	G R E E N
	55.5	97.8	303.8	20.7	45.3	39.4	4.5	36.9	583.9	39.0	305.5	49.7	
	83.1	109.2	299.5	27.2	36.3	33.9	5.0	35.6	604.0	38.3	318.3	49.9	
AV	62	92	303	24	42	38	5	35	616	39	314	52	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Musée de Tahiti et des
 Date Acquired by Museum 06.05.1981
 Collector Unknown
 Date Collected By 1981
 Collection Method Donation
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type Phallic dumbbell
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	177	Width Cutting Edge		Shoulder Back Max Width	
Max Width	62	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	53	Middle Width	60.5	Middle Max Thickness	
Weight (g)	1032	Middle Thickness		Top Max Width	57
		Middle Max Front		Top Max Thickness	44.5
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	41			Cross Section Shape	

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.7	42.8	0	2.0	9.7	3.1	285.2	52.6	0.1	11.3
2	15.3	41.2	0	1.9	8.5	2.8	278.4	0.0	0.1	11.5
3	14.3	40.4	0	1.9	8.5	3.0	253.0	0.0	0.1	9.9
4										
AV	15.1	41.5	0.0	1.9	8.9	3.0	272.2	17.5	0.1	10.9

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	53.4	147.7	184.3	24.4	36.0	32.5	12.4	86.2	979.6	24.4	280.2	48.5
	107.8	102.0	162.2	22.9	32.3	25.1	11.7	85.1	891.7	25.9	291.7	47.2
	132.9	147.1	206.7	29.0	52.9	62.1	12.8	88.0	906.2	25.0	276.1	47.9
AV	98	132	184	25	40	40	12	86	926	25	283	48

GREEN

YELLOW



AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 12.07.2013
 Collector Unknown
 Date Collected By 2013
 Collection Method Donation
 Place Collected Society Is.
 Material Volcanic stone
 Object Pounder
 Type Tahiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	142.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	120	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	117	Middle Width	42.5	Middle Max Thickness	
Weight (g)	1461	Middle Thickness		Top Max Width	76
		Middle Max Front		Top Max Thickness	42
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	38			Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.4	37.7	0	1.9	6.0	3.6	279.3	0.0	0.1	10.5	GREEN* VACUUM
2	14.0	37.0	0	1.8	5.6	3.6	292.9	160.4	0.1	12.4	
3	14.6	40.8	0	2.0	5.6	3.7	270.8	0.0	0.1	12.0	
4											
AV	14.0	38.5	0.0	1.9	5.7	3.7	281.0	53.5	0.1	11.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	109.4	73.9	436.5	25.9	73.5	60.4	12.4	70.9	599.4	29.3	375.8	58.8	GREEN
	95.1	55.1	356.3	31.7	60.2	60.7	9.0	56.7	628.2	31.4	364.5	53.0	
	77.6	75.1	466.7	27.8	59.3	49.6	11.7	67.6	612.7	30.3	375.1	60.5	
AV	94	68	420	28	64	57	11	65	613	30	372	57	

AV																		

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum 05.08.2004
 Collector Unknown
 Date Collected By 2004
 Collection Method Purchase
 Place Collected Marquesas
 Material Volcanic stone
 Object Pounder
 Type Infant
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	114	Width Cutting Edge		Shoulder Back Max Width	
Max Width	73.5	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	68	Middle Width	42	Middle Max Thickness	
Weight (g)	708	Middle Thickness		Top Max Width	45
		Middle Max Front		Top Max Thickness	40
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	42			Cross Section Shape	

Micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.3	40.8	0	1.6	9.8	3.3	276.9	0.0	0.1	11.3	V A C U U M * G R E E N
2	14.8	43.7	1	1.9	9.0	3.3	271.4	0.0	0.1	10.9	
3	14.1	40.5	2	1.7	10.1	3.0	268.0	0.0	0.1	10.2	
4											
AV	14.4	41.7	1.0	1.7	9.6	3.2	272.1	0.0	0.1	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	97.9	137.9	489.3	27.7	175.4	175.8	20.9	111.6	1061.6	17.5	333.6	57.4	G R E E N
	60.1	130.3	520.6	25.8	106.1	98.0	27.8	182.1	1007.4	0.0	359.3	66.6	
	109.1	136.0	1523.7	28.7	86.4	77.5	23.4	135.4	1225.0	11.0	318.6	57.2	
AV	89	135	845	27	123	117	24	143	1098	10	337	60	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Musée de Tahiti et des
 Date Acquired by Museum Unknown
 Collector Unknown
 Date Collected Unknown
 Collection Method Unknown
 Place Collected Society Is. (?)
 Material Volcanic stone
 Object Pounder
 Type Tahiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	161	Width Cutting Edge		Shoulder Back Max Width	
Max Width	88.5	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	80	Middle Width	36	Middle Max Thickness	
Weight (g)	1088	Middle Thickness		Top Max Width	61.5
		Middle Max Front		Top Max Thickness	45
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	48			Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.3	49.8	1	2.1	7.2	2.1	250.7	182.3	0.1	10.0	GREEN* VACUUM
2	14.6	47.0	0	2.2	7.8	3.1	291.0	513.3	0.1	10.5	
3	14.3	47.3	0	2.1	7.5	2.6	260.8	422.5	0.1	11.2	
4											
AV	14.4	48.0	0.4	2.1	7.5	2.6	267.5	372.7	0.1	10.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	235.1	125.7	371.8	29.9	44.9	34.4	16.9	97.9	772.1	22.1	351.1	42.1	GREEN
	190.1	92.6	358.7	23.3	53.8	45.3	16.0	100.3	797.8	20.8	373.3	46.2	
	222.2	97.8	346.7	26.8	44.9	45.7	14.2	89.6	802.5	24.3	365.0	40.8	
AV	216	105	359	27	48	42	16	96	791	22	363	43	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector S. T. Alexander
 Date Collected
 Collection Method Gift
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)	
Max Length	212.5
Max Width	140
Max Thickness	140
Weight (g)	2500
Island Group	Marquesas
TAS (SiO ₂) Material	42
Width Cutting Edge	
Bevel Max Thickness	
Middle Width	41.3
Middle Thickness	
Middle Max Front	
Shoulder Front Max Width	
Middle Max Back	
Shoulder Back Max Width	
Shoulder Max Thickness	
Middle Max Thickness	
Top Max Width	65.4
Top Max Thickness	57.4
Cutting Edge to Bevel	
Length Rightangle to Bevel	
Cross Section Shape	
picro-basalt / basanite	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.2	40.7	0	2.4	7.2	3.0	299.6	0.0	0.1	8.5	▲ GREEN* V A C U U M ▼
2	16.3	46.7	1	2.4	7.6	3.3	254.6	0.0	0.1	8.8	
3	14.7	38.9	0	2.4	6.8	2.7	279.0	0.0	0.1	8.4	
4											
AV	15.4	42.1	0.3	2.4	7.2	3.0	277.7	0.0	0.1	8.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	48.1	83.8	196.1	30.6	53.7	59.2	15.2	99.3	634.6	18.7	367.1	48.6	▲ GREEN ▼
	29.5	124.4	213.5	29.6	86.2	77.1	15.7	97.3	630.4	18.3	363.9	47.2	
	14.9	69.8	279.7	30.9	53.8	53.3	15.8	109.2	642.4	11.3	369.4	52.8	
AV	31	93	230	30	65	63	16	102	636	16	367	50	

													▲ YELLOW ▼
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AV

Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector R. Linton
 Date Collected By 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	134	Width Cutting Edge		Shoulder Back Max Width	
Max Width	117.3	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	121.1	Middle Width	42.1	Middle Max Thickness	
Weight (g)	1450	Middle Thickness		Top Max Width	44.4
		Middle Max Front		Top Max Thickness	42.9
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Hiva Oa, Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	46			Cross Section Shape	

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.1	45.9	0	2.2	7.7	3.4	274.2	0.0	0.1	10.2	V A C U U M * G R E E N
2	16.2	47.5	0	2.3	7.7	3.4	267.0	0.0	0.1	9.9	
3	15.9	45.6	0	2.3	7.0	3.2	289.5	0.0	0.1	10.1	
4											
AV	16.1	46.3	0.3	2.3	7.4	3.3	276.9	0.0	0.1	10.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	17.6	70.5	203.2	42.7	47.4	48.9	9.9	70.4	692.8	30.1	370.5	56.9	G R E E N
	1.9	95.9	226.7	35.6	56.8	56.3	13.0	76.6	690.3	27.3	358.8	54.1	
	9.0	38.8	217.8	24.9	46.3	31.9	11.4	77.2	698.3	27.0	379.1	53.4	
AV	10	68	216	34	50	46	11	75	694	28	369	55	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector Alexander M. McBryde
 Date Collected
 Collection Method Gift
 Place Collected Polynesia
 Material Stone
 Object Pounder
 Type Double tiki (ring)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	210.0	Width Cutting Edge		Shoulder Back Max Width	
Max Width	136.1	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	143.1	Middle Width	42.0	Middle Max Thickness	
Weight (g)	2400	Middle Thickness		Top Max Width	58.3
		Middle Max Front		Top Max Thickness	57.7
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	46	basalt		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.4	45.7	0	1.6	10.4	3.8	203.7	0.0	0.1	9.2	▲ GREEN* V A C U U M ▼
2	15.1	43.3	0	1.5	11.5	3.5	210.8	0.0	0.1	8.0	
3	17.0	49.5	1	1.5	11.1	3.7	191.7	0.0	0.1	9.2	
4											
AV	16.2	46.2	0.6	1.5	11.0	3.7	202.1	0.0	0.1	8.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	126.9	174.6	357.0	31.5	174.9	165.5	3.7	34.6	836.3	42.1	365.5	64.2	▲ GREEN ▼
	54.9	141.5	336.8	34.5	128.1	126.3	3.8	29.0	805.6	37.7	348.9	60.3	
	72.8	143.8	292.7	27.9	126.4	112.3	4.5	32.1	788.5	40.8	349.6	59.6	
AV	85	153	329	31	143	135	4	32	810	40	355	61	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector R. Linton
 Date Collected By 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Double Tiki
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	199.0	Width Cutting Edge	Shoulder Back Max Width
Max Width	117.9	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	117.4	Middle Width	Middle Max Thickness
Weight (g)	1600	Middle Thickness	34.6
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	Top Max Thickness
Island Group	Ua Huka / Ua Pou,		Cutting Edge to Bevel
TAS (SiO ₂) Material	44	Middle Max Back	Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04

Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.8	42.2	0	2.2	8.0	3.5	248.4	0.0	0.1	9.3
2	15.7	44.6	0	2.3	8.1	3.6	255.8	0.0	0.1	9.3
3	15.7	45.5	1	2.3	8.0	3.5	239.2	0.0	0.1	9.3
4										
AV	15.4	44.1	0.6	2.2	8.0	3.5	247.8	0.0	0.1	9.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	47.3	141.9	619.4	25.5	67.0	68.5	15.5	85.2	772.3	23.8	422.9	61.1
	83.0	124.2	564.4	24.5	61.3	62.2	14.7	81.6	754.6	25.2	408.9	49.6
	58.5	130.7	545.4	33.4	71.2	72.2	13.8	87.1	732.7	22.1	422.6	63.1
AV	63	132	576	28	67	68	15	85	753	24	418	58



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Museum Bishop Museum
 Date Acquired by Museum
 Collector Unknown
 Date Collected
 Collection Method Unknown
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Double tiki
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	178	Width Cutting Edge		Shoulder Back Max Width	
Max Width	102.8	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	99.7	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness	29.3	Top Max Width	54.3
		Middle Max Front		Top Max Thickness	36.9
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	43			Cross Section Shape	

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.4	43.6	2	2.2	8.5	3.0	274.5	0.0	0.1	9.0	VACUUM GREEN*
2	16.0	41.4	5	2.0	9.4	3.2	263.0	0.0	0.1	8.8	
3	15.8	44.4	2	2.2	8.3	3.1	268.5	0.0	0.1	9.0	
4											
AV	16.1	43.1	2.8	2.2	8.7	3.1	268.7	0.0	0.1	9.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	86.8	170.0	360.5	37.3	266.6	265.9	16.8	82.2	846.1	24.2	430.4	66.9	GREEN
	43.8	153.7	322.5	35.6	190.6	182.8	12.4	73.9	918.6	28.5	400.3	58.5	
	38.4	130.7	355.3	43.0	283.2	289.5	12.0	64.6	896.8	32.4	400.7	57.0	
AV	56	151	346	39	247	246	14	74	887	28	410	61	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector George Spitz
 Date Collected
 Collection Method Purchase
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	206.0	Width Cutting Edge	Shoulder Back Max Width
Max Width	141.0	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	141.0	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	39.8
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	44.4
Island Group	Marquesas	Middle Max Back	Cutting Edge to Bevel
TAS (SiO ₂) Material	47		Length Rightangle to Bevel
			Cross Section Shape

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.4	47.6	1	2.5	7.6	3.3	260.5	0.0	0.1	8.8	▲ GREEN* V A C U U M ▼
2	15.0	43.8	0	2.5	7.4	3.0	296.3	0.0	0.1	8.2	
3	15.3	48.2	0	2.5	7.8	3.2	249.9	0.0	0.1	7.9	
4											
AV	15.2	46.6	0.3	2.5	7.6	3.2	268.9	0.0	0.1	8.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	32.7	103.7	275.6	32.8	112.7	105.7	17.4	93.1	673.0	18.4	392.1	56.8	▲ GREEN G R E E N ▼
	0.0	117.0	312.0	35.7	90.8	91.7	13.8	96.9	698.6	16.1	382.0	53.2	
	0.0	104.5	291.4	34.5	66.7	59.5	21.4	119.9	702.6	4.2	394.9	55.4	
AV	11	108	293	34	90	86	18	103	691	13	390	55	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW Y E L L O W ▼
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector George Spitz
 Date Collected
 Collection Method Purchase
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	209.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	143.0	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	140.0	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness	38.0	Top Max Width	59.0
Island Group	Marquesas	Middle Max Front		Top Max Thickness	45.8
TAS (SiO ₂) Material	38	Shoulder Front Max Width		Cutting Edge to Bevel	
		Middle Max Back		Length Rightangle to Bevel	
				Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.9	39.7	0	2.2	8.6	2.8	284.3	0.0	0.1	7.9	V A C U U M * G R E E N
2	14.6	37.6	0	2.2	8.7	2.8	273.6	0.0	0.1	7.9	
3	14.1	35.5	0	2.2	8.4	2.7	283.1	0.0	0.1	7.5	
4											
AV	14.5	37.6	0.1	2.2	8.6	2.8	280.3	0.0	0.1	7.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	26.0	133.3	602.7	48.8	344.8	360.2	17.8	86.9	711.5	21.7	370.4	55.0	G R E E N
	44.2	132.5	454.2	33.5	196.7	188.0	14.9	76.4	644.8	27.3	359.6	47.7	
	7.4	115.9	546.4	30.3	165.2	155.3	15.1	85.9	681.8	23.0	360.5	49.8	
AV	26	127	534	38	236	234	16	83	679	24	363	51	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector R. Linton
 Date Collected By 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Opu
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	177	Width Cutting Edge		Shoulder Back Max Width	
Max Width	129	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	133	Middle Width		Middle Max Thickness	
Weight (g)	1900	Middle Thickness	38.7	Top Max Width	47.8
		Middle Max Front		Top Max Thickness	41.1
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Hiva Oa, Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	45		basalt	Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.9	46.5	0	2.0	8.2	3.9	252.8	0.0	0.1	10.6	V A C U U M * G R E E N
2	13.8	38.9	0	2.1	8.0	3.7	247.2	0.0	0.1	9.1	
3	15.0	48.5	0	2.1	8.4	3.7	239.3	0.0	0.1	9.7	
4											
AV	14.2	44.6	0.1	2.1	8.2	3.8	246.4	0.0	0.1	9.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	69.8	129.4	221.5	28.2	97.9	90.3	8.5	52.2	692.3	40.2	362.6	46.4	G R E E N
	110.0	95.6	201.2	41.3	51.6	42.2	6.4	45.3	700.7	41.7	351.3	42.9	
	70.4	108.8	236.4	25.0	50.9	46.9	8.1	52.6	700.5	37.9	360.0	45.8	
AV	83	111	220	32	67	60	8	50	698	40	358	45	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector R. Linton
 Date Collected By 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Modern
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	197	Width Cutting Edge		Shoulder Back Max Width	
Max Width	142	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	140	Middle Width		Middle Max Thickness	
Weight (g)	2500	Middle Thickness	35.4	Top Max Width	60.1
		Middle Max Front		Top Max Thickness	45.0
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Ua Huka, Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	52	basalt		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	11.2	48.8	0	2.5	6.9	3.0	291.1	0.0	0.1	8.1	V A C U U M * G R E E N
2	11.2	56.7	1	2.5	7.5	3.2	296.0	0.0	0.1	7.9	
3	11.2	51.1	0	2.5	7.0	3.0	273.1	0.0	0.1	7.9	
4	11.2	52.2	0.3	2.5	7.2	3.1	286.7	0.0	0.1	8.0	
AV	11.2	52.2	0.3	2.5	7.2	3.1	286.7	0.0	0.1	8.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	5.6	95.5	227.7	30.6	53.0	52.3	13.8	97.4	706.5	18.9	393.6	55.5	G R E E N
	14.4	82.2	224.1	28.1	55.1	43.0	13.9	94.5	636.9	22.9	364.3	45.6	
	33.8	69.1	314.2	35.4	68.4	59.2	16.6	99.4	690.9	17.4	380.0	53.1	
AV	18	82	255	31	59	51	15	97	678	20	379	51	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector Leona Wood
 Date Collected
 Collection Method Trade
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	205	Width Cutting Edge	Shoulder Back Max Width		
Max Width	139	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	141	Middle Width	Middle Max Thickness		
Weight (g)	2100	Middle Thickness	40.1	Top Max Width	69.8
		Middle Max Front	Top Max Thickness	50.0	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Marquesas	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	37	foidite	Cross Section Shape		

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.0	36.6	0	1.3	10.2	2.9	280.8	0.0	0.1	9.3	V A C U U M * G R E E N
2	13.9	37.3	0	1.4	10.4	2.9	277.6	0.0	0.1	9.4	
3	13.5	36.1	0	1.4	10.2	2.8	288.9	0.0	0.2	9.2	
4											
AV	13.8	36.6	0.0	1.4	10.3	2.9	282.4	0.0	0.1	9.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	105.6	121.0	313.1	27.0	119.9	112.1	6.2	40.7	690.2	34.4	289.9	38.5
	79.4	152.2	256.3	24.3	87.0	90.2	5.6	44.4	709.5	37.5	282.1	37.6
	74.1	208.7	447.7	27.8	99.0	93.8	10.3	59.7	664.2	32.5	306.5	44.4
AV	86	161	339	26	102	99	7	48	688	35	293	40

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector Leona Wood
 Date Collected
 Collection Method Trade
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	211	Width Cutting Edge		Shoulder Back Max Width	
Max Width	142	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	143	Middle Width		Middle Max Thickness	
Weight (g)	2200	Middle Thickness	38.3	Top Max Width	65.3
		Middle Max Front		Top Max Thickness	45.5
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	35			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.0	36.9	0	1.6	9.3	3.3	288.6	0.0	0.1	10.0	GREEN* VACUUM
2	13.7	33.7	0	1.6	8.9	3.2	321.6	0.0	0.1	9.9	
3	13.6	35.0	0	1.6	9.0	3.3	306.6	0.0	0.1	10.2	
4											
AV	13.7	35.2	0.0	1.6	9.1	3.3	305.6	0.0	0.1	10.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	76.2	177.1	569.8	27.9	102.7	95.7	6.5	46.9	744.2	38.8	348.5	47.1	GREEN
	75.8	164.8	667.9	34.7	99.0	88.1	8.0	53.7	738.4	35.2	319.4	45.5	
	67.2	130.0	489.6	29.7	83.0	82.8	8.3	58.5	687.4	33.4	322.8	47.1	
AV	73	157	576	31	95	89	8	53	723	36	330	47	

YELLOW

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector Geritt P. Wilder
 Date Collected
 Collection Method Surface
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Double Tiki
 Additional Museum Notes Yes No

Measurements (mm)

Max Length 61.7 Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) 212.5 Middle Thickness 38.8 Top Max Width 69.6
 Middle Max Front Top Max Thickness 39.3
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Marquesas Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 38 foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.6	37.6	0	1.5	8.3	4.6	136.7	0.0	0.1	10.0
2	18.4	40.4	0	1.4	7.6	5.1	0.0	155.3	0.1	12.6
3	15.7	35.8	0	1.5	7.6	4.5	103.8	0.0	0.1	10.4
4										
AV	16.9	37.9	0.1	1.5	7.8	4.7	80.2	51.8	0.1	11.0

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Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	109.1	161.8	230.7	31.8	41.6	36.5	3.3	25.6	848.5	45.3	374.2	63.4
	103.6	132.7	271.4	32.6	54.1	45.5	4.5	32.3	821.7	44.2	400.0	64.1
	69.4	93.3	229.6	34.4	76.8	69.0	4.1	30.0	797.8	45.3	400.5	65.8
AV	94	129	244	33	57	50	4	29	823	45	392	64

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AV

Accession No. BPBM B.3052

Record No. 729

pXRF_0030_BPBM

Museum Bishop Museum

Date Acquired by Museum 08.06.1921

Collector R. Linton

Date Collected By 1921

Collection Method Surface

Place Collected Marquesas

Material Basalt

Object Pounder

Type Conical (head)

Additional Museum Notes Yes No

Measurements (mm)

Max Length 95.0

Width Cutting Edge

Shoulder Back Max Width

Max Width

Bevel Max Thickness

Shoulder Max Thickness

Max Thickness

Middle Width

Middle Max Thickness

Weight (g) 285.2

Middle Thickness 38.8

Top Max Width 68.4

Middle Max Front

Top Max Thickness 44.5

Shoulder Front Max Width

Cutting Edge to Bevel

Island Group Nuku Hiva/ Hiva Oa

Middle Max Back

Length Rightangle to Bevel

TAS (SiO₂) Material 42

micro-basalt / basanite

Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.4	39.0	0	1.3	7.5	4.0	174.1	0.0	0.1	11.9
2	14.7	38.5	0	1.3	8.2	3.7	198.2	0.0	0.1	10.7
3	17.1	47.6	1	1.3	8.5	4.0	151.3	0.0	0.2	11.8
4										
AV	16.0	41.7	0.4	1.3	8.0	3.9	174.5	0.0	0.1	11.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	107.7	113.9	410.0	33.2	91.8	91.8	3.9	29.1	626.9	42.0	339.1	47.4
	99.0	141.5	782.0	28.5	72.8	67.3	3.9	29.9	627.0	42.6	346.1	47.7
	69.0	122.0	749.3	27.7	59.2	57.4	3.8	28.3	636.1	39.7	352.2	40.8
AV	92	126	647	30	75	72	4	29	630	41	346	45

GREEN

YELLOW

AV



Accession No. BPBM B.3053

Record No. 732

pXRF_0033_BPBM

Museum Bishop Museum

Date Acquired by Museum 08.06.1921

Collector R. Linton

Date Collected By 1921

Collection Method Surface

Place Collected Marquesas

Material Basalt

Object Pounder

Type Phallic

Additional Museum Notes Yes No

Measurements (mm)

Max Length	112.3	Width Cutting Edge		Shoulder Back Max Width	
Max Width	51.8	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	49.6	Middle Width		Middle Max Thickness	
Weight (g)	345	Middle Thickness	40.6	Top Max Width	49.3
		Middle Max Front		Top Max Thickness	44.9
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Hiva Oa, Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	39	foidite		Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.0	42.0	0	2.9	2.1	3.8	197.6	123.9	0.1	8.7	V A C U U M * G R E E N
2	16.6	39.5	0	2.9	2.6	3.8	187.5	60.4	0.1	8.4	
3	16.0	36.9	0	2.8	3.5	3.7	181.0	72.5	0.1	8.0	
4											
AV	16.6	39.5	0.0	2.9	2.7	3.8	188.7	85.6	0.1	8.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	26.6	38.1	111.6	32.0	32.0	31.1	56.0	256.8	640.9	0.0	525.3	76.4	G R E E N
	33.2	50.6	134.9	26.9	32.2	33.2	53.2	255.7	679.3	0.0	522.2	80.1	
	32.6	64.9	131.8	27.7	49.3	40.2	56.9	283.1	686.2	0.0	521.2	84.4	
AV	31	51	126	29	38	35	55	265	669	0	523	80	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Bishop Museum
 Date Acquired by Museum
 Collector Leona Wood
 Date Collected
 Collection Method Trade
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Infant
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	125	Width Cutting Edge	Shoulder Back Max Width		
Max Width	74	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	71	Middle Width	Middle Max Thickness		
Weight (g)	750	Middle Thickness	31.3	Top Max Width	32.2
		Middle Max Front	Top Max Thickness	33.7	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Marquesas	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	29	foidite	Cross Section Shape		

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	12.4	25.4	0	1.2	8.8	1.8	232.9	447.8	0.1	11.5
2	14.5	29.5	0	1.2	8.9	2.4	291.0	707.5	0.2	13.0
3	12.7	32.0	0	1.2	11.2	2.3	272.3	727.3	0.1	9.5
4										
AV	13.2	29.0	0.0	1.2	9.6	2.1	265.4	627.5	0.2	11.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	378.3	126.1	498.7	26.5	64.8	57.5	5.5	38.5	548.4	31.8	215.9	38.7
	377.3	179.4	427.5	24.2	49.0	47.7	6.8	43.8	637.9	32.1	233.7	40.0
	393.8	152.5	477.1	23.9	57.7	52.2	4.8	36.2	572.0	32.3	226.3	32.9
AV	383	153	468	25	57	52	6	40	586	32	225	37

AV												

VACUUM GREEN*

GREEN

YELLOW

Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector R, Linton
 Date Collected By 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Double tiki
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	200	Width Cutting Edge		Shoulder Back Max Width	
Max Width	126	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	127	Middle Width		Middle Max Thickness	
Weight (g)	1850	Middle Thickness	37.5	Top Max Width	56.4
		Middle Max Front		Top Max Thickness	41.2
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Ua Huka / Ua Pou,	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	65			Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	10.9	64.4	1	2.9	5.2	2.4	288.5	0.0	0.1	8.4	V A C U U M * G R E E N
2	10.1	66.3	2	2.8	4.7	3.1	317.0	0.0	0.1	9.2	
3	11.3	65.4	2	2.9	4.9	2.6	307.2	0.2	0.1	9.0	
4											
AV	10.8	65.4	1.5	2.9	5.0	2.7	304.2	0.1	0.1	8.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	2.7	92.2	180.3	33.2	44.0	53.8	33.3	211.2	969.8	0.0	422.9	73.0	G R E E N
	9.6	95.6	179.3	30.6	40.9	33.2	43.5	220.8	954.7	0.0	424.2	73.8	
	0.0	98.1	176.0	30.4	44.7	43.0	44.6	245.9	972.5	0.0	424.8	72.8	
AV	4	95	179	31	43	43	40	226	966	0	424	73	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1931
 Collector Kenneth P. Emory
 Date Collected 1931
 Collection Method Purchase
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	196.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	123	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	122	Middle Width		Middle Max Thickness	
Weight (g)	1840	Middle Thickness	36.4	Top Max Width	61.8
		Middle Max Front		Top Max Thickness	47.6
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	48	basalt		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.6	53.1	1	2.2	7.2	3.5	327.7	0.0	0.2	11.5	V A C U U M * G R E E N
2	14.4	46.1	0	2.3	6.7	3.3	270.3	0.0	0.1	10.4	
3	13.8	45.0	0	2.2	6.9	3.3	283.8	0.0	0.1	10.3	
4											
AV	14.3	48.1	0.2	2.2	6.9	3.4	293.9	0.0	0.1	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	29.9	109.7	362.8	25.7	87.7	78.1	11.8	91.7	642.3	20.8	391.4	58.7	G R E E N
	0.0	98.0	351.1	28.2	68.2	63.9	16.4	92.0	660.1	20.5	391.7	50.8	
	0.0	126.0	314.2	29.2	58.4	53.5	13.7	92.4	628.3	20.0	393.1	58.5	
AV	10	111	343	28	71	65	14	92	644	20	392	56	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

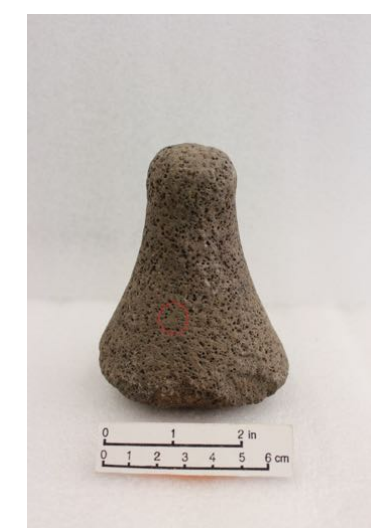
AV

Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector R. Linton
 Date Collected By 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Infant Food
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	108.4	Width Cutting Edge	Shoulder Back Max Width		
Max Width	90.6	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	83.8	Middle Width	Middle Max Thickness		
Weight (g)	700	Middle Thickness	34.9	Top Max Width	41.7
		Middle Max Front	Top Max Thickness	32.4	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Marquesas	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	35	foidite	Cross Section Shape		

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.8	33.1	0	1.6	8.5	3.6	217.2	61.2	0.2	10.7
2	16.2	35.8	0	1.5	9.7	3.3	264.0	226.1	0.2	10.5
3	15.9	34.9	0	1.6	8.8	3.6	246.6	30.1	0.2	11.7
4										
AV	16.0	34.6	0.1	1.5	9.0	3.5	242.6	105.8	0.2	11.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	168.5	249.9	310.6	31.1	73.9	63.2	10.4	62.3	754.2	32.2	346.1	50.7
	65.7	195.1	208.3	24.6	59.2	61.2	6.0	64.2	797.2	32.2	346.9	52.5
	46.0	90.8	205.8	31.2	58.5	53.6	7.1	61.7	740.0	32.4	328.5	46.6
AV	93	179	242	29	64	59	8	63	764	32	341	50

AV												
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VACUUM GREEN*

GREEN

YELLOW

Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector Ralph Linton
 Date Collected By 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Double tiki
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	200	Width Cutting Edge		Shoulder Back Max Width	
Max Width	132	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	132	Middle Width		Middle Max Thickness	
Weight (g)	1900	Middle Thickness	33.9	Top Max Width	58.9
		Middle Max Front		Top Max Thickness	42.8
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	67			Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04

Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	7.2	68.8	1	2.2	7.3	3.5	313.9	0.0	0.1	9.4	V A C U U M * G R E E N
2	9.9	67.6	1	2.2	7.3	3.6	314.2	20.6	0.1	10.9	
3	11.0	63.9	1	2.2	7.1	3.5	317.7	0.0	0.1	10.9	
4											
AV	9.3	66.8	1.0	2.2	7.3	3.5	315.2	6.9	0.1	10.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	41.6	118.2	235.8	25.6	30.0	26.9	13.2	85.0	852.8	24.5	412.2	57.1
	34.9	85.0	192.6	31.8	37.1	34.2	12.8	77.5	865.7	27.4	396.7	57.7
	35.2	68.1	208.6	23.4	32.6	34.4	14.0	85.7	896.6	23.5	407.3	56.4
AV	37	90	212	27	33	32	13	83	872	25	405	57

AV												



Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector R. Linton
 Date Collected By 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Childrens
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	90.9	Width Cutting Edge		Shoulder Back Max Width	
Max Width	74	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	68.2	Middle Width		Middle Max Thickness	
Weight (g)	300	Middle Thickness	32.8	Top Max Width	35.0
		Middle Max Front		Top Max Thickness	35.0
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	38			Cross Section Shape	

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Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.2	36.5	0	1.2	9.3	3.6	240.2	0.0	0.1	9.9	V A C U U M * G R E E N
2	16.9	38.9	0	1.1	9.2	3.9	175.5	74.2	0.2	11.6	
3	17.0	37.9	0	1.4	7.8	4.0	206.9	0.0	0.2	12.2	
4											
AV	16.4	37.8	0.0	1.2	8.7	3.8	207.6	24.7	0.1	11.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	118.0	102.6	220.4	27.6	79.4	66.8	4.2	31.7	754.0	40.6	358.5	57.8
	108.4	73.5	179.4	26.1	48.9	38.0	4.1	29.9	714.7	41.8	371.9	62.4
	86.2	107.1	233.3	32.6	56.2	50.2	4.4	31.4	759.0	44.1	390.4	70.1
AV	104	94	211	29	61	52	4	31	743	42	374	63

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AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector George Spitz
 Date Collected
 Collection Method Purchase
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	190	Width Cutting Edge		Shoulder Back Max Width	
Max Width	144	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	143	Middle Width		Middle Max Thickness	
Weight (g)	2350	Middle Thickness	38.7	Top Max Width	39.1
		Middle Max Front		Top Max Thickness	39.0
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	40			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.7	43.1	1	1.6	9.7	3.4	228.3	0.0	0.1	9.1	VACUUM GREEN*
2	15.7	37.2	0	1.4	9.0	3.1	234.1	0.0	0.1	10.3	
3	14.8	39.9	1	1.5	9.8	3.4	226.7	0.0	0.1	9.3	
4											
AV	15.4	40.1	0.6	1.5	9.5	3.3	229.7	0.0	0.1	9.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	117.1	113.1	321.1	26.3	111.5	103.8	3.9	28.6	894.5	38.6	283.1	39.7	GREEN
	89.7	114.9	348.1	32.9	261.5	256.0	5.0	35.7	922.0	40.9	293.9	42.9	
	135.6	115.5	307.7	29.4	93.4	89.3	5.0	36.3	968.3	36.6	278.0	41.6	
AV	114	115	326	30	155	150	5	34	928	39	285	41	

													YELLOW
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AV

Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector R. Linton
 Date Collected By 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Modern
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	186	Width Cutting Edge		Shoulder Back Max Width	
Max Width	125	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	122	Middle Width		Middle Max Thickness	
Weight (g)	1525	Middle Thickness	35.0	Top Max Width	65.8
		Middle Max Front		Top Max Thickness	44.9
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Ua Huka, Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	39	foidite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.5	44.9	0	1.8	9.2	3.6	246.5	0.0	0.1	10.6	V A C U U M * G R E E N
2	14.1	35.8	0	1.8	8.9	3.4	211.8	0.0	0.1	9.3	
3	13.7	35.2	0	1.8	8.5	3.2	260.5	0.0	0.1	9.4	
4											
AV	14.4	38.6	0.1	1.8	8.9	3.4	239.6	0.0	0.1	9.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	109.7	111.5	168.0	30.4	39.9	36.2	6.5	49.5	750.3	37.2	310.1	45.4	G R E E N
	48.5	99.2	267.3	30.2	67.2	59.8	6.9	47.8	773.8	39.4	312.0	49.8	
	54.0	139.1	240.7	29.9	43.3	33.3	6.1	48.0	759.6	41.4	329.0	51.0	
AV	71	117	225	30	50	43	7	48	761	39	317	49	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 08.1920
 Collector J. L. Young
 Date Collected By 1920
 Collection Method Purchase
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Elongated knob
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	246	Width Cutting Edge		Shoulder Back Max Width	
Max Width	95	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	83	Middle Width		Middle Max Thickness	
Weight (g)	2750	Middle Thickness	49.5	Top Max Width	60.9
		Middle Max Front		Top Max Thickness	58.5
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	44			Cross Section Shape	

Micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.1	43.4	0	0.9	11.7	1.6	218.8	244.2	0.1	8.6	VACUUM GREEN*
2	14.5	45.0	1	0.8	11.5	1.7	223.4	113.2	0.1	8.9	
3	13.1	44.4	0	0.9	10.5	1.7	225.8	48.1	0.1	8.8	
4											
AV	14.2	44.3	0.2	0.9	11.2	1.7	222.7	135.2	0.1	8.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	98.1	120.2	189.2	26.5	83.5	81.4	1.6	13.1	433.3	23.9	92.5	13.8	GREEN
	132.9	139.9	400.0	23.8	179.5	168.2	1.1	12.3	416.6	24.9	102.2	19.8	
	88.1	146.9	321.7	25.3	108.6	94.4	1.3	16.9	456.6	25.6	117.9	18.7	
AV	106	136	304	25	124	115	1	14	436	25	104	17	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													

AV

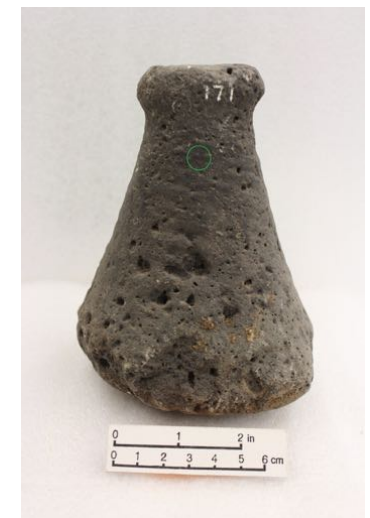
Museum Bishop Museum
 Date Acquired by Museum
 Collector Theodore T. Dranga
 Date Collected
 Collection Method Purchase
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type T-shaped
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	148	Width Cutting Edge		Shoulder Back Max Width	
Max Width	113	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	107	Middle Width		Middle Max Thickness	
Weight (g)	1820	Middle Thickness	36.1	Top Max Width	53.8
		Middle Max Front		Top Max Thickness	31.6
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	43			Cross Section Shape	

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.3	44.6	0	1.5	11.2	2.5	266.8	0.0	0.1	8.3	V A C U U M * G R E E N
2	15.0	44.8	1	1.5	10.6	2.4	264.8	0.0	0.1	8.4	
3	14.6	38.1	0	1.6	10.2	2.5	266.1	0.0	0.1	8.5	
4											
AV	15.0	42.5	0.4	1.6	10.7	2.5	265.9	0.0	0.1	8.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	57.4	122.1	379.4	28.9	56.1	50.3	5.4	42.0	549.6	36.5	254.5	45.6	G R E E N
	56.1	127.3	637.2	25.5	56.2	48.7	6.8	50.3	508.3	38.6	312.8	65.2	
	140.8	177.0	473.3	21.6	58.1	47.5	5.6	39.0	579.0	33.3	200.6	40.1	
AV	85	142	497	25	57	49	6	44	546	36	256	50	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1931
 Collector Kenneth P. Emory
 Date Collected By 1931
 Collection Method Surface
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Infant
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	81.8	Width Cutting Edge	Shoulder Back Max Width
Max Width	70.9	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	69.5	Middle Width	Middle Max Thickness
Weight (g)	347.8	Middle Thickness	37.4
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	30.3
Island Group	Marquesas	Middle Max Back	Cutting Edge to Bevel
TAS (SiO ₂) Material	38		Length Rightangle to Bevel
			Cross Section Shape

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.1	40.1	1	1.0	10.2	3.8	208.2	0.0	0.1	11.1
2	14.9	37.9	0	1.0	9.8	3.7	217.4	0.0	0.1	10.5
3	15.0	37.4	0	1.2	9.6	3.6	220.7	0.0	0.1	11.0
4										
AV	15.3	38.5	0.4	1.0	9.9	3.7	215.4	0.0	0.1	10.8

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Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	76.2	157.6	329.2	26.3	48.3	45.2	2.3	18.4	745.3	40.2	350.8	48.8
	126.9	128.6	1393.2	25.8	56.5	57.3	1.9	16.9	734.4	43.4	345.3	53.6
	72.3	153.1	267.6	22.8	41.9	37.3	3.6	27.1	726.0	46.7	388.6	60.2
AV	92	146	663	25	49	47	3	21	735	43	362	54

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AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector Unknown
 Date Collected
 Collection Method Unknown
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	190	Width Cutting Edge	Shoulder Back Max Width		
Max Width	122.8	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	121.6	Middle Width	Middle Max Thickness		
Weight (g)	1770	Middle Thickness	38.2	Top Max Width	63.0
		Middle Max Front	Top Max Thickness	46.1	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Marquesas	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	48	basalt	Cross Section Shape		

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.8	45.4	0	1.9	8.4	3.5	237.4	0.0	0.1	10.8	V A C U U M * G R E E N
2	13.1	49.7	1	1.8	9.1	3.5	269.3	1.0	0.1	11.1	
3	12.9	47.4	1	1.7	9.1	3.4	270.2	0.0	0.1	10.5	
4											
AV	12.9	47.5	0.5	1.8	8.9	3.4	258.9	0.3	0.1	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	87.1	119.9	302.3	29.6	82.9	68.4	10.5	70.6	710.2	30.1	373.2	50.7	G R E E N
	69.1	141.1	260.2	24.7	75.0	68.2	8.0	53.5	704.0	39.4	333.3	44.4	
	49.1	132.4	332.0	30.7	76.6	68.5	8.9	55.5	664.3	36.3	342.6	44.3	
AV	68	131	298	28	78	68	9	60	693	35	350	46	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector Unknown
 Date Collected
 Collection Method Unknown
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	134.9	Width Cutting Edge	Shoulder Back Max Width		
Max Width	86.8	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	81.9	Middle Width	Middle Max Thickness		
Weight (g)	800	Middle Thickness	35.3	Top Max Width	32.1
		Middle Max Front	Top Max Thickness	34.6	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Marquesas	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	40	foidite	Cross Section Shape		

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	18.9	37.7	0	1.8	8.4	4.3	118.0	0.0	0.1	10.3
2	17.5	39.3	0	1.8	7.3	4.6	46.4	0.0	0.1	10.8
3	20.5	43.5	0	1.9	7.8	4.9	43.7	0.0	0.1	10.7
4										
AV	19.0	40.2	0.1	1.8	7.8	4.6	69.4	0.0	0.1	10.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	66.4	111.0	413.0	22.2	29.8	28.7	9.8	68.9	850.6	30.4	379.4	58.2
	93.7	142.4	389.0	27.0	25.6	27.7	9.9	63.3	839.6	31.4	350.5	57.0
	51.5	204.2	442.4	35.1	55.5	56.1	12.3	76.6	877.0	27.7	395.4	63.1
AV	71	153	415	28	37	37	11	70	856	30	375	59

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AV

Accession No. BPBM C.4045

Record No. 755

pXRF_0056_BPBM

Museum Bishop Museum
 Date Acquired by Museum 1931
 Collector Kenneth P. Emory
 Date Collected By 1931
 Collection Method Surface
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Double tiki
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	211	Width Cutting Edge	Shoulder Back Max Width
Max Width	142	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	142	Middle Width	Middle Max Thickness
Weight (g)	2520	Middle Thickness	41.2
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	46.3
Island Group	Marquesas	Middle Max Back	Cutting Edge to Bevel
TAS (SiO ₂) Material	53		Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04

Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.7	53.4	1	2.2	7.6	3.7	288.0	0.0	0.1	10.5	V A C U U M * G R E E N
2	15.1	52.7	1	2.3	7.7	3.7	255.9	0.0	0.1	10.2	
3	15.8	52.2	1	2.3	7.6	3.8	265.3	0.0	0.1	10.7	
4											
AV	15.2	52.8	0.9	2.3	7.6	3.7	269.7	0.0	0.1	10.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	32.8	108.1	345.9	31.6	79.6	67.0	13.0	108.5	813.8	16.5	397.9	58.3
	44.1	89.6	253.7	27.9	48.6	49.5	14.8	97.9	853.8	18.7	403.4	55.1
	34.5	118.2	304.6	20.1	64.6	56.6	14.9	85.6	782.2	23.8	391.5	53.5
AV	37	105	301	27	64	58	14	97	817	20	398	56

AV												



Museum Bishop Museum
 Date Acquired by Museum
 Collector Theodore T. Dranga
 Date Collected
 Collection Method Unknown
 Place Collected Marquesas
 Material Stona
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	184	Width Cutting Edge		Shoulder Back Max Width	
Max Width	130	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	130	Middle Width		Middle Max Thickness	
Weight (g)	1700	Middle Thickness	40.3	Top Max Width	64.7
		Middle Max Front		Top Max Thickness	49.4
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Marquesas	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	36			Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.8	35.3	0	1.9	8.5	3.1	296.1	0.0	0.1	9.0	V A C U U M * G R E E N
2	13.8	35.8	0	1.9	8.6	3.0	300.9	0.0	0.1	8.9	
3	13.6	37.8	0	1.8	8.6	2.9	296.9	0.0	0.1	8.1	
4											
AV	13.8	36.3	0.0	1.9	8.6	3.0	298.0	0.0	0.1	8.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	79.7	156.3	653.9	26.3	105.7	100.5	5.6	40.1	714.1	39.5	337.9	45.7	G R E E N
	60.7	166.1	615.6	24.3	103.8	93.6	6.8	46.3	692.0	38.6	328.8	48.5	
	74.0	178.3	783.9	30.1	117.3	105.2	6.5	45.7	698.1	36.7	338.7	45.0	
AV	71	167	684	27	109	100	6	44	701	38	335	46	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector Theodore T. Dranga
 Date Collected
 Collection Method Surface
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	201	Width Cutting Edge	Shoulder Back Max Width		
Max Width	130	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	128	Middle Width	Middle Max Thickness		
Weight (g)	2020	Middle Thickness	37	Top Max Width	55.1
		Middle Max Front	Top Max Thickness	45.4	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Marquesas	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	44	picro-basalt / basanite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.0	40.7	0	2.6	7.0	3.0	264.5	0.0	0.1	7.5	V A C U U M * G R E E N
2	14.4	44.7	1	2.5	7.2	3.3	233.3	0.0	0.1	8.3	
3	13.7	45.3	1	2.6	7.6	3.2	272.5	0.0	0.1	7.2	
4											
AV	14.0	43.6	0.4	2.5	7.3	3.2	256.8	0.0	0.1	7.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	20.2	126.5	1059.4	46.6	471.0	486.4	30.6	125.6	641.4	0.0	415.1	58.0	G R E E N
	8.6	140.6	775.9	33.2	88.7	83.1	16.2	94.2	671.3	18.7	374.8	50.2	
	9.3	98.2	1072.7	31.2	90.4	85.7	16.6	98.0	664.0	17.6	378.8	49.1	
AV	13	122	969	37	217	218	21	106	659	12	390	52	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum
 Collector Unknown
 Date Collected
 Collection Method Unknown
 Place Collected Marquesas
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	138.5	Width Cutting Edge	Shoulder Back Max Width		
Max Width	78.7	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	77.5	Middle Width	Middle Max Thickness		
Weight (g)	780	Middle Thickness	36	Top Max Width	39.4
		Middle Max Front	Top Max Thickness	39.4	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Marquesas	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	50	basalt	Cross Section Shape		

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	15.7	47.5	1	0.6	10.6	2.2	280.0	243.9	0.2	11.2
2	15.6	50.6	1	0.7	10.5	2.3	296.5	348.8	0.2	11.7
3	15.6	52.3	2	0.7	10.8	2.2	274.5	211.0	0.1	10.8
4										
AV	15.6	50.1	1.2	0.7	10.6	2.2	283.7	267.9	0.2	11.2

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	162.0	222.0	516.0	37.4	309.2	310.1	0.0	9.4	548.9	39.4	194.6	16.7
	163.8	193.8	391.1	29.7	223.3	215.8	0.0	11.3	534.9	44.8	200.1	15.3
	140.4	214.0	445.6	33.9	302.7	303.4	0.0	14.1	544.5	51.2	208.4	15.7
AV	155	210	451	34	278	276	0	12	543	45	201	16

AV												

AV

Museum Bishop Museum
 Date Acquired by Museum 1974
 Collector Benjamin Draper
 Date Collected By 1974
 Collection Method Gift
 Place Collected Marquesas, Ua Huka
 Material Stone
 Object Pounder
 Type German Trading Co
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	221	Width Cutting Edge	Shoulder Back Max Width		
Max Width	141	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	142	Middle Width	Middle Max Thickness		
Weight (g)	2450	Middle Thickness	41.2	Top Max Width	74.3
		Middle Max Front	Top Max Thickness	51.1	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Marquesas	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	43		Cross Section Shape		

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.7	43.3	0	1.9	9.1	3.6	242.2	0.0	0.1	9.6
2	14.8	43.9	0	1.9	9.3	3.8	235.1	0.0	0.1	9.2
3	14.3	43.3	0	2.0	8.2	3.9	195.6	0.0	0.1	9.9
4										
AV	14.6	43.5	0.3	1.9	8.9	3.8	224.3	0.0	0.1	9.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	66.4	160.3	560.0	33.6	157.8	149.7	9.3	60.9	783.7	33.4	339.8	44.7
	100.9	205.7	715.9	33.2	168.9	166.6	10.7	61.5	827.5	33.6	344.2	49.9
	75.5	247.8	784.6	36.2	139.3	132.6	10.2	68.5	797.2	30.6	358.1	57.9
AV	81	205	687	34	155	150	10	64	803	33	347	51

GREEN

YELLOW

AV

Museum Bishop Museum
 Date Acquired by Museum 12.1922
 Collector J.F.G. Stokes
 Date Collected By 1922
 Collection Method Surface
 Place Collected Austral Is., Rapa
 Material Stone
 Object Pounder
 Type Type 1 (Mulloy)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	168	Width Cutting Edge	Shoulder Back Max Width
Max Width	93.2	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	85.2	Middle Width	Middle Max Thickness
Weight (g)	1350	Middle Thickness	30.5
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	42
		Middle Max Back	Top Max Thickness
			41.5
Island Group	Austral Is.	Cutting Edge to Bevel	
TAS (SiO ₂) Material	44	Length Rightangle to Bevel	
		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04

Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.2	44.0	0	2.1	8.8	3.5	184.6	0.0	0.1	8.9
2	19.2	46.0	1	1.9	7.2	4.0	116.2	34.6	0.1	11.1
3	19.2	43.0	0	2.0	7.1	4.3	31.9	150.9	0.1	10.9
4										
AV	18.5	44.3	0.4	2.0	7.7	4.0	110.9	61.8	0.1	10.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	42.4	90.4	286.2	28.1	58.3	58.5	9.0	53.4	1310.2	34.1	348.0	73.5
	112.9	93.5	282.1	28.5	61.1	57.6	8.3	52.5	1248.2	35.5	345.6	73.4
	41.5	61.3	224.5	33.4	55.1	42.2	6.9	45.2	1375.8	36.3	335.8	70.8
AV	66	82	264	30	58	53	8	50	1311	35	343	73



Museum Bishop Museum
 Date Acquired by Museum 12.1922
 Collector J.F.G. Stokes
 Date Collected By 1922
 Collection Method Surface
 Place Collected Austral Is., Rapa, Offirui
 Material Stone
 Object Pounder
 Type Elongated
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	179	Width Cutting Edge		Shoulder Back Max Width	
Max Width	87.7	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	70.4	Middle Width		Middle Max Thickness	
Weight (g)	1150	Middle Thickness	27.7	Top Max Width	35.1
		Middle Max Front		Top Max Thickness	25.4
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	45	basalt		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.5	51.5	0	3.2	0.3	1.4	195.7	60.5	0.2	8.2	V A C U U M * G R E E N
2	17.9	44.5	2	3.1	2.7	1.4	198.9	51.6	0.2	8.0	
3	16.3	40.3	2	3.3	3.3	1.0	144.1	5.9	0.2	7.0	
4											
AV	17.2	45.4	1.5	3.2	2.1	1.3	179.6	39.3	0.2	7.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	33.9	65.6	212.7	29.0	69.1	64.2	33.7	162.7	410.2	0.0	440.2	197.5	G R E E N
	26.7	62.6	193.3	37.2	47.4	43.4	28.4	146.7	401.5	0.0	484.1	187.4	
	10.3	54.7	225.5	30.2	48.2	44.5	25.4	153.1	423.9	0.0	482.5	178.6	
AV	24	61	211	32	55	51	29	154	412	0	469	188	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 12.1922
 Collector J.F.G. Stokes
 Date Collected By 1922
 Collection Method Surface
 Place Collected Austral Is., Rapa
 Material Stone
 Object Pounder
 Type Elongated
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	142.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	80.2	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	73.6	Middle Width		Middle Max Thickness	
Weight (g)	800	Middle Thickness	24.1	Top Max Width	19.7
		Middle Max Front		Top Max Thickness	18.5
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	48	basalt		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	20.3	45.4	1	1.9	7.8	3.9	192.9	0.0	0.2	11.5	V A C U U M * G R E E N
2	20.5	50.6	1	2.0	8.3	3.7	177.5	0.0	0.1	10.0	
3	20.4	46.5	1	2.0	8.3	4.0	164.0	0.0	0.2	10.7	
4	20.4	47.5	1.0	2.0	8.1	3.9	178.1	0.0	0.2	10.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	22.5	101.2	188.7	30.3	47.9	41.1	8.2	51.4	1243.7	33.4	321.5	73.6	G R E E N
	20.7	47.3	192.3	27.5	71.7	78.4	8.2	49.4	1345.2	34.1	330.7	75.4	
	22.5	84.3	203.5	25.4	44.1	37.8	10.2	61.4	1344.4	32.3	330.3	72.2	
AV 22	78	195	28	55	52	9	54	1311	33	327	74		

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W

AV

Museum Bishop Museum
 Date Acquired by Museum 12.1922
 Collector J.F.G. Stokes
 Date Collected By 1922
 Collection Method Surface
 Place Collected Austral Is., Rapa
 Material Stone
 Object Pounder
 Type Type 3 (Mulloy)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	162	Width Cutting Edge	Shoulder Back Max Width		
Max Width	131	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	94	Middle Width	Middle Max Thickness		
Weight (g)	2000	Middle Thickness	41.7	Top Max Width	33.8
		Middle Max Front	Top Max Thickness	30.9	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Austral Is.	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	42	picro-basalt / basanite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.4	41.5	0	2.0	8.2	3.4	192.4	0.0	0.1	8.5	GREEN* VACUUM
2	17.0	43.3	0	2.0	8.4	3.2	228.2	0.0	0.1	8.6	
3	15.9	41.5	0	2.2	7.0	3.0	237.5	0.0	0.1	8.2	
4											
AV	16.1	42.1	0.0	2.1	7.9	3.2	219.4	0.0	0.1	8.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	0.0	59.5	160.1	33.4	35.6	31.4	9.4	60.7	1393.7	31.3	314.4	68.3	GREEN
	25.1	76.9	227.8	33.2	53.2	49.0	9.8	58.6	1422.3	32.4	303.5	65.2	
	21.8	48.4	223.3	29.2	53.2	56.4	11.5	70.1	1376.4	29.6	329.4	66.0	
AV	16	62	204	32	47	46	10	63	1397	31	316	66	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 12.1922
 Collector J.F.G. Stokes
 Date Collected By 1922
 Collection Method Surface
 Place Collected Austral Is., Rapa
 Material Stone
 Object Pounder
 Type Type 3 (Mulloy)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	110	Width Cutting Edge		Shoulder Back Max Width	
Max Width	99.2	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	70.5	Middle Width		Middle Max Thickness	
Weight (g)	1110	Middle Thickness	48.3	Top Max Width	48.3
		Middle Max Front		Top Max Thickness	52.7
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	43			Cross Section Shape	

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.8	46.4	1	2.3	8.3	3.3	204.3	0.0	0.1	7.9	V A C U U M * G R E E N
2	15.2	41.1	1	2.2	8.4	3.5	203.1	0.0	0.1	7.8	
3	17.7	41.4	0	1.9	7.7	3.9	143.2	0.0	0.1	10.3	
4											
AV	16.9	43.0	0.5	2.2	8.1	3.6	183.5	0.0	0.1	8.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	13.1	34.2	233.3	38.3	59.7	54.0	15.8	80.4	1385.1	26.5	341.6	70.2	G R E E N
	0.2	64.0	149.9	26.5	36.2	31.5	11.9	77.6	1352.5	27.6	336.8	70.3	
	19.8	27.9	236.1	24.2	57.2	57.0	8.8	61.1	1353.9	32.1	316.2	65.3	
AV	11	42	206	30	51	48	12	73	1364	29	332	69	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 12.1922
 Collector J.F.G. Stokes
 Date Collected By 1922
 Collection Method Surface
 Place Collected Rapa
 Material Stone
 Object Pounder
 Type Type 3 (Mulloy)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	144	Width Cutting Edge		Shoulder Back Max Width	
Max Width	116	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	70	Middle Width		Middle Max Thickness	
Weight (g)	1650	Middle Thickness	44.8	Top Max Width	32.6
		Middle Max Front		Top Max Thickness	48.6
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	44			Cross Section Shape	

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.5	46.3	3	1.9	8.7	3.6	192.4	0.0	0.1	9.9	GREEN* V A C U U M
2	16.8	42.8	1	2.0	8.7	3.6	186.9	0.0	0.1	9.3	
3	16.7	42.6	2	2.1	8.0	3.3	313.3	0.0	0.1	9.0	
4											
AV	17.3	43.9	1.9	2.0	8.5	3.5	230.9	0.0	0.1	9.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	48.3	87.8	249.6	35.3	48.7	38.8	8.4	57.3	1431.9	34.7	293.9	69.6	GREEN
	14.5	65.0	219.6	22.7	52.1	52.9	9.6	63.1	1346.0	31.4	323.0	65.4	
	34.9	65.8	237.2	27.6	70.4	70.7	9.6	63.4	1408.1	32.5	339.1	66.4	
AV	33	73	235	29	57	54	9	61	1395	33	319	67	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 12.1922
 Collector J.F.G. Stokes
 Date Collected By 1922
 Collection Method Surface
 Place Collected Rapa
 Material Stone
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	152	Width Cutting Edge		Shoulder Back Max Width	
Max Width	97.0	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	96.0	Middle Width		Middle Max Thickness	
Weight (g)	1410	Middle Thickness	31.2	Top Max Width	34.2
		Middle Max Front		Top Max Thickness	31.2
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	49	basalt		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	18.5	47.7	2	2.4	9.0	3.4	237.4	0.0	0.1	7.1	V A C U U M * G R E E N
2	18.9	52.4	3	2.2	9.0	4.3	65.6	0.0	0.1	8.8	
3	17.8	47.2	2	2.2	9.8	3.8	134.3	0.0	0.1	6.9	
4											
AV	18.4	49.1	2.5	2.3	9.3	3.8	145.8	0.0	0.1	7.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	0.0	67.7	188.3	30.7	59.4	57.3	10.7	67.8	1459.0	30.7	340.9	81.7	G R E E N
	52.7	75.3	235.7	40.8	64.8	63.7	10.1	60.2	1399.7	32.8	331.2	70.0	
	25.2	74.4	198.2	34.3	76.4	71.9	9.2	55.1	1538.1	35.6	327.0	72.3	
AV	26	72	207	35	67	64	10	61	1466	33	333	75	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1971
 Collector Y.H. Sinoto
 Date Collected By 1971
 Collection Method Purchase
 Place Collected Rapa
 Material Stone
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	126	Width Cutting Edge		Shoulder Back Max Width	
Max Width	95	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	97	Middle Width		Middle Max Thickness	
Weight (g)	1060	Middle Thickness	28.8	Top Max Width	29.2
		Middle Max Front		Top Max Thickness	28.8
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	44			Cross Section Shape	

Material:

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.6	42.2	10	1.7	11.5	3.0	224.5	0.0	0.1	7.1	GREEN* V A C U U M
2	17.9	44.8	2	2.0	9.5	3.3	257.2	0.0	0.1	7.5	
3	16.8	43.5	3	1.8	9.9	3.2	227.2	0.0	0.1	8.2	
4											
AV	16.8	43.5	4.8	1.8	10.3	3.1	236.3	0.0	0.1	7.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	71.9	115.8	319.1	26.9	45.9	43.4	8.4	52.0	1503.3	37.0	316.1	59.3	GREEN
	42.1	108.6	253.9	25.4	37.9	36.3	7.2	48.9	1463.5	36.7	321.8	64.0	
	58.2	108.3	304.2	25.7	42.7	41.2	6.1	41.2	1431.6	36.7	308.3	59.7	
AV	57	111	292	26	42	40	7	47	1466	37	315	61	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1971
 Collector Y.H. Sinoto
 Date Collected By 1971
 Collection Method Purchase
 Place Collected Rapa
 Material Stone (basalt)
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	105.9	Width Cutting Edge		Shoulder Back Max Width	
Max Width	86.5	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	84.7	Middle Width		Middle Max Thickness	
Weight (g)	880	Middle Thickness	46.2	Top Max Width	48.2
		Middle Max Front		Top Max Thickness	46.2
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	43			Cross Section Shape	

Micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	21.1	45.7	1	1.9	6.2	4.2	99.8	25.8	0.1	11.1	V A C U U M * G R E E N
2	21.5	42.9	0	1.9	7.7	4.0	141.9	61.5	0.2	10.8	
3	20.4	39.3	0	1.9	7.1	3.8	145.6	92.6	0.2	11.1	
4											
AV	21.0	42.6	0.3	1.9	7.0	4.0	129.1	60.0	0.1	11.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	38.5	61.4	180.8	29.8	29.8	29.1	10.6	67.6	1396.2	30.8	338.9	70.0	G R E E N
	29.6	20.7	150.5	28.2	27.2	25.9	13.1	71.3	1396.0	29.4	343.4	76.0	
	33.2	76.5	159.4	23.0	23.5	27.4	9.7	63.2	1288.7	31.9	325.2	67.5	
AV	34	53	164	27	27	27	11	67	1360	31	336	71	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1921
 Collector R.T. Aiken
 Date Collected By 1921
 Collection Method Surface
 Place Collected Raivavae
 Material Stone
 Object Pounder
 Type Y-shaped
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	173	Width Cutting Edge		Shoulder Back Max Width	
Max Width	90.1	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	93.3	Middle Width		Middle Max Thickness	
Weight (g)	1900	Middle Thickness	39.6	Top Max Width	84.4
		Middle Max Front		Top Max Thickness	35.9
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	46		basalt	Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.8	46.2	1	1.1	11.3	2.4	259.5	0.0	0.1	8.8	V A C U U M * G R E E N
2	16.2	45.7	1	1.1	11.4	2.0	239.5	0.0	0.1	9.0	
3	15.2	45.2	1	1.0	11.0	2.2	269.6	0.0	0.1	9.4	
4											
AV	15.7	45.7	0.7	1.1	11.2	2.2	256.2	0.0	0.1	9.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	2.8	148.9	245.9	32.4	80.9	72.9	3.1	23.4	495.9	55.4	198.7	40.8	G R E E N
	58.4	178.8	275.8	23.6	62.6	62.0	4.0	30.1	528.3	50.9	189.7	38.4	
	29.1	155.9	248.0	25.0	80.0	70.8	2.3	20.7	500.4	52.1	189.0	41.5	
AV	30	161	257	27	75	69	3	25	508	53	192	40	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

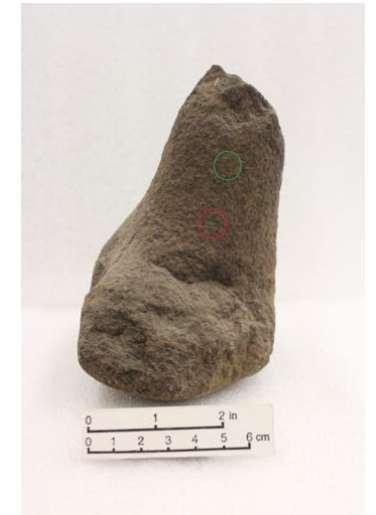
AV

Museum Bishop Museum
 Date Acquired by Museum 12.1922
 Collector J.F.G. Stokes
 Date Collected By 1922
 Collection Method Surface
 Place Collected Aitoke near sea
 Material Stone
 Object Pounder
 Type Type 3 (Mulloy)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	147	Width Cutting Edge	Shoulder Back Max Width		
Max Width	123.7	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	86.9	Middle Width	Middle Max Thickness		
Weight (g)	2000	Middle Thickness	50.8	Top Max Width	42.6
		Middle Max Front	Top Max Thickness	40.2	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group	Austral Is.	Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	35	foidite	Cross Section Shape		

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.6	31.9	0	2.0	8.6	2.9	218.9	0.0	0.1	6.9
2	15.8	37.3	0	2.0	7.6	3.2	195.7	0.0	0.1	8.6
3	14.8	36.5	0	2.0	7.4	3.0	232.8	0.0	0.1	8.7
4										
AV	15.1	35.2	0.0	2.0	7.9	3.0	215.8	0.0	0.1	8.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	16.5	63.2	208.7	30.2	72.5	64.9	9.9	56.4	1324.0	33.2	354.7	64.8
	36.4	69.3	208.6	29.9	76.7	59.8	9.4	56.8	1348.8	33.6	329.6	71.0
	14.7	49.4	258.7	27.1	58.4	60.6	9.7	57.0	1414.7	33.1	325.3	69.0
AV	23	61	225	29	69	62	10	57	1362	33	337	68

V A C U U M GREEN*

GREEN

YELLOW

AV

Museum Bishop Museum
 Date Acquired by Museum 1921
 Collector R.T. Aiken
 Date Collected By 1921
 Collection Method Surface
 Place Collected Raivavae
 Material Stone
 Object Pounder
 Type T-shaped
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	166	Width Cutting Edge		Shoulder Back Max Width	
Max Width	125	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	123	Middle Width		Middle Max Thickness	
Weight (g)	1900	Middle Thickness	38.6	Top Max Width	62.4
		Middle Max Front		Top Max Thickness	38.4
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	39	foidite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.2	36.9	0	1.8	8.3	2.3	260.8	0.0	0.1	9.0	V A C U U M * G R E E N
2	16.2	44.6	0	1.7	9.1	2.6	280.4	0.0	0.1	10.1	
3	14.4	35.9	0	1.7	9.0	2.3	271.9	0.0	0.1	9.0	
4											
AV	14.9	39.1	0.1	1.7	8.8	2.4	271.0	0.0	0.1	9.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	30.8	131.7	444.9	24.1	57.8	54.0	7.2	52.1	544.1	31.5	235.4	39.7	G R E E N
	57.0	116.0	372.3	27.9	70.9	57.5	8.0	50.5	550.4	32.4	231.7	40.2	
	29.6	147.4	459.4	24.8	71.0	62.9	5.8	45.3	560.9	33.4	211.5	38.8	
AV	39	132	426	26	67	58	7	49	552	32	226	40	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1921
 Collector R.T. Aiken
 Date Collected By 1921
 Collection Method Surface
 Place Collected Raivavae
 Material Stone
 Object Pounder
 Type Y-shaped
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	162.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	92.3	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	90.3	Middle Width		Middle Max Thickness	
Weight (g)	1580	Middle Thickness	34.9	Top Max Width	86.5
		Middle Max Front		Top Max Thickness	29.6
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	39			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.8	38.6	0	1.2	9.0	2.4	286.5	210.9	0.1	11.8	V A C U U M * G R E E N
2	14.3	40.2	1	1.2	9.0	2.2	307.3	118.3	0.2	12.8	
3	13.7	37.4	1	1.0	10.4	1.7	223.0	306.0	0.1	10.5	
4											
AV	14.3	38.7	0.6	1.1	9.4	2.1	272.3	211.7	0.1	11.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	259.3	112.2	678.5	26.9	120.4	108.8	3.9	33.0	503.2	32.4	200.7	40.0	G R E E N
	174.7	120.6	617.7	26.6	106.9	107.9	4.4	32.3	580.4	33.0	231.2	43.8	
	292.5	161.3	1105.0	22.7	93.7	87.1	3.2	25.0	490.9	28.3	161.7	30.5	
AV	242	131	800	25	107	101	4	30	525	31	198	38	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1921
 Collector R.T. Aiken
 Date Collected By 1921
 Collection Method Surface
 Place Collected Raivavae
 Material Stone
 Object Pounder
 Type Y-shaped
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	112	Width Cutting Edge		Shoulder Back Max Width	
Max Width	84	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	76	Middle Width		Middle Max Thickness	
Weight (g)	800	Middle Thickness	28	Top Max Width	54.3
		Middle Max Front		Top Max Thickness	26.9
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	39			Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04

Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.2	39.6	1	1.3	9.5	2.3	273.7	0.0	0.1	12.4	V A C U U M * G R E E N
2	17.8	41.3	2	1.2	10.3	2.3	281.9	0.0	0.1	12.5	
3	16.0	36.3	0	1.4	9.2	2.2	287.2	0.0	0.1	12.7	
4											
AV	17.0	39.1	1.1	1.3	9.7	2.2	281.0	0.0	0.1	12.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	46.1	92.4	299.3	28.0	85.1	75.1	8.2	50.2	606.5	36.9	288.9	59.4
	59.5	113.0	253.2	30.8	56.0	48.2	6.4	44.3	630.9	35.7	217.4	44.8
	6.4	62.7	266.7	25.1	71.7	63.2	5.8	41.1	558.0	37.1	258.8	46.7
AV	37	89	273	28	71	62	7	45	598	37	255	50

AV												



Museum Bishop Museum
 Date Acquired by Museum 1921
 Collector R.T. Aiken
 Date Collected By 1921
 Collection Method Surface
 Place Collected Raivavae
 Material Stone
 Object Pounder
 Type Y-shaped
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	109	Width Cutting Edge		Shoulder Back Max Width	
Max Width	88	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	85	Middle Width		Middle Max Thickness	
Weight (g)	860	Middle Thickness	32.2	Top Max Width	69.4
		Middle Max Front		Top Max Thickness	25.6
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	35	foidite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.1	33.2	0	0.8	11.6	2.1	250.3	0.0	0.2	10.0	V A C U U M * G R E E N
2	15.4	37.9	1	0.7	12.3	2.4	292.3	0.0	0.2	11.6	
3	13.3	32.7	0	0.6	13.7	1.8	231.1	0.0	0.2	9.1	
4											
AV	14.3	34.6	0.4	0.7	12.5	2.1	257.9	0.0	0.2	10.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	45.4	148.1	1317.2	26.6	127.0	114.9	2.9	22.7	594.9	33.4	184.4	34.0	G R E E N
	68.6	104.2	650.4	27.4	70.3	67.5	3.6	29.4	562.4	31.1	178.2	32.0	
	60.5	112.6	618.0	22.0	66.9	56.5	3.5	27.0	586.4	35.8	172.0	29.1	
AV	58	122	862	25	88	80	3	26	581	33	178	32	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1921
 Collector R.T. Aiken
 Date Collected By 1921
 Collection Method Surface
 Place Collected Raivavae
 Material Stone
 Object Pounder
 Type Type 2 (Mulloy)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	124	Width Cutting Edge		Shoulder Back Max Width	
Max Width	98	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	108	Middle Width		Middle Max Thickness	
Weight (g)	1500	Middle Thickness	50	Top Max Width	62
		Middle Max Front		Top Max Thickness	55.9
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	36	foidite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	13.4	32.4	0	1.2	11.1	2.1	232.8	219.8	0.1	6.7
2	14.1	35.9	0	1.1	11.3	2.2	248.9	228.1	0.1	7.9
3	15.0	39.8	0	0.9	10.7	1.9	265.8	388.0	0.1	10.1
4										
AV	14.2	36.0	0.0	1.1	11.0	2.1	249.2	278.6	0.1	8.2

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	105.7	164.6	380.8	26.7	94.0	82.2	2.9	23.0	477.7	28.3	140.9	26.4
	145.1	148.7	302.5	28.7	101.7	92.9	3.6	28.0	496.4	34.6	152.0	28.0
	182.8	135.3	559.3	23.2	156.9	144.5	2.2	19.9	443.4	37.1	122.2	25.0
AV	145	150	414	26	118	107	3	24	472	33	138	26

GREEN

YELLOW

AV

Museum Bishop Museum
 Date Acquired by Museum 1921
 Collector R.T. Aiken
 Date Collected By 1921
 Collection Method Surface
 Place Collected Tubuai
 Material Stone
 Object Pounder
 Type Tahiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	131	Width Cutting Edge		Shoulder Back Max Width	
Max Width	73.9	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	68.8	Middle Width		Middle Max Thickness	
Weight (g)	580	Middle Thickness	24.0	Top Max Width	41.7
		Middle Max Front		Top Max Thickness	25.7
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	38	foidite		Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.8	38.0	0	2.1	9.1	3.4	211.0	0.0	0.1	9.6	V A C U U M * G R E E N
2	13.7	41.2	0	2.2	8.6	3.5	222.7	0.0	0.1	9.5	
3	13.6	35.9	0	2.1	8.7	3.5	230.7	0.0	0.1	9.8	
4											
AV	13.7	38.4	0.0	2.1	8.8	3.5	221.5	0.0	0.1	9.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	67.6	117.2	440.6	37.5	118.4	106.6	20.9	111.3	863.3	15.3	370.9	70.3	G R E E N
	49.5	88.7	308.2	30.2	113.1	99.9	20.7	120.3	856.7	10.5	384.3	73.3	
	87.7	101.5	316.7	29.3	76.4	70.5	21.8	116.1	920.3	14.3	375.1	71.8	
AV	68	102	355	32	103	92	21	116	880	13	377	72	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1921
 Collector R.T. Aiken
 Date Collected By 1921
 Collection Method Surface
 Place Collected Raivavae
 Material Stone
 Object Pounder
 Type Two finger
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	113	Width Cutting Edge		Shoulder Back Max Width	
Max Width	72	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	69	Middle Width		Middle Max Thickness	
Weight (g)	550	Middle Thickness	20.7	Top Max Width	broken
		Middle Max Front		Top Max Thickness	18.7
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Austral Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	46			Cross Section Shape	

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.1	44.1	1	1.6	10.5	3.3	204.1	0.0	0.1	9.2	V A C U U M * G R E E N
2	15.8	45.8	2	1.6	10.7	3.2	221.0	0.0	0.1	9.6	
3	16.0	48.7	3	1.6	11.0	3.3	220.8	0.0	0.1	9.9	
4											
AV	15.6	46.2	1.8	1.6	10.7	3.2	215.3	0.0	0.1	9.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	53.5	110.2	422.3	35.9	164.4	155.1	8.4	54.4	1195.5	33.3	315.5	76.8	G R E E N
	4.2	152.7	383.5	46.4	284.9	285.1	8.2	49.9	1193.9	35.9	309.0	74.0	
	41.3	111.1	432.2	26.5	182.1	172.5	8.3	50.1	1122.7	33.2	306.9	70.6	
AV	33	125	413	36	210	204	8	52	1171	34	310	74	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1936
 Collector Unknown
 Date Collected By 1936
 Collection Method Surface
 Place Collected Aitutaki
 Material Stone
 Object Pounder
 Type base
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	158	Width Cutting Edge	Shoulder Back Max Width
Max Width	81.8	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	86.3	Middle Width	Middle Max Thickness
Weight (g)	1080	Middle Thickness	28.8
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	25.3
Island Group	Cook Islands	Cutting Edge to Bevel	
TAS (SiO ₂) Material	44	Length Rightangle to Bevel	
		Cross Section Shape	
		picro-basalt / basanite	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.5	45.3	1	2.2	10.9	3.8	220.3	0.0	0.1	9.0	GREEN* V A C U U M
2	15.8	41.9	1	2.2	10.2	3.6	226.6	0.0	0.1	8.9	
3	15.8	44.3	1	2.2	10.8	3.9	196.5	0.0	0.1	8.7	
4											
AV	16.0	43.8	0.9	2.2	10.7	3.8	214.5	0.0	0.1	8.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	34.9	163.1	293.3	28.2	120.6	114.6	10.9	63.1	1228.6	32.8	353.6	94.9	GREEN
	24.8	128.6	240.6	26.1	119.3	104.6	10.4	58.5	1219.0	33.2	343.0	87.3	
	103.9	135.4	258.8	25.5	113.2	111.3	11.4	62.5	1128.6	31.9	343.3	87.3	
AV	55	142	264	27	118	110	11	61	1192	33	347	90	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													

AV

Accession No. BPBM TR 128

Record No. 803

pXRF_0221_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	130	Width Cutting Edge	Shoulder Back Max Width		
Max Width	76.6	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	74.7	Middle Width	Middle Max Thickness		
Weight (g)	680	Middle Thickness	30.1	Top Max Width	29.6
		Middle Max Front	Top Max Thickness	29.5	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group		Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Museum Bishop Museum
 Date Acquired by Museum After 1920
 Collector Unknown
 Date Collected After 1920
 Collection Method Unknown
 Place Collected Cook Is.
 Material Stone
 Object Pounder
 Type Three finger
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	127.5	Width Cutting Edge		Shoulder Back Max Width	
Max Width	69.1	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	48.2	Middle Width		Middle Max Thickness	
Weight (g)	1200	Middle Thickness	43.6	Top Max Width	43.3
		Middle Max Front		Top Max Thickness	16.1
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Cook Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	45			Cross Section Shape	

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.5	44.2	1	2.3	12.0	3.9	186.0	0.0	0.1	8.6
2	14.6	43.8	0	2.4	11.5	3.8	179.7	0.0	0.1	8.2
3	13.4	45.5	1	2.4	11.0	3.5	194.7	0.0	0.1	7.7
4										
AV	14.2	44.5	0.5	2.4	11.5	3.7	186.8	0.0	0.1	8.1

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	44.1	154.2	257.6	37.4	98.8	92.4	19.1	95.8	1481.5	21.0	357.3	99.4
	28.1	121.0	259.7	36.2	113.5	105.9	14.9	78.8	1429.7	27.0	360.3	100.4
	54.8	134.8	299.3	36.5	147.2	135.6	16.4	82.9	1442.1	25.4	360.7	96.2
AV	42	137	272	37	120	111	17	86	1451	24	359	99

GREEN

YELLOW



Museum Bishop Museum
 Date Acquired by Museum Unknown
 Collector Unknown
 Date Collected Unknown
 Collection Method Unknown
 Place Collected Cook Is.
 Material Stone
 Object Pounder
 Type Elongated
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	196	Width Cutting Edge		Shoulder Back Max Width	
Max Width	78.4	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	74.7	Middle Width		Middle Max Thickness	
Weight (g)	1500	Middle Thickness	42.6	Top Max Width	61.3
		Middle Max Front		Top Max Thickness	43.2
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Cook Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	43			Cross Section Shape	

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.4	51.7	1	3.4	3.6	1.8	234.5	0.0	0.2	6.2
2	14.3	32.9	0	3.6	4.4	1.2	166.6	0.0	0.1	4.2
3	15.7	45.2	0	3.6	3.7	1.7	213.3	0.0	0.1	5.7
4										
AV	15.8	43.3	0.2	3.5	3.9	1.6	204.8	0.0	0.1	5.4

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	9.9	99.3	645.8	42.3	70.0	70.9	65.5	241.7	2202.8	0.0	383.3	207.5
	11.9	61.0	793.2	28.8	76.9	78.0	64.2	234.4	2275.7	0.0	380.8	201.6
	21.0	68.1	320.2	35.3	71.1	72.1	64.5	234.5	2139.0	0.0	390.2	190.3
AV	14	76	586	35	73	74	65	237	2206	0	385	200

GREEN

YELLOW

AV

Museum Bishop Museum
 Date Acquired by Museum 1931
 Collector Kenneth P. Emory
 Date Collected By 1931
 Collection Method Purchase
 Place Collected Makatea
 Material Stone
 Object Pounder
 Type 4 (Silverthorne)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	135.7	Width Cutting Edge	Shoulder Back Max Width
Max Width	69.1	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	67.4	Middle Width	Middle Max Thickness
Weight (g)	600	Middle Thickness	25.6
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	27.6
Island Group	Society Is.	Middle Max Back	Cutting Edge to Bevel
TAS (SiO ₂) Material	57		Length Rightangle to Bevel
		andesite	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	22.7	62.8	0	3.1	-4.9	1.0	146.6	253.4	0.1	7.1
2	21.1	57.0	0	3.0	-4.9	0.9	143.2	221.6	0.1	8.0
3	18.8	49.8	0	3.2	-2.7	0.9	138.2	206.5	0.1	7.8
4										
AV	20.9	56.5	0.2	3.1	-4.2	0.9	142.7	227.2	0.1	7.6

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	33.2	46.2	120.1	26.1	42.9	41.1	40.8	206.3	81.3	0.0	358.2	153.2
	41.5	66.8	141.8	28.2	53.9	47.2	39.4	208.1	89.1	0.0	373.2	161.9
	71.1	62.1	126.0	30.7	53.5	47.3	39.2	208.7	80.4	0.0	241.7	178.9
AV	49	58	129	28	50	45	40	208	84	0	324	165

GREEN

YELLOW

AV

Museum Bishop Museum
 Date Acquired by Museum 1931
 Collector Kenneth P. Emory
 Date Collected By 1931
 Collection Method Surface
 Place Collected Society Is.
 Material Stone
 Object Pounder
 Type 5A (Silverthorne)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	112.6	Width Cutting Edge	Shoulder Back Max Width
Max Width	74.4	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	80.2	Middle Width	Middle Max Thickness
Weight (g)	780	Middle Thickness	41.4
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	44.7
		Middle Max Back	Top Max Thickness
			42.1
Island Group	Society Is.		Cutting Edge to Bevel
TAS (SiO ₂) Material	47		Length Rightangle to Bevel
		basalt	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.5	46.1	1	2.8	7.8	3.0	259.7	22.0	0.1	8.0
2	19.0	50.2	1	2.9	5.9	3.6	236.4	0.0	0.1	8.8
3	17.4	45.7	0	2.9	6.4	2.8	294.5	0.0	0.1	8.0
4										
AV	17.9	47.3	0.6	2.9	6.7	3.1	263.6	7.3	0.1	8.2

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	33.4	76.6	220.6	22.8	61.5	67.6	30.0	135.5	1453.6	0.0	450.0	114.9
	27.7	74.7	254.2	24.8	53.9	52.1	25.1	138.4	1479.7	0.0	445.4	116.1
	45.8	61.6	249.5	26.9	50.4	57.6	27.2	144.6	1411.0	0.0	446.5	113.1
AV	36	71	241	25	55	59	27	139	1448	0	447	115

AV												

VACUUM GREEN*

GREEN

YELLOW

Museum Bishop Museum
 Date Acquired by Museum 1931
 Collector Kenneth P. Emory
 Date Collected By 1931
 Collection Method Surface
 Place Collected Maupiti
 Material Stone
 Object Pounder
 Type 5 (Silverthorne)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	1041	Width Cutting Edge	Shoulder Back Max Width
Max Width	72.0	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	73.0	Middle Width	Middle Max Thickness
Weight (g)	550	Middle Thickness	24.5
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	21.7
		Middle Max Back	Cutting Edge to Bevel
Island Group	Society Is.		Length Rightangle to Bevel
TAS (SiO ₂) Material	41	micro-basalt / basanite	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.6	36.9	0	1.9	8.1	3.5	302.6	0.0	0.1	10.5
2	16.1	43.3	1	1.7	8.6	3.5	319.7	0.0	0.1	10.8
3	15.6	42.9	0	1.7	8.5	3.5	266.6	0.0	0.1	10.4
4										
AV	15.4	41.0	0.3	1.8	8.4	3.5	296.3	0.0	0.1	10.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	142.0	89.4	302.1	25.5	72.9	63.2	48.0	329.1	1103.0	0.0	327.5	60.8
	54.8	111.3	329.9	34.0	75.5	70.3	46.6	335.6	1080.1	0.0	337.7	66.0
	77.9	99.0	235.3	25.5	58.6	56.0	53.4	407.9	1060.8	0.0	316.5	59.0
AV	92	100	289	28	69	63	49	358	1081	0	327	62

AV												

VACUUM

GREEN*

YELLOW

Museum Bishop Museum
 Date Acquired by Museum 1929
 Collector Kenneth P. Emory
 Date Collected By 1929
 Collection Method Surface
 Place Collected Society Is.
 Material Stone
 Object Pounder
 Type Intermediate
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	125	Width Cutting Edge	Shoulder Back Max Width
Max Width	89.3	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	85.9	Middle Width	Middle Max Thickness
Weight (g)	900	Middle Thickness	29.4
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	27.0
Island Group	Society Is.	Middle Max Back	Cutting Edge to Bevel
TAS (SiO ₂) Material	41		Length Rightangle to Bevel
			Cross Section Shape

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.7	38.9	0	2.2	10.4	1.9	240.5	261.5	0.1	7.9
2	14.8	39.3	0	2.2	9.3	2.5	246.9	180.3	0.1	8.5
3	15.3	43.9	1	2.0	9.8	2.4	264.9	300.6	0.1	10.0
4										
AV	14.9	40.7	0.2	2.1	9.8	2.3	250.8	247.5	0.1	8.8

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	183.3	119.2	214.5	34.1	96.2	84.3	14.8	93.8	807.7	23.0	378.9	48.0
	174.4	89.1	272.0	30.2	125.0	119.0	14.0	83.8	750.0	25.7	371.2	44.0
	217.0	106.3	209.3	26.4	65.3	54.6	15.5	86.9	774.9	24.3	364.7	42.3
AV	192	105	232	30	96	86	15	88	778	24	372	45

GREEN

YELLOW

AV

Museum Bishop Museum
 Date Acquired by Museum 1931
 Collector Kenneth P. Emory
 Date Collected By 1931
 Collection Method Purchase
 Place Collected Mo'orea
 Material Stone
 Object Pounder
 Type Intermediate
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	117	Width Cutting Edge		Shoulder Back Max Width	
Max Width	70.0	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	68.3	Middle Width		Middle Max Thickness	
Weight (g)	700	Middle Thickness	32.6	Top Max Width	48.6
		Middle Max Front		Top Max Thickness	30.0
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	45		basalt	Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.4	49.3	2	1.7	12.1	3.2	272.7	0.0	0.1	10.2	V A C U U M * G R E E N
2	16.3	43.6	1	1.6	11.1	3.5	274.5	13.4	0.1	11.6	
3	16.8	41.9	0	1.7	11.4	3.5	232.5	0.0	0.1	10.1	
4											
AV	16.8	44.9	1.0	1.7	11.5	3.4	259.9	4.5	0.1	10.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	43.5	164.5	243.0	26.6	166.5	154.2	13.5	80.6	826.1	26.4	328.5	53.7	G R E E N
	53.7	96.1	329.4	25.9	113.2	103.9	13.0	77.5	877.2	27.2	351.3	57.6	
	76.0	83.6	275.3	28.3	84.4	83.3	9.7	72.1	877.8	29.2	304.5	51.6	
AV	58	115	283	27	121	114	12	77	860	28	328	54	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1931
 Collector Kenneth P. Emory
 Date Collected By 1931
 Collection Method Surface
 Place Collected Makatea
 Material Stone
 Object Pounder
 Type 3 (Silverthorne)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	137	Width Cutting Edge		Shoulder Back Max Width	
Max Width	77.6	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	67.8	Middle Width		Middle Max Thickness	
Weight (g)	670	Middle Thickness	24.3	Top Max Width	47.1
		Middle Max Front		Top Max Thickness	26.1
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	46		basalt	Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.0	45.7	1	2.3	8.0	3.9	205.2	0.0	0.1	10.2	V A C U U M * G R E E N
2	16.5	47.5	1	2.3	8.1	3.9	204.6	0.0	0.1	10.4	
3	16.1	45.5	0	2.3	7.7	4.0	196.9	0.0	0.1	10.6	
4											
AV	16.2	46.2	0.6	2.3	7.9	3.9	202.3	0.0	0.1	10.4	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	14.1	71.0	427.5	27.4	79.7	72.0	33.8	164.2	1301.4	0.0	412.1	79.0	G R E E N
	20.7	81.8	303.7	25.7	69.1	62.4	25.6	161.2	1247.5	0.0	393.1	69.2	
	19.8	155.3	500.1	26.3	84.6	77.9	27.3	168.9	1287.6	0.0	404.6	77.3	
AV	18	103	410	26	78	71	29	165	1279	0	403	75	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum Unknown
 Collector Unknown
 Date Collected Unknown
 Collection Method Unknown
 Place Collected Society Is.
 Material Stone
 Object Pounder
 Type Maupiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	145	Width Cutting Edge		Shoulder Back Max Width	
Max Width	104	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	101	Middle Width		Middle Max Thickness	
Weight (g)	1100	Middle Thickness	34.1	Top Max Width	103.6
		Middle Max Front		Top Max Thickness	37.7
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	58		andesite	Cross Section Shape	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.3	58.1	2	2.1	8.5	3.2	289.9	0.0	0.1	9.7	GREEN* V A C U U M
2	9.8	59.7	1	2.0	8.0	3.3	354.3	0.0	0.1	10.4	
3	13.0	55.5	1	2.1	8.7	3.2	270.7	0.0	0.1	9.4	
4											
AV	12.0	57.8	1.2	2.1	8.4	3.2	305.0	0.0	0.1	9.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	52.8	118.3	331.9	31.0	77.0	69.4	12.5	71.1	757.0	29.6	351.0	58.5	GREEN
	41.7	75.9	396.5	25.3	44.3	43.8	10.7	68.5	731.5	30.2	351.3	57.1	
	16.1	110.7	592.4	23.3	59.2	49.8	11.3	64.4	714.3	31.2	344.4	54.3	
AV	37	102	440	27	60	54	11	68	734	30	349	57	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 08.1920
 Collector J. L. Young
 Date Collected By 1920
 Collection Method Purchase
 Place Collected Society Is.
 Material Stone
 Object Pounder
 Type Maupiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	148	Width Cutting Edge		Shoulder Back Max Width	
Max Width	139	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	135	Middle Width		Middle Max Thickness	
Weight (g)	1920	Middle Thickness	41.1	Top Max Width	85.1
		Middle Max Front		Top Max Thickness	43.1
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	53			Cross Section Shape	

basaltic andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.8	54.7	1	2.4	7.8	3.2	283.3	0.0	0.1	9.7	V A C U U M * G R E E N
2	15.1	55.1	1	2.4	8.0	3.3	289.9	0.0	0.1	9.4	
3	13.7	48.8	0	2.5	7.3	2.9	276.0	0.0	0.1	8.9	
4											
AV	14.8	52.9	0.7	2.5	7.7	3.1	283.0	0.0	0.1	9.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	32.3	82.5	164.3	27.6	75.3	71.9	22.4	113.3	772.3	16.4	384.9	58.6	G R E E N
	34.8	63.3	189.9	27.3	79.7	69.9	25.4	116.9	812.8	12.1	366.7	53.8	
	44.4	71.1	192.7	21.2	76.5	64.9	20.3	117.0	787.8	15.5	363.3	56.9	
AV	37	72	182	25	77	69	23	116	791	15	372	56	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 15.10.1928
 Collector Leona Wood
 Date Collected By 1928
 Collection Method Gift
 Place Collected Society Is.
 Material Stone
 Object Pounder
 Type Maupiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	154	Width Cutting Edge	Shoulder Back Max Width		
Max Width	123.6	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	123.9	Middle Width	Middle Max Thickness		
Weight (g)	1680	Middle Thickness	39.6	Top Max Width	130.6
Island Group	Society Is.	Middle Max Front	Top Max Thickness	43.3	
TAS (SiO ₂) Material	52	Shoulder Front Max Width	Cutting Edge to Bevel	Length Rightangle to Bevel	Cross Section Shape
		Middle Max Back			

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04

Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.7	52.2	2	2.3	8.3	3.2	306.0	0.0	0.1	9.5
2	14.3	51.1	1	2.3	7.5	3.3	298.9	0.0	0.1	9.8
3	14.5	51.7	1	2.3	7.6	3.3	291.9	0.0	0.1	10.0
4										
AV	15.2	51.6	1.2	2.3	7.8	3.3	299.0	0.0	0.1	9.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	36.2	138.0	392.6	36.5	102.9	98.3	13.5	75.4	700.9	28.2	342.4	52.2
	18.9	129.8	457.3	32.0	119.9	119.4	15.2	79.7	718.9	26.6	371.3	55.4
	19.9	76.4	93.9	30.3	22.6	25.9	9.7	66.2	681.9	30.9	312.0	51.6
AV	25	115	315	33	82	81	13	74	701	29	342	53



Museum Bishop Museum
 Date Acquired by Museum Unknown
 Collector Unknown
 Date Collected Unknown
 Collection Method Unknown
 Place Collected Society Is.
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	154	Width Cutting Edge		Shoulder Back Max Width	
Max Width	118	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	117	Middle Width		Middle Max Thickness	
Weight (g)	1500	Middle Thickness	37.0	Top Max Width	43.3
		Middle Max Front		Top Max Thickness	35.2
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	37			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.1	32.8	1	1.1	13.2	2.7	258.1	0.0	0.1	7.6	GREEN* V A C U U M
2	13.9	36.1	2	0.9	14.7	2.6	271.7	0.0	0.1	7.5	
3	14.7	40.6	4	1.0	13.8	3.0	263.7	0.0	0.1	8.0	
4											
AV	14.2	36.5	2.4	1.0	13.9	2.7	264.5	0.0	0.1	7.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	80.3	199.6	562.4	35.6	83.8	81.5	5.1	35.8	762.0	36.4	298.5	43.7	GREEN
	77.3	215.2	541.1	27.1	94.9	92.2	5.0	35.9	741.5	37.5	288.8	45.3	
	123.9	189.7	480.7	25.7	86.0	72.7	4.5	32.3	770.1	40.0	282.2	47.7	
	88.0	211.3	429.5	27.0	76.0	66.2	7.7	48.6	744.9	35.6	309.2	46.7	
AV	92	204	503	29	85	78	6	38	755	37	295	46	

													YELLOW
--	--	--	--	--	--	--	--	--	--	--	--	--	--------

AV

Museum Bishop Museum
 Date Acquired by Museum Unknown
 Collector Unknown
 Date Collected Unknown
 Collection Method Unknown
 Place Collected Tahiti
 Material Stone
 Object Pounder
 Type Dumbbell
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	213	Width Cutting Edge		Shoulder Back Max Width	
Max Width	74.1	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	68.1	Middle Width		Middle Max Thickness	
Weight (g)	1600	Middle Thickness	44.4	Top Max Width	58.3
		Middle Max Front		Top Max Thickness	50.1
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	44			Cross Section Shape	

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	17.4	46.5	1	1.7	11.3	3.5	236.2	0.0	0.1	10.7
2	15.0	41.3	1	1.5	10.6	3.3	376.8	17.3	0.1	11.7
3	15.9	43.3	0	1.3	9.5	3.0	267.7	0.0	0.2	14.2
4										
AV	16.1	43.7	0.5	1.5	10.5	3.3	293.5	5.8	0.1	12.2

GREEN*
 V
 A
 C
 U
 U
 M

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	187.0	143.3	187.6	31.0	37.8	40.3	9.9	64.5	939.6	31.9	301.9	62.3
	158.0	114.3	203.4	37.0	44.0	43.3	8.8	59.8	914.4	32.6	320.9	62.6
	262.3	140.7	212.7	29.0	44.5	43.2	10.6	67.0	918.5	30.2	298.8	59.7
AV	202	133	201	32	42	42	10	64	924	32	307	62

GREEN

YELLOW



Museum Bishop Museum
 Date Acquired by Museum 1934
 Collector Kenneth P. Emory
 Date Collected 1934
 Collection Method Surface
 Place Collected Mangareva (?)
 Material Stone
 Object Pounder
 Type 2A (Silverthorne)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length 118.7 Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) 550 Middle Thickness 51.4 Top Max Width 70.7
 Middle Max Front Top Max Thickness 69.3
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Society Is. Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 34 foidite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil Vacuum: 15 kV 25 microA No Filter Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.2	38.9	1	1.2	10.6	3.5	257.5	0.0	0.1	10.6	V A C U U M * G R E E N
2	12.6	32.4	0	1.1	10.1	2.8	247.6	0.0	0.1	7.9	
3	12.9	30.2	0	1.1	10.5	3.4	235.8	0.0	0.1	10.2	
4											
AV	13.2	33.8	0.4	1.1	10.4	3.3	247.0	0.0	0.1	9.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	127.2	84.2	197.7	22.5	37.1	28.0	7.4	48.3	888.9	35.0	343.6	56.5	G R E E N
	124.4	156.8	334.3	23.6	81.5	71.4	6.8	43.6	897.5	37.2	344.4	55.9	
	154.6	82.5	197.4	24.9	34.8	27.2	8.2	53.3	904.1	33.9	342.6	52.4	
AV	135	108	243	24	51	42	7	48	897	35	344	55	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Museum Bishop Museum
 Date Acquired by Museum 1932
 Collector Unknown
 Date Collected By 1932
 Collection Method Unknown
 Place Collected Tahiti
 Material Stone
 Object Pounder
 Type Phallic
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	152	Width Cutting Edge		Shoulder Back Max Width	
Max Width	109.5	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	80.2	Middle Width		Middle Max Thickness	
Weight (g)	1200	Middle Thickness	43.9	Top Max Width	48.3
		Middle Max Front		Top Max Thickness	42.3
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	39			Cross Section Shape	

foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.2	35.2	1	2.1	8.9	4.0	176.3	0.0	0.1	8.3	GREEN* VACUUM
2	16.1	38.5	1	2.4	9.0	4.1	151.9	0.0	0.1	7.8	
3	16.4	43.2	3	2.8	8.4	4.1	174.2	0.0	0.1	7.3	
4											
AV	15.9	39.0	1.7	2.5	8.8	4.1	167.5	0.0	0.1	7.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	47.3	153.1	781.4	28.6	100.9	84.8	14.9	75.3	1398.6	27.5	430.0	83.2	GREEN
	19.5	137.6	792.0	28.4	114.0	109.2	13.9	76.5	1415.7	26.9	429.4	89.3	
	42.0	101.5	668.8	29.8	89.2	87.5	13.4	83.2	1347.1	24.2	431.4	91.5	
	166.4	275.6	5260.6	4794.8	0.0	0.0	0.0	143.3	1327.1	0.0	425.4	86.8	
AV	69	167	1876	1220	76	70	11	95	1372	20	429	88	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1932
 Collector Paul Nordmann
 Date Collected By 1932
 Collection Method Purchase
 Place Collected Tahiti
 Material Stone
 Object Pounder
 Type Two finger
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	101	Width Cutting Edge	Shoulder Back Max Width
Max Width	72.4	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	59.7	Middle Width	Middle Max Thickness
Weight (g)	500	Middle Thickness	35.8
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	33.0
Island Group	Society Is.	Middle Max Back	Cutting Edge to Bevel
TAS (SiO ₂) Material	44		Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	16.4	42.2	0	2.0	8.1	3.6	260.2	0.0	0.1	11.9	V A C U U M * G R E E N
2	16.5	44.9	0	2.1	8.0	3.4	287.4	0.0	0.1	10.4	
3	17.8	45.8	1	1.8	9.1	3.6	286.6	0.0	0.1	11.2	
4											
AV	16.9	44.3	0.4	2.0	8.4	3.5	278.1	0.0	0.1	11.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	104.1	77.2	1121.6	29.6	112.7	100.6	14.6	88.6	966.8	22.5	361.2	67.4	G R E E N
	78.8	108.9	1030.9	26.1	81.6	78.0	15.9	86.8	940.9	24.0	375.3	72.6	
	141.5	140.2	1648.3	24.2	87.7	74.7	15.8	105.4	1028.9	18.5	378.9	73.9	
AV	108	109	1267	27	94	84	15	94	979	22	372	71	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum Bishop Museum
 Date Acquired by Museum 1931
 Collector Kenneth P. Emory
 Date Collected By 1931
 Collection Method Unknown
 Place Collected Paea, Tahiti
 Material Stone
 Object Pounder
 Type 2A (Silverthorne)
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	151	Width Cutting Edge		Shoulder Back Max Width	
Max Width	103.2	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	92.7	Middle Width		Middle Max Thickness	
Weight (g)	1100	Middle Thickness	39.4	Top Max Width	46.5
		Middle Max Front		Top Max Thickness	39.4
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group	Society Is.	Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	47			Cross Section Shape	

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.5	50.0	2	2.8	0.4	1.0	152.1	0.0	0.1	9.2	V A C U U M * G R E E N
2	16.5	46.7	1	2.9	1.2	1.1	164.3	83.0	0.1	8.6	
3	15.9	45.7	0	2.8	-0.3	1.0	150.9	84.4	0.1	9.6	
4											
AV	16.6	47.5	1.1	2.9	0.5	1.0	155.8	55.8	0.1	9.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	0.0	65.8	236.0	32.3	50.8	48.1	75.5	382.4	282.1	0.0	344.8	127.8	G R E E N
	18.5	36.5	230.5	33.3	35.0	37.9	74.0	370.5	295.0	0.0	421.3	113.9	
	38.5	29.7	225.9	31.8	40.6	31.1	75.9	359.2	259.8	0.0	405.4	121.7	
AV	19	44	231	32	42	39	75	371	279	0	390	121	

														Y E L L O W

AV

Museum Bishop Museum
 Date Acquired by Museum 1932
 Collector Paul Nordmann
 Date Collected By 1932
 Collection Method Gift
 Place Collected Tahiti
 Material Stone
 Object Pounder
 Type Tahiti
 Additional Museum Notes Yes No

Measurements (mm)

Max Length 185 Width Cutting Edge Shoulder Back Max Width
 Max Width 98.2 Bevel Max Thickness Shoulder Max Thickness
 Max Thickness 88.2 Middle Width Middle Max Thickness
 Weight (g) 1280 Middle Thickness 37.5 Top Max Width 73.1
 Middle Max Front Top Max Thickness 50.1
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Society Is. Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 39 foidite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil Vacuum: 15 kV 25 microA No Filter Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.6	33.7	0	1.8	8.9	3.6	289.9	0.0	0.1	11.7	V A C U U M * G R E E N
2	15.2	40.4	0	1.9	8.6	3.7	240.6	0.0	0.1	10.9	
3	15.6	43.8	1	2.0	8.7	3.6	246.2	0.0	0.1	11.0	
4											
AV	15.1	39.3	0.2	1.9	8.8	3.6	258.9	0.0	0.1	11.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	38.9	145.6	335.8	37.2	218.8	212.6	35.9	161.4	824.9	0.0	369.3	78.0
	58.0	157.2	358.5	25.6	65.8	60.6	23.4	137.7	731.2	9.2	320.8	61.5
	47.4	156.6	368.9	23.3	63.4	60.0	23.4	147.6	797.0	6.7	333.5	62.7
AV	48	153	354	29	116	111	28	149	784	5	341	67

AV												

AV

Museum Bishop Museum
 Date Acquired by Museum 08.06.1921
 Collector R. Linton
 Date Collected 1921
 Collection Method Surface
 Place Collected Marquesas
 Material Basalt
 Object Pounder
 Type Tiki Double
 Additional Museum Notes Yes No

Measurements (mm)

Max Length 213 Width Cutting Edge Shoulder Back Max Width
 Max Width 130.8 Bevel Max Thickness Shoulder Max Thickness
 Max Thickness 131.6 Middle Width Middle Max Thickness
 Weight (g) 2200 Middle Thickness 41.3 Top Max Width 69.7
 Middle Max Front Top Max Thickness 56.0
 Island Group Ua Huka, Marquesas Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 52 basalt Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	17.2	49.9	0	2.4	5.7	3.5	267.6	0.0	0.1	10.7	V A C U U M * G R E E N
2	17.8	53.3	1	2.4	5.7	3.6	285.7	0.0	0.1	11.0	
3	15.1	53.0	1	2.4	5.4	3.5	266.8	0.0	0.1	10.6	
4											
AV	16.7	52.0	0.6	2.4	5.6	3.5	273.4	0.0	0.1	10.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
AV													G R E E N

AV													Y E L L O W
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Accession No. BPBM MUH2 TP3-5

Record No. 857

pXRF_0154_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	94.6	Width Cutting Edge	Shoulder Back Max Width	
Max Width	104.4	Bevel Max Thickness	Shoulder Max Thickness	
Max Thickness	101.8	Middle Width	Middle Max Thickness	
Weight (g)	980	Middle Thickness	Top Max Width	41.3
		Middle Max Front	Top Max Thickness	37.2
		Shoulder Front Max Width	Cutting Edge to Bevel	
Island Group		Middle Max Back	Length Rightangle to Bevel	
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

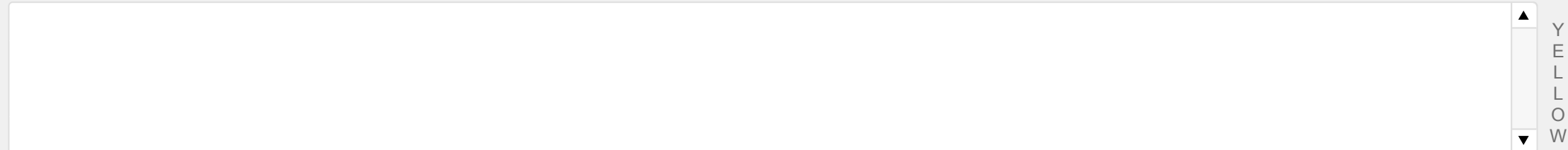
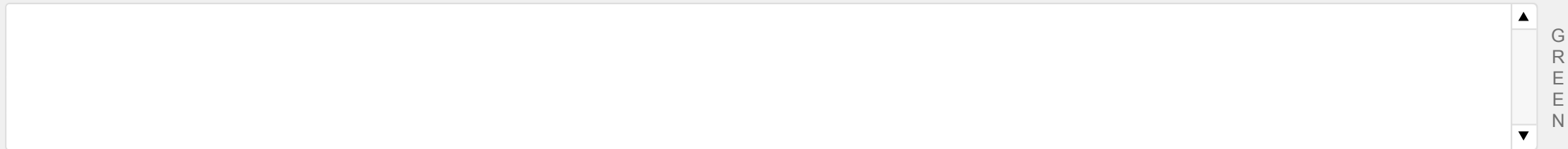
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM MUH2-109

Record No. 858

pXRF_0155_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	147.5	Width Cutting Edge	Shoulder Back Max Width		
Max Width	88.1	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	87.4	Middle Width	Middle Max Thickness		
Weight (g)	750	Middle Thickness	31.9	Top Max Width	43.4
		Middle Max Front	Top Max Thickness	33.3	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group		Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

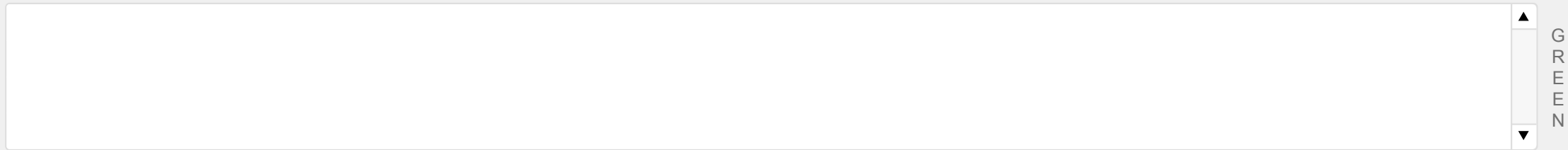
Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



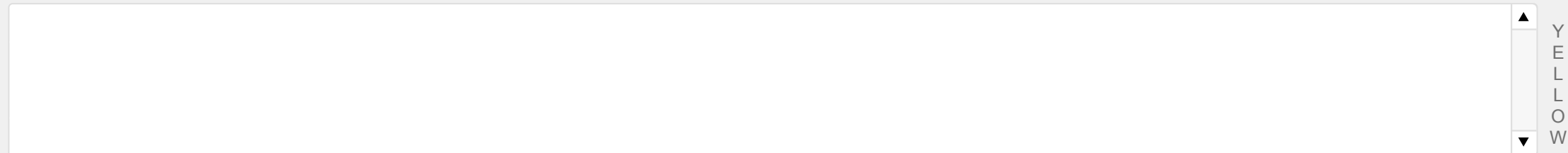
AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



AV



AV

Accession No. BPBM MUH2 TP 3-3

Record No. 859

pXRF_0156_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	126.6	Width Cutting Edge		Shoulder Back Max Width	
Max Width	93.5	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	90.0	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness	37.5	Top Max Width	38.5
		Middle Max Front		Top Max Thickness	37.5
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group		Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material				Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

V
A
C
U
U
M

GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM MN-41

Record No. 860

pXRF_0157_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	100.6	Width Cutting Edge	Shoulder Back Max Width
Max Width	104.6	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	88.2	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 52.5
		Middle Max Front	Top Max Thickness 51.2
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

▲ VACUUM* ▼

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

▲ GREEN ▼

AV

▲ YELLOW ▼

AV

Accession No. BPBM MN-40

Record No. 861

pXRF_0158_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	82.0	Width Cutting Edge	Shoulder Back Max Width
Max Width	104.6	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	88.2	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 52.2
		Middle Max Front	Top Max Thickness 44.5
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1

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▲

VACUUM

▼

GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

▲

GREEN

▼

AV

▲

YELLOW

▼

AV

Accession No. BPBM MN-45

Record No. 862

pXRF_0159_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length 97.5	Width Cutting Edge	Shoulder Back Max Width
Max Width 89.9	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness 42.9	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width 48.4
	Middle Max Front	Top Max Thickness
Island Group	Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	Middle Max Back	Length Rightangle to Bevel
		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

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4

AV

VACUUM GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM MUH314

Record No. 863

pXRF_0160_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	78.9	Width Cutting Edge	Shoulder Back Max Width
Max Width		Bevel Max Thickness	Shoulder Max Thickness
Max Thickness		Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	39.1
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	48.6
Island Group		Middle Max Back	Top Max Thickness
			41.4
TAS (SiO ₂) Material			Cutting Edge to Bevel
			Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

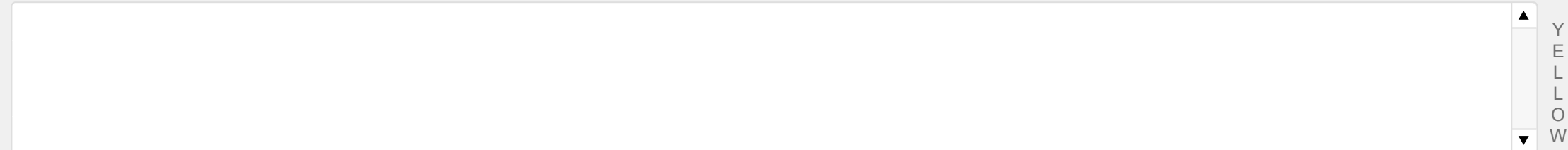
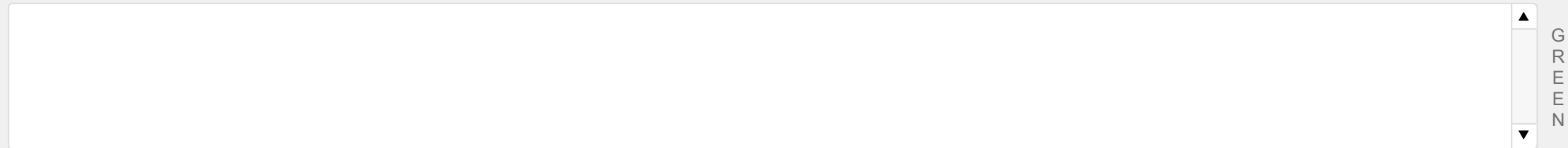
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM MH319

Record No. 864

pXRF_0161_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	64.8	Width Cutting Edge	Shoulder Back Max Width
Max Width		Bevel Max Thickness	Shoulder Max Thickness
Max Thickness		Middle Width	Middle Max Thickness
Weight (g)	64	Middle Thickness	Top Max Width 42.1
		Middle Max Front	Top Max Thickness 40.2
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM MH 424

Record No. 865

pXRF_0162_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	62.0	Width Cutting Edge	Shoulder Back Max Width		
Max Width		Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness		Middle Width	Middle Max Thickness		
Weight (g)	136.6	Middle Thickness	35.1	Top Max Width	39.3
		Middle Max Front	Top Max Thickness	33.5	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material		Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM MH 388

Record No. 866

pXRF_0163_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	57.6	Width Cutting Edge	Shoulder Back Max Width		
Max Width	Bevel Max Thickness	Shoulder Max Thickness			
Max Thickness	Middle Width	Middle Max Thickness			
Weight (g)	115.7	Middle Thickness	26.9	Top Max Width	34.2
Island Group	Middle Max Front	Top Max Thickness	29.7		
TAS (SiO ₂) Material	Shoulder Front Max Width	Cutting Edge to Bevel			
	Middle Max Back	Length Rightangle to Bevel			
		Cross Section Shape			

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

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AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

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AV

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AV

Accession No. BPBM MH 387

Record No. 867

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length 46.9	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width 41.6
Island Group	Middle Max Front	Top Max Thickness 40.1
TAS (SiO ₂) Material	Shoulder Front Max Width	Cutting Edge to Bevel
	Middle Max Back	Length Rightangle to Bevel
		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

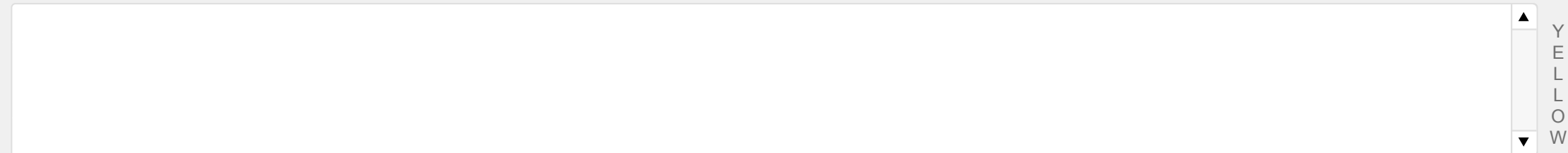
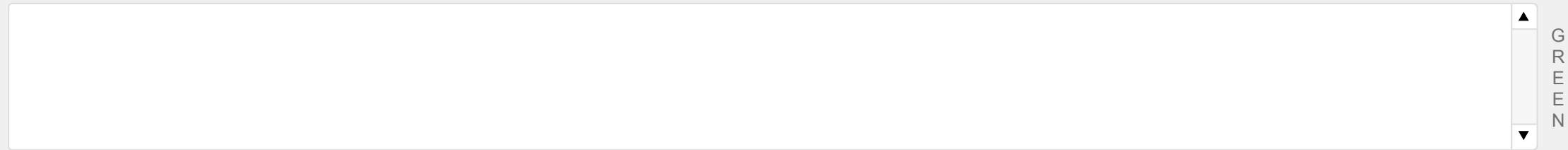
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM MH 23 F18-1

Record No. 868

pXRF_0165_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)		
Max Length	106	Width Cutting Edge
Max Width	99.7	Bevel Max Thickness
Max Thickness	96.4	Middle Width
Weight (g)		Middle Thickness
		Middle Max Front
Island Group		Shoulder Front Max Width
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back
		Shoulder Back Max Width
		Shoulder Max Thickness
		Middle Max Thickness
		Top Max Width 36.9
		Top Max Thickness 34.7
		Cutting Edge to Bevel
		Length Rightangle to Bevel
		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA
Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA
No Filter

Obsidian: 40 kV 34 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

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<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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▲

VACUUM

▼

GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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▲

GREEN

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AV

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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▲

YELLOW

▼

AV

Accession No. BPBM MH 12 16-6

Record No. 869

pXRF_0166_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	106	Width Cutting Edge	Shoulder Back Max Width
Max Width	141.7	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	134.6	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 63.0
		Middle Max Front	Top Max Thickness 59.6
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

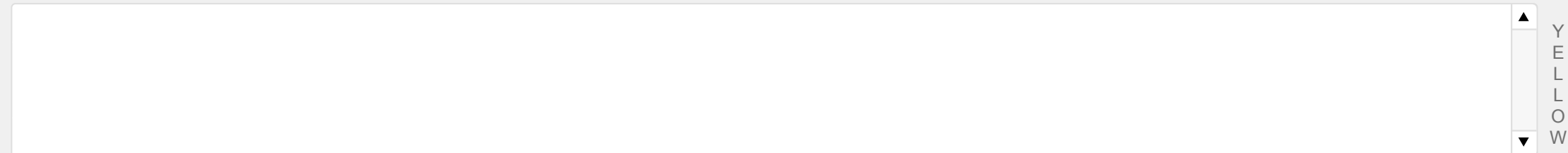
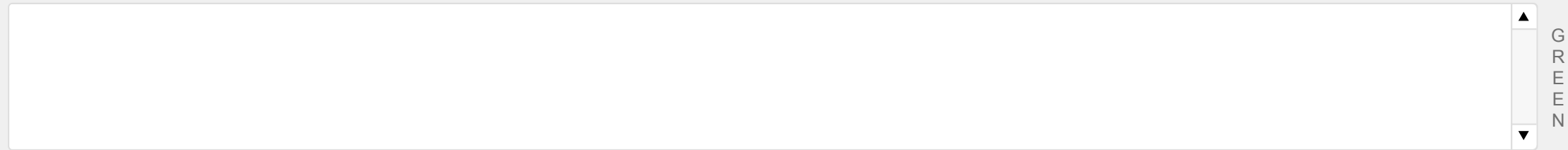
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM drawer 4-22 no no.

Record No. 870

pXRF_0167_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)		
Max Length	72.8	Width Cutting Edge
Max Width	84.8	Bevel Max Thickness
Max Thickness	76.8	Middle Width
Weight (g)		Middle Thickness
		Middle Max Front
		Shoulder Front Max Width
Island Group		Middle Max Back
TAS (SiO ₂) Material		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA
Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA
No Filter

Obsidian: 40 kV 34 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

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VACUUM
GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

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GREEN

AV

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YELLOW

AV

Accession No. BPBM MT-4 5-7

Record No. 871

pXRF_0168_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	88.7	Width Cutting Edge	Shoulder Back Max Width	
Max Width	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	Middle Width	Middle Max Thickness		
Weight (g)	Middle Thickness	48.0	Top Max Width	61.6
Island Group	Middle Max Front	Top Max Thickness	52.3	
TAS (SiO ₂) Material	Shoulder Front Max Width	Cutting Edge to Bevel		
	Middle Max Back	Length Rightangle to Bevel		
		Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

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VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

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GREEN

AV

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YELLOW

AV

Accession No. BPBM MH12-1 5-29

Record No. 872

pXRF_0169_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	100	Width Cutting Edge	Shoulder Back Max Width
Max Width		Bevel Max Thickness	Shoulder Max Thickness
Max Thickness		Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	35.3
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	43.7
Island Group		Middle Max Back	Top Max Thickness
			41.2
TAS (SiO ₂) Material	<input type="text"/>		Cutting Edge to Bevel
			Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM MH 423

Record No. 873

pXRF_0170_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	116	Width Cutting Edge	Shoulder Back Max Width
Max Width	132	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	135.4	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width	52.9
Island Group	Middle Max Front	Top Max Thickness	53.4
TAS (SiO ₂) Material	Shoulder Front Max Width	Cutting Edge to Bevel	
	Middle Max Back	Length Rightangle to Bevel	
		Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

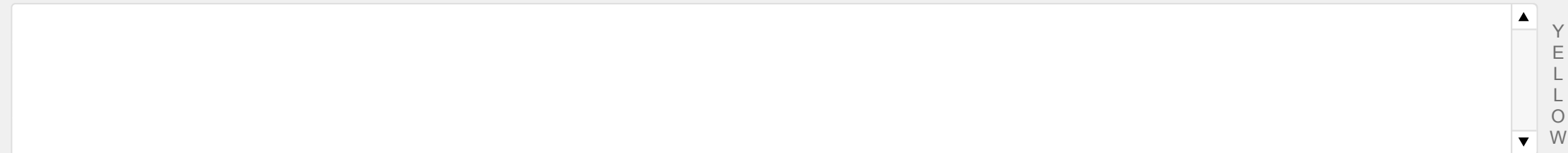
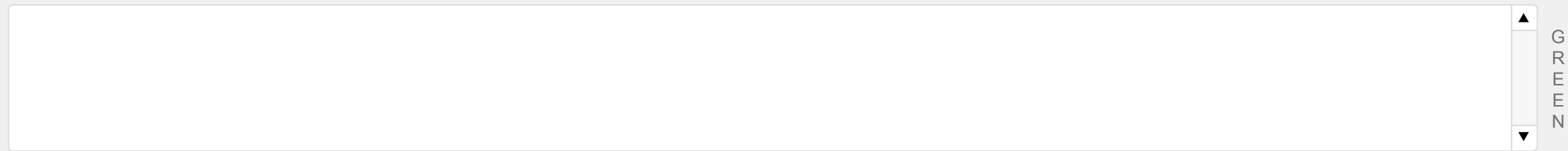
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM MH 412

Record No. 874

pXRF_0171_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	73.7	Width Cutting Edge	Shoulder Back Max Width
Max Width	96.4	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	94.0	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 57.0
		Middle Max Front	Top Max Thickness 55.5
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1

2

3

4

▲

VACUUM

▼

GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

▲

GREEN

▼

AV

▲

YELLOW

▼

AV

Accession No. BPBM MH 341

Record No. 875

pXRF_0172_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	85.7	Width Cutting Edge	Shoulder Back Max Width
Max Width	97.5	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	96.8	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 45.3
		Middle Max Front	Top Max Thickness 49.4
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

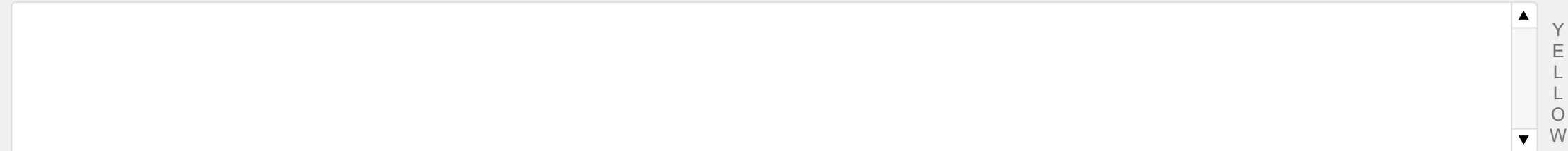
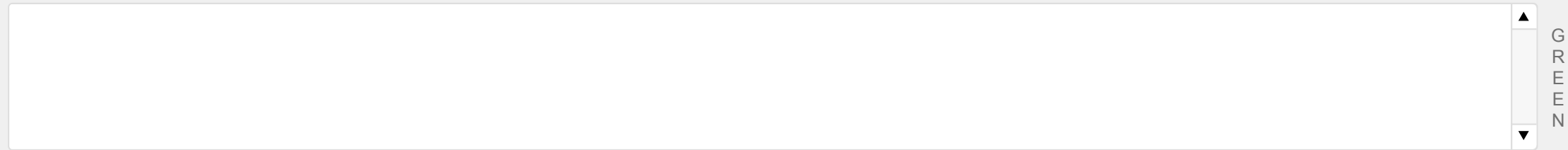
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM MH 475

Record No. 876

pXRF_0173_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length 80.5	Width Cutting Edge	Shoulder Back Max Width
Max Width 109.7	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness 103.9	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
Island Group	Shoulder Front Max Width	Cutting Edge to Bevel
	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

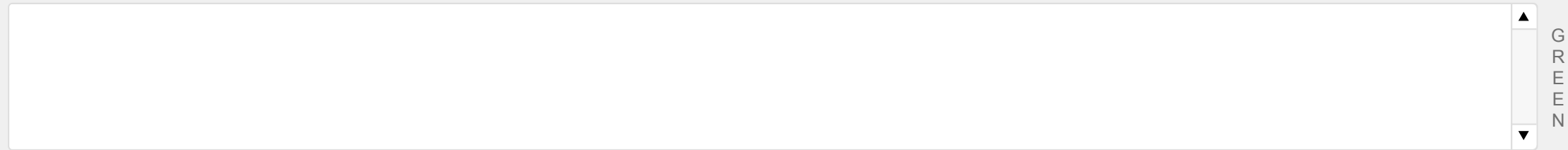
Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



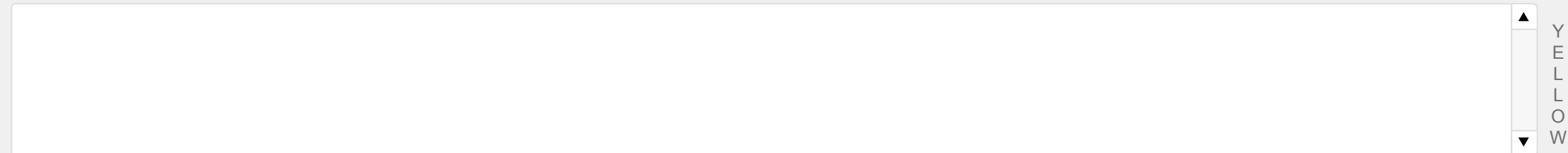
AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



AV



AV

Accession No. BPBM drawer 5-31 un no.

Record No. 877

pXRF_0174_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)			
Max Length	131	Width Cutting Edge	Shoulder Back Max Width
Max Width	124.4	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	119.0	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	34.0
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	33.2
Island Group		Middle Max Back	Cutting Edge to Bevel
TAS (SiO ₂) Material			Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA
Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA
No Filter

Obsidian: 40 kV 34 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
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V
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AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

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AV

Accession No. BPBM drawer 5-31 un no.

Record No. 878

pXRF_0175_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	166	Width Cutting Edge	Shoulder Back Max Width		
Max Width	111	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness		Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	41.8	Top Max Width	55.5
		Middle Max Front	Top Max Thickness	40.9	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material		Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM drawer 5-31 un no.

Record No. 879

pXRF_0176_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)		
Max Length	119.5	Width Cutting Edge
Max Width	89.2	Bevel Max Thickness
Max Thickness	81.2	Middle Width
Weight (g)		Middle Thickness
		Middle Max Front
Island Group		Shoulder Front Max Width
TAS (SiO ₂) Material		Middle Max Back
		Shoulder Back Max Width
		Shoulder Max Thickness
		Middle Max Thickness
		Top Max Width 73.6
		Top Max Thickness 71.0
		Cutting Edge to Bevel
		Length Rightangle to Bevel
		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA
Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA
No Filter

Obsidian: 40 kV 34 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

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Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

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Accession No. BPBM MUHI N 82-11

Record No. 880

pXRF_0177_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	164	Width Cutting Edge		Shoulder Back Max Width	
Max Width	108.8	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	92.5	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness	45.1	Top Max Width	44.7
Island Group		Middle Max Front		Top Max Thickness	41.5
TAS (SiO ₂) Material		Shoulder Front Max Width		Cutting Edge to Bevel	
		Middle Max Back		Length Rightangle to Bevel	
				Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

Empty data entry box for major elements.

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

Empty data entry box for trace elements.

GREEN

AV

Empty data entry box for trace elements.

YELLOW

AV

Accession No. BPBM MUHI K94-20

Record No. 881

pXRF_0178_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	98.8	Width Cutting Edge	Shoulder Back Max Width
Max Width	71.5	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	69.1	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 49.1
		Middle Max Front	Top Max Thickness 44.6
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

▲ VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

▲ GREEN

AV

▲ YELLOW

AV

Accession No. BPBM no number

Record No. 882

pXRF_0179_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	61.0	Width Cutting Edge	Shoulder Back Max Width
Max Width	50.8	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	48.6	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 38.5
		Middle Max Front	Top Max Thickness 37.6
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

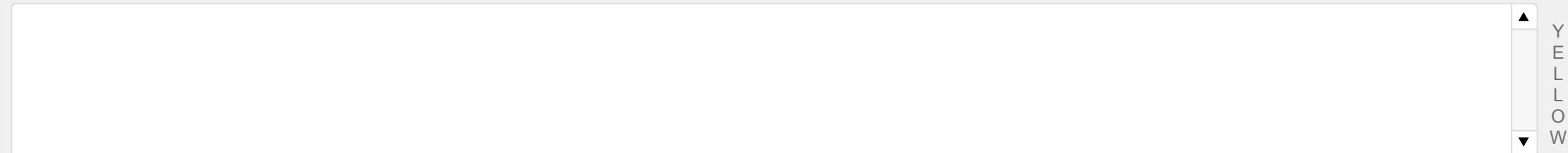
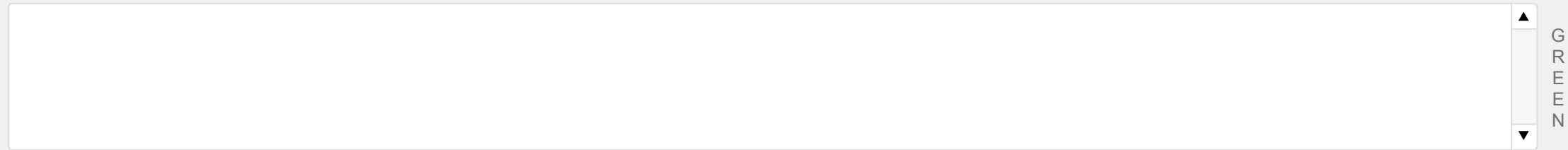
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM MUHI L84.4

Record No. 883

pXRF_0180_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	1160	Width Cutting Edge	Shoulder Back Max Width	
Max Width	93.0	Bevel Max Thickness	Shoulder Max Thickness	
Max Thickness	60.3	Middle Width	Middle Max Thickness	
Weight (g)		Middle Thickness	48.2	
		Middle Max Front	Top Max Width	51.0
		Shoulder Front Max Width	Top Max Thickness	42.5
Island Group		Middle Max Back	Cutting Edge to Bevel	
TAS (SiO ₂) Material	<input type="text"/>		Length Rightangle to Bevel	
			Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM MUHI L108-1

Record No. 884

pXRF_0181_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	72.4	Width Cutting Edge	Shoulder Back Max Width
Max Width	99.2	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	90.6	Middle Width	Middle Max Thickness
Weight (g)	750	Middle Thickness	Top Max Width 52.9
		Middle Max Front	Top Max Thickness 53.4
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
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▲
V
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GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

▲
G
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N
▼

GREEN

AV

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▼

YELLOW

AV

Accession No. BPBM MUHI N84-54

Record No. 885

pXRF_0182_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length 28.3	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width 44.0
	Middle Max Front	Top Max Thickness 50.9
Island Group	Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	Middle Max Back	Length Rightangle to Bevel
		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM MUHI M7 69

Record No. 886

pXRF_0183_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	152	Width Cutting Edge		Shoulder Back Max Width	
Max Width	72.7	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	66.9	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness	44.0	Top Max Width	55.2
		Middle Max Front		Top Max Thickness	38.2
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group		Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material				Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1

2

3

4

Empty data entry box for major elements.

VACUUM

GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

Empty data entry box for trace elements.

GREEN

AV

Empty data entry box for trace elements.

YELLOW

AV

Accession No. BPBM MUHI 6508

Record No. 887

pXRF_0184_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	105.8	Width Cutting Edge	Shoulder Back Max Width	
Max Width	58.6	Bevel Max Thickness	Shoulder Max Thickness	
Max Thickness	55.5	Middle Width	Middle Max Thickness	
Weight (g)		Middle Thickness	23.9	
		Middle Max Front	Top Max Width	34.5
		Shoulder Front Max Width	Top Max Thickness	25.4
Island Group		Middle Max Back	Cutting Edge to Bevel	
TAS (SiO ₂) Material	<input type="text"/>		Length Rightangle to Bevel	
			Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM MUH 349

Record No. 888

pXRF_0185_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	98.7	Width Cutting Edge	Shoulder Back Max Width
Max Width	104.4	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	99.7	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 45.5
		Middle Max Front	Top Max Thickness 44.6
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1

2

3

4

▲

VACUUM

▼

GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

▲

GREEN

▼

AV

▲

YELLOW

▼

AV

Accession No. BPBM MUH 159

Record No. 889

pXRF_0186_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	113	Width Cutting Edge	Shoulder Back Max Width		
Max Width	88.5	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	81.9	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	40.9	Top Max Width	42.2
		Middle Max Front	Top Max Thickness	39.9	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material		Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM MUH 280

Record No. 890

pXRF_0187_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	103	Width Cutting Edge	Shoulder Back Max Width
Max Width	124.3	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	125.2	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 45.6
		Middle Max Front	Top Max Thickness
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

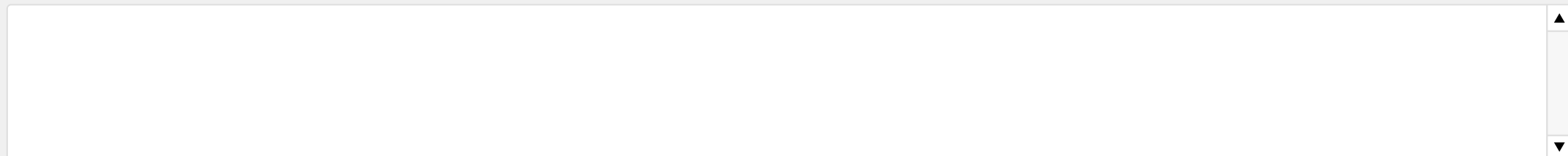
Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1

2

3

4



▲

VACUUM

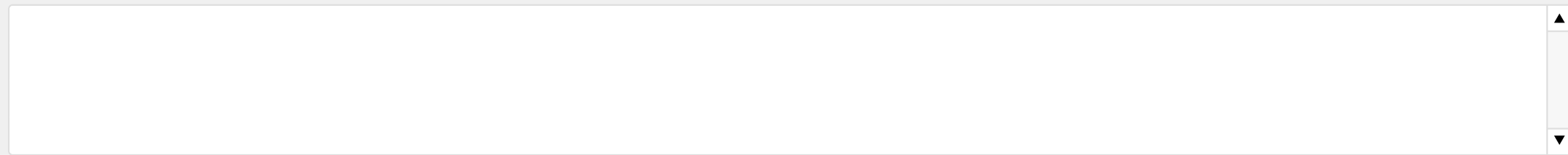
▼

GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



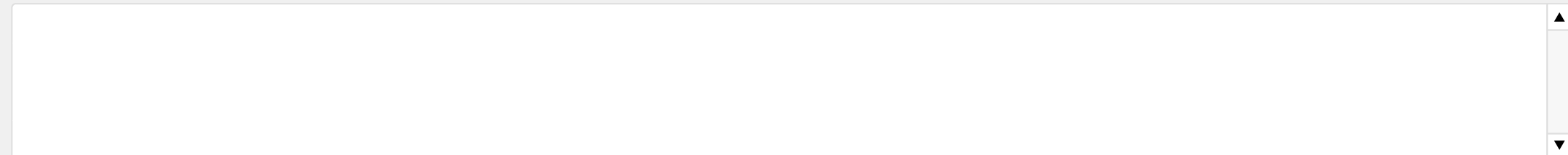
▲

GREEN

▼

GREEN

AV



▲

YELLOW

▼

YELLOW

AV

Accession No. BPBM MUH 290

Record No. 891

pXRF_0188_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	126	Width Cutting Edge	Shoulder Back Max Width		
Max Width	106.6	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	99.8	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	31.6	Top Max Width	31.6
		Middle Max Front	Top Max Thickness	31.6	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

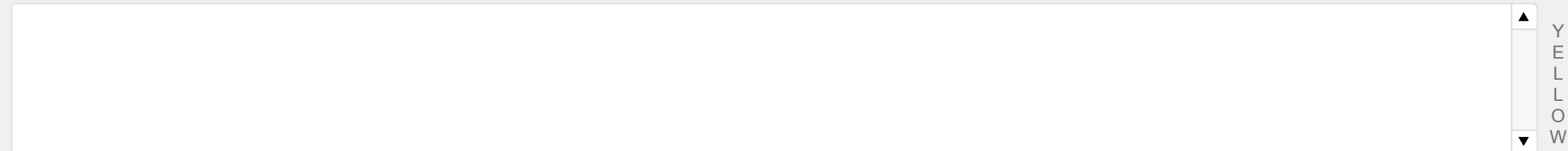
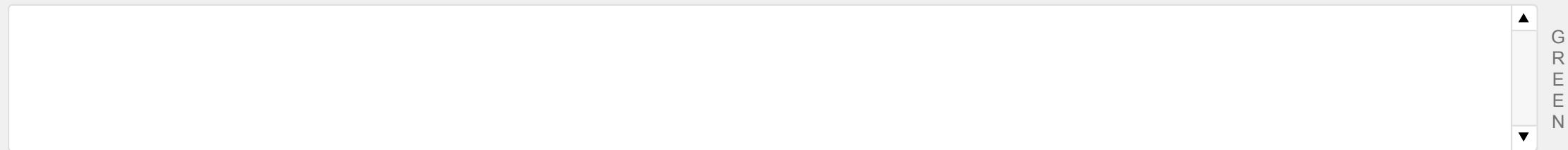
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM MUH 308

Record No. 892

pXRF_0189_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	111.8	Width Cutting Edge	Shoulder Back Max Width		
Max Width	120.2	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	115.5	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	115.5	Top Max Width	46.1
		Middle Max Front	Top Max Thickness	38.3	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group		Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

▲ VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

▲ GREEN

AV

▲ YELLOW

AV

Accession No. BPBM MUH 309

Record No. 893

pXRF_0190_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	144.0	Width Cutting Edge		Shoulder Back Max Width	
Max Width	78.4	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	72.2	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness	36.4	Top Max Width	42.9
		Middle Max Front		Top Max Thickness	36.1
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group		Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material				Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1

2

3

4

AV

VACUUM GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM MUH 121

Record No. 894

pXRF_0191_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	148	Width Cutting Edge	Shoulder Back Max Width		
Max Width	79.6	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	69.2	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	44.0	Top Max Width	38.0
		Middle Max Front	Top Max Thickness	32.8	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material		Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TT99

Record No. 895

pXRF_0192_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	81.4	Width Cutting Edge	Shoulder Back Max Width
Max Width		Bevel Max Thickness	Shoulder Max Thickness
Max Thickness		Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	34.9
		Middle Max Front	Top Max Width
		Shoulder Front Max Width	39.0
Island Group		Middle Max Back	Cutting Edge to Bevel
TAS (SiO ₂) Material			Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TT98

Record No. 896

pXRF_0193_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	123	Width Cutting Edge	Shoulder Back Max Width		
Max Width	83.7	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	64.2	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	29.3	Top Max Width	35.1
		Middle Max Front	Top Max Thickness	29.3	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TT96

Record No. 898

pXRF_0195_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	127	Width Cutting Edge	Shoulder Back Max Width		
Max Width	61.9	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	64.6	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	33.6	Top Max Width	37.0
		Middle Max Front	Top Max Thickness	29.5	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material		Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TT97

Record No. 899

pXRF_0196_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	102.6	Width Cutting Edge	Shoulder Back Max Width		
Max Width	69.5	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	79.3	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	34.0	Top Max Width	35.4
		Middle Max Front	Top Max Thickness	34.0	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material		Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

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AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

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Accession No. BPBM TM155

Record No. 900

pXRF_0197_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	122	Width Cutting Edge	Shoulder Back Max Width		
Max Width	79.5	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	67.0	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	33.1	Top Max Width	29.0
		Middle Max Front	Top Max Thickness	35.1	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TM154

Record No. 901

pXRF_0198_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	128.6	Width Cutting Edge	Shoulder Back Max Width		
Max Width	80.9	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	40.6	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	25.5	Top Max Width	40.6
		Middle Max Front	Top Max Thickness	19.6	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM TM116

Record No. 902

pXRF_0199_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	127.6	Width Cutting Edge	Shoulder Back Max Width		
Max Width	73.3	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	53.7	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	31.7	Top Max Width	37.8
		Middle Max Front	Top Max Thickness	33.4	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

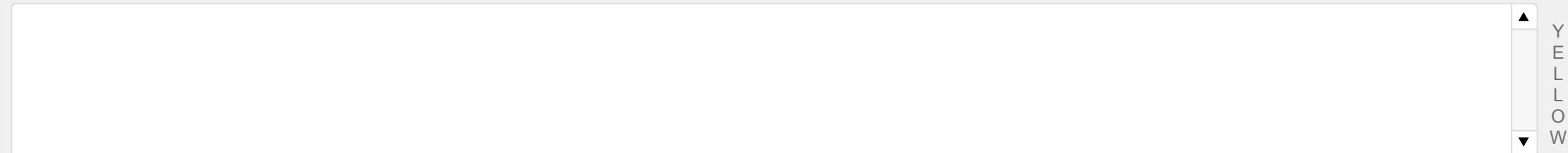
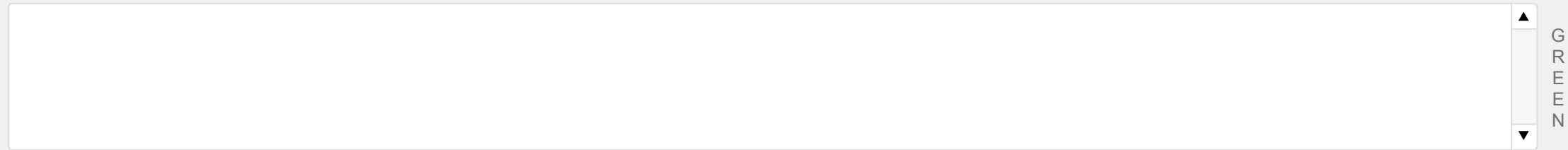
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM TM288

Record No. 903

pXRF_0200_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	64.7	Width Cutting Edge	Shoulder Back Max Width
Max Width	115.9	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	106.5	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 59.6
		Middle Max Front	Top Max Thickness 63.4
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM TR 800

Record No. 905

pXRF_0202_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length 68.8	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width 54.9
	Middle Max Front	Top Max Thickness 52.7
Island Group	Shoulder Front Max Width	Cutting Edge to Bevel
	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

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Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

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Accession No. BPBM TR799

Record No. 906

pXRF_0203_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	118.6	Width Cutting Edge	Shoulder Back Max Width		
Max Width	134.1	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	133.6	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	42.2	Top Max Width	45.0
		Middle Max Front	Top Max Thickness	42.2	
		Shoulder Front Max Width	Cutting Edge to Bevel		
Island Group		Middle Max Back	Length Rightangle to Bevel		
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM TR 748

Record No. 907

pXRF_0204_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)		
Max Length	86.9	Width Cutting Edge
Max Width	79.6	Bevel Max Thickness
Max Thickness		Middle Width
Weight (g)		Middle Thickness
		Middle Max Front
		Shoulder Front Max Width
Island Group		Middle Max Back
TAS (SiO ₂) Material	<input type="text"/>	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA
Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA
No Filter

Obsidian: 40 kV 34 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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V
A
C
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U
M
*
G
R
E
E
N

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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G
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N

AV

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Y
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AV

Accession No. BPBM TR 749

Record No. 908

pXRF_0205_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	82.8	Width Cutting Edge	Shoulder Back Max Width
Max Width	68.9	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	53.9	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 36.0
		Middle Max Front	Top Max Thickness 35.8
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
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E
E
N
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AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

▲
G
R
E
E
N
▼

G
R
E
E
N

AV

▲
Y
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W
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Y
E
L
L
O
W

AV

Accession No. BPBM TR 735

Record No. 909

pXRF_0206_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length 57.1	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
Island Group	Shoulder Front Max Width	Cutting Edge to Bevel
	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

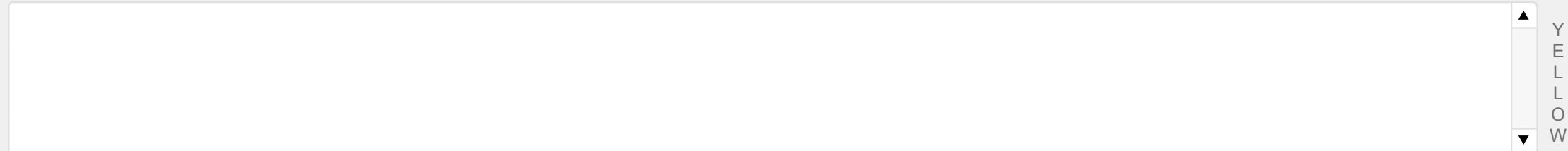
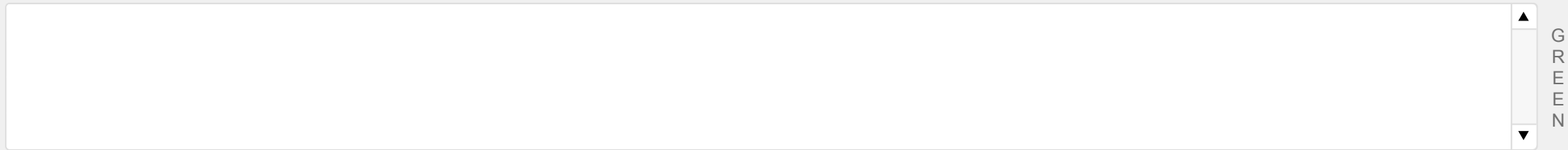
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM TR 747

Record No. 910

pXRF_0207_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	111.5	Width Cutting Edge	Shoulder Back Max Width	
Max Width	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	Middle Width	Middle Max Thickness		
Weight (g)	Middle Thickness	36.5	Top Max Width	63.1
Island Group	Middle Max Front	Top Max Thickness	41.2	
TAS (SiO ₂) Material	Shoulder Front Max Width	Cutting Edge to Bevel		
	Middle Max Back	Length Rightangle to Bevel		
		Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

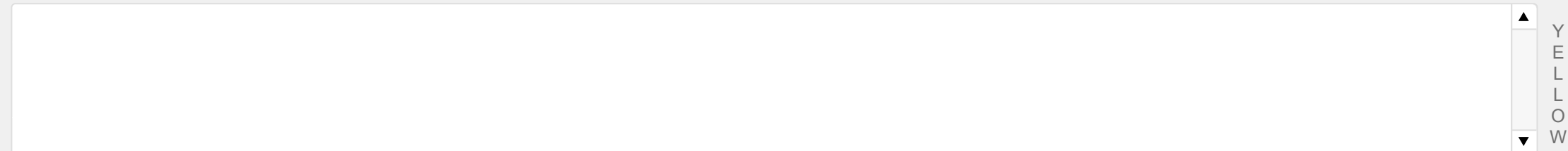
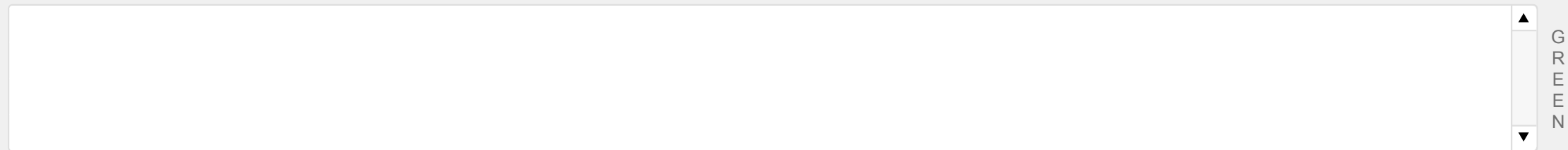
Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



Accession No. BPBM TR 746

Record No. 911

pXRF_0208_BPBM

Museum Bishop Musuem

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	180	Width Cutting Edge	Shoulder Back Max Width	
Max Width	93.7	Bevel Max Thickness	Shoulder Max Thickness	
Max Thickness	81.7	Middle Width	Middle Max Thickness	
Weight (g)		Middle Thickness	46.5	
		Middle Max Front	Top Max Width	76.0
		Shoulder Front Max Width	Top Max Thickness	41.2
Island Group		Middle Max Back	Cutting Edge to Bevel	
TAS (SiO ₂) Material	<input type="text"/>		Length Rightangle to Bevel	
			Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM TR 550

Record No. 912

pXRF_0209_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	95.1	Width Cutting Edge	Shoulder Back Max Width	
Max Width	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	Middle Width	Middle Max Thickness		
Weight (g)	Middle Thickness	35.3	Top Max Width	37.0
Island Group	Middle Max Front	Top Max Thickness	34.8	
TAS (SiO ₂) Material	Shoulder Front Max Width	Cutting Edge to Bevel		
	Middle Max Back	Length Rightangle to Bevel		
		Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TR 385

Record No. 913

pXRF_0210_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	80.5	Width Cutting Edge	Shoulder Back Max Width
Max Width	67.4	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	52.2	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 34.9
		Middle Max Front	Top Max Thickness 34.9
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TR 730

Record No. 914

pXRF_0211_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	116.6	Width Cutting Edge	Shoulder Back Max Width
Max Width	70.3	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	69.4	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 36.0
		Middle Max Front	Top Max Thickness 36.6
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

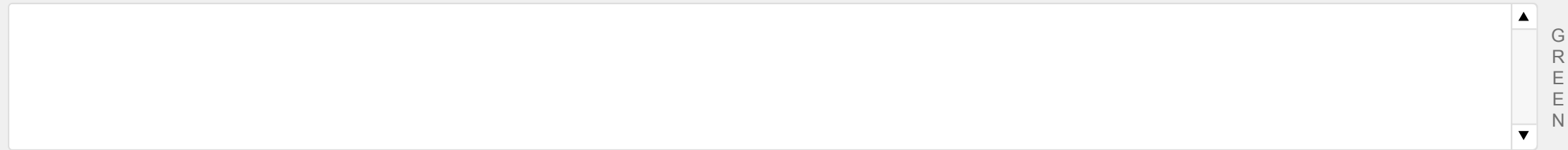
Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)



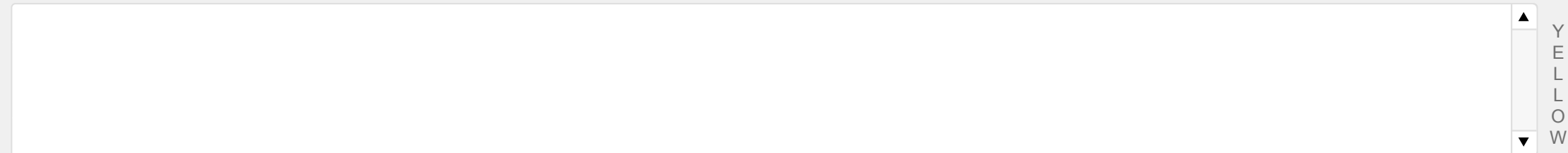
AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb



AV



AV

Accession No. BPBM TR 729

Record No. 915

pXRF_0212_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	95.3	Width Cutting Edge	Shoulder Back Max Width
Max Width	78.8	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	77.1	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 46.9
		Middle Max Front	Top Max Thickness 43.2
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM TR 731

Record No. 916

pXRF_0213_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	104.9	Width Cutting Edge	Shoulder Back Max Width		
Max Width	68.6	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	70.2	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	29.0	Top Max Width	27.7
		Middle Max Front	Top Max Thickness	25.1	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TR 801

Record No. 917

pXRF_0214_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	170	Width Cutting Edge	Shoulder Back Max Width	
Max Width	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	Middle Width	Middle Max Thickness		
Weight (g)	1080	Middle Thickness	Top Max Width	73.4
Island Group	Middle Max Front	Top Max Thickness	39.2	
TAS (SiO ₂) Material	Shoulder Front Max Width	Cutting Edge to Bevel		
	Middle Max Back	Length Rightangle to Bevel		
		Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TR 728

Record No. 918

pXRF_0215_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	76.7	Width Cutting Edge	Shoulder Back Max Width
Max Width	113.5	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	99.7	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 43.7
		Middle Max Front	Top Max Thickness 44.2
		Shoulder Front Max Width	Cutting Edge to Bevel
Island Group		Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material	<input type="text"/>		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TR 551

Record No. 919

pXRF_0216_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	84.5	Width Cutting Edge	Shoulder Back Max Width
Max Width	113.3	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	113.3	Middle Width	Middle Max Thickness
Weight (g)		Middle Thickness	Top Max Width 53.0
		Middle Max Front	Top Max Thickness 52.4
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel
			Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TR 386

Record No. 920

pXRF_0217_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	88.5	Width Cutting Edge	Shoulder Back Max Width
Max Width	80.1	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	69.1	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width	32.5
Island Group	Middle Max Front	Top Max Thickness	26.6
TAS (SiO ₂) Material	Shoulder Front Max Width	Cutting Edge to Bevel	
	Middle Max Back	Length Rightangle to Bevel	
		Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. BPBM TR 549

Record No. 921

pXRF_0218_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	131.8	Width Cutting Edge	Shoulder Back Max Width		
Max Width	71.0	Bevel Max Thickness	Shoulder Max Thickness		
Max Thickness	62.7	Middle Width	Middle Max Thickness		
Weight (g)		Middle Thickness	23.7	Top Max Width	43.9
		Middle Max Front	Top Max Thickness	18.9	
Island Group		Shoulder Front Max Width	Cutting Edge to Bevel		
TAS (SiO ₂) Material	<input type="text"/>	Middle Max Back	Length Rightangle to Bevel		
			Cross Section Shape		

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

VACUUM GREEN*

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

GREEN

AV

YELLOW

AV

Accession No. BPBM TR 548

Record No. 922

pXRF_0219_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	121.8	Width Cutting Edge	Shoulder Back Max Width	
Max Width	71.1	Bevel Max Thickness	Shoulder Max Thickness	
Max Thickness	70.1	Middle Width	Middle Max Thickness	
Weight (g)		Middle Thickness	30.9	
		Middle Max Front	Top Max Width	30.0
		Shoulder Front Max Width	Top Max Thickness	30.9
Island Group		Middle Max Back	Cutting Edge to Bevel	
TAS (SiO ₂) Material	<input type="text"/>		Length Rightangle to Bevel	
			Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

▲ VACUUM* ▼

AV

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

▲ GREEN ▼

AV

▲ YELLOW ▼

AV

Accession No. BPBM TR 723

Record No. 923

pXRF_0220_BPBM

Museum Bishop Museum

Date Acquired by Museum

Collector Y. H. Sinoto

Date Collected

Collection Method

Place Collected

Material

Object

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	130.2	Width Cutting Edge		Shoulder Back Max Width	
Max Width	68.4	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness	58.5	Middle Width		Middle Max Thickness	
Weight (g)		Middle Thickness	33.4	Top Max Width	35.8
		Middle Max Front		Top Max Thickness	35.4
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group		Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material				Cross Section Shape	

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04

Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

Al₂O₃ SiO₂ P₂O₃ K₂O CaO TiO₂ V₂O₅ (ppm) Cr₂O₃ (ppm) MnO Fe₂O₃ (total)

1
2
3
4

AV

VACUUM* GREEN*

Trace elements (ppm)

Ni Cu Zn Ga Pb Pb Th Rb Sr Y Zr Nb

AV

GREEN

AV

YELLOW

Accession No. no number

Record No. 924

pXRF_0001_ANU

Museum Vanuatu Cultural Centre

Date Acquired by Museum 1965

Collector Shutler and Shutler

Date Collected

Collection Method

Place Collected Tafea

Material

Object Adze

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group Vanuatu Middle Max Front Top Max Thickness

TAS (SiO₂) Material 78 rhyolite Cutting Edge to Bevel

Length Rightangle to Bevel

Cross Section Shape

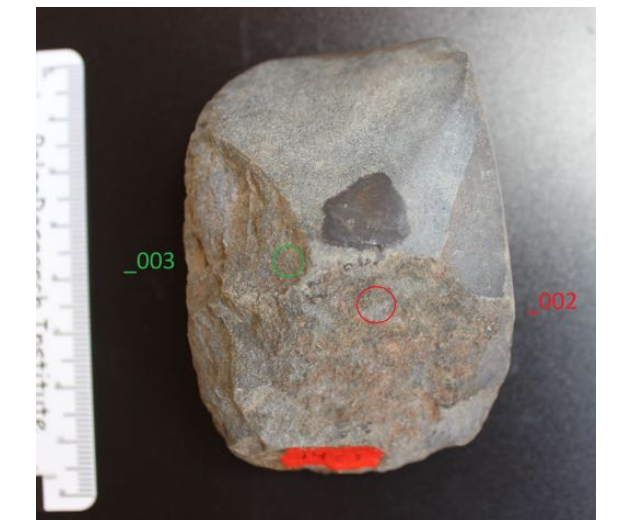
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		65.2		-4.4	13.8	1.6	308.8	122.3	0.2	12.6	V A C U U M * G R E E N
2		78.7		-4.2	3.5	2.2	385.3	302.1	0.2	16.8	
3		90.9		-3.4	8.6	1.5	298.4	178.1	0.2	11.1	
4											
AV		78.3		-4.0	8.6	1.8	330.8	200.8	0.2	13.5	

Trace elements (ppm)

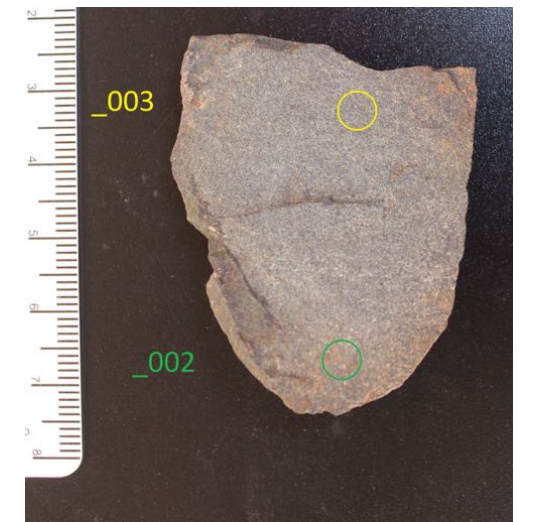
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	359.4	50.6	97.3	38.8	79.2	96.2	0.0	32.6	135.6	38.1	50.8	27.0	G R E E N
	419.2	106.5	171.9	46.6	92.5	108.9	0.0	37.9	99.1	36.7	48.5	27.1	
	437.6	117.3	133.0	49.8	91.8	110.0	0.0	32.7	136.5	38.0	53.0	26.1	
AV	405	91	134	45	88	105	0	34	124	38	51	27	
	30	24	95	18	8	8	1	9	238	36	49	11	Y E L L O W
	90	64	110	23	10	10	2	11	154	41	64	9	
	29	24	88	18	8	7	2	7	240	36	56	7	
	30	41	94	19	7	9	2	8	223	34	58	9	
AV	44	38	97	20	8	8	2	9	214	37	57	9	

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected 21.08.1992
 Collection Method
 Place Collected Erueti, Efate Island
 Material
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group Vanuatu Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO2) Material 93 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		93.4		-2.2	13.1	2.4	335.2	111.4	0.2	12.4	GREEN* VANUUM
2		89.1		-2.5	13.9	1.4	278.3	137.5	0.2	12.3	
3		96.7		-2.7	11.0	1.3	266.6	177.3	0.2	11.7	
4											
AV		93.1		-2.5	12.6	1.7	293.4	142.1	0.2	12.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	363.2	64.3	146.7	38.8	81.1	102.7	0.0	39.9	162.0	36.5	63.2	25.8	GREEN
	335.6	50.0	136.9	38.5	77.5	96.4	0.0	33.8	163.7	37.0	61.8	26.2	
	396.0	97.2	145.7	41.7	84.5	103.9	0.0	35.7	154.8	36.8	63.4	26.7	
AV	365	71	143	40	81	101	0	36	160	37	63	26	
	32	23	105	20	8	7	3	20	300	33	83	9	YELLOW
	33	25	100	19	7	9	3	14	307	33	83	10	
	28	42	100	19	7	8	2	11	268	31	84	9	
AV	31	30	102	19	8	8	3	15	292	32	83	9	

Museum Vanuatu Cultural Centre
 Date Acquired by Museum 1965
 Collector R. Shutler
 Date Collected
 Collection Method
 Place Collected Tafea
 Material
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back
 Cross Section Shape
 TAS (SiO₂) Material 87

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		70.8		-0.2	25.7	1.0	195.5	418.2	0.2	9.9	V A C C U M * G R E E N
2		86.7		0.0	20.5	0.9	197.0	413.2	0.2	11.2	
3		102.4		0.2	19.1	0.8	173.7	326.5	0.2	10.2	
4											
AV		86.7		0.0	21.8	0.9	188.7	386.0	0.2	10.4	

Trace elements (ppm)

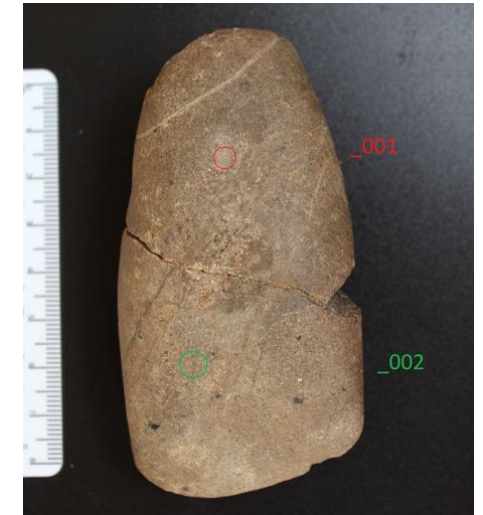
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	394.6	82.4	116.5	34.9	80.9	98.3	0.0	46.4	320.2	32.7	38.3	25.3	G R E E N
	408.9	108.2	314.1	39.7	108.3	106.4	0.0	45.9	311.9	32.6	40.5	25.5	
	439.4	161.0	982.1	38.8	124.0	109.2	0.0	46.9	300.2	32.8	38.0	25.7	
AV 414	117	471	38	104	105	0	46	311	33	39	25		
	84	59	95	18	9	10	5	34	688	21	-20	8	Y E L L O W
	81	77	138	16	26	10	4	31	656	21	-30	8	
	90	106	212	17	27	12	5	34	665	21	-26	10	
AV 85	81	148	17	21	11	5	33	669	21	-25	9		

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector Garanger
 Date Collected
 Collection Method
 Place Collected Roimata
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 79	rhyolite	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		77.3		-6.0	-14.1	2.7	339.1	224.7	0.3	14.3	V A C C U M * G R E E N
2		84.0		-5.7	7.0	2.8	337.1	263.7	0.2	15.0	
3		74.4		-6.7	-13.7	2.5	350.3	246.1	0.2	15.6	
4											
AV		78.5		-6.1	-6.9	2.6	342.2	244.9	0.2	15.0	

Trace elements (ppm)

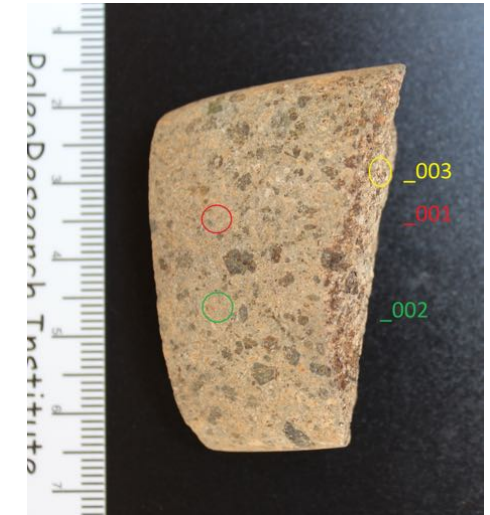
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	389.2	141.2	246.4	36.1	92.0	108.2	0.0	37.0	253.3	46.2	115.0	31.3	G R E E N
	381.6	80.8	246.0	39.4	93.6	111.3	0.0	37.7	387.9	40.0	88.3	29.0	
	362.7	62.1	231.1	38.4	89.2	107.8	0.0	34.9	190.6	39.2	91.3	27.4	
AV 378	95	241	38	92	109	0	37	277	42	98	29		
	97	298	146	18	12	13	2	13	460	112	230	19	Y E L L O W
	88	40	134	18	11	14	2	16	713	52	145	17	
	92	13	149	19	13	16	2	15	478	55	170	14	
AV 92	117	143	18	12	14	2	15	550	73	182	17		

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector H. G. D. Rick
 Date Collected
 Collection Method
 Place Collected NHMA-101 Malo
 Material
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group Vanuatu Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 98 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		85.0		0.4	18.2	1.1	212.8	181.0	0.2	8.7	V A C U U M * G R E E N
2		113.3		0.2	13.7	0.8	149.9	115.0	0.2	6.9	
3		96.7		0.6	16.7	1.0	196.3	146.0	0.2	8.3	
4											
AV		98.3		0.4	16.2	1.0	186.3	147.3	0.2	8.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	386.6	71.6	241.1	38.1	80.0	100.3	0.0	42.4	290.8	34.5	71.8	28.6	G R E E N
	374.4	96.3	215.7	40.5	80.6	101.8	0.0	41.2	310.8	34.1	67.0	27.4	
	368.9	71.7	201.7	40.5	79.7	100.9	0.0	42.1	315.8	34.6	65.1	27.3	
AV 377	80	220	40	80	101	0	42	306	34	68	28		
	45	44	136	20	8	8	4	26	610	23	81	12	Y E L L O W
	58	37	138	20	8	8	4	31	493	25	102	12	
	45	43	120	19	7	10	4	26	598	25	64	11	
AV 49	41	131	20	8	9	4	28	567	24	82	12		

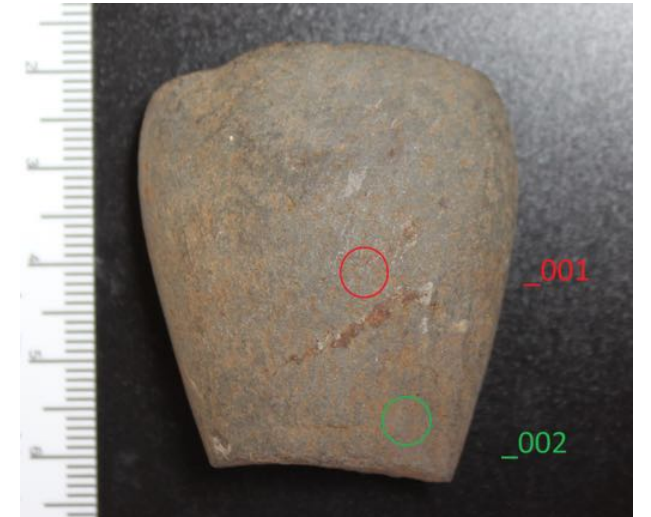
Museum Vanuatu Cultural Centre
 Date Acquired by Museum 1992
 Collector L. Bolton
 Date Collected 1992
 Collection Method Surface
 Place Collected Ambae Longana Wailingi
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 70	Cross Section Shape	

dacite/rhyolite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		68.6		-3.1	19.9	1.4	285.1	179.7	0.2	12.4
2		67.4		-2.9	21.1	1.4	285.1	165.2	0.2	11.8
3		73.8		-1.7	18.3	1.5	299.4	145.3	0.2	12.7
4										
AV		69.9		-2.6	19.8	1.4	289.9	163.4	0.2	12.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	369.6	92.2	139.8	37.2	82.2	102.1	10.5	83.4	424.8	26.4	62.6	26.9
	381.2	98.1	130.2	37.2	81.8	102.7	11.0	83.2	422.7	26.4	63.9	26.8
	380.5	129.2	142.9	38.2	85.7	107.3	8.0	81.1	413.7	26.9	63.6	25.7
AV 377	106	138	38	83	104	10	83	420	27	63	26	
	63	62	99	20	10	13	7	115	995	15	62	15
	67	56	100	21	15	18	8	110	946	16	54	16
	68	145	100	21	10	11	7	116	943	14	55	15
AV 66	88	99	21	12	14	7	114	961	15	57	15	

V A C U U M * GREEN

GREEN

YELLOW

Accession No. K.467

Record No. 930

pXRF_0007_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector Monty Lindstorm
 Date Collected
 Collection Method Donation
 Place Collected Kwamera Area, S.E.
 Material Stone
 Object Pendant
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 81		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

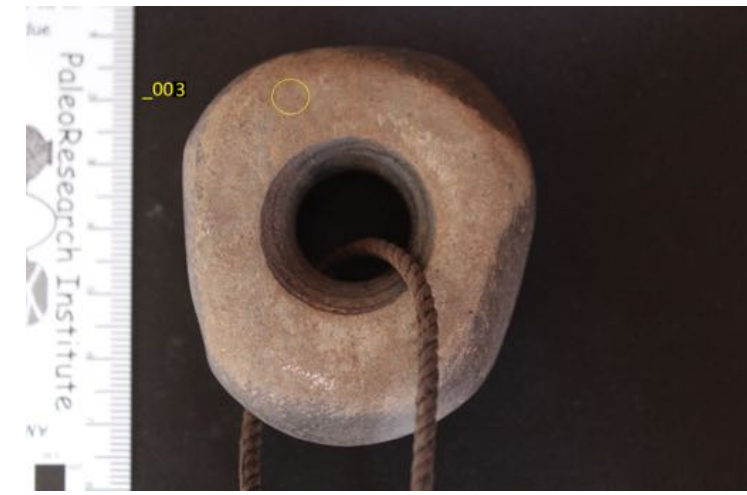
Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		76.7		-0.5	11.7	1.4	260.0	107.7	0.2	10.7
2		78.1		1.1	11.5	1.5	274.6	113.4	0.2	11.2
3		87.9		2.1	6.2	1.3	273.9	173.1	0.2	10.5
4										
AV	80.9			0.9	9.8	1.4	269.5	131.4	0.2	10.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	361.8	162.6	161.5	38.9	85.2	103.4	0.0	46.9	283.1	35.0	89.8	26.4
	371.7	169.7	191.5	39.8	102.1	118.4	0.0	45.4	305.5	35.5	87.1	26.0
	354.2	193.5	194.6	38.6	105.8	122.3	0.0	43.2	307.4	36.1	90.5	26.4
	466.5	240.5	238.7	55.3	117.9	132.3	0.0	50.6	315.1	35.1	98.3	25.7
AV	389	192	197	43	103	119	0	47	303	35	91	26
	34	217	110	22	12	12	5	40	622	33	150	11
	34	350	113	22	16	18	4	31	634	32	117	12
	34	397	115	24	20	20	4	27	643	35	139	10
	58	974	168	30	22	23	4	36	646	32	144	12
AV	40	484	127	25	18	18	4	34	636	33	137	11

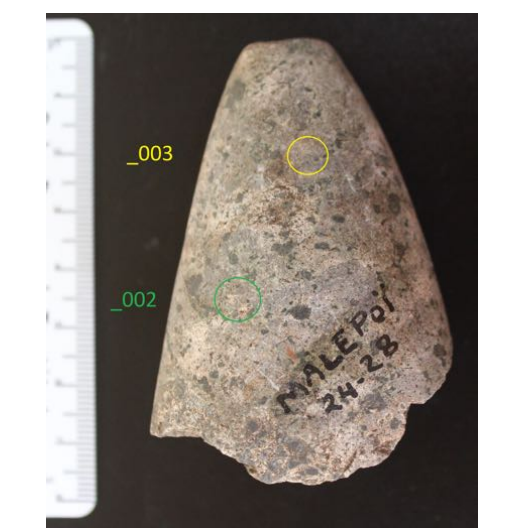


Museum: Vanuatu Cultural Centre
 Date Acquired by Museum:
 Collector:
 Date Collected:
 Collection Method:
 Place Collected: NCHSS MALAPOL Site
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group: Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material: 80	rhyolite	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		87.6		-4.1	8.1	1.9	347.2	262.2	0.2	15.8	V A C U U M * G R E E N
2		66.5		-3.1	15.3	1.6	295.7	185.6	0.2	13.2	
3		85.7		-3.6	13.5	1.2	255.2	196.8	0.3	13.3	
4											
AV		79.9		-3.6	12.3	1.5	299.4	214.8	0.2	14.1	

Trace elements (ppm)

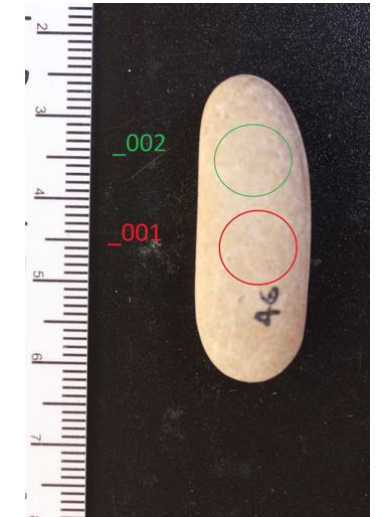
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	361.8	43.7	139.2	41.4	87.0	103.4	0.0	36.3	174.5	36.1	77.1	29.2	G R E E N
	340.8	24.5	89.7	36.4	75.6	91.2	0.0	32.0	260.1	35.9	69.6	27.6	
	364.0	41.2	116.3	36.4	80.6	98.7	0.0	31.9	205.1	35.6	69.6	28.7	
AV 356	36	36	115	38	81	98	0	33	213	36	72	28	
	70	-13	95	19	10	10	2	15	277	28	127	16	Y E L L O W
	54	17	88	19	9	10	2	8	406	28	92	11	
	57	10	88	21	9	11	2	9	510	26	91	15	
AV 60	60	5	90	20	9	10	2	11	397	27	103	14	

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector J. Hendrick
 Date Collected
 Collection Method Surface
 Place Collected Malo Island
 Material Stone
 Object Unknown
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 89		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		91.9		-4.1	10.3	1.2	253.1	168.1	0.2	11.7	V A C U U M * G R E E N
2		85.6		-4.2	10.0	1.4	277.5	230.8	0.2	12.6	
3											
4											
AV		88.7		-4.1	10.2	1.3	265.3	199.4	0.2	12.1	

Trace elements (ppm)

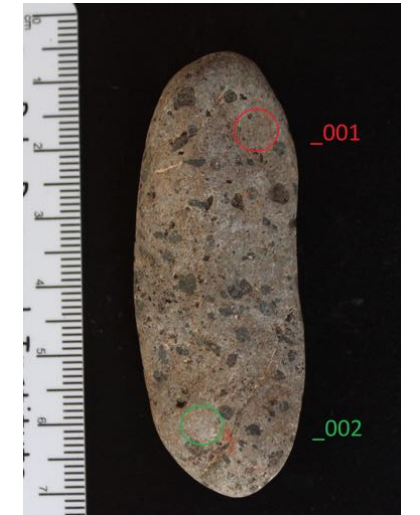
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	352.1	116.4	207.2	38.3	77.2	95.0	0.0	34.7	230.4	34.4	49.1	25.9	G R E E N
	377.7	145.4	206.9	44.8	83.8	100.7	0.0	36.7	242.9	35.5	49.7	26.3	
AV	365	131	207	42	81	98	0	36	237	35	49	26	
	52	105	116	19	7	6	1	8	407	19	22	7	Y E L L O W
	57	119	119	21	7	5	1	7	430	19	20	5	
AV	54	112	117	20	7	6	1	8	418	19	21	6	

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector J. Hendrick
 Date Collected
 Collection Method
 Place Collected Malo Island
 Material Stone
 Object Unknown
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 93

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		95.5		-4.0	13.9	1.3	263.8	173.2	0.2	11.7	V A C U U M * G R E E N
2		81.6		-4.3	14.7	1.5	270.2	122.3	0.2	11.4	
3		101.1		-3.6	16.0	1.1	206.1	104.4	0.2	8.8	
4											
AV		92.7		-4.0	14.9	1.3	246.7	133.3	0.2	10.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	353.5	52.6	243.6	36.7	79.5	101.1	0.0	36.9	407.6	35.3	46.5	26.7	G R E E N
	347.7	45.4	189.8	35.9	74.5	94.7	0.0	34.8	414.0	35.7	47.4	25.9	
	343.1	57.4	186.3	36.0	74.9	96.6	0.0	33.8	408.7	34.8	49.3	26.2	
AV	348	52	207	36	76	97	0	35	410	35	48	26	
	45	38	134	19	8	10	2	11	844	23	-10	8	Y E L L O W
	43	42	116	19	8	8	2	12	920	24	0	10	
	45	39	112	19	8	9	2	10	800	23	9	9	
AV	44	40	121	19	8	9	2	11	854	24	-0	9	

Accession No. 1037

Record No. 934

pXRF_0011_ANU

Museum Vanuatu Cultural Centre

Date Acquired by Museum

Collector J. Hendrick

Date Collected

Collection Method

Place Collected Malo Island

Material Stone

Object Pounder

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 86		Cross Section Shape

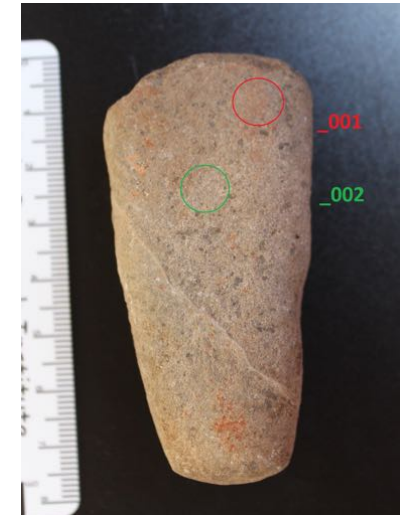
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		99.4		0.0	10.5	1.4	253.7	169.6	0.2	10.3	V A C C U M * G R E E N
2		82.4		1.5	13.4	1.4	253.0	78.0	0.2	9.7	
3		75.1		1.2	15.3	1.4	247.1	118.7	0.2	9.6	
4											
AV		85.6		0.9	13.1	1.4	251.3	122.1	0.2	9.9	

Trace elements (ppm)

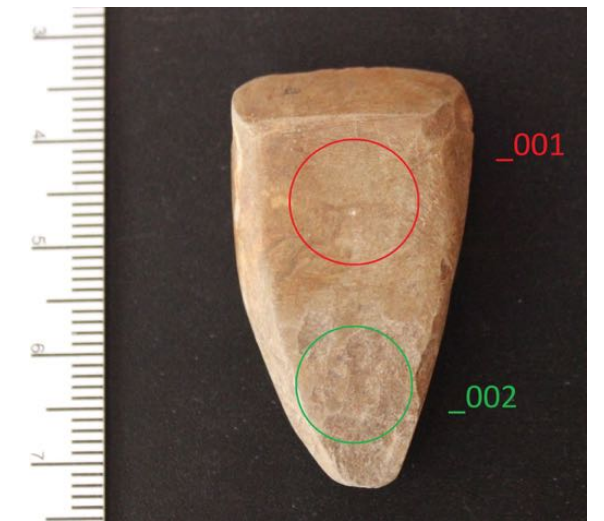
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	391.6	259.1	280.2	41.0	83.4	99.1	3.8	70.0	216.3	29.5	61.3	26.7	G R E E N
	345.7	267.1	315.2	37.6	78.7	98.1	6.3	71.1	216.1	29.2	62.9	27.1	
	360.7	297.6	323.5	35.9	76.9	97.1	0.0	44.2	200.5	34.4	62.5	26.0	
AV 366	275	275	306	38	80	98	3	62	211	31	62	27	
	27	1411	157	21	8	10	8	83	417	19	60	12	Y E L L O W
	22	1491	148	19	8	9	11	101	413	16	67	14	
	30	1452	159	20	8	8	4	29	376	27	78	8	
AV 26	26	1451	154	20	8	9	8	71	402	21	68	11	

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Malo Island
 Material Stone
 Object Adze
 Type Lapita
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group Vanuatu Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 98 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		99.5		-3.8	7.8	0.8	135.3	182.0	0.2	9.0	V A C U U M * G R E E N
2		100.6		-4.7	8.1	1.0	197.7	272.6	0.2	12.5	
3		94.3		-3.5	8.7	0.9	165.8	162.2	0.2	9.2	
4											
AV		98.1		-4.0	8.2	0.9	166.2	205.6	0.2	10.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	312.4	92.8	201.0	36.9	121.8	130.9	0.0	27.7	68.9	36.1	95.3	26.6	G R E E N
	358.3	124.9	253.3	41.2	173.7	181.6	0.0	30.4	78.3	38.3	119.2	27.5	
	325.7	99.7	214.7	35.9	110.1	120.7	0.0	29.9	71.3	35.9	87.2	27.2	
AV	332	106	223	38	135	144	0	29	73	37	101	27	
	70	108	129	25	30	26	1	2	87	28	220	11	Y E L L O W
	96	173	141	29	43	40	2	4	95	31	230	12	
	65	75	129	23	22	18	1	2	89	26	180	9	
AV	77	118	133	26	32	28	1	3	90	28	210	11	

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Malo Island
 Material Stone
 Object Adze
 Type Lapita
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 87		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		79.6		-1.4	16.1	1.2	217.7	112.3	0.2	9.2
2		75.3		-1.5	14.4	1.2	228.0	113.4	0.2	10.4
3		105.1		-2.2	10.5	1.0	192.1	151.0	0.2	9.9
4										
AV		86.7		-1.7	13.7	1.1	212.6	125.6	0.2	9.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	333.5	79.7	275.6	35.8	79.0	95.1	0.0	36.5	232.7	38.0	72.7	26.6
	339.0	101.1	195.2	33.5	82.6	100.9	0.0	35.8	229.9	38.8	71.4	25.4
	359.6	82.6	167.0	37.5	77.9	99.2	0.0	33.6	203.3	39.0	71.0	27.2
AV	344	88	213	36	80	98	0	35	222	39	72	26
	29	52	140	19	10	9	2	13	463	41	95	8
	35	140	123	19	12	10	2	13	448	43	95	8
	27	44	111	19	10	9	2	11	392	40	96	7
AV	30	79	125	19	11	10	2	12	434	41	95	8

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Malo Island
 Material Stone
 Object Adze
 Type Lapita
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 95		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		104.1		-1.9	7.1	1.9	306.5	128.4	0.2	11.7	V A C U U M * G R E E N
2		92.0		-1.8	7.2	2.1	321.8	176.1	0.2	13.1	
3		89.2		-0.9	8.6	2.3	326.3	77.9	0.2	11.7	
4											
AV		95.1		-1.6	7.7	2.1	318.2	127.5	0.2	12.2	

Trace elements (ppm)

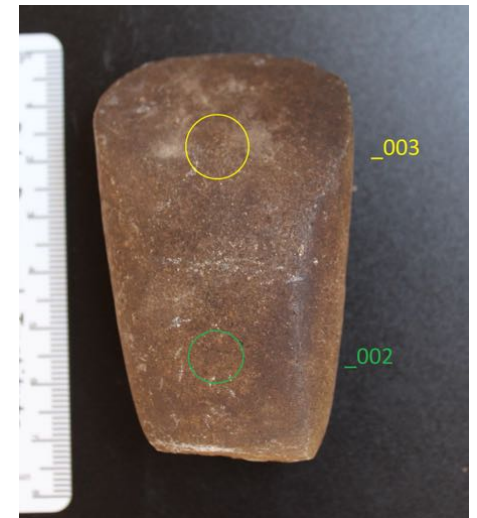
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	360.7	80.4	195.8	38.8	80.9	99.0	0.0	39.9	209.6	37.4	100.9	27.7	G R E E N
	345.3	81.8	208.0	37.8	81.3	100.1	0.0	41.0	202.9	36.5	95.7	27.9	
	334.7	97.8	218.9	38.2	79.2	99.3	0.0	40.0	208.2	38.4	102.9	28.9	
AV 347	87	208	38	80	99	0	40	207	37	100	28		
	34	25	125	22	9	9	4	22	407	38	169	12	Y E L L O W
	37	49	127	20	10	9	3	20	396	39	171	10	
	39	61	126	22	9	7	3	22	400	40	185	12	
AV 37	45	126	21	9	8	3	21	401	39	175	11		

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Banks Islands
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 82		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		78.2		0.0	13.9	1.2	241.7	153.4	0.2	12.0	V A C U U M * G R E E N
2		84.4		0.0	13.4	1.2	238.5	136.7	0.2	11.4	
3		82.3		-0.1	13.7	1.3	255.8	136.0	0.2	11.6	
4											
AV		81.6		-0.0	13.6	1.2	245.4	142.0	0.2	11.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	321.5	35.8	131.0	35.8	74.3	91.6	0.0	43.3	288.7	34.0	42.6	24.9	G R E E N
	325.3	46.8	116.1	34.3	72.8	92.8	0.0	43.7	275.2	33.9	46.1	25.7	
	324.7	40.6	138.0	36.5	79.3	99.7	0.0	44.2	287.5	34.0	43.6	26.1	
AV 324	41	128	36	75	95	0	44	284	34	44	26		
	29	29	93	20	8	8	4	25	591	26	-10	8	Y E L L O W
	27	31	93	20	8	9	4	29	546	25	1	10	
	27	33	89	20	8	10	4	27	587	26	-7	10	
AV 28	31	91	20	8	9	4	27	575	26	-5	9		

Accession No. K932 AR81-1-66 197

Record No. 939

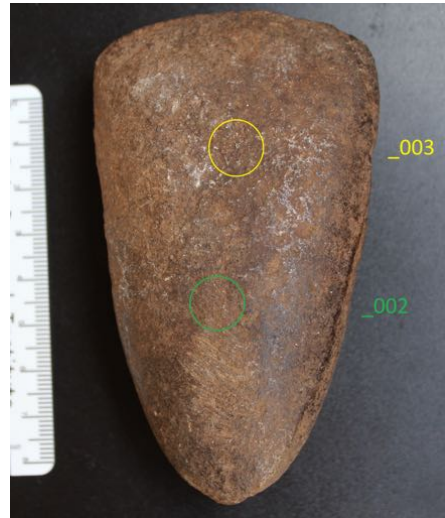
pXRF_0016_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Banks Islands
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 83		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		79.2		-1.2	10.9	2.0	347.7	222.6	0.2	15.1	V A C C U M * G R E E N
2		79.0		-1.5	12.5	1.8	335.2	166.8	0.2	14.4	
3		89.3		-1.1	10.5	1.9	346.8	200.2	0.2	15.3	
4											
AV		82.5		-1.2	11.3	1.9	343.3	196.5	0.2	14.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	350.1	115.1	419.6	41.4	93.2	108.6	0.0	37.2	112.5	36.1	53.3	26.5	G R E E N
	345.7	112.3	511.3	37.2	95.7	112.8	0.0	49.8	87.1	33.4	53.6	26.5	
	360.6	116.3	396.3	39.2	95.3	113.2	0.0	39.7	85.5	35.7	55.0	27.0	
AV	352	115	442	39	95	112	0	42	95	35	54	27	
	41	88	214	32	14	15	3	29	197	30	77	12	Y E L L O W
	64	318	249	38	19	19	4	39	118	26	87	13	
	45	95	207	22	13	16	3	18	116	30	90	12	
AV	50	167	224	31	15	17	3	29	144	29	85	13	

Accession No. K932 AR81-1-15 644

Record No. 940

pXRF_0017_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Banks Islands
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 97

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		101.4		-4.2	4.7	0.3	14.4	1667.1	0.2	9.3	V A C U U M * G R E E N
2		96.4		-4.0	4.5	0.3	15.4	1812.2	0.2	9.6	
3		93.8		-5.2	3.9	0.3	25.6	1774.9	0.2	11.1	
4											
AV		97.2		-4.5	4.4	0.3	18.5	1751.4	0.2	10.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	132.4	69.4	104.2	25.0	70.5	85.4	0.0	27.5	56.3	30.4	29.1	22.4	G R E E N
	106.4	63.5	93.0	26.4	66.5	80.5	0.0	28.2	55.3	29.7	28.9	23.1	
	255.3	56.3	122.5	25.5	68.9	83.9	0.0	27.5	54.5	30.0	28.6	23.2	
AV	165	63	107	26	69	83	0	28	55	30	29	23	
	4306	49	108	14	7	6	-1	2	56	8	23	1	Y E L L O W
	4723	51	83	14	8	6	-0	1	53	7	27	1	
	4270	43	51	16	7	4	-2	0	51	5	21	-2	
AV	4433	48	81	14	8	5	-1	1	53	7	24	0	

Accession No. K932 AR81-1-18 196

Record No. 942

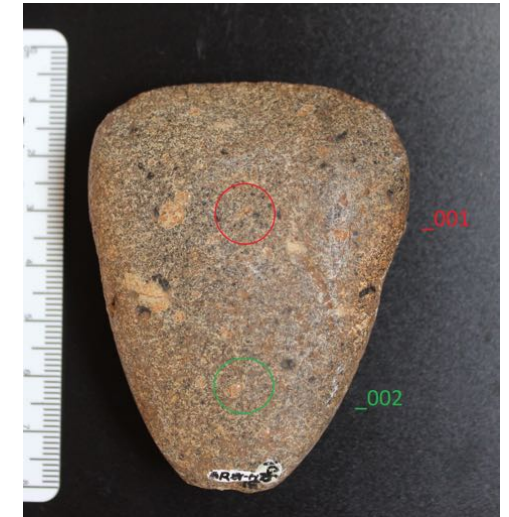
pXRF_0018_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Banks Islands
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 72	dacite/rhyolite	
		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		73.2		-4.1	13.1	2.6	341.5	226.3	0.2	14.1	V A C U U M * G R E E N
2		74.9		-5.0	12.8	2.0	333.2	283.8	0.2	14.3	
3		69.0		-4.2	12.6	2.8	335.8	261.7	0.2	14.6	
4											
AV		72.4		-4.4	12.8	2.4	336.8	257.3	0.2	14.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	357.7	39.9	122.6	37.3	76.4	97.1	0.0	33.2	113.8	39.7	101.3	27.2	G R E E N
	382.6	46.4	122.8	36.6	74.7	93.2	0.0	32.6	139.8	38.6	96.9	27.1	
	341.3	49.6	133.3	36.5	76.5	95.0	0.0	33.4	113.8	39.0	101.2	27.3	
AV	361	45	126	37	76	95	0	33	122	39	100	27	
	69	21	90	18	9	11	2	10	203	43	182	11	Y E L L O W
	69	27	90	21	9	9	2	9	299	42	169	10	
	83	29	94	20	8	11	3	12	186	45	210	11	
AV	74	26	91	19	8	10	2	10	230	43	187	11	

Accession No. K932 AR81-1-18 174

Record No. 943

pXRF_0019_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Banks Islands
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 77	rhyolite	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		72.4		0.1	19.3	1.4	275.9	259.9	0.2	12.3	V A C C U M * G R E E N
2		76.0		0.1	18.7	1.3	266.6	282.7	0.2	12.4	
3		82.0		-0.1	16.9	1.3	260.6	352.2	0.2	12.9	
4											
AV		76.8		0.0	18.3	1.3	267.7	298.3	0.2	12.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	350.9	75.2	126.0	32.2	77.4	95.3	0.0	43.6	275.1	32.9	43.8	26.0	G R E E N
	344.2	77.7	125.8	35.0	79.3	100.9	0.0	43.1	276.7	33.1	42.3	25.1	
	359.8	89.7	150.1	34.6	80.7	97.9	0.0	43.1	273.6	33.4	42.2	24.9	
AV	352	81	134	34	79	98	0	43	275	33	43	25	
	67	42	101	19	10	10	4	29	542	22	6	9	Y E L L O W
	67	56	97	19	9	11	4	32	552	20	-3	10	
	80	60	100	17	10	10	4	28	554	21	-2	10	
AV	71	52	99	18	10	10	4	29	549	21	1	10	

Accession No. K932 AR81-1-14 629

Record No. 944

pXRF_0020_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Banks Islands
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group Vanuatu Middle Max Front Top Max Thickness
 TAS (SiO₂) Material 81 Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		81.1		0.4	17.6	1.3	271.4	142.3	0.2	12.2	V A C U U M * G R E E N
2		79.4		0.5	17.1	1.3	278.1	139.7	0.2	12.4	
3		83.7		0.5	17.3	1.3	264.3	149.8	0.2	12.1	
4											
AV		81.4		0.5	17.3	1.3	271.3	143.9	0.2	12.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	367.3	93.2	146.8	38.9	92.6	108.4	0.0	54.6	364.0	32.3	46.1	25.7	G R E E N
	371.8	100.3	157.8	39.4	95.9	113.5	0.0	51.2	360.2	33.0	49.6	26.3	
	381.4	103.9	149.0	40.9	91.4	112.7	0.0	53.0	371.2	32.7	48.9	27.1	
AV	374	99	151	40	93	112	0	53	365	33	48	26	
	53	79	105	23	17	20	5	47	801	25	7	12	Y E L L O W
	53	72	103	22	13	14	5	45	810	25	7	11	
	52	80	102	22	13	15	5	47	829	25	0	12	
AV	52	77	104	22	14	17	5	46	813	25	5	12	

Accession No. K932 AR81-14 629 (7/9)

Record No. 945

pXRF_0021_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Banks Islands
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group Vanuatu Middle Max Front Top Max Thickness
 TAS (SiO₂) Material 76 rhyolite Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		82.8		-1.7	13.3	1.5	314.3	381.5	0.2	14.3	V A C U U M * G R E E N
2		68.5		-1.5	13.7	1.5	311.5	228.6	0.2	14.4	
3		76.0		-2.0	12.0	1.5	308.7	297.5	0.2	14.9	
4											
AV		75.8		-1.8	13.0	1.5	311.5	302.5	0.2	14.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	343.8	169.0	463.0	45.5	204.4	203.3	0.0	39.7	331.4	35.8	44.2	26.6	G R E E N
	347.4	100.9	209.3	39.0	103.9	119.2	0.0	38.0	329.7	35.2	44.0	26.2	
	348.9	118.1	286.5	41.6	123.8	136.1	0.0	39.6	318.6	34.6	43.4	26.0	
AV 347	129	320	42	144	153	0	39	327	35	44	26		
	56	799	207	41	50	47	2	22	732	33	-9	12	Y E L L O W
	53	95	129	26	25	24	2	23	730	28	-11	11	
	50	110	147	25	23	24	2	19	727	32	-14	13	
AV 53	335	161	31	33	31	2	21	730	31	-11	12		

Accession No. K932 AR81-1-67 675

Record No. 946

pXRF_0022_ANU

Museum Vanuatu Cultural Centre

Date Acquired by Museum

Collector

Date Collected

Collection Method

Place Collected Banks Islands

Material Stone

Object Adze

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO2) Material 98		Cross Section Shape

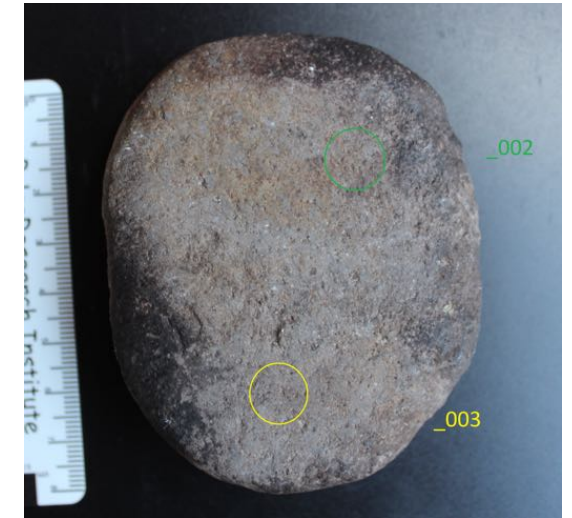
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		92.7		0.2	11.8	1.5	289.0	110.7	0.2	10.5	V A C U U M * G R E E N
2		110.9		0.2	15.3	1.0	179.2	112.3	0.2	7.9	
3		88.9		0.9	14.0	1.2	229.6	110.1	0.2	9.3	
4											
AV		97.5		0.4	13.7	1.2	232.6	111.0	0.2	9.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	324.5	83.4	145.9	36.1	78.6	97.5	0.0	40.4	260.9	35.2	71.7	26.5	G R E E N
	391.9	82.8	121.3	38.9	78.1	96.6	0.0	42.4	295.3	35.0	66.1	27.0	
	341.4	82.7	130.6	38.7	77.3	97.2	0.0	42.4	285.7	35.2	68.9	27.9	
AV 353	83	133	38	78	97	0	42	281	35	69	27		
	23	55	95	20	8	8	4	24	542	27	84	11	Y E L L O W
	21	50	91	21	9	8	4	25	583	28	73	11	
	21	45	93	21	8	9	4	26	593	28	75	11	
AV 22	50	93	21	8	9	4	25	573	27	77	11		

Accession No. K932 AR81-1-7 539

Record No. 947

pXRF_0023_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Banks Islands
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group Vanuatu Middle Max Front Top Max Thickness
 TAS (SiO₂) Material 89 Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		85.2		-0.4	18.1	0.8	140.0	83.9	0.1	6.9	V A C U U M * G R E E N
2		92.9		-2.0	13.9	1.0	177.2	101.1	0.2	8.8	
3											
4											
AV	89.1			-1.2	16.0	0.9	158.6	92.5	0.1	7.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	339.9	51.7	158.6	35.4	72.0	93.4	0.0	36.7	306.8	34.9	64.1	25.4	G R E E N
	332.9	51.8	152.5	35.1	72.2	92.1	0.0	34.9	284.2	34.6	73.8	25.3	
AV 336	52	156	35	72	93	0	36	295	35	69	25		
	23	46	120	21	8	7	3	16	622	24	81	6	Y E L L O W
	24	44	104	22	14	11	3	14	614	24	81	8	
AV 23	45	112	21	11	9	3	15	618	24	81	7		

Accession No. RW 5 AVG '13 PN74

Record No. 948

pXRF_0024_ANU

Museum: Vanuatu Cultural Centre
 Date Acquired by Museum:
 Collector:
 Date Collected:
 Collection Method:
 Place Collected: Watt Mission, Tanna
 Material: Stone
 Object: Pendant
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group: Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material: 73	Cross Section Shape: dacite/rhyolite	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		68.9		1.0	12.4	1.4	273.7	133.3	0.2	12.2
2		76.2		1.6	12.0	1.3	255.5	131.1	0.2	11.4
3										
4										
AV	72.6			1.3	12.2	1.3	264.6	132.2	0.2	11.8

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	351.0	142.7	145.3	39.8	83.6	103.8	0.0	49.9	306.6	33.9	69.9	26.0
	338.4	152.8	136.6	35.3	78.4	96.1	0.0	47.9	314.8	34.1	65.4	25.8
AV	345	148	141	38	81	100	0	49	311	34	68	26
	25	191	99	21	9	10	5	36	633	28	72	9
	20	188	95	19	10	9	4	30	567	26	63	9
AV	22	189	97	20	9	10	5	33	600	27	68	9

Accession No. RW/YF PN184

Record No. 949

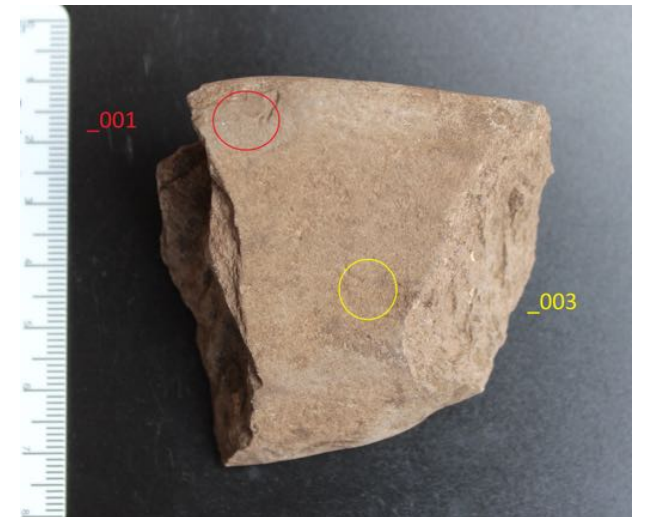
pXRF_0025_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected 29.07.2014
 Collection Method
 Place Collected
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 83

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		86.5		-1.0	8.0	1.8	354.7	192.9	0.2	15.7	V A C C U M * G R E E N
2		73.8		-0.5	10.4	1.7	343.4	192.5	0.2	15.3	
3		89.9		-1.4	7.1	1.7	347.0	243.5	0.2	15.6	
4											
AV		83.4		-1.0	8.5	1.7	348.4	209.7	0.2	15.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	346.0	93.1	167.0	41.5	83.0	101.3	0.0	45.2	196.4	33.9	54.8	25.9	G R E E N
	331.6	153.0	142.6	37.3	79.2	97.7	0.0	41.7	227.9	34.2	50.1	25.9	
	350.6	110.7	172.5	40.1	83.6	101.2	0.0	44.7	197.0	33.5	53.9	25.6	
AV	343	119	161	40	82	100	0	44	207	34	53	26	
	43	300	100	20	9	10	4	24	454	26	30	7	Y E L L O W
	55	91	110	20	10	10	4	31	348	25	52	11	
AV	49	195	105	20	9	10	4	27	401	25	41	9	

Accession No. RW/JF PN173

Record No. 950

pXRF_0026_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected New Kwaraka, Tanna
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		65.6		-1.2	15.2	1.4	295.3	171.5	0.2	13.7
2		90.5		-1.4	13.3	1.3	286.9	182.5	0.2	13.4
3		91.7		-1.4	12.7	1.3	288.6	180.9	0.2	13.7
4										
AV		82.6		-1.3	13.8	1.3	290.3	178.3	0.2	13.6

Trace elements (ppm)

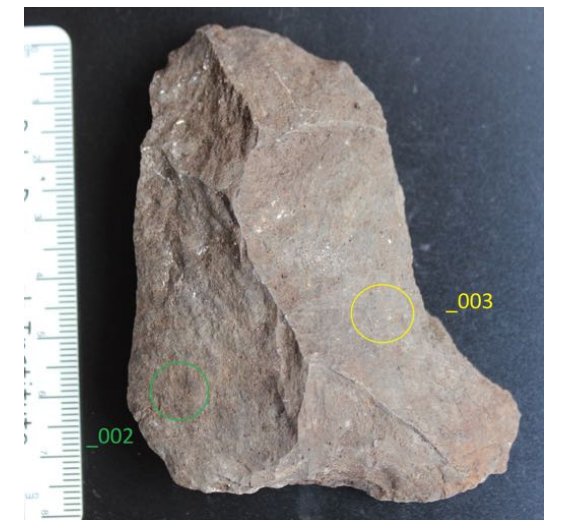
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	339.4	76.5	118.5	36.5	78.0	99.2	0.0	38.0	242.2	35.3	44.9	25.7
	370.6	152.5	133.2	42.9	83.1	101.9	0.0	40.9	246.7	35.0	46.5	27.1
	356.4	178.6	128.2	39.2	83.9	100.7	0.0	41.3	230.2	34.9	47.0	25.7
AV	355	136	127	40	82	101	0	40	240	35	46	26
	48	57	94	20	9	11	4	24	519	30	7	11
	49	197	94	20	9	10	3	21	518	28	4	10
	48	505	95	21	9	10	3	21	496	26	16	10
AV	48	253	94	20	9	11	4	22	511	28	9	10

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected 16.08.2010
 Collection Method
 Place Collected Erromango Rauyu
 Material Stone
 Object Flake
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 97

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		97.8		-0.3	9.0	1.0	209.0	222.3	0.2	10.9	V A C U U M * G R E E N
2		96.8		-0.7	11.8	1.1	223.4	167.3	0.2	11.8	
3		97.7		-0.9	11.3	1.0	211.1	143.7	0.2	11.1	
4											
AV		97.4		-0.7	10.7	1.0	214.5	177.8	0.2	11.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	402.8	137.8	137.0	45.9	89.7	108.7	0.0	42.4	243.2	34.8	53.3	26.4	G R E E N
	350.2	125.3	127.9	37.6	78.4	102.8	0.0	41.8	246.5	35.1	52.5	25.5	
	354.3	114.9	127.2	36.7	79.6	97.8	0.0	38.9	239.7	35.2	51.8	25.3	
AV	369	126	131	40	83	103	0	41	243	35	53	26	
	30	99	91	19	8	10	4	23	482	30	31	9	Y E L L O W
	37	109	93	19	9	9	4	21	489	27	37	10	
	33	93	93	21	8	9	4	22	485	28	35	11	
AV	33	100	92	19	8	9	4	22	485	28	34	10	

Accession No. [10.001]

Record No. 953

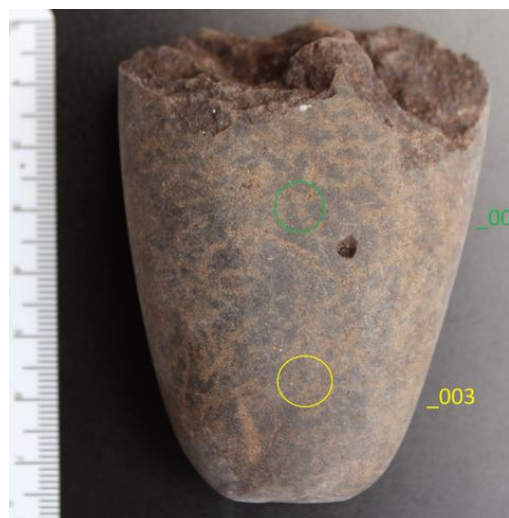
pXRF_0028_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected 16.08.2010
 Collection Method Excavation
 Place Collected Erromango Rauyu
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 70	dacite/rhyolite	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		72.8		-0.8	18.4	1.1	252.3	254.3	0.2	12.6	V A C C U M * G R E E N
2		67.8		-0.5	18.8	1.2	274.0	229.4	0.2	12.7	
3		68.6		-0.5	18.6	1.3	271.9	245.6	0.2	12.8	
4											
AV		69.7		-0.6	18.6	1.2	266.1	243.1	0.2	12.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	383.4	77.6	121.9	37.3	77.5	94.0	0.0	38.5	268.6	33.9	38.0	25.7	G R E E N
	365.4	72.5	126.4	36.1	75.8	95.3	0.0	39.5	265.7	33.2	37.7	25.3	
	359.3	72.0	133.6	35.6	77.4	97.8	0.0	41.1	262.0	33.4	39.5	24.4	
AV	369	74	127	36	77	96	0	40	265	34	38	25	
	64	34	93	20	8	10	4	22	549	23	-14	9	Y E L L O W
	69	42	95	20	8	11	4	24	556	22	-16	12	
	78	40	95	19	8	11	4	24	551	22	-10	11	
AV	70	39	94	20	8	11	4	23	552	22	-13	10	

Accession No. OLPOI 24.15

Record No. 954

pXRF_0029_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Olpoi, Santo
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back
 Cross Section Shape
 TAS (SiO₂) Material 100

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		103.2		2.5	5.4	0.5	79.3	78.2	0.1	4.3	V A C U U M * G R E E N
2		92.4		1.8	4.9	0.4	41.5	90.0	0.1	3.8	
3		103.5		2.8	5.2	0.4	48.4	71.3	0.1	3.8	
4											
AV		99.7		2.4	5.2	0.4	56.4	79.8	0.1	3.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	341.0	79.9	90.2	34.7	73.8	94.5	3.6	66.9	1022.6	30.6	105.2	26.3	G R E E N
	336.9	79.2	85.5	34.1	73.6	97.3	7.1	74.4	1062.2	28.5	91.1	25.8	
	336.6	75.7	90.5	34.3	75.2	96.3	2.5	65.4	892.4	31.1	94.3	26.6	
AV 338	78	89	34	74	96	4	69	992	30	97	26		
	24	58	81	20	8	10	7	101	3251	20	488	13	Y E L L O W
	20	63	80	18	7	9	9	92	2980	20	425	12	
	17	65	82	18	7	9	8	75	2508	29	345	11	
AV 20	62	81	19	8	9	8	89	2913	23	419	12		

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Lamuvvatvat Site 2445,
 Material Stone
 Object Flake
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back
 Cross Section Shape
 TAS (SiO₂) Material 87

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		106.6		0.7	1.8	0.1	-16.9	158.8	0.1	6.4
2		66.5		1.7	2.0	0.1	-8.0	148.5	0.0	7.7
3										
4										
AV	86.6			1.2	1.9	0.1	-12.5	153.7	0.0	7.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	330.3	59.3	48.1	27.8	66.4	83.9	4.6	58.5	57.0	29.6	29.1	22.8
	319.8	39.5	52.3	27.2	63.5	79.5	4.2	57.7	57.5	29.6	28.8	23.3
AV	325	49	50	27	65	82	4	58	57	30	29	23
	11	50	66	17	7	4	8	62	57	15	21	8
	14	47	66	17	7	5	7	51	57	15	23	6
AV	13	49	66	17	7	5	7	57	57	15	22	7

VACUUM * GREEN

GREEN

YELLOW

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Walwal, Gailpau 78
 Material Stone
 Object Flake
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back
 TAS (SiO₂) Material 100 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		107.3		3.1	5.1	0.3	43.3	81.3	0.1	3.2	V A C U U M * G R E E N
2		93.1		2.3	5.8	0.3	32.1	83.1	0.1	3.0	
3											
4											
AV		100.2		2.7	5.4	0.3	37.7	82.2	0.1	3.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	370.0	84.8	94.3	36.5	81.4	104.6	1.6	68.2	1203.7	30.2	65.9	26.2	G R E E N
	343.5	69.4	83.9	33.9	77.4	99.3	0.4	62.3	1086.0	31.5	64.6	26.2	
AV 357	77	89	35	79	102	1	65	1145	31	65	26		
	20	65	76	18	7	9	7	66	3311	27	358	11	Y E L L O W
	17	66	76	17	8	8	7	60	2923	25	276	8	
AV 18	66	76	18	8	9	7	63	3117	26	317	9		

Accession No. 24.21

Record No. 957

pXRF_0032_ANU

Museum Vanuatu Cultural Centre

Date Acquired by Museum

Collector

Date Collected

Collection Method

Place Collected **Walwal**

Material **Stone**

Object **Flake**

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 36	<input type="text" value="foidite"/>	Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		36.3		2.6	-6.1	0.3	80.7	285.2	0.1	8.2	GREEN* V A C U U M
2											
3											
4											
AV		36.3		2.6	-6.1	0.3	80.7	285.2	0.1	8.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	594.6	182.6	103.6	49.2	83.9	92.4	20.5	97.5	57.2	26.1	23.1	18.5	GREEN
AV 595	183	104	49	84	92	20	98	57	26	23	19		
	10	47	65	17	6	4	13	102	56	15	22	11	YELLOW
AV 10	47	65	17	6	4	13	102	56	15	22	11		

Accession No. 4.133

Record No. 958

pXRF_0033_ANU

Museum Vanuatu Cultural Centre

Date Acquired by Museum

Collector

Date Collected 1991

Collection Method

Place Collected S.E. Malakula

Material Stone

Object Adze

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 97		Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		100.8		2.2	8.5	0.9	166.3	115.7	0.1	8.4	V A C U U M * G R E E N
2		93.3		1.2	6.8	1.1	227.4	202.3	0.2	12.5	
3											
4											
AV		97.0		1.7	7.7	1.0	196.9	159.0	0.2	10.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	324.4	82.7	115.4	34.3	76.1	96.9	0.0	51.8	882.2	34.2	43.4	26.5	G R E E N
	338.5	84.1	135.7	38.7	81.3	103.7	0.0	53.6	833.1	33.8	47.0	25.8	
AV 331	83	126	37	79	100	0	53	858	34	45	26		
	29	64	92	17	8	9	5	40	2569	32	105	7	Y E L L O W
	30	47	93	20	7	9	5	36	2033	29	67	7	
AV 30	56	92	19	8	9	5	38	2301	31	86	7		

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected 22.07.2015
 Collection Method
 Place Collected Chief Youtaya's house,
 Material Jade
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group Vanuatu Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 72 dacite/rhyolite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		71.3		1.6	-3.0	0.5	106.3	191.2	0.1	4.2	V A C U U M * G R E E N
2		74.5		3.0	-2.7	0.5	111.2	206.8	0.1	4.4	
3		69.2		2.6	-2.7	0.5	116.3	177.7	0.1	4.1	
4											
AV		71.6		2.4	-2.8	0.5	111.3	191.9	0.1	4.2	

Trace elements (ppm)

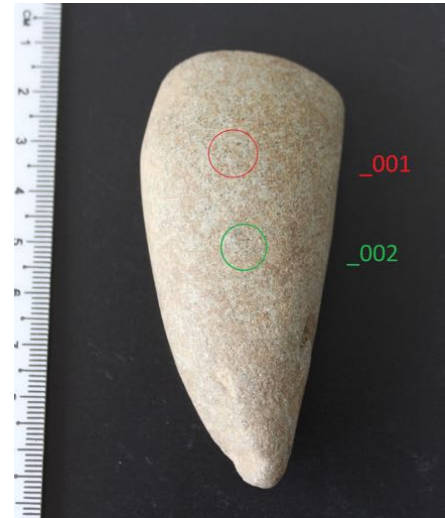
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	508.1	162.7	135.7	59.6	89.3	100.6	51.7	181.7	65.2	0.0	84.1	26.6	G R E E N
	497.4	161.4	132.8	59.8	101.2	108.2	48.5	171.5	66.2	0.0	101.0	28.7	
	515.2	149.9	134.2	57.6	88.5	98.9	48.7	172.1	65.6	0.7	92.4	28.4	
AV 507	158	134	59	93	103	50	175	66	0	92	28		
	14	64	76	18	9	8	20	239	72	-13	172	18	Y E L L O W
	12	64	76	19	8	5	23	273	68	-22	158	19	
	12	64	75	19	8	7	21	232	71	-12	166	18	
AV 13	64	75	18	8	7	21	248	70	-16	165	18		

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Mangaliliu
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 59 andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		59.3		-6.7	-101.2	0.1	42.0	229.3	0.1	1.3	V A C U U M * G R E E N
2		59.4		-6.8	-94.0	0.2	49.8	277.1	0.1	1.5	
3		58.0		-7.2	-111.0	0.1	41.7	208.3	0.1	1.0	
4											
AV		58.9		-6.9	-102.0	0.1	44.5	238.2	0.1	1.3	

Trace elements (ppm)

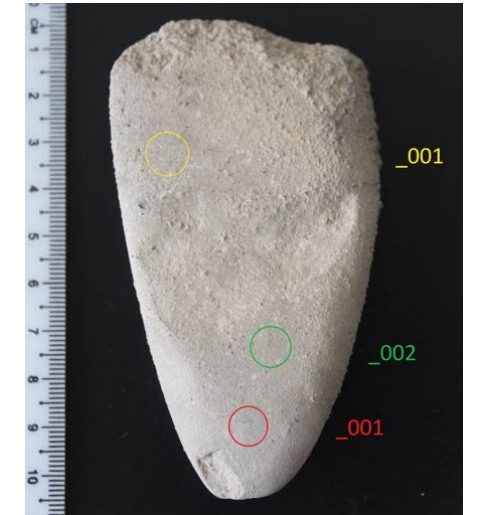
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	575.1	231.9	228.9	63.7	103.0	111.0	0.0	36.5	265.4	34.8	31.1	23.2	G R E E N
	577.4	218.2	245.9	67.3	107.9	117.4	0.0	37.1	266.6	32.7	31.1	22.9	
	593.2	215.4	249.6	61.3	106.8	118.1	0.0	37.1	254.4	38.5	33.3	22.8	
AV	582	222	241	64	106	115	0	37	262	35	32	23	
	23	79	103	14	7	9	3	13	456	27	-23	9	Y E L L O W
	25	82	104	14	7	10	3	14	462	25	-20	10	
	19	79	104	14	7	10	3	15	425	40	-13	13	
AV	22	80	103	14	7	10	3	14	448	31	-19	11	

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Matantas Area A
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 55 basaltic andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		53.8		-0.8	8.9	1.7	361.1	697.3	0.3	14.5	V A C U U M * G R E E N
2		52.7		0.3	9.4	1.9	369.1	571.5	0.3	14.1	
3		57.1		0.2	9.0	1.6	342.6	524.8	0.3	13.4	
4											
AV		54.5		-0.1	9.1	1.7	357.6	597.9	0.3	14.0	

Trace elements (ppm)

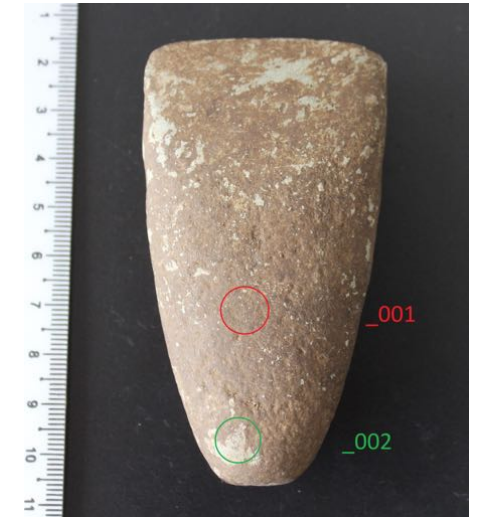
	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	566.1	166.7	240.6	71.8	101.2	107.4	0.0	39.9	247.4	34.4	52.4	22.3	G R E E N
	560.8	162.2	239.1	72.4	103.8	113.1	0.0	39.2	236.8	35.0	52.8	23.1	
	562.7	165.2	232.3	71.1	103.7	111.3	0.0	39.7	238.4	34.6	50.9	23.5	
AV 563	165	237	72	103	111	0	40	241	35	52	23		
	131	32	101	18	7	8	3	15	403	24	31	7	Y E L L O W
	139	33	103	18	9	8	3	17	406	22	38	8	
	128	26	102	19	7	7	3	17	404	22	34	7	
AV 132	30	102	18	8	8	3	16	405	23	34	7		

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected 6.07.2012
 Collection Method Excavation
 Place Collected Matantas Area A
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Vanuatu Length Rightangle to Bevel
 Middle Max Back Cross Section Shape
 TAS (SiO₂) Material 60 andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		61.3		1.2	7.9	1.7	334.2	268.3	0.3	12.5	V A C U U M * G R E E N
2		60.4		1.7	4.2	1.5	320.8	360.2	0.3	12.1	
3		58.0		1.8	6.7	1.5	300.5	339.8	0.3	11.8	
4											
AV	59.9			1.6	6.3	1.6	318.5	322.7	0.3	12.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	497.5	180.0	213.7	73.1	100.3	108.8	0.0	55.4	316.8	32.2	85.3	24.0	G R E E N
	563.1	210.2	247.3	83.2	107.6	114.5	0.0	53.1	320.5	33.6	91.2	24.7	
	536.0	184.9	224.9	78.1	98.3	108.8	0.0	50.6	315.7	33.2	91.2	25.2	
AV	532	192	229	78	102	111	0	53	318	33	89	25	
	29	63	103	21	8	8	5	38	551	27	109	11	Y E L L O W
	25	51	99	21	8	8	4	29	521	25	112	12	
	29	55	100	21	8	8	5	32	534	27	110	13	
AV	28	56	101	21	8	8	5	33	535	26	110	12	

Accession No. 12.211

Record No. 963

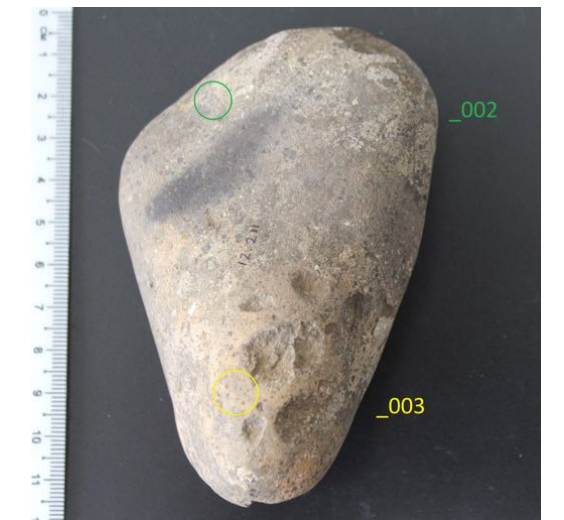
pXRF_0038_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method Excavation
 Place Collected Matantas TP21 Layer 2
 Material Stone
 Object Hammerstone
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group Vanuatu Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 52 basalt Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		54.8		-0.7	7.6	2.3	381.0	536.2	0.3	15.1	V A C U U M * G R E E N
2		56.2		0.4	7.8	1.7	362.5	500.0	0.3	13.6	
3		46.1		0.8	5.7	1.5	352.8	559.1	0.3	14.7	
4											
AV		52.4		0.2	7.0	1.8	365.5	531.8	0.3	14.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	525.5	159.8	264.6	69.5	100.5	106.8	0.0	32.9	242.7	36.0	56.9	23.5	G R E E N
	558.0	179.3	232.1	81.1	105.7	113.5	0.0	35.1	230.5	35.3	50.7	24.1	
	613.0	172.1	312.7	81.9	102.6	107.2	0.0	35.8	224.0	33.3	68.1	21.6	
AV 566	170	270	78	103	109	0	35	232	35	59	23		
	97	25	117	19	8	9	2	9	400	28	43	9	Y E L L O W
	77	36	95	19	7	7	1	8	447	27	47	8	
	140	29	108	17	8	8	2	9	416	25	38	8	
AV 105	30	107	18	8	8	2	9	421	26	43	9		

Accession No. VAO 3366

Record No. 964

pXRF_0039_ANU

Museum Vanuatu Cultural Centre

Date Acquired by Museum

Collector

Date Collected 05.11.2004

Collection Method Excavation

Place Collected VAO TP26

Material Stone

Object Adze

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 50	basalt	Cross Section Shape

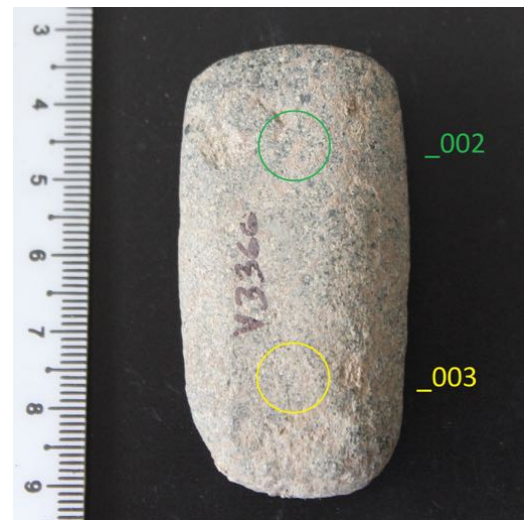
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		47.9		-2.3	9.2	1.6	377.8	483.2	0.3	14.5
2		50.5		-1.8	10.9	1.5	382.5	402.9	0.3	13.4
3		51.6		-1.8	10.0	1.6	372.2	434.8	0.3	14.0
4										
AV	50.0			-2.0	10.0	1.5	377.5	440.3	0.3	14.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	538.3	179.1	207.5	83.0	111.5	120.9	0.0	46.1	345.8	34.4	35.2	23.1
	555.8	204.2	205.8	78.7	106.6	110.3	0.0	44.2	371.1	35.1	33.6	22.2
	554.8	193.6	218.7	81.0	110.5	115.9	0.0	49.6	362.6	33.0	37.6	23.6
AV 550	192	211	81	110	116	0	47	360	34	36	23	
	63	21	89	20	9	12	4	24	670	28	-37	11
	55	25	91	18	9	10	4	28	638	26	-32	10
	61	24	91	19	9	11	3	32	676	28	-29	12
AV 60	24	90	19	9	11	4	28	662	27	-33	11	

Accession No. VAO 523

Record No. 965

pXRF_0040_ANU

Museum Vanuatu Cultural Centre

Date Acquired by Museum

Collector

Date Collected

Collection Method Excavation

Place Collected VAO TP5

Material Stone

Object Adze

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group Vanuatu Middle Max Front Top Max Thickness

TAS (SiO₂) Material 57 andesite Shoulder Front Max Width Cutting Edge to Bevel

Middle Max Back Length Rightangle to Bevel

Cross Section Shape

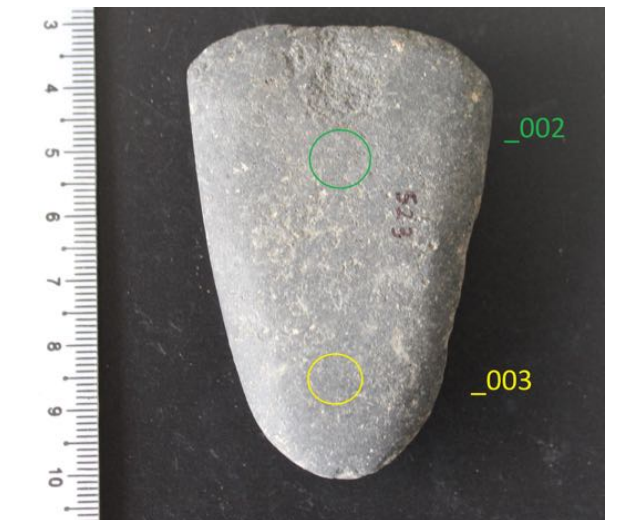
Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA
Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA
No Filter

Obsidian: 40 kV 34 microA
Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		53.9		0.2	14.0	1.7	317.9	415.7	0.2	11.6
2		56.2		0.4	12.3	1.7	326.9	389.5	0.2	11.4
3		60.0		0.6	11.5	1.7	314.4	380.8	0.2	10.9
4										
AV	56.7			0.4	12.6	1.7	319.7	395.3	0.2	11.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	569.3	170.4	217.1	77.0	99.4	110.1	0.0	39.3	295.2	34.7	72.4	25.7
	562.6	178.6	207.0	76.6	99.2	109.2	0.0	39.1	310.2	33.8	66.7	24.6
	574.7	188.5	212.1	72.0	99.2	108.1	0.0	36.8	308.0	34.7	70.9	25.9
AV 569	179	212	75	99	109	0	38	304	34	70	25	
	124	41	96	21	7	7	3	14	512	26	74	13
	84	42	100	20	8	8	2	13	543	26	56	13
	83	49	96	19	7	7	3	14	511	25	67	13
AV 97	44	97	20	7	8	3	13	522	26	66	13	

Accession No. [16.468]

Record No. 966

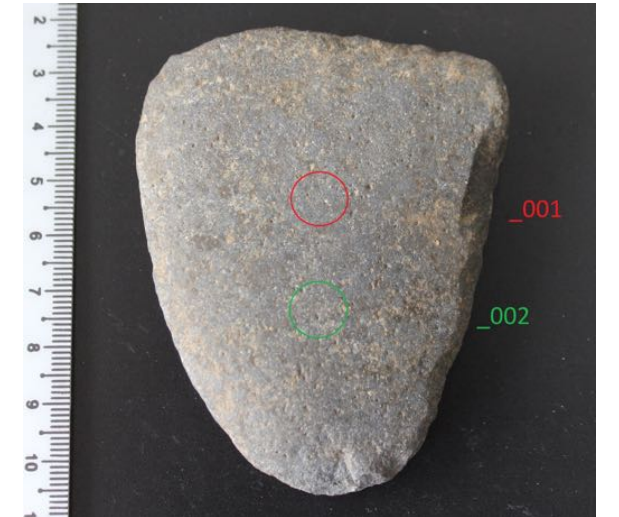
pXRF_0041_ANU

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector F. Valentine
 Date Collected 24.06.2010
 Collection Method Excavation
 Place Collected Teouma 2010 3B
 Material Stone
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group Vanuatu Middle Max Front Top Max Thickness
 TAS (SiO₂) Material 46 basalt Cutting Edge to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		50.0		-0.9	8.1	1.6	371.7	338.1	0.3	14.7	V A C U U M * G R E E N
2		42.5		-0.5	8.2	1.6	376.5	387.3	0.3	14.0	
3		47.0		-0.9	8.1	1.6	376.7	363.5	0.3	15.0	
4											
AV		46.5		-0.7	8.2	1.6	375.0	363.0	0.3	14.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	540.6	193.4	241.8	79.4	108.2	115.3	0.0	42.9	409.8	34.7	43.4	23.4	G R E E N
	590.9	232.5	251.8	101.5	118.3	128.0	0.0	44.4	423.7	34.7	49.4	23.5	
	533.1	204.7	238.0	85.0	110.3	118.6	0.0	43.4	394.8	34.4	42.9	23.4	
AV 555	210	244	89	112	121	0	44	409	35	45	23		
	39	66	103	22	9	11	3	24	747	30	-5	12	Y E L L O W
	40	56	100	23	8	11	4	23	750	31	-6	13	
	43	107	98	21	8	12	3	20	735	27	-7	12	
AV 41	77	100	22	8	11	3	22	744	29	-6	12		

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector Kaltamat
 Date Collected 23.06.09
 Collection Method Excavation
 Place Collected Teouma 3A 5.6 Layer 3
 Material Jade
 Object Adze
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Island Group Vanuatu Middle Max Front Top Max Thickness
 TAS (SiO₂) Material 68 dacite Cutting Edge to Bevel
 Length Rightangle to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		69.6		-1.1	7.2	0.9	198.6	295.9	0.3	8.4	V A C U U M * G R E E N
2		64.6		-0.9	6.6	0.9	195.3	286.9	0.3	8.1	
3		70.8		-0.9	6.2	0.9	195.3	274.5	0.3	7.9	
4											
AV		68.3		-1.0	6.7	0.9	196.4	285.8	0.3	8.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	538.6	179.4	185.0	58.7	91.6	95.3	0.0	30.6	74.9	46.1	125.6	25.0	G R E E N
	529.0	173.0	175.2	63.0	96.8	102.2	0.0	30.8	71.8	44.0	123.7	24.5	
	554.0	181.3	186.1	60.8	92.4	96.9	0.0	29.6	73.5	44.9	125.1	24.9	
AV 541	178	182	61	94	98	0	30	73	45	125	25		
	62	56	90	17	8	6	-0	4	84	60	228	8	Y E L L O W
	58	53	91	17	8	6	-1	2	83	54	216	6	
	57	52	92	18	8	6	-1	3	82	52	217	6	
AV 59	53	91	17	8	6	-1	3	83	55	220	7		

Accession No. no number

Record No. 968

pXRF_0043_ANU

Museum Vanuatu Cultural Centre

Date Acquired by Museum

Collector P.N.

Date Collected

Collection Method Excavation

Place Collected Teouma D16 Layer II

Material Stone

Object Adze

Type

Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width

Max Width Bevel Max Thickness Shoulder Max Thickness

Max Thickness Middle Width Middle Max Thickness

Weight (g) Middle Thickness Top Max Width

Island Group Vanuatu Middle Max Front Top Max Thickness

TAS (SiO₂) Material 49 basalt Shoulder Front Max Width Cutting Edge to Bevel

Middle Max Back Length Rightangle to Bevel

Cross Section Shape

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

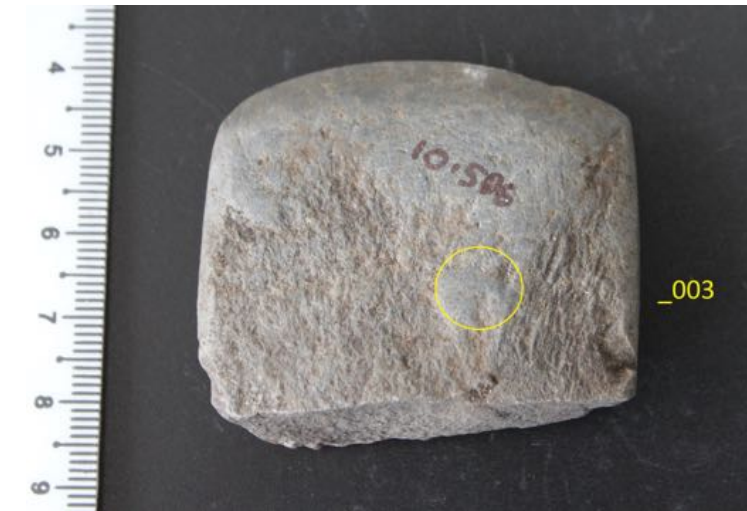
Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1		49.4		-0.9	9.4	1.8	380.2	380.9	0.3	14.4	V A C U U M * G R E E N
2		48.2		-1.3	9.8	1.7	381.7	386.8	0.3	14.4	
3		50.0		-1.2	9.6	1.8	385.8	356.8	0.3	14.6	
4											
AV		49.2		-1.1	9.6	1.8	382.6	374.8	0.3	14.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	538.2	209.1	257.7	83.1	110.2	121.4	0.0	41.0	477.2	34.0	30.9	22.9	G R E E N
	535.6	211.7	250.3	82.8	108.2	116.6	0.0	41.7	491.6	33.9	30.8	21.7	
	552.4	194.4	280.9	80.9	108.5	120.6	0.0	40.3	476.6	33.7	32.7	23.2	
AV	542	205	263	82	109	120	0	41	482	34	31	23	
	71	115	108	21	9	10	3	17	925	27	-56	11	Y E L L O W
	67	111	108	22	8	11	3	17	938	28	-49	10	
	69	112	110	21	8	12	3	18	910	26	-50	10	
AV	69	113	109	21	8	11	3	18	924	27	-52	10	

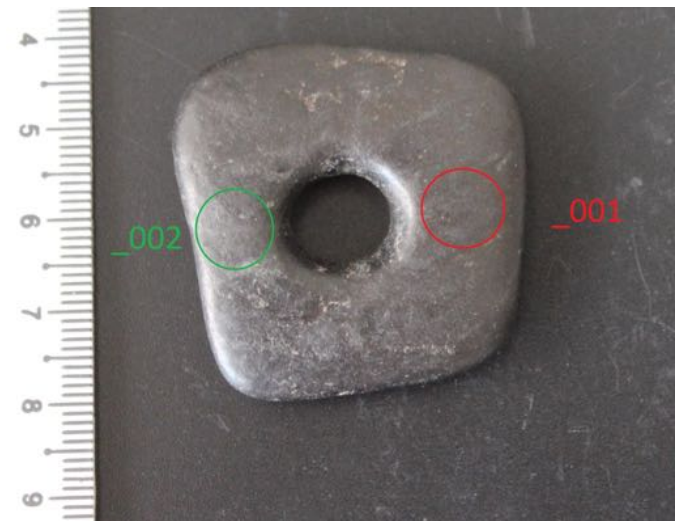


Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Tanna
 Material Stone
 Object Pendant
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length Width Cutting Edge Shoulder Back Max Width
 Max Width Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Island Group Vanuatu Shoulder Front Max Width Cutting Edge to Bevel
 Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material 45 basalt Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		59.3		-1.0	29.0	0.2	50.4	430.1	0.2	5.6
2		10.7		1.1	16.9	0.5	178.4	1610.2	0.2	5.4
3		65.0		-0.7	25.2	0.2	60.1	882.5	0.2	5.8
4										
AV	45.0			-0.2	23.7	0.3	96.3	974.3	0.2	5.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	744.0	189.1	178.3	53.2	101.8	108.9	0.0	30.4	81.7	28.8	26.3	20.6
	595.3	298.6	330.8	86.7	108.4	104.0	0.0	25.2	85.5	26.5	18.2	13.5
	558.4	200.5	227.9	54.7	94.3	98.2	0.0	30.7	83.2	28.2	26.1	21.4
AV	633	229	246	65	102	104	0	29	83	28	24	19
	1207	60	82	15	7	7	-1	3	100	7	10	1
	871	68	89	14	8	6	-0	4	88	8	12	3
	1505	64	88	14	7	6	-1	2	101	7	13	2
AV	1194	64	86	15	8	6	-1	3	96	7	12	2

GREEN*

GREEN

YELLOW

Museum: Vanuatu Cultural Centre
 Date Acquired by Museum:
 Collector:
 Date Collected:
 Collection Method:
 Place Collected: Tanna
 Material: Jade
 Object: Pendant
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): Middle Thickness, Top Max Width
 Island Group: Vanuatu, Middle Max Front, Top Max Thickness
 Material: basaltic andesite, Shoulder Front Max Width, Cutting Edge to Bevel
 TAS (SiO₂): 56, Middle Max Back, Length Rightangle to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		55.0		-1.1	30.4	0.2	60.9	1623.5	0.2	5.6
2		57.3		-1.1	30.3	0.2	50.5	1182.3	0.2	5.5
3		54.5		-1.1	30.6	0.2	45.8	1368.0	0.2	5.6
4										
AV		55.6		-1.1	30.4	0.2	52.4	1391.3	0.2	5.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	225.4	226.7	175.9	62.0	108.6	113.2	0.0	31.6	113.8	29.9	25.2	20.4
	424.8	211.3	152.6	52.0	100.8	109.9	0.0	31.1	116.0	28.6	25.6	20.1
	662.2	205.0	179.0	55.4	99.0	105.8	0.0	30.6	116.8	29.1	23.7	20.0
AV 437	214	169	56	103	110	0	31	116	29	25	20	
	2787	85	70	15	10	8	-0	3	166	10	-3	3
	2569	85	69	15	8	8	0	3	167	10	-4	5
	1790	79	78	15	8	7	0	4	162	9	-1	3
AV 2382	83	72	15	9	8	0	3	165	10	-3	4	

Museum Vanuatu Cultural Centre
 Date Acquired by Museum
 Collector
 Date Collected
 Collection Method
 Place Collected Tanna
 Material Stone
 Object Pendant
 Type
 Additional Museum Notes Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group Vanuatu	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material 59	andesite	Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1		58.4		-1.4	21.7	0.3	74.9	860.4	0.3	7.5
2		59.1		-1.2	21.4	0.3	74.0	788.7	0.3	7.4
3		58.4		-1.1	21.5	0.3	70.1	771.3	0.3	7.3
4										
AV		58.6		-1.2	21.5	0.3	73.0	806.8	0.3	7.4

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	734.7	166.5	469.6	49.6	97.1	104.9	0.0	29.5	59.6	30.6	27.3	20.8
	737.8	166.9	267.7	52.3	104.0	111.5	0.0	30.4	61.3	30.3	24.9	20.9
	735.2	177.2	231.1	52.0	99.9	106.1	0.0	30.7	61.1	30.6	25.3	19.7
AV 736	170	323	51	100	107	0	30	61	31	26	20	
	1201	52	185	9	17	16	0	2	64	13	21	3
	1063	54	149	11	11	9	-0	3	64	11	23	4
	1265	55	105	14	12	12	-0	3	65	11	20	2
AV 1176	54	146	11	13	13	-0	3	65	12	21	3	

Accession No. MTQ MA1387

Record No. 975

pXRF_0003_MTQ

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): Middle Thickness, Top Max Width
 Island Group: Middle Max Front, Top Max Thickness
 Society Is.: Shoulder Front Max Width, Cutting Edge to Bevel
 TAS (SiO₂) Material: Middle Max Back, Length Rightangle to Bevel
 47 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.0	47.5		2.0	10.9	4.2	379.0	39.0	0.2	13.0	V A C U U M * G R E E N
2	14.4	46.3		2.0	10.7	4.2	419.7	-4.9	0.2	13.1	
3	15.2	47.0		2.0	10.7	4.2	369.1	58.6	0.2	13.0	
4											
AV	14.9	46.9		2.0	10.8	4.2	389.3	30.9	0.2	13.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	98.3	532.4	265.7					40.7	910.9	41.6	336.6	51.2	G R E E N
	63.9	345.4	239.4					44.4	925.8	38.4	336.0	51.1	
	53.6	301.4	238.8					45.9	899.2	38.3	346.7	52.7	
AV	72	393	248					44	912	39	340	52	

	Y	Zr	Nb	
				Y E L L O W
AV				

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-E (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): Middle Thickness, Top Max Width
 Island Group: Society Is., Middle Max Front, Top Max Thickness
 TAS (SiO₂) Material: 37, foidite, Shoulder Front Max Width, Cutting Edge to Bevel
 Cross Section Shape, Length Rightangle to Bevel, Middle Max Back

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.3	37.7		2.6	10.5	3.6	304.7	26.4	0.2	12.0	V A C U U M * G R E E N
2	14.1	36.2		2.7	10.6	3.7	320.8	47.9	0.2	12.4	
3	14.0	37.3		2.4	10.7	3.6	338.5	53.7	0.2	12.4	
4											
AV	14.1	37.1		2.6	10.6	3.7	321.3	42.7	0.2	12.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	28.5	598.1	832.0					66.9	875.3	39.8	338.7	76.0
	49.5	-3.9	840.2					63.4	934.5	40.9	344.9	89.5
	50.6	39.0	815.1					68.5	943.3	41.4	350.2	84.5
AV	43	211	829					66	918	41	345	83



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb

AV

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavated
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group	Middle Max Back	Length Rightangle to Bevel
Society Is.		Cross Section Shape
TAS (SiO ₂) Material	39	foidite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	13.9	38.8		2.2	11.9	4.7	527.8	69.6	0.2	12.7
2	14.5	36.3		2.3	12.0	4.7	514.4	120.7	0.2	12.9
3	13.4	41.1		2.1	11.3	4.3	455.6	60.6	0.2	12.3
4										
AV	13.9	38.7		2.2	11.7	4.6	499.3	83.6	0.2	12.6

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	57.9	144.8	475.5					64.0	843.8	38.3	288.2	71.1
	59.1	153.2	457.0					62.2	881.6	41.5	291.2	69.0
	48.9	135.7	409.3					67.2	854.8	40.3	284.7	73.0
AV	55	145	447					64	860	40	288	71



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												

AV

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): Middle Thickness, Top Max Width
 Island Group: Society Is., Middle Max Front, Top Max Thickness
 TAS (SiO₂) Material: 43, Middle Max Back, Cutting Edge to Bevel
 Micro-basalt / basanite, Length Rightangle to Bevel, Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.1	42.9		1.8	11.7	3.7	408.3	145.5	0.1	11.2	V A C U U M * G R E E N
2	14.5	42.2		1.8	11.6	3.6	394.3	106.8	0.1	11.1	
3	14.3	43.1		1.7	11.5	3.6	351.9	95.6	0.1	10.8	
4											
AV	14.3	42.8		1.8	11.6	3.6	384.8	115.9	0.1	11.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	62.3	169.8	388.7					37.1	851.6	46.5	322.3	49.7	G R E E N
	91.0	128.7	441.2					44.5	879.3	45.0	333.9	51.0	
	87.3	154.5	361.8					43.4	880.0	45.8	333.8	49.1	
AV	80	151	397					42	870	46	330	50	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group: Society Is.	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material: 44	Cross Section Shape: <input type="text" value="micro-basalt / basanite"/>	

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	11.7	43.7		1.5	13.7	4.6	566.7	134.3	0.1	14.5
2	10.9	44.6		1.5	14.1	4.4	518.9	224.7	0.1	14.1
3	10.8	42.6		1.5	13.7	4.3	472.5	289.0	0.1	14.6
4										
AV	11.1	43.6		1.5	13.8	4.4	519.3	216.0	0.1	14.4

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	101.5	826.5	366.8					37.4	650.0	39.2	243.4	44.0
	86.5	413.8	348.5					37.2	676.9	35.3	257.3	52.2
	103.3	385.2	321.1					35.4	616.6	27.2	234.3	46.9
AV	97	542	345					37	648	34	245	48

GREEN

YELLOW



AV

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group	Middle Max Back	Length Rightangle to Bevel
Society Is.		Cross Section Shape
TAS (SiO ₂) Material	41	picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.9	41.8		1.8	11.5	4.2	406.4	56.2	0.1	10.9	V A C U U M * G R E E N
2	13.7	41.0		1.8	11.5	4.0	354.2	21.0	0.1	9.9	
3	13.4	40.9		1.8	11.2	3.9	408.7	-3.2	0.1	9.6	
4											
AV	13.7	41.2		1.8	11.4	4.0	389.8	24.6	0.1	10.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	89.5	1425.3	504.8					45.1	886.5	58.8	325.3	48.0	G R E E N
	95.4	1134.6	457.0					47.2	917.8	65.8	322.0	43.8	
	108.8	1200.3	471.9					48.1	860.8	69.8	311.7	43.9	
AV	98	1253	478					47	888	65	320	45	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Pounder
 Type: Maupiti (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group	Middle Max Back	Length Rightangle to Bevel
Society Is.		Cross Section Shape
TAS (SiO ₂) Material	45	basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	16.1	43.5		2.0	8.4	2.9	378.7	97.7	0.1	12.6
2	15.7	44.5		2.0	8.3	2.8	323.0	143.0	0.1	12.2
3	15.6	46.6		2.1	8.1	3.1	307.1	60.6	0.1	10.2
4										
AV	15.8	44.9		2.0	8.3	2.9	336.3	100.5	0.1	11.7

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	130.4	529.2	372.9					46.0	554.2	43.3	291.9	40.0
	108.3	390.6	287.1					45.8	570.4	39.4	293.2	40.5
	70.1	294.3	326.5					48.4	547.8	42.6	310.0	45.2
AV	103	405	329					47	557	42	298	42



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AV

VACUUM GREEN*

GREEN

YELLOW

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): Middle Thickness, Top Max Width
 Island Group: Middle Max Front, Top Max Thickness
 Society Is.: Shoulder Front Max Width, Cutting Edge to Bevel
 TAS (SiO₂) Material: Middle Max Back, Length Rightangle to Bevel
 43: Cross Section Shape
 Input: micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.4	42.3		1.6	8.2	4.0	316.1	154.7	0.1	8.0	V A C U U M * G R E E N
2	14.4	43.2		1.5	8.3	4.0	285.8	151.1	0.2	6.9	
3	14.8	43.2		1.6	8.3	4.1	251.2	181.5	0.1	6.4	
4											
AV	14.5	42.9		1.6	8.2	4.0	284.4	162.4	0.2	7.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	50.7	2294.2	469.1					40.1	1264.9	52.2	402.9	100.7	G R E E N
	60.4	1686.1	431.6					45.7	1247.3	49.3	415.7	104.3	
	74.9	2102.1	410.6					43.6	1336.5	55.5	411.2	105.9	
AV	62	2027	437					43	1283	52	410	104	

													Y E L L O W
AV													

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): Middle Thickness, Top Max Width
 Island Group: Society Is., Middle Max Front, Top Max Thickness
 TAS (SiO₂) Material: 47, basalt, Shoulder Front Max Width, Cutting Edge to Bevel
 Middle Max Back, Length Rightangle to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.3	45.8		2.4	11.0	4.2	402.7	17.6	0.2	13.0	V A C U U M * G R E E N
2	15.4	46.9		2.6	10.9	4.4	423.0	5.4	0.2	12.9	
3	14.6	47.5		2.4	11.0	4.2	415.1	7.1	0.2	12.7	
4											
AV	14.8	46.7		2.5	11.0	4.3	413.6	10.0	0.2	12.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	80.3	198.7	230.4					54.3	886.3	35.2	284.7	65.4	G R E E N
	84.5	165.1	213.9					63.9	890.1	38.9	271.7	69.7	
	57.2	190.5	222.6					53.3	820.5	32.5	266.8	64.9	
AV	74	185	222					57	866	36	274	67	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													



Accession No. MTQ MA7721

Record No. 993

pXRF_0021_MTQ

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavated
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): 950, Middle Thickness, Top Max Width
 Island Group: Society Is., Middle Max Front, Top Max Thickness
 TAS (SiO₂) Material: 41, Shoulder Front Max Width, Cutting Edge to Bevel
 Middle Max Back, Length Rightangle to Bevel
 Cross Section Shape

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.3	40.9		2.4	11.4	4.3	291.3	41.4	0.2	11.3
2	14.6	40.3		2.4	11.2	4.2	299.0	60.4	0.2	11.3
3	14.4	41.5		2.0	10.6	3.6	317.4	15.1	0.2	11.9
4										
AV	14.4	40.9		2.3	11.1	4.0	302.6	39.0	0.2	11.5

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	82.7	141.0	256.7					53.4	828.6	34.5	291.0	54.6
	73.4	244.5	232.9					55.4	739.8	39.7	294.0	59.5
	69.1	211.6	171.7					60.6	849.6	37.2	286.8	56.2
AV	75	199	220					56	806	37	291	57

GREEN

YELLOW

AV

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 2-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): 100, Middle Thickness, Top Max Width
 Island Group: Society Is., Middle Max Front, Top Max Thickness
 TAS (SiO₂) Material: 44, Shoulder Front Max Width, Cutting Edge to Bevel
 Middle Max Back, Length Rightangle to Bevel
 Cross Section Shape

micro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.6	43.1		1.5	8.5	4.4	395.6	85.5	0.1	14.7	▲ GREEN * V A C U U M ▼
2	15.7	45.1		1.8	7.8	4.0	355.9	68.2	0.2	14.0	
3	16.6	43.6		1.5	8.7	4.4	383.0	115.3	0.1	14.1	
4											
AV	15.9	43.9		1.6	8.3	4.3	378.2	89.7	0.1	14.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	44.6	992.3	258.4					43.3	726.8	57.6	385.5	43.2	▲ GREEN R E E N ▼
	57.2	537.3	282.2					46.2	749.7	54.8	397.6	46.6	
	48.1	621.6	419.6					40.3	759.4	56.3	384.9	42.1	
AV	50	717	320					43	745	56	389	44	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW E L L O W ▼
AV													

AV

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): 700, Middle Thickness, Top Max Width
 Island Group: Society Is., Middle Max Front, Top Max Thickness
 TAS (SiO₂) Material: 43, Shoulder Front Max Width, Cutting Edge to Bevel
 Middle Max Back, Length Rightangle to Bevel
 Cross Section Shape

picro-basalt / basanite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.3	44.6		1.3	12.4	3.5	315.3	208.7	0.1	10.8	GREEN* V A C U U M
2	13.9	42.1		1.5	12.2	3.9	292.6	88.5	0.1	11.5	
3	13.2	41.1		1.5	12.6	4.0	376.5	112.3	0.1	12.8	
4											
AV	13.1	42.6		1.4	12.4	3.8	328.1	136.5	0.1	11.7	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	140.4	505.2	176.5					34.9	697.4	37.7	289.0	41.1
	104.5	462.0	165.8					40.0	794.2	44.6	311.7	48.9
	123.2	872.0	188.6					42.3	783.0	40.8	305.9	45.4
AV	123	613	177					39	758	41	302	45



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
AV												

AV

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: 3-A (G&R)
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): 350, Middle Thickness, Top Max Width
 Island Group: Society Is., Middle Max Front, Top Max Thickness
 TAS (SiO₂) Material: 40, foidite, Shoulder Front Max Width, Cutting Edge to Bevel
 Middle Max Back, Length Rightangle to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.6	39.7		2.0	11.8	3.7	401.6	15.4	0.2	13.2	V A C U U M * G R E E N
2	12.9	40.3		1.7	11.1	3.3	316.2	99.7	0.2	13.3	
3	13.8	39.5		1.9	11.0	3.5	424.7	47.9	0.2	14.4	
4											
AV	13.5	39.9		1.9	11.3	3.5	380.8	54.3	0.2	13.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	90.2	5786.7	178.1					56.2	881.1	39.1	313.5	65.2	G R E E N
	65.2	1106.8	142.4					49.7	907.6	39.2	320.9	61.1	
	83.1	54767.2	215.5					51.7	816.5	39.4	312.8	64.3	
AV	79	20554	179					53	868	39	316	64	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													Y E L L O W
AV													

AV

Museum: Museum of Tropical QLD
 Date Acquired by Museum: 1998
 Collector: Museum of QLD
 Date Collected: 1791
 Collection Method: Excavation
 Place Collected: Pandora
 Material: Basalt
 Object: Adze
 Type: Tang
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): 150, Middle Thickness, Top Max Width
 Island Group: Society Is., Middle Max Front, Top Max Thickness
 TAS (SiO₂) Material: 49, basalt, Shoulder Front Max Width, Cutting Edge to Bevel
 Cross Section Shape: Triangular, Length Rightangle to Bevel

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.9	47.7		4.3	6.9	2.4	288.5	30.3	0.1	6.4	▲ GREEN* V A C U U M ▼
2	16.9	48.6		4.4	6.6	2.5	230.7	21.1	0.2	5.9	
3	15.9	49.4		4.2	6.7	2.4	227.0	20.7	0.2	5.9	
4											
AV	16.2	48.6		4.3	6.7	2.4	248.7	24.1	0.2	6.1	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	60.2	601.9	206.3					129.1	1411.8	51.0	590.6	134.9	▲ GREEN ▼
	62.8	417.8	208.5					114.8	1410.4	51.8	603.7	147.9	
	66.3	350.5	220.2					116.0	1388.1	55.6	586.3	138.3	
AV	63	457	212					120	1403	53	594	140	



	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													▲ YELLOW ▼
AV													

AV

Museum: Macleay Museum
 Date Acquired by Museum: 1985
 Collector: Fr Eugene Stockton
 Date Collected: By 1985
 Collection Method: Unknown
 Place Collected: New Zealand
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)		
Max Length	130	Width Cutting Edge
Max Width	55	Bevel Max Thickness
Max Thickness	25	Middle Width
Weight (g)		Middle Thickness
Island Group	New Zealand	Middle Max Front
TAS (SiO ₂) Material	58	Shoulder Front Max Width
	andesite	Middle Max Back

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.0	59.7		2.7	2.9	0.4	55.9	29.6	0.1	3.0
2	14.6	58.8		2.8	3.4	0.4	78.6	-7.8	0.1	3.2
3	14.3	56.7		2.5	4.0	0.4	56.3	47.6	0.1	2.8
4										
AV	14.3	58.4		2.7	3.4	0.4	63.6	23.2	0.1	3.0

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	10.9	50.8	88.5					102.8	481.8	19.4	225.9	7.8
	25.5	42.9	202.9					97.8	493.1	16.4	146.2	8.0
	17.0	92.3	72.9					98.4	498.8	18.1	173.2	7.9
AV	18	62	121					100	491	18	182	8

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AV

V A C U U M * GREEN*

GREEN

YELLOW

Accession No. MAC ET2014.418

Record No. 1009

pXRF_0006_MAC

Museum: Macleay Museum
 Date Acquired by Museum: 1985
 Collector: Fr Eugene Stockton
 Date Collected: By 1985
 Collection Method: Unknown
 Place Collected: Melanesia
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)		
Max Length	80	Width Cutting Edge
Max Width	45	Bevel Max Thickness
Max Thickness	20	Middle Width
Weight (g)		Middle Thickness
		Middle Max Front
		Shoulder Front Max Width
Island Group		Middle Max Back
TAS (SiO ₂) Material	51	basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.5	55.2		1.4	7.3	0.7	133.3	19.3	0.1	6.6	V A C U U M * G R E E N
2	15.6	47.7		1.6	7.8	0.7	175.5	48.5	0.1	7.0	
3	16.1	48.7		1.4	7.9	0.7	124.2	84.8	0.2	6.9	
4											
AV	15.4	50.5		1.5	7.6	0.7	144.3	50.8	0.1	6.8	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	20.7	202.5	90.2					46.0	416.5	17.4	119.4	5.4	G R E E N
	20.4	914.3	172.8					50.9	396.3	18.6	157.4	2.7	
	44.6	1108.6	188.7					53.2	399.8	19.1	149.3	3.7	
AV	29	742	151					50	404	18	142	4	

													Y E L L O W
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AV

Museum: Macleay Museum
 Date Acquired by Museum: 1960-1964
 Collector: Uni Sydney Geological
 Date Collected: By 1960
 Collection Method: Unknown
 Place Collected:
 Material: Stone
 Object: Hammer stone
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: 101
 Max Width: 71
 Max Thickness:
 Weight (g):
 Island Group:
 TAS (SiO₂) Material: 56
 Width Cutting Edge
 Bevel Max Thickness
 Middle Width
 Middle Thickness
 Middle Max Front
 Shoulder Front Max Width
 Middle Max Back
 basaltic andesite
 Shoulder Back Max Width
 Shoulder Max Thickness
 Middle Max Thickness
 Top Max Width
 Top Max Thickness
 Cutting Edge to Bevel
 Length Rightangle to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.9	58.1		1.5	2.8	1.1	179.5	108.7	0.1	9.1	V A C U U M * G R E E N
2	15.1	55.1		1.5	3.1	1.1	166.0	122.8	0.2	9.2	
3	14.7	55.0		1.5	3.4	1.1	172.6	45.8	0.1	8.7	
4											
AV	14.9	56.1		1.5	3.1	1.1	172.7	92.5	0.1	9.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	18.8	20.4	139.5					8.4	167.3	22.9	52.7	2.0
	17.9	19.9	151.8					9.8	157.0	21.7	64.5	2.9
	-1.9	49.1	162.3					8.7	156.8	28.2	61.6	2.8
AV	12	30	151					9	160	24	60	3

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb

AV

Y
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Museum: Macleay Museum
 Date Acquired by Museum: 1960-1964
 Collector: Uni Sydney Geology Dept.
 Date Collected: By 1960
 Collection Method: Unknown
 Place Collected: Unknown
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)		
Max Length	80	Width Cutting Edge
Max Width	41	Bevel Max Thickness
Max Thickness		Middle Width
Weight (g)		Middle Thickness
		Middle Max Front
		Shoulder Front Max Width
Island Group		Middle Max Back
TAS (SiO ₂) Material	53	basaltic andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.9	53.3		0.8	6.2	1.4	388.6	29.1	0.3	11.6	V A C U U M * G R E E N
2	14.5	54.4		0.8	5.6	1.3	293.0	71.6	0.3	10.2	
3	14.4	52.0		0.8	6.3	1.2	260.5	25.8	0.3	8.2	
4											
AV	13.9	53.3		0.8	6.0	1.3	314.0	42.1	0.3	10.0	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	21.5	152.4	164.1					5.6	115.5	12.8	58.0	0.9	G R E E N
	26.8	155.1	157.7					4.0	114.1	17.0	55.8	3.3	
	19.5	148.7	187.3					6.9	105.2	15.1	51.5	2.0	
AV	23	152	170					6	112	15	55	2	

														Y E L L O W

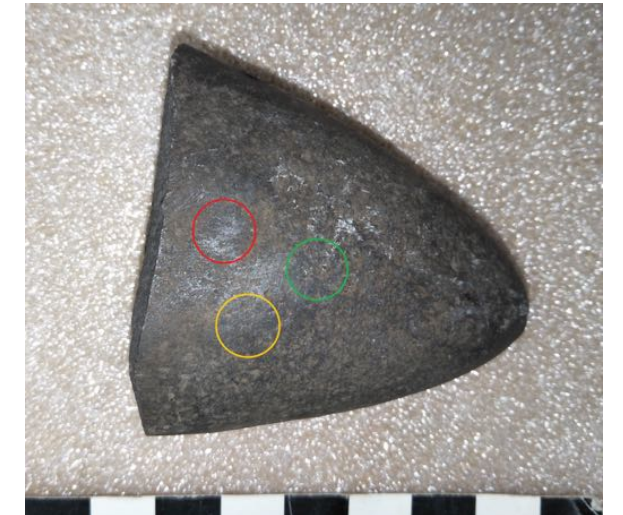
AV

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected:
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: 53 Width Cutting Edge Shoulder Back Max Width
 Max Width: 51 Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material: 44 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil Vacuum: 15 kV 25 microA No Filter Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	12.4	42.9		0.7	12.7	0.5	268.4	274.7	0.2	10.1	V A C U U M * G R E E N
2	12.7	45.3		0.7	13.1	0.5	300.0	267.4	0.2	10.3	
3	12.1	44.3		0.6	13.0	0.5	299.4	284.6	0.2	10.7	
4											
AV	12.4	44.2		0.7	12.9	0.5	289.2	275.6	0.2	10.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	77.8	122.2	225.8					12.0	468.7	29.0	40.8	1.8
	119.3	87.9	228.0					11.2	489.4	29.8	41.1	1.2
	80.8	105.5	199.4					8.7	435.2	36.4	44.1	-1.5
AV	93	105	218					11	464	32	42	1

AV												

AV

Accession No. MAC ETF.2000

Record No. 1023

pXRF_0020_MAC

Museum: Macleay Museum

Date Acquired by Museum: 1976

Collector: Miss J Arnold

Date Collected: By 1976

Collection Method: Unknown

Place Collected:

Material: Stone

Object: Adze

Type:

Additional Museum Notes: Yes No

Measurements (mm)

Max Length	320	Width Cutting Edge		Shoulder Back Max Width	
Max Width	100	Bevel Max Thickness		Shoulder Max Thickness	
Max Thickness		Middle Width		Middle Max Thickness	
Weight (g)	265	Middle Thickness		Top Max Width	
		Middle Max Front		Top Max Thickness	
		Shoulder Front Max Width		Cutting Edge to Bevel	
Island Group		Middle Max Back		Length Rightangle to Bevel	
TAS (SiO ₂) Material	43			Cross Section Shape	

picro-basalt / basanite

Location of pXRF Samples:

Red: 01

Green: 02

Yellow: 03

Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil

Vacuum: 15 kV 25 microA No Filter

Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.6	42.2		1.3	9.3	2.2	169.5	220.7	0.2	12.3
2	15.9	42.6		1.1	9.2	2.2	198.5	178.7	0.2	11.2
3	15.6	43.3		1.1	9.3	2.2	178.1	198.0	0.2	11.7
4										
AV	15.4	42.7		1.1	9.3	2.2	182.1	199.1	0.2	11.7

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	47.2	47.2	156.8					52.6	627.1	29.8	257.9	22.4
	70.1	37.7	195.7					57.4	568.3	35.8	295.3	26.1
	66.3	42.1	164.6					48.7	643.7	34.7	307.0	30.4
AV	61	42	172					53	613	33	287	26

GREEN

YELLOW

AV

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected: Fiji
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: 112 Width Cutting Edge Shoulder Back Max Width
 Max Width: 60 Bevel Max Thickness Shoulder Max Thickness
 Max Thickness Middle Width Middle Max Thickness
 Weight (g) Middle Thickness Top Max Width
 Middle Max Front Top Max Thickness
 Shoulder Front Max Width Cutting Edge to Bevel
 Island Group Middle Max Back Length Rightangle to Bevel
 TAS (SiO₂) Material: 53 basaltic andesite Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil Vacuum: 15 kV 25 microA No Filter Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	14.3	52.1		1.1	6.3	0.7	226.2	-6.3	0.2	9.0	▲ GREEN* VACUUM ▼
2	16.4	52.2		1.2	5.7	0.8	228.7	62.3	0.2	9.7	
3	15.5	55.3		0.7	6.0	0.8	275.3	55.8	0.2	10.1	
4											
AV	15.4	53.2		1.0	6.0	0.8	243.4	37.3	0.2	9.6	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	18.8	19.1	180.5					1.8	94.6	31.2	51.4	2.4	▲ GREEN ▼
	18.7	36.3	140.2					9.7	89.2	25.5	48.4	1.0	
	7.0	27.0	128.7					8.9	80.3	24.5	49.9	3.4	
AV	15	27	150					7	88	27	50	2	

													▲ YELLOW ▼
AV													

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected: Fiji
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: 123
 Max Width: 49
 Max Thickness:
 Weight (g):
 Island Group:
 TAS (SiO₂) Material: 45
 Width Cutting Edge
 Bevel Max Thickness
 Middle Width
 Middle Thickness
 Middle Max Front
 Shoulder Front Max Width
 Middle Max Back
 Shoulder Back Max Width
 Shoulder Max Thickness
 Middle Max Thickness
 Top Max Width
 Top Max Thickness
 Cutting Edge to Bevel
 Length Rightangle to Bevel
 Cross Section Shape

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.6	46.8		0.4	11.1	1.0	302.1	200.9	0.2	11.5
2	14.1	42.8		0.7	12.2	0.9	265.5	263.9	0.2	11.0
3	15.0	44.0		0.5	11.8	1.1	341.1	463.7	0.2	12.3
4										
AV	14.5	44.5		0.5	11.7	1.0	302.9	309.5	0.2	11.6

VACUUM GREEN*



Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	107.2	77.2	173.7					5.1	269.6	26.0	58.1	-0.7
	91.7	30.8	206.5					3.3	248.6	19.4	50.1	3.4
	94.2	45.0	221.0					4.0	271.7	20.9	55.2	2.9
AV	98	51	200					4	263	22	54	2

GREEN

YELLOW

AV

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected: Fiji
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: 151
 Max Width: 54
 Max Thickness:
 Weight (g):
 Island Group:
 TAS (SiO₂) Material: 47
 Width Cutting Edge
 Bevel Max Thickness
 Middle Width
 Middle Thickness
 Middle Max Front
 Shoulder Front Max Width
 Middle Max Back
 Shoulder Back Max Width
 Shoulder Max Thickness
 Middle Max Thickness
 Top Max Width
 Top Max Thickness
 Cutting Edge to Bevel
 Length Rightangle to Bevel
 Cross Section Shape

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.8	46.6		0.2	10.8	0.9	228.2	212.4	0.2	9.7
2	15.7	44.4		0.3	11.2	1.0	270.1	234.2	0.2	10.0
3	15.7	48.9		0.1	10.5	1.0	290.2	271.0	0.2	10.0
4										
AV	15.4	46.6		0.2	10.8	1.0	262.8	239.2	0.2	9.9

VACUUM GREEN*

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	94.3	46.0	174.3					1.1	287.8	25.0	77.5	1.6
	99.4	64.6	164.0					4.0	303.2	22.2	75.4	2.1
	98.7	56.9	101.8					1.8	289.0	22.2	70.4	1.8
AV	97	56	147					2	293	23	74	2

GREEN

YELLOW

AV

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected: Fiji
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
Island Group	Shoulder Front Max Width	Cutting Edge to Bevel
TAS (SiO ₂) Material	Middle Max Back	Length Rightangle to Bevel
		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	13.4	35.5		0.5	14.6	0.7	194.0	716.9	0.2	8.3	V A C U U M * G R E E N
2	14.3	38.8		0.4	13.6	0.7	208.5	388.1	0.1	8.4	
3	12.6	35.9		0.4	15.4	0.7	189.7	422.5	0.1	8.7	
4											
AV	13.4	36.7		0.5	14.6	0.7	197.4	509.2	0.1	8.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	111.0	21.5	109.4					1.1	189.9	22.8	49.2	2.0	G R E E N
	134.7	42.2	113.3					1.5	208.6	23.9	52.0	3.9	
	138.9	43.6	91.9					2.1	224.8	20.7	55.2	3.1	
AV	128	36	105					2	208	22	52	3	

														Y E L L O W

AV

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected: New Guinea
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:

Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)
1	14.4	47.4		1.4	8.9	2.3	202.0	47.9	0.1	10.0
2	15.0	48.2		1.4	8.7	1.3	147.4	-8.8	0.1	7.2
3	14.9	46.8		1.4	8.7	2.2	172.5	47.3	0.1	7.8
4										
AV	14.8	47.5		1.4	8.8	1.9	174.0	28.8	0.1	8.3

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb
	29.6	100.6	232.4					46.9	482.1	43.9	234.0	13.8
	25.9	82.7	190.2					49.1	517.7	36.4	262.2	17.5
	26.2	87.1	204.9					44.9	488.9	41.9	251.9	18.0
AV	27	90	209					47	496	41	249	16



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AV

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected:
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: Width Cutting Edge, Shoulder Back Max Width
 Max Width: Bevel Max Thickness, Shoulder Max Thickness
 Max Thickness: Middle Width, Middle Max Thickness
 Weight (g): Middle Thickness, Top Max Width
 Island Group: Middle Max Front, Top Max Thickness
 TAS (SiO₂) Material: Shoulder Front Max Width, Cutting Edge to Bevel
 Middle Max Back, Length Rightangle to Bevel
 Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	-0.4	61.0		0.1	12.2	0.1	-8.7	604.8	0.1	4.4	VACUUM GREEN*
2	-1.2	63.4		0.1	12.4	0.1	34.8	388.1	0.1	4.0	
3	-0.0	60.6		0.1	12.5	0.0	29.0	623.9	0.1	4.4	
4											
AV	-0.6	61.7		0.1	12.4	0.1	18.4	538.9	0.1	4.2	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	1574.2	-91.8	566.4					2.7	26.5	3.8	-1.0	1.5	GREEN
	1001.6	11.7	316.4					-0.5	28.4	11.4	-2.5	1.0	
	1730.1	-114.7	626.4					3.9	30.5	28.9	-0.9	0.3	
AV	1435	-65	503					2	29	15	-1	1	

													YELLOW
AV													



Accession No. MAC ETF.53

Record No. 1037

pXRF_0034_MAC

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected:
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length	Width Cutting Edge	Shoulder Back Max Width
Max Width	Bevel Max Thickness	Shoulder Max Thickness
Max Thickness	Middle Width	Middle Max Thickness
Weight (g)	Middle Thickness	Top Max Width
	Middle Max Front	Top Max Thickness
	Shoulder Front Max Width	Cutting Edge to Bevel
Island Group	Middle Max Back	Length Rightangle to Bevel
TAS (SiO ₂) Material		Cross Section Shape

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.2	50.1		1.2	9.6	1.1	254.5	211.1	0.2	11.0	V A C U U M * G R E E N
2	15.4	51.0		1.0	10.0	1.1	247.9	212.2	0.2	11.0	
3	15.8	52.0		1.4	9.3	1.1	271.8	212.4	0.2	11.7	
4											
AV	15.4	51.0		1.2	9.6	1.1	258.0	211.9	0.2	11.3	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	47.2	76.0	115.5					36.2	487.6	15.1	106.7	8.5	G R E E N
	72.6	55.7	136.2					31.5	502.2	22.2	109.8	2.6	
	53.6	50.3	130.6					56.6	486.1	21.0	124.2	4.1	
AV	58	61	127					41	492	19	114	5	

														Y E L L O W

AV

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected:
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: 58
 Max Width: 43
 Max Thickness:
 Weight (g):
 Island Group:
 TAS (SiO₂) Material: 61
 Width Cutting Edge
 Bevel Max Thickness
 Middle Width
 Middle Thickness
 Middle Max Front
 Shoulder Front Max Width
 Middle Max Back
 Shoulder Back Max Width
 Shoulder Max Thickness
 Middle Max Thickness
 Top Max Width
 Top Max Thickness
 Cutting Edge to Bevel
 Length Rightangle to Bevel
 Cross Section Shape

andesite

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.4	58.5		2.1	6.9	0.5	175.0	127.1	0.1	7.5	VACUUM GREEN*
2	16.1	62.8		2.4	3.9	0.5	124.0	51.6	0.1	4.1	
3	14.8	60.8		2.4	4.0	0.4	93.9	44.7	0.1	4.8	
4											
AV	15.4	60.7		2.3	4.9	0.5	131.0	74.5	0.1	5.5	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	70.5	66.5	118.7					36.7	103.1	28.1	122.4	7.4	GREEN
	28.7	56.1	75.8					37.3	102.5	28.6	176.4	8.4	
	38.9	51.9	78.8					41.9	109.5	27.4	185.2	12.5	
AV	46	58	91					39	105	28	161	9	

													YELLOW

AV

Museum: Macleay Museum
 Date Acquired by Museum: 1865-1892
 Collector: Macleay Family
 Date Collected: By 1865
 Collection Method: Unknown
 Place Collected:
 Material: Stone
 Object: Adze
 Type:
 Additional Museum Notes: Yes No

Measurements (mm)

Max Length: 135
 Max Width: 32
 Max Thickness:
 Weight (g):
 Island Group:
 TAS (SiO₂) Material: 47
 Width Cutting Edge
 Bevel Max Thickness
 Middle Width
 Middle Thickness
 Middle Max Front
 Shoulder Front Max Width
 Middle Max Back
 Shoulder Back Max Width
 Shoulder Max Thickness
 Middle Max Thickness
 Top Max Width
 Top Max Thickness
 Cutting Edge to Bevel
 Length Rightangle to Bevel
 Cross Section Shape

basalt

Location of pXRF Samples:
 Red: 01
 Green: 02
 Yellow: 03
 Blue: 04



Calibrated pXRF Values

Filter Settings:
 Green: 40 kV 30 microA Ti 1 mil, Al 1 mil, Cu 6 mil
 Yellow: 40 kV 15.6 microA Ti 1 mil, Al 12 mil
 Vacuum: 15 kV 25 microA No Filter
 Obsidian: 40 kV 34 microA Ti 1 mil, Al 1 mil, Cu 6 mil

Major elements (wt%)

	Al ₂ O ₃	SiO ₂	P ₂ O ₃	K ₂ O	CaO	TiO ₂	V ₂ O ₅ (ppm)	Cr ₂ O ₃ (ppm)	MnO	Fe ₂ O ₃ (total)	
1	15.4	47.1		0.5	11.3	0.5	165.4	533.0	0.2	13.0	VACUUM GREEN*
2	15.4	48.7		0.6	10.8	0.6	134.8	503.1	0.2	12.5	
3	16.5	45.9		0.5	11.5	0.5	201.3	534.3	0.2	13.1	
4											
AV	15.8	47.2		0.5	11.2	0.5	167.2	523.5	0.2	12.9	

Trace elements (ppm)

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
	930.1	40.7	185.5					2.0	12.9	8.6	15.9	1.9	GREEN
	901.4	29.5	136.3					2.6	11.0	6.1	18.5	2.0	
	960.6	45.6	146.2					1.0	12.8	10.7	16.8	1.8	
AV	931	39	156					2	12	8	17	2	

	Ni	Cu	Zn	Ga	Pb	Pb	Th	Rb	Sr	Y	Zr	Nb	
													YELLOW
AV													



