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A DELICIOUS TORMENT:*

An Analysis of Dental Pathology

on Historic Bahrain

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Canberra

May 1987

NO PAGE NO 8.

A thesis submitted in partial fulfilment of a Master of Arts degree in Biological Anthropology, Department of Prehistory and Anthropology, Faculty of Arts, Australian National University.

* Emerson, W. To Friendship



Except where otherwise acknowledged in the text, this thesis represents my own original work.

Judith Littleton

Abstract

The aim of this study was to trace changes in diet, and subsistence patterns through an analysis of the dental pathology of ancient populations on Bahrain. Samples from the Middle Bronze Age, Iron Age and Middle Islamic Period were used for the analysis.

Eight dental conditions were recorded: attrition, caries, calculus, abscessing, periodontal disease, antemortem tooth loss, dental fluorosis and enamel hypoplasia. Very few differences were noted in the prevalence and pattern of dental diseases between the Bronze and Iron Ages. Individuals in both groups had low degrees of molar wear, frequent caries, very little deposition of calculus, infrequent abscessing, moderate to high levels of periodontal disease and extremely high rates of antemortem tooth loss (even in subadults). This pattern of disease is consistent with a population subsisting upon an agriculture based diet, consisting of non-abrasive food and a high intake of fermentable carbohydrates (possibly dates).

In contrast, in the Islamic period, wear was slightly greater, caries was still frequent but calculus deposits were common resulting in high rates of periodontal disease and antemortem tooth loss. Antemortem tooth was more clearly associated with old age in this group. The differences between this population and the two earlier groups suggests that people in the Islamic period had a more varied and abrasive diet with probably higher intakes of meat, fish and grain products. The evidence for dietary change suggests that, despite differences in ecological conditions between the Bronze and Iron Ages, there was little difference in the subsistence base, while a major change in diet occurred between the Iron Age and Islamic period.

Acknowledgements

Many people have helped in the past two years, particularly in production of this manuscript.

Thanks must go to Bruno Frohlich to whom I now owe several crates of Carlsberg. Not only did he make the material available for study, but then acted as a brutally honest long-distance supervisor.

Shaikha Haya Al-Khalifa and Don Ortner both gave permission for this work to be conducted. My gratitude goes to them and their fellow-workers for putting up with me underfoot. Members of the Bahrain Historical and Archaeological Society cleaned and packed all those boxes of bones. They really did do a good job.

Colin Groves, my supervisor, read the first draft and battled against endless 'ii's and 'however's, no doubt some have escaped his pen, while Mary Lucas Powell, in an amazing act of generosity read the second draft and corrected every reference to 'pathologies'. Thanks to both of you for your patience. Steve Webb has provided a sounding board during the last two years, no doubt his ear has grown longer as a result.

Then there were those endless cups of coffee provided by friends who weathered every crisis and still managed to look interested in decaying teeth.

Finally, thanks to my family who were always there to pick up the pieces.

Table of Contents

Foreword	
1. Introduction	5
2. The Historical and Ecological Background	9
2.1. Geography	9
2.2. Prehistoric Bahrain (Pre-3200 B.C.)	13
2.3. Early to Middle Bronze Age (3200-1750 B.C.)	14
2.4. The Late Bronze and Iron Ages (1700 B.C.-500 B.C.)	25
2.5. Achaemenian to the Middle Islamic Period (500 B.C.-1500 A.D.)	27
2.6. Ethnographic and Historical Accounts	28
3. Materials and Methods	31
3.1. The Collections	31
3.2. Basic Processing and Recording	32
3.3. Data Analysis	36
4. Diseases of the Teeth	37
4.1. Attrition	37
4.2. Caries	50
4.3. Calculus	70
4.4. Conclusion	81
5. Diseases of the Periodontium	83
5.1. Periapical Abscessing and Pulp Exposure	83
5.2. Periodontal Disease and Antemortem Tooth Loss	96
6. Defects of the Enamel	127
6.1. Dental Fluorosis	127
6.2. Linear Enamel Hypoplasia	137
7. Discussion	153
7.1. The Bronze Age	153
7.2. The Iron Age	157
7.3. The Islamic Period	158
7.4. Conclusion	160
Appendix A. Recording Sheets	163
Appendix B. Frequencies of Dental Pathologies	169
Bibliography	180

List of Figures

Figure 1-1:	The Relationships of Dental Pathology	7
Figure 2-1:	The Arabian Gulf	10
Figure 2-2:	The Fluctuating Extent of Human Settlements	12
Figure 2-3:	Chronological Sequence on Bahrain Island	17
Figure 2-4:	Map of the Burial Moundfields	18
Figure 2-5:	Partly Excavated Late Type Burial Mound	19
Figure 2-6:	Hamad Town Moundfield	20
Figure 2-7:	Settlement Sites on Bahrain	24
Figure 4-1:	The Stages of Dental Wear	40
Figure 4-2:	Pattern of Wear across the Mouth	43
Figure 4-3:	Attrition on an Iron Age Mandible	44
Figure 4-4:	The Progression of Dental Caries	51
Figure 4-5:	Caries Location and Severity	54
Figure 4-6:	Distribution of Caries amongst Tooth Types	60
Figure 4-7:	Relationship of Attrition and Caries	64
Figure 4-8:	Comparative Caries Rates	65
Figure 4-9:	Classes of Calculus Deposition	71
Figure 4-10:	Pattern of Teeth Affected by Calculus	75
Figure 4-11:	Calculus Deposits on Islamic Mandible	76
Figure 4-12:	Relationship of Calculus and Attrition	77
Figure 4-13:	Degree of Calculus Severity	78
Figure 5-1:	Abscessing on Islamic Mandible	85
Figure 5-2:	Number of Abscessing Cases	86
Figure 5-3:	Number of Teeth Abscessed	87
Figure 5-4:	Pulp Exposure and Abscessing	90
Figure 5-5:	Teeth with Pulp Exposure and Abscessing	92
Figure 5-6:	Patterns of Abscessing and Pulp Exposure	95
Figure 5-7:	Antemortem Tooth Loss in Iron Age Adult	101
Figure 5-8:	Number of Cases of Periodontal Disease & AMTL	102
Figure 5-9:	Teeth with Periodontal Disease and AMTL	105
Figure 5-10:	The Relationship of AMTL to Age	107
Figure 5-11:	The Pattern of Teeth with Periodontal Disease	108
Figure 5-12:	Inter-site Comparison of Disease Patterns	110
Figure 5-13:	Comparison of Mandibular & Maxillary AMTL	111
Figure 5-14:	AMTL according to Age	112
Figure 5-15:	Relationship of Caries & Periodontal Disease	115
Figure 5-16:	Pattern of AMTL & Caries	117
Figure 5-17:	Islamic: Calculus & Periodontal Disease	118
Figure 5-18:	Islamic: Calculus, Abscessing & AMTL	118
Figure 6-1:	Stages of Dental Fluorosis	129
Figure 6-2:	Distribution of Fluorosis across the Mouth	132
Figure 6-3:	Hypoplasia on Iron Age Canines (Grooves)	139
Figure 6-4:	Chronology of Enamel Development	140
Figure 6-5:	Comparative Table of LEH Frequencies	142

Figure 6-6:	Distribution of Defects by Age	144
Figure 6-7:	Hypoplastic Defects on Individual Teeth	146
Figure 6-8:	Relationship of Fluoride and LEH	149

List of Tables

Table 3-1:	Composition of the Samples	34
Table 3-2:	Distribution of Teeth Types	35
Table 4-1:	The Average Degree of Attrition	41
Table 4-2:	Gradients of Molar Wear	44
Table 4-3:	Average Degree of Wear by Age/Sex	45
Table 4-4:	Comparative Table of Attrition	47
Table 4-5:	Caries in Loose vs. <i>in situ</i> Teeth	53
Table 4-6:	Individuals with Caries	55
Table 4-7:	Mean No. of Carious Teeth	56
Table 4-8:	Caries Rates (Total Number of Teeth)	57
Table 4-9:	Rates of Deciduous Caries	58
Table 4-10:	The Frequency of Multiple Lesions	61
Table 4-11:	Interproximal and Antimeric Lesions	61
Table 4-12:	Location of Caries	62
Table 4-13:	Mean Caries Severity	63
Table 4-14:	Caries Prevalence, Severity and Attrition	63
Table 4-15:	Comparison of Caries Loci	68
Table 4-16:	Percentage of Individuals with Calculus	72
Table 4-17:	Mean No. of Teeth with Calculus	73
Table 4-18:	Percentage of Teeth with Calculus	74
Table 4-19:	Calculus and Tooth Dysfunction	76
Table 5-1:	Maxillary vs Mandibular Abscessing	88
Table 5-2:	Pattern of Abscessing across the Mouth	88
Table 5-3:	Abscessing According to Tooth Type	89
Table 5-4:	Comparative Abscess Frequencies	93
Table 5-5:	AMTL of Molars, Premolars and Anterior Teeth	113
Table 5-6:	Causes of Periodontal Disease	114
Table 5-7:	A: With Roman Palestine	119
Table 5-8:	B: With 19th & 20th Century British	119
Table 5-9:	Comparative Table of Periodontal Disease & AMTL	120
Table 6-1:	Cases of Dental Fluorosis	130
Table 6-2:	Teeth with Dental Fluorosis	131
Table 6-3:	Water Fluoride & Dental Fluorosis Levels	133
Table 6-4:	Caries and Water Fluoride Content	135
Table 6-5:	Number of Cases with LEH	141
Table 6-6:	Average No. of Defects per Individual	143
Table 6-7:	Modal Age of Hypoplastic Defects	144
Table 6-8:	Starting Age of Hypoplastic Lesions	145
Table 6-9:	Test of Seasonality	147
Table 7-1:	Observed vs. Predicted Frequencies	154
Table 7-2:	Model of Land-Use on Bahrain	156
Table B-1:	Caries According to Tooth Type	166
Table B-2:	Calculus According to Tooth Type	167
Table B-3:	Number of Abscessing Cases	168

Table B-4:	Number of Abscessed Teeth	168
Table B-5:	Cases of Pulp Exposure	169
Table B-6:	Teeth with Pulp Exposure & Abscessing	169
Table B-7:	Cases of Periodontal Disease & AMTL	170
Table B-8:	No. of Teeth with Crestal Degeneration	171
Table B-9:	No. of Teeth with Alveolar Resorption	172
Table B-10:	No. of Sockets with AMTL	173
Table B-11:	Teeth with Periodontal Disease & AMTL	174
Table B-12:	% of Hypoplasias/Age Unit	175