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Synthetic Histories: Possible Futures for Papuan Pasts

CHRIS BALLARD

Pawley, Andrew, Robert Attenborough, Jack Golson, and Robin Hide, eds.
*Papuan Pasts: Cultural, Linguistic and Biological Histories of Papuan-Speaking
Peoples*. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies,
The Australian National University, 2005.

This article considers the case for synthetic histories—broad narratives of historical process that critically combine the insights and perspectives of research from multiple disciplines. Drawing on the 28 contributions to the edited volume Papuan Pasts, on the deep history of the Papuan peoples, a brief synthesis of findings is offered in the form of a narrative. This enables the identification of a series of gaps, not just in the spatial and temporal coverage of research but also in the range of perspectives employed. The absence of Papuan voices is particularly challenging, and suggests that the future of Papuan histories lies in the closer articulation of a concern for deep time and questions of the genesis and immediate past of living Papuan communities.

KEYWORDS *anthropological holism, austronesian, historical synthesis, multi-disciplinary inquiry, Papuan*

A RECIPE FOR COMPLEXITY

Take a large, tropical island—a very large, tropical island—positioned toward one end of the world's most extensive archipelago, itself surrounded by a further string of satellite islands. Fairly swiftly, in geological time, push the island's interior up to 5,000 meters (or high enough for glaciers to become established), and then fold it back on itself to create a series of large

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valleys along the central spine. Allow it to set, un-colonized by major predators including humans. Then, in one movement (or more), introduce people. Set to bake for at least 40,000 years, turning up the heat and adding further ingredients from about 3,300 years before the present. Remove to global temperature, introduce missions, carve up for colonial administration, and allow for political independence. Serve to researchers (will feed a multitude indefinitely).

Large cookbooks may be back in vogue but this guide to Papuan pasts (Pawley et al. 2005), which weighs in at a mighty 817 pages with 28 chapters, still manages only to scratch at the surface of a regional history remarkable for its complexity and depth. With some 1,100 distinct languages, or one-fifth of the world's total, a correspondingly rich diversity of cultural practices, and an exceptional antiquity of continuous human occupation, New Guinea, together with the smaller surrounding islands to its west, north, and east, presents an unrivalled quality of historical complexity (Figure 1).

There is no faulting the scale of ambition on the part of the editors, who have assembled 45 contributors from linguistics, archaeology, socio-cultural anthropology, environmental history, human geography, human biology, and genetics. Much of the research reported is relatively recent, reflecting new technologies, new finds, and new ideas. But *Papuan Pasts* is also a summation of the previous 40 years of research, providing a snapshot of the strengths and weaknesses, emphases, and blind spots of this particular regional focus. The contributions derive largely from papers presented at a conference held in Canberra in 2000, at the Australian National University or ANU, the launching pad for much of the post-war “mapping” of Melanesian societies.

Papuan Pasts contributes to a recent spate of syntheses addressing the histories of entire regions, juggling—at varying degrees of difficulty—with

FIGURE 1 New Guinea and the paleo-continent of Sahul.

either two (McConvell & Evans 1997, Hill & Santos-Granero 2002), three (Bellwood & Renfrew 2002; Sagart et al. 2005; Friedlaender 2007a; Sanches-Mazas et al. 2008), or four (Bellwood et al. 1995) disciplinary or subdisciplinary perspectives (see Gruhn 2006 for a recent review of cross-disciplinary strategies generally). In part, these studies reflect the need to accommodate dramatic developments since the mid-1980s in the technology and sophistication of genetic analyses, but they also represent summary statements by a generation of researchers who have been active since the 1960s and 1970s.

Each of the four thematic sections in *Papuan Pasts* (on Linguistics, Archaeology, Environment, and Human Biology) opens with a useful overview by one or more of the editors, introducing individual chapters and sketching something of the specific field. Yet the overwhelming impression of the volume, taken as a whole, is of an almost bulimic disgorging of facts—confirmation, if any were needed, of the considerable complexity of the history of New Guinea and its surrounding islands. What appears to be missing from the volume—and editorial exhaustion might well account for this—is any concluding synthesis of the different disciplinary perspectives of the sort called for by general anthropology, whether in the form of a consensus narrative, or as a series of questions setting an agenda for the next decade or more of research, with clear implications for cross-disciplinary testing.

Other reviews of *Papuan Pasts* have listed and appraised individual contributions (see especially Bellwood 2005a, Kennedy 2006, Terrill 2007). With a more generous allowance, what I offer here instead is a synthetic account of the volume's findings, taken as a whole and with as few qualifying statements as possible, followed by some critical reflections on the future of research in this field, and the value of anthropological holism in historical inquiry. The intention of this synthesis is not to advocate for a single unitary or orthodox narrative for regional history, but rather to attempt to establish a basal level of commensurability between widely differing disciplinary perspectives. The goal of such a narrative should be to reflect fundamental convergences of opinion and analysis, while preserving differences, in recognition of the relative newness of the field of Papuan history, for which such statements are rare, and as a means of identifying areas for further inquiry.

But first a brief admission: I am very much a product myself of the ANU generally, and of its Melanesian research focus in particular. I presented a paper at the *Papuan Pasts* conference: a premature attempt to embed within broader social and historical contexts a series of possible cognate sets drawn from the lexicons of New Guinea highlands crop registers and agricultural practices, a project that required more competence and time than I could muster for inclusion in the present volume. Any commentary or criticism on the volume, and on the wider enterprise of which it forms a part, should thus be understood to address my own work, along with that of my colleagues.

“PAPUA” AND THE “PAPUANS”

The *Papuas*... seem to be all divided into very small states or rather societies, very little connected with each other. Hence their language is broken into a multitude of dialects, which in process of time, by separation, accident, and oral corruption, have nearly lost all resemblance. [Leyden 1811:218]

Western speculation on New Guinea and the nature of its inhabitants has a long antiquity, and the toponym “Papua” and ethnonym “Papuan” come to us trailing long genealogies of confused and often contradictory usage (Gelpke 1993). Initially a cardinal direction from the perspective of the northern Moluccas, “Papua” became increasingly identified in European texts from the 16th to early 19th centuries with the island of New Guinea and the Schouten and Raja Ampat Islands, and biologized as a term for their inhabitants (Ballard 2008). The linguist Sidney Ray (1926:24) offered the definitive statement of “Papuan” as a uniquely linguistic category in 1892, contrasting Papuan languages with the Melanesian languages of the Taiwan-derived Austronesian family of languages:

For these non-Melanesian languages of New Guinea I used the name Papuan. This did not imply any community of character or origin in the language so-called, but merely served as a convenient term to indicate their archaic features as the probably aboriginal languages of the great island of New Guinea. [Ray 1926:24]

As several contributors to *Papuan Pasts* acknowledge, “Papuan” is a curiously residual category, gathering together all those groups that do not possess a language identified as Austronesian (Bellwood et al. 1995; Spriggs 2007); a largely obscured subcategory of the more prominent geographical and racial distinction between Melanesian and Polynesian (Thomas 1989); and in many respects a less-favored or marginal topic in the long history of the West’s fascinated contemplation of all things Polynesian, Ancestral Polynesian, or Proto-Oceanic (Kirch & Green 2001). Papuans feature overwhelmingly in this literature in terms of how much (or how little) they contribute culturally, materially, linguistically, or genetically to the origins of the Polynesians.

The linguistic frame of reference still dominates, and the scope of this volume is essentially defined as the deep history of all those communities speaking non-Austronesian languages on New Guinea or in the surrounding islands of eastern Indonesia, the Bismarck Archipelago, and Solomon Islands. The guiding assumption, following Ray, is that these communities represent descendants of the pre-Austronesian-speaking inhabitants of the region. However, one unfortunate consequence of this emphasis is an

effective temporalization of the category, Papuan, which comes to stand not just for the *non*-Austronesian, but also for the *pre*-Austronesian.

On the first page of the preface, we are told that the book “brings together the latest research on the history of humans in Near Oceania between the first arrivals more than 40,000 years ago and the first movement into Remote Oceania” (Pawley 2005a:xi). This might be taken to imply that Papuan history ceases to be as interesting or alluring for researchers after the postulated appearance of Austronesian languages in the region at about 3300 BP, and their diffusion as Proto-Oceanic languages into the Pacific from about 3200 BP. Similarly, the use—now widespread—of the regional label “Near Oceania” for the area settled during the late Pleistocene by non-Austronesian speakers, necessarily invokes its corresponding term, “Remote Oceania,” and conditions us to understand New Guinea and its archipelago as the harbinger of other movements and other histories (Pawley & Green 1973; Green 1991). Despite the important challenge to the profoundly flawed Melanesia/Polynesia distinction, and its undoubted heuristic value as a biogeographical and chronological boundary, “Near Oceania” can be understood as a term generated essentially from the perspective of those interested primarily in accounting for the populations of “Remote Oceania.”

SYNTHESIS AND SPECULATION

What, in the wake of this volume, can be said with any degree of confidence about this 40,000-year history? The synthesis that follows derives, without distinction, from all of the contributions to *Papuan Pasts*. It also draws on more recent work, particularly in the dynamic field of population genetics, where the rapid pace of development since the 2000 conference, in technology and in the sophistication of analysis, has transformed our understanding of the scope for historical inquiry. A synthetic account has some value, not just as a means of communicating results to a broad non-specialist readership, but also as a strategy for identifying gaps in our overview and for promoting what Allen and O’Connell (2008:31) describe as “constructive, theoretically driven, potentially testable speculation.” The quality of a historical narrative is a serious barometer of the depth of evidential resources and theoretical sophistication brought to bear on specific questions, and of our capacity to assemble and critically interrogate lines of evidence drawn from multiple disciplines.

Pacific or Oceanic anthropology has a long history of collaborative or holistic inquiry involving not just multiple subfields and disciplines but also multiple national traditions. Less explicitly debated or theorized than the “sacred bundle” of four-field anthropology in North America (Segal & Yanagisako 2005; Harkin 2010) or holistic anthropology in Europe (Parkin & Ulijaszek 2007), Oceanic anthropology—possibly constrained or enjoined

by the richness of regional cultural and linguistic diversity—has led the way in putting multi-disciplinary, general anthropological research into practice; perhaps the best examples being the collaborative case study in historical anthropology and archaeology of the Anahulu Valley in Hawai'i by Patrick Kirch and Marshall Sahlins (1992), and the explicitly holistic anthropological exploration of Ancestral Polynesia by Kirch and Roger Green (2001).

There is a surprising degree of consensus among the different contributions to *Papuan Pasts*, both within and between disciplines, and certainly by comparison with the vigor of debate surrounding Austronesian history—though this may simply reflect the limited materials available until recently for the reconstruction and interpretation of Papuan history, rather than a diminished scope for contention. Archaeological evidence for Papuan history is very limited indeed, with few strong regional sequences capable of characterizing entire economies or social systems, and vast gaps in chronologies. Andrew Pawley identifies a 20-year hiatus in focused attention on Papuan linguistics after 1975, and describes linguistic understanding of the largest of the Papuan families as being “about where Indo-European studies were in the 1820s” (Pawley 2005b:100). Biological anthropology's studies of Papuans have a long (and not always respectable) pedigree but have been revolutionized by the development of new analytic techniques, enabling a sophistication in the characterization of historical relationships that presently outstrips the precision of sampling strategies for such a diverse population. The environmental history of the region is broadly understood, but the scale of geomorphic transformation along the northern and southern coastlines of New Guinea, in particular, has only recently been appreciated. Ethnographic studies enjoy perhaps the most complete coverage of any discipline in the region, with detailed descriptions of hundreds of Papuan societies now available, but here the problem is one of articulation with historical questions—a challenge to which I return later.

First Settlers

Dates for the initial human settlement of the paleo-continent of Sahul, consisting of New Guinea, mainland Australia, Tasmania, and the Aru Islands (Figure 1), are still hotly disputed, with opinion divided between the “long chronology” of an earlier colonization between 50,000 and 60,000 years before the present or BP (O'Connor & Chappell 2003) and the “short chronology” which would envisage first settlement from the later date of about 45,000 BP (Allen & O'Connell 2008). Whichever the date, the ultimate origin of these first settlers must have been the paleo-continent of Sunda, the shelf extending from mainland Southeast Asia into western Indonesia, which was exposed during glacial maxima.

The precise route taken through the islands of Wallacea, the intermediate zone between the Sunda and Sahul shelves, is also a matter for

conjecture: the earliest dates for human occupation of Wallacea derive from islands along a southern route, through Timor (O'Connor 2007), but Allen and O'Connell (2008) mount the case for a northern route through the central or northern Moluccas to the Bird's Head region of western New Guinea, and propose an early bifurcation of movement either along the northern coast of New Guinea or to Australia and southern New Guinea via the exposed Arafura shelf. They also invoke the demands of demographic viability to suggest that these initial colonists must have maintained contact for some period of time with their source communities in Wallacea, implying more than just a casual seafaring competence. This proposition finds support in the subsequent and fairly rapid colonization by sea of New Britain and New Ireland by at least 39,000 BP, and of Greater Bougainville by 32,000 BP and Manus by 24,000 BP (Specht 2005:238–239), the latter involving perhaps the first completely “blind” sea crossing in the region, between islands that were not intervisible. This Late Pleistocene colonization extended as far south as Tasmania and (presumably, for dated evidence is yet to be found) as far east as the islands of Guadalcanal, Malaita, and San Cristobal in the Solomon Islands, though populations at these extreme points are likely to have remained sparse. Archaeological and genetic evidence suggest that there was little subsequent exchange between these early populations of Bougainville and the Bismarck Archipelago after first settlement, possibly until the expansion of the Proto-Oceanic subgroup of Austronesian languages from about 3200 BP (Friedlaender 2007b:232; Summerhayes 2007:17).

At these deep time scales, the question of affinity between the inhabitants of what would become the separate landmasses of New Guinea and Australia is not easily determined. Genetic studies indicate a common origin for Australians and Papuans, but also a very early separation and surprisingly limited subsequent exchange (Hudjashov et al. 2007); linguistic evidence for affinity between the two is even harder to identify (Nichols 1997; Reesink et al. 2009). Genetic signatures become clearer once these early founder groups begin to differentiate. The specific DNA haplotypes (sets of linked genetic variants in a single DNA sequence) and haplogroups (related groups of haplotypes) can be used to identify initial or very early settlement of New Guinea, e.g., the Mitochondrial DNA haplogroups P and Q, and the Y-chromosome C-M38 and K-M9 (Kayser et al. 2003; Easteal et al. 2005:724; Friedlaender et al. 2005:712).

The exceptional temporal depth for the occupation, presumably by small founder populations, of a continent marked by extreme environmental variation allows for the operation of isolation and genetic drift as the principal determinants of linguistic, genetic, and cultural variability. In the Bismarck Archipelago and Bougainville areas, where the situation is marginally less complex, genetic variation emerges as essentially a function of island size, topographical complexity, and geographical distance from other

islands, producing a remarkable degree of variation both within and between different islands (Friedlaender 2007a).

The subsistence base of these first colonizers appears to have reflected wide-ranging procurement strategies involving “small groups of mobile, broad-spectrum foragers”—a “world without any ethnographic parallel” (Gosden quoted in Summerhayes 2007:11). A significant line of evidence for subsistence during this early period derives from the presence by 20,000 BP on Bougainville, the Admiralty Islands, and the Bismarck Archipelago of one or more elements of a suite of tree crops, including *Canarium indicum*, and animals including two species of cuscus (*Phalanger orientalis* and *Spilocuscus kraemeri*), a bandicoot (*Echymipera kalubu*), and three rat species, all of which must have been transported with or by humans—the earliest evidence for such practices in the world (Summerhayes 2007; Matisoo-Smith 2007). Similarly flexible strategies are likely to have been pursued in interior New Guinea: in the highlands, where sustained exploitation from as early as 35,000 BP appears to have targeted resources such as the various edible *Pandanus* species and large fauna, possibly including a number of megafauna species that disappear from the record at about this time (Fairbairn et al. 2006; but see Denham 2007a for the case for a much broader spectrum of resource strategies); and in the lowlands, where Paul Roscoe’s (2005: 569–575) intriguing review of contemporary sago-dependent hunter-gatherer communities suggests a series of possible models for either terrestrial or salt- and freshwater aquatic subsistence strategies and settlement patterns.

Differentiation and Innovation

Demographic viability on Sahul, combined with sea-level rise after the Last Glacial Maximum at 21,000 BP, effectively reduced the scope for further exchange in population or materials with Wallacea. The possibility of continued population movement into Sahul during the Late Pleistocene is by no means ruled out, but neither are there clear genetic or linguistic markers that would insist on further inputs. There are, however, important lines of evidence for resumed or continued exchange in both directions during the Holocene, including the human transport of the marsupial phalanger or cuscus from New Guinea to Timor before 9000 BP, and the westward spread of edible bananas from New Guinea before 5000 BP (Anderson & O’Connor 2008:3; Kennedy 2009).

Environmental changes set significant parameters for human activity until the early or mid Holocene. The gradual rise in sea level after 21,000 BP produced contrasting effects on the steep northern coast of New Guinea, which experienced little change in overall form, and on the gently shelving southern coast, vast areas of which were inundated before being finally separated from Australia at about 8000 BP (Chappell 2005:527–528). Sea levels continued to rise until about 6000 BP, swallowing up much of the Fly-Digul

Platform of southern New Guinea, and possibly isolating the Bosmun Plateau as an island (Figure 2). Equally dramatic was the appearance of an inland sea along the lower reaches of the Sepik and Ramu rivers, which reached its maximum extent between 6300 and 7500 BP, retreating toward the present coastline by about 4000 BP (Chappell 2005:534–536). From about 8500 BP, and following a long phase of climatic instability between 20,000 and 11,500 BP, highland climates also ameliorated significantly (Hope & Haberle 2005:547), creating conditions that enabled the development of some of the world's earliest agricultural systems on the margins of the Wahgi Valley wetlands (Denham 2007b). The present distribution of Papuan populations bears a strong imprint of the influence of these fundamental environmental parameters.

Perhaps the most significant finding of *Papuan Pasts* is the convergence of evidence from each of the disciplines represented for the relationship between the development of agriculture in the central highlands and the massive expansion of the Trans New Guinea (TNG) family of languages. This would seem to offer a classic test case for current debates over the farming/language dispersal hypothesis (Bellwood 2005b; Smith 2010). The careful review by Andrew Pawley and Malcolm Ross of earlier claims for TNG and forensic sifting of the linguistic evidence has confirmed the membership in their revised version (“TNG IV”) of some 350–450 languages, which began to separate between about 10,000 and 6000 BP (Pawley 2005b:101; 2007; see also Reesink et al. 2009). Further support for the apparent integrity of this family might be interpreted from a recent genetic study which proposes that the TNG expansion can be identified with the distribution of two specific Y-chromosome haplogroups, M-P34 and K-M254 (Mona et al. 2007).

FIGURE 2 Locations, features and language communities in New Guinea.

The likely origin of the TNG family is tentatively identified as the major valleys of the Papua New Guinea (PNG) highlands, possibly including areas of Madang and Morobe provinces to the north and east. However, the present distribution of TNG languages ranges from near the southeastern tip of PNG through the full length of the highland spine of New Guinea, and includes large swathes of southwestern New Guinea, Madang and Morobe provinces, and the Bintuni Bay area of the Bird's Head. In addition, and probably as a later movement, TNG languages have spread to the island of Umboi, in Vitiaz Strait, and to the eastern Indonesian islands of Alor, Pantar, and Timor, where Melanesian Y-chromosome lineages are common (Mona et al. 2009; Cox et al. 2010); but there are no TNG languages found in the Bismarck Archipelago.

Beyond the highlands, TNG expansion appears to have been restricted in a number of directions, including some of the more environmentally stable lowland and coastal zones, such as the Bosmun Plateau, and the entire north coast of New Guinea from near the mouth of the Ramu River as far west as the Bird's Head. Together with the scattered surviving Papuan languages of the Bismarck Archipelago and Solomon Islands, the languages of these areas are rather unfortunately characterized as “relic” (Pawley 2005a:xv) or “pre-agricultural” (Ross 2006), but in their astonishing diversity, recognized as the highest in the world, they probably do represent a level of variation that may have been universal for New Guinea prior to the homogenizing spread of the TNG family.

No single factor is likely to account for all the components and phases of the TNG expansion, but the accumulation of evidence for the local domestication of staple crops and the emergence of intensive forms of agriculture in the central highland valleys of PNG over exactly the period identified for the initial break-up of the TNG family makes for a compelling case. The long-term work of archaeologist Jack Golson and his team at the early wetland agricultural site of Kuk and elsewhere in the PNG highlands, extended and revised more recently by Tim Denham, provides the basis for the present consensus that the TNG expansion was fueled, at least initially, by intensive cultivation of locally domesticated crops, including *Colocasia* taro and bananas (*Musa* spp., section *Eumusa*) (Denham & Donohue 2009; Kennedy 2009). While the process of domestication is likely to have been underway during the terminal Pleistocene, and some of the earlier phases of Kuk can less certainly be identified with drainage for intensive cultivation, there is now solid evidence for clearance of the adjacent dry lands from 10,000 BP and agricultural use of the swamp margins from between 6950–6440 BP (Denham 2007b; Denham et al. 2008). Of the various food crops putatively assigned to this period, only one can be assigned a tentative lexical reconstruction at this stage: **mV* or possibly **ma*, for *Colocasia* taro, a reconstruction with reflexes throughout the PNG highlands (Pawley 2005b:97). For the highland areas of New Guinea at least, successful

language families are perhaps best defined (with apologies to Max Weinreich's more martial formulation) as dialects with a tuber.

Other food crops now thought to have been domesticated or hybridized in New Guinea and Island Melanesia include other bananas (*Musa spp.* Section Australimusa), *Cyrtosperma* taro, *Dioscorea alata* yam, sugarcane, cordyline, galip nut (*Canarium indicum*), coconut, breadfruit, sago, and a range of edible pandanus species (Kennedy & Clarke 2004; Allaby 2007). The evidence for animal domesticates in New Guinea and Island Melanesia prior to 3300 BP is less certain. The presence of dogs in either Australia or New Guinea is not clearly attested before about 3500 BP, and previous claims for pig in New Guinea prior to 3300 BP have not been confirmed by recent direct dating of remains (Savolainen et al. 2004; Matisoo-Smith 2007).

Archaeological studies of stone artifacts are beginning to yield information suggestive of regional distinctions and discrete spheres of trade and interaction within New Guinea. The hafting of stone blades as either axes or adzes is strongly influenced by cultural preference and not simply a matter of efficiency, and the distribution of distinct hafting styles is quite discrete; Golson's suggestion (2005:474) that a particular style of adze (T1) may be linked to the initial spread of tree-clearing as an early agricultural practice is an elegant example of an archaeologically testable proposition, founded on the observation of ethnographic distributions. Similarly, the close correlation between the distribution of the enigmatic complex of stone mortars, pestles, and other carved artifacts, generally dated between 8000 and 3000 BP, and prime agricultural land in both the highlands and lowlands of eastern New Guinea, may reflect the early expansion of TNG language communities and of their exchange networks (Swadling & Hide 2005:293–306; Swadling et al. 2008). The dramatic decline in frequency of these artifacts to the west of the PNG-Indonesia border, and the reasons for the fairly abrupt termination in their production from about 3000 BP, are significant questions for the future.

Papuan-Austronesian Interaction

The spectacular spread of Austronesian languages after about 4000 BP, and the ensuing settlement of a region extending from Taiwan in the north, to Madagascar in the west, and to Hawaii and Easter Island in the east—and probably further to South and Central America—accounts for scholarly focus on this relatively recent historical “event.” The influx of genes, materials, and Austronesian languages to coastal New Guinea and to Island Melanesia—long associated, not unproblematically, with the appearance of an iconic, dentate-stamped pottery known as Lapita ware—certainly effected the most profound transformation of these regions since initial settlement (Spriggs 2007). However, the consequences of this development for mainland

New Guinea beyond the north coast and southeastern PNG were largely indirect. Two important caveats about the probable nature of Papuan-Austronesian interaction have been restated recently: the first is that interactions between New Guinea and Wallacea are likely to have extended over a long period of time, almost certainly preceding the 3300 BP date currently accepted for the appearance of Lapita pottery in the local archaeological record, and continuing well after its disappearance, rather than being associated with a single, Lapita-associated period of contact; the second is the gathering evidence for a two-way flow—in languages, genes, and materials—between Austronesian- and Papuan-speaking communities.

The first insight, that regional interaction both preceded and followed the local appearance of Austronesian languages, is most clearly expressed in current views on animal and crop introductions (Anderson & O'Connor 2008; Donohue & Denham 2010). Pigs, which are present only in small numbers at the earliest Lapita sites, were presumably available in Wallacea and thus potentially in New Guinea before the first Lapita pot was fired. More surprisingly, pig DNA from New Guinea, Island Melanesia, and Polynesia aligns *not* with the East Asian haplotypes distributed from South China and Taiwan through the Philippines and Micronesia, but instead with a distinct alternative clade introduced from mainland Southeast Asia via the southern chain of Indonesian islands (Larson et al. 2007; Dobney et al. 2008). Dog, one early lineage of which may have been present in Australia and New Guinea slightly before Lapita (though this remains to be confirmed by archaeological finds), was also evidently not part of the early Lapita “package” introduced to Vanuatu and New Caledonia, and emerges as a regular feature of the archaeological record only after 2000 BP (Matisoo-Smith 2007). Three dog haplotypes have been identified for Australia and the Pacific, each linked with a different history of introduction: the A29 haplotype may represent the early introduction of the dingo to Australia and the “singing dog” to New Guinea by 3500 BP, while the D2 and A75 haplotypes are linked to later, separate introductions to Remote Oceania, the first via the north coast of New Guinea and the Bismarck Archipelago and the second more directly from Indonesia to Polynesia (Savolainen et al. 2004).

The second insight addresses the nature of interaction between Austronesian and non-Austronesian communities, and stresses the flow of language elements, genes, and other material in *both* directions. Pottery, tattooing, polished stone adzes, and domesticated animals may have moved from west to east, but it seems likely now that banana, sugarcane, greater yam, sago, and taro were just some of the domesticates that moved westward from New Guinea and/or Wallacea (Spriggs 2007:106; Donohue & Denham 2010:235–7). Where earlier linguistic reconstructions proposed the adoption by Papuans of a reconstructed Proto-Oceanic term for Colocasia taro, **ɣmao*, together with the crop (Lynch 1981:172), it now appears more probable that early Austronesian-speaking communities in the New Guinea and Bismarck

Archipelago region added this local variety of a regional domesticate, together with its local term, to their own repertoire (Pawley 2005b:101). However, Barry Craig's (2005) attempt in this volume to propose New Guinea as the source of the design elements on Lapita pottery, based on his analysis of ethnographic material culture, is substantially at odds with recent archaeological evidence for obvious precursors in pre-Lapita pottery to the west of New Guinea (Bellwood 2005b:137–139).

Two aspects of genetic diversity reported in *Papuan Pasts*, and explored in further detail since, appear to contribute to this sense of more complex processes of exchange between Papuans and Austronesian-speakers. The first is the evidence for admixture between Austronesian-speakers and Indigenous Papuan-speaking communities: while recent advances in genetic technology appear to have reversed some of the claims made earlier about the extent of Indigenous Papuan contribution to the genetic profile of Polynesians, there is some suggestion that admixture may have been more extensive among populations during the Lapita phase of Austronesian expansion, than for later movements that resulted in the settlement of Central and Eastern Polynesia (Addison & Matisoo-Smith 2010); a model that appears to accord well with the emerging record of animal introductions described above.

The second is the discovery of exceptionally low male or Y-chromosome diversity within Papuan communities of eastern New Guinea, indicating very low rates of male migration, and seemingly reversing the findings for Polynesian and many other Austronesian-speaking communities, which exhibit high male or Y-chromosome diversity but low female or mitochondrial DNA diversity (Harley et al. 2005:736–739; Kayser et al. 2006). More recent reports bring these two findings together, demonstrating that as much as 62% of Polynesian Y-chromosomes have their origins in New Guinea and its islands, compared to just 33% that can be traced back to Asia (Kayser 2010:R198). These findings would appear to lend support to the thesis that Early Lapita or Proto-Oceanic society (assuming some homology between the two) was essentially matrilineal in structure and matrilineal in residence pattern, allowing for the in-marriage of men from pre-existing or Indigenous communities (Hage & Marck 2003; Marck 2008; but see Jordan et al. 2009, who further complicate matters by proposing patrilocality for Proto-Oceanic societies on the basis of cultural phylogenetics).

The recent development of autosomal studies of multiple regions of the nuclear genome has provided a much more complex and potentially accurate understanding of genetic history than available from these earlier studies on either female (mitochondrial) or male (Y-chromosome) haploid data, which have stressed either limited or substantial Austronesian-non-Austronesian admixture, respectively (Friedlander et al. 2008; Cox et al. 2010). While the dynamism of the genetic study of Oceanic populations is exciting, and has the potential to revolutionize the sophistication of our accounts of

regional history, the very limited conceptions of social process articulated in the framing of genetic problems suggest the central importance of continued exchange or “admixture” with the perspectives of the other historically minded disciplines engaged in the same field.

The Genesis of Modern Communities

The last three or four centuries have witnessed some of the most dramatic transformations in Papuan history, though this may in part reflect the increased visibility of the details of processes of exchange, adoption, and migration leading into the very recent past. Bryant Allen’s analysis of agricultural intensification in the Sepik foothills and the parallel fortunes of the neighboring Abelam and Arapesh groups is the only chapter of *Papuan Pasts* that directly addresses this period, and the distinctive subtlety of his account of social transformation indicates the potential of such a focus. The limitations of the vocabularies of social change that are employed over broader time-scales and applied to earlier periods are exposed here as both inappropriate and inadequate to the task of explaining social process (Allen 2005:585).

Where detailed and extensive oral historical work has been undertaken, by Polly Wiessner and Akii Tumu (1998) for Enga Province, or by Paul Roscoe (1994) for the Sepik, for example, trajectories for change over the last few centuries become readily apparent. The encyclopedic survey by Wiessner and Tumu of Engan oral traditions traces the movements of early agriculturalists into terrain previously occupied by more mobile communities, the remarkable impact on population growth of the introduction and adoption of sweet potato from about 300 BP—the “Ipomoean Revolution” (Watson 1977; Ballard 2005)—and its consequences for the development of the elaborate regional ceremonial exchange system of the *Tee*. Changes in subsistence strategies, technology, crops, social structure, patterns of marriage, exchange, and warfare, and regional links through ritual can be mapped and assembled to provide a total social history. It is at this level of detail that we should be able to direct genetic sampling and interrogate regional patterns with some precision: for instance, to explore the basis for reports of gendered variation in gene flow between regions, which suggest female-mediated gene flow (that is, movement primarily of women) between highland regions, in contrast to male-mediated flow between the highlands and lowlands (Kayser et al. 2003).

The Ipomoean Revolution in the New Guinea highlands resulted in significant population increase and movement, with substantial flow from the centers of population in the major valleys to both higher and lower altitudes, and a more vigorously contested lateral flow to highlands regions with lower population densities. Enga-speakers moved in large numbers to lower altitudes below 1300 m (Dornstreich 1973) and to higher altitudes above

2000 m (Wohlt 1978). Elsewhere, Huli-speakers moved both south to lower valleys and laterally into areas previously occupied by Duna-speakers (Haley 2002); and Western Dani have migrated in very large numbers westwards into valleys formerly dominated by Moni and Damal (Larson 1987). In each of these cases, details of the processes of migration, assimilation, or annihilation, and of the roles in these processes of ritual, marriage, and other forms of exchange, can be reconstructed with some confidence, enabling us to address some of the challenging questions raised in *Papuan Pasts*, such as the unanticipated profusion of terms for sweet potato in interior New Guinea (Hays 2005:632–633), or the high proportions of resemblant or formally similar vocabulary among the neighboring but unrelated Huli, Duna, and Bogaia languages (Pawley 2005b:78).

CRITICAL SYNTHESSES

This thumbnail sketch of Papuan history is little more than a prologue to the form of synthesis required to set agendas that might harness the complementary strengths of different disciplines. Increasing disciplinary specialization—inevitable, particularly, for population genetics—militates against the easy exchange of results, but makes it all the more important that occasional statements of consensus be attempted (Blench et al. 2008). Such syntheses need not constitute a dumbing down of the subtleties and qualifying riders familiar to the practitioners of individual disciplines (Chalmers et al. 2002:21–22). Rather, a genuine synthesis should aspire to be a complex statement in its own right, something more than the sum of its constituent parts, and with a vocabulary of its own, particularly if the varying units of analysis (such as cultures, practices, languages, haplogroups etc.) are to be made commensurable. Three critical measures of the value of a synthesis include: success in identifying gaps in disciplinary and especially cross-disciplinary coverage; the need for a specific focus or emphasis for the narrative of the synthesis; and the requirement that the synthesis generate propositions or models that lend themselves to being tested individually or collectively by one or more disciplines or subdisciplines.

Gaps in our knowledge of specific areas or periods are readily identified by contributors to *Papuan Pasts*. In relative terms, there has been more of a focus on the Bismarck Archipelago and the PNG Highlands than on three other areas: the lowland interior of New Guinea (the Bosmun Plateau and the shores of the former Sepik-Ramu Inland Sea, in particular); the more remote islands, including Alor, Pantar, and Timor in the west, and Bougainville and the central Solomon Islands in the east; and the whole of west New Guinea (currently the provinces of Papua and Papua Barat in the Republic of Indonesia). Further afield, the history of Wallacea or eastern

Indonesia, which should supply an important context for Papuan history, is even less well known in most respects than that of New Guinea.

The only period of the region's history for which there is even adequate coverage is that relating to the production of Lapita pottery, from about 3300–2500 BP, and then only for those areas directly associated with Lapita settlement or trade. Gaps in temporal coverage include periods for which there is little or no evidence, such as the major gap identified for sediment records from New Guinea between 16,000 and 9000 BP (Hope & Haberle 2005:550), and critical periods in specific areas, such as the duration of the Sepik-Ramu Inland Sea, from before 7500 to about 4000 BP.

Another kind of gap in coverage is that of perspective. Though *Papuan Pasts* casts a broad net among the relevant disciplines and subdisciplines, some critical strands of evidence are missing, particularly at the juncture between ethnography and history. Anthropologists such as Nicholas Modjeska (1977), James Watson (1977), Maurice Godelier (1986), Daryl Feil (1987), and Pierre Lemonnier (1990) have speculated constructively on social transformations in Papuan societies on the basis of observations on contemporary practices and their distributions; and historians such as Rod Lacey (1975) and ethnoarchaeologists like Polly Wiessner (Wiessner & Tumu 1998) have addressed oral traditions, read carefully, as valid sources for specific historical events and processes. As noted above, the only chapter of *Papuan Pasts* directed towards this intersection is that by the geographer, Bryant Allen (2005).

The most important perspective missing in *Papuan Pasts* is that of the Papuans. Only one of the 45 authors is Papuan: geneticist George Koki, as one of 12 co-authors for an individual chapter. This should give us pause for thought and, at the very least, raise some doubts about the present value of deep history for Papuans. Whatever the reasons for this non-appearance of Papuans as contributors, it surely signals either a broad failure to recruit Papuan researchers in substantial numbers to these disciplines, or a lack of interest among Papuan researchers in the kinds of questions being addressed here—or perhaps both. Anecdotal evidence from my own experience in the region suggests that histories that fail to engage in some measure with the lives and recent historical pasts of living Papuan communities are of lesser interest or significance to those communities. Lapita or Pleistocene sites may evoke some interest among immediate landowners, or even become a source of national pride, but they are unlikely to compete for real attention with sites or events that impinge more obviously on people's lives and concerns. The recent past offers a vital hinge between living Papuan communities and the deeper past, and yet it also provides a critical meeting ground for Papuan and scholarly interests, as well as a lens on the details of processes of social and environmental transformation that might allow us to pose more challenging questions of our evidence for the deeper past.

Syntheses, as historian Thomas Bender (1986:136) reminds us, require “a center, a point of orientation for the various parts and a focus for narrative energy,” and an obvious point of orientation for Papuan histories is the recent past. It is over the period of the past few centuries that we are most likely to be able to appreciate the agency of historical actors and the diversity of strategies at play, together with the range of outcomes, intended and unintended, in any transformational process. As a very general characterization and with some obvious exceptions among the individual chapters, the focus of *Papuan Pasts* is on origins rather than processes, on the correlation of dates for founder events rather than the exploration or modeling of transformations, and on the deep past, rather than the immediate genesis of the present. Along with a concern for the integrity of the narratives drawing on different disciplinary and subdisciplinary perspectives, evident in the thematic organization of the contributions to *Papuan Pasts*, this is perhaps a prudent approach for an early stage of inquiry, but reflection on the range of possible alternative structures points to the limitations of the present framework. How differently might individual contributions have been configured had the titles of the thematic sections addressed processes such as “Invention,” “Migration,” “Transfer,” “Adoption,” or “Demise”?

The last of the critical measures of the value of a synthesis identified is the requirement of testability, with a preference for hypotheses that pose challenges individually to several disciplines and jointly to the collective. A particularly inspiring model for this form of inquiry is the invention by Nicholas Evans, a linguist, and the late Rhys Jones, an archaeologist, of the device of a hypothetical “quartzite ceremony” as a means of focusing the resources of archaeology, linguistics, and sociocultural anthropology on crucial questions in Pama-Nyungan history in northern Australia, including

... the whole complex of large-scale ritual gathering, socialisation into the religious and social ideology associated with it, technological knowledge passed on through ceremonial induction, and the consequences of social relationships set up in such ceremonies for marriage alliances and ultimate language shift. [Evans & Jones 1997:412]

By constructing a ceremony that is ethnographically, linguistically, and archaeologically plausible, if undemonstrated, their explicit aim is “to stimulate a new round of hypothesis-testing” (Evans & Jones 1997:417) by all three anthropological subfields, for each of which visible parameters of change are proposed. Papuan history might benefit from the development of similarly complex scenarios addressing, for example, the archaeologically visible stone mortars and pestles of the Papuan mid-Holocene, which raise questions about the genetic and linguistic evidence for the TNG expansion.

The goal of synthetic inquiry into a regional history is not the “prize” of “a single, coherent, holistic prehistory” (Heggarty 2008:35, editor’s preface).

To be truly productive, historical synthesis has to be more than just the “piecing together [of] findings in a multidisciplinary jigsaw” (Blench et al. 2008:3). It must entail the challenge of finding ways to reconceptualize and generate questions that can attract the attention and test the assumptions of multiple forms of inquiry; a “new holism” pursued “in order to tackle cognate problems genuinely requiring the input of other methodologies” (Parkin 2007:6). What is promoted through this process is a healthy respect for the insights of other disciplines and, reflexively, an awareness of the blind spots and assumptions embedded and unaddressed in one’s own disciplinary perspective (and yet so evident in those of other disciplines and even subdisciplines).

No single discipline is “ideally situated” (Donohue & Denham 2010:249) or enjoys a privileged position in this enterprise, which gathers its strength from the multiplication of lines of inquiry and evidence; and Oceanic scholarship has more to offer in this respect than an exemplary “laboratory” for phylogenetic reconstruction. If, as I have proposed here, reflection on the contribution of *Papuan Pasts* points to questions of historical process as a broad and largely open field for further research, then the region’s vast wealth of ethnographic and ethnohistorical material must also be brought into the fold—as an “Oceanic sacred bundle,” perhaps. Ethnography, not just as a quarry for comparative material but also as a locally specific source for analogy and understanding of social process; and oral traditions, because whatever the status of their veracity about the past, they structure human action (and thus the continuing historic record) in the present. Together, and in concert with the other historical disciplines, ethnography and ethnohistory have the potential to substantially enhance our capacity to conceive of and to understand processes of social transformation, in the recent as in the deep past.

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