

RECENT ADVANCES
IN THE
ARCHAEOLOGY
OF THE
FIJI/WEST-POLYNESIA REGION

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CONTENTS

<i>Preface</i>	v
<i>Introduction:</i>	
Archaeology in the Polynesian Homeland: The State of Play at the Beginning of the 21st Century	1
<i>Christophe Sand & David J. Addison</i>	
The Archaeology of the Polynesian Homeland: A Retrospective View of the Early Years	7
<i>Janet Davidson</i>	
Natural and Cultural Deposits in Tatuba Cave, Fiji Islands: 1972 and 2002 Investigations	33
<i>Julie S. Field</i>	
An Early First Millenium AD Burial from the Naselala Site, Cikobia-i-Ra Island (North-East Fiji)	45
<i>Frédérique Valentin, Christophe Sand, Isabelle Le Goff, & Hervé Bocherens</i>	
Tools of the Ancestors? Evidence for Culturally Modified Human Bone from Tongan Skeletal Assemblages	57
<i>Alice A. Storey</i>	
Who Built the Fort at Uliamoa? Conjectures on Indigenous Technology Transfer in Early Historic Sāmoa	71
<i>Shawn S. Barnes & Roger C. Green</i>	
Radiocarbon Dating Marine Shell in Samoa – A Review	79
<i>Fiona Petchey & David J. Addison</i>	
How Dark Are They? The Sāmoan Dark Ages, ~1500–1000 BP	87
<i>Timothy Rieth & David J. Addison</i>	
Samoan Plain Ware Ceramics of Tutuila Island, American Sāmoa: Some thoughts on their Spatial and Chronological Distribution	97
<i>David J. Addison, Jeffery Toloa, Tuipuavai Tago, & Siaki Vaueli</i>	

HOW DARK ARE THEY? THE SĀMOAN DARK AGES, ~1500–1000 BP

Timothy Rieth* and David J. Addison†

ABSTRACT

The period from ~1500–1000 cal BP has been noted as a Dark Age in our understanding of Samoan prehistory. Research agendas have focused on earlier pottery-bearing deposits and investigations of later monumental architecture. This has resulted in the Dark Age not as a historical reality but an artifact of archaeological research efforts. We examine seven general attributes of 18 archaeological deposits from across the Samoan Archipelago that date to this period. The results indicate a degree of variation in assemblages with respect to the types of artifacts present and associated architecture. Pottery is rare during this period and only present at three of the earlier deposits, suggesting that pottery production had ceased by ~1200 cal BP. Although our current knowledge of this period is still limited, the present synthesis of evidence offers minimal support for the ‘formative’ characteristics hypothesized by some researchers and used to explain the development of a hierarchical social structure and monumental architecture in later prehistory.

INTRODUCTION

Thirteen hundred years after initial colonization and settlement in the Sāmoan archipelago, the period from ~1500–1000 BP has been noted by archaeologists as a poorly understood Dark Age with little associated archaeological material (Davidson 1979: 94–95; see also Poulsen 1974 for Tonga). The lack of data from this Dark Age is recognized as resulting, at least in part, from the dearth of pottery associated with many of these deposits, thus providing limited surface and subsurface indications. The paucity of pottery may also have affected previous research objectives that focused on early pottery-bearing deposits and later monumental architecture. As Green (2002: 140) notes, ‘without pottery to easily alert us to habitation layers in

the interval between AD 500 and AD 1000, most dates falling between these intervals relate to traces of agricultural practices found at the base of later more substantial occupation features.’ In this sense, the Dark Age is not a historical reality, but rather, this gap in knowledge appears to be an artifact of archaeological research agendas. Temporally bookended by earlier pottery-bearing deposits and later monumental architecture, no research program has specifically focused on this portion of the archaeological record (see Spennemann 1986 for an exception). However, a number of deposits dated to this time can provide a general characterization of this interval. Such a generalization provides an initial basis for comparison with earlier and later sites and assemblages.

A review of the Sāmoan Dark Age is an important step towards integrating and analyzing the archaeological data generated during the last several decades, particularly that which stems from cultural resource management (CRM) projects in American Sāmoa. Most archaeologists working in the region realize the term Dark Age is a practical shorthand for discussing a period for which we lack sufficient data. However, to avoid a fallacious reification of this term as an accurate description of a particular interval of Sāmoan prehistory, light must be shed on the archaeological record of the latter half of the first millennium. If the archaeological record is viewed as exhibiting variability in the differential persistence of particular attributes of material culture through time and space, then a detailed understanding of the entire sequence is necessary for explanations of the temporal and geographical changes. For our understanding of Sāmoan prehistory to expand we must remove any ‘Dark Ages’ from our data.

Recently, Rieth and Hunt (2008) synthesized the published and unpublished radiocarbon dates from Sāmoa, applying a chronometric hygiene protocol to determine their reliability in terms of provenience and their accuracy and precision in the dating of an archaeological target event. From this analysis and subsequent data (Addison and Asaua 2006), 53 radiocarbon dates calibrated to this

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period have been accepted (Table 1).¹ These dates represent 18 areas from the islands of Savai'i, 'Upolu, Tutuila, Ofu, and Ta'u (Figure 1).

Seven attributes were recorded for each deposit: location, architectural features, ceramics, lithic artifacts, shell and/or coral artifacts, faunal remains, and other associated features (Table 2). Attributes were recorded in gross terms to provide baseline data about these deposits. Location was recorded as coastal or inland, with an arbitrary boundary of 200 m from a shoreline delimiting coastal areas. Architectural features include platforms, pavings, mounds, walls, paths, and postholes. Ceramics were recorded as present, absent, secondarily deposited, or unreported. Lithic artifacts were recorded as present, absent, secondarily deposited, or unreported and include basalt flakes, obsidian flakes, and formal basalt artifacts (e.g., adzes, graters). Shell and coral artifacts were recorded as present, absent, secondarily deposited, or unreported and include fishhooks, peelers, modified shell fragments, net weight sinkers, and other formal artifacts. Faunal remains, including vertebrate and invertebrate remains, were recorded as present, absent, secondarily deposited, or unreported. Other associated features include earth ovens, which are defined as pit features containing charcoal, ash, and fire-altered stone, other combustion features, other pit features, and burials. Each deposit is described below and is followed by a synthesis and discussion of the assemblage of sites.

1 The protocol was designed to be as inclusive as possible while still providing a critical analysis of each radiocarbon date. Protocol criteria were adapted from Spriggs (1989), Spriggs and Anderson (1993), and Smith (2002). Deposits excavated from the Cog Site (SU-17-165), Falefā Valley, Luātuanu'u, and Vailele areas of 'Upolu have calibrated dates within the 1500–1000 BP range, but were rejected for a variety of reasons. See Rieth and Hunt (2008) for in-depth explanations of the protocol and criteria.

Savai'i

Pulemelei

The Pulemelei Mound is within the Letolo Plantation at inland Palauli on southern Savai'i. The mound is part of an extensive distribution of surface features that Jennings, et al. (1982) divided in five village wards. Two dates of ~1200–1000 cal BP were obtained from charcoal concentrations beneath the stone fill of the Pulemelei Mound (Martinsson-Wallin, et al. 2005). Any cultural material associated with the clay sediment excavated from below the mound remains unreported. One of the radiocarbon samples dates charcoal from an earth oven. The samples pre-date construction of the large Pulemelei Mound and are not associated with any earlier architectural features.

'Upolu

SU-17-91, Tulaga Fale

Site SU-17-91 is part of Ward C of the extensive settlement recorded during the Mt. Olo survey (Hewitt 1980a; Holmer 1980a) at inland western 'Upolu. Excavation through a large stone platform (Platform 2) revealed three combustion features within the stratum underlying the surface architectural feature. One pit, Pit A, contained charcoal, stones, and fire-reddened sediment at its base and provided a date ~1200–900 cal BP (Hewitt 1980a: 44). One basalt flake was recovered from another combustion feature that can be stratigraphically correlated with Pit A. No other cultural material was associated with these features, although lithic artifacts and invertebrate faunal remains were associated with the platform. It is unclear how long after the use of the combustion features the platform was built.

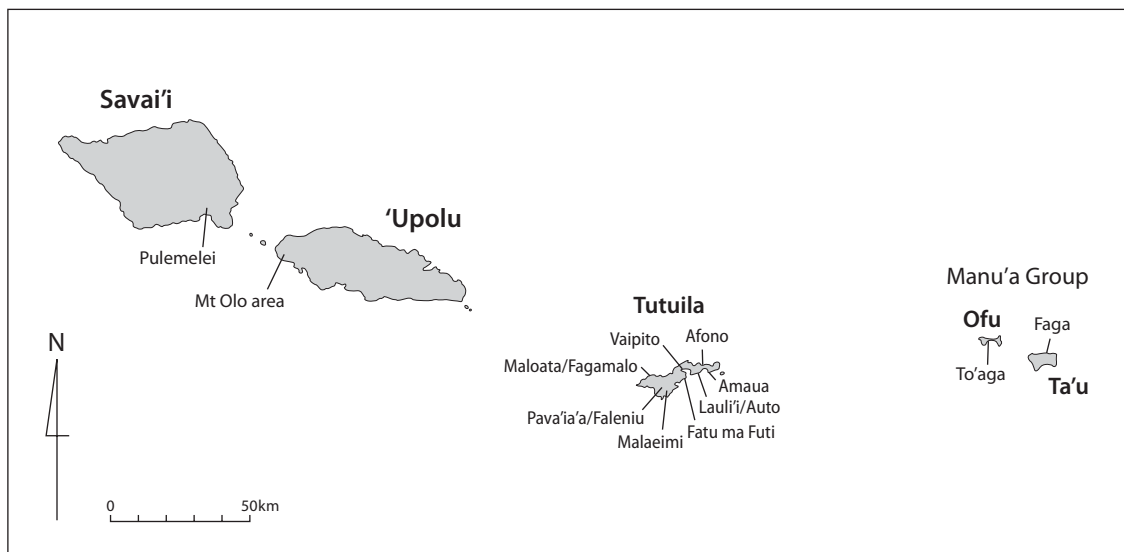


Figure 1. Map of the Samoan Islands showing all sites dating to 1500–1000 cal BP.

SU-17-483, Apulu HHU

Site SU-17-483, the Apulu household unit (HHU), is part of the Mt. Olo survey area (Holmer 1980b). The primary component of the site is a large stone platform, although the entire Apulu HHU includes multiple platforms bounded by stone walls and walkways. Charcoal from the base of a large oval pit dated ~1300–1000 cal BP. The stone platform is partially superimposed over the feature, while no cultural material was associated with the pit.

SU-17-552, Ten Points

Site SU-17-552 is a star mound located in Ward B of the Mt. Olo survey area (Hewitt 1980b). A charcoal sample obtained from the sediment underlying the star mound dates ~1700–1400 cal BP. A basalt adze was recovered from the surface of the same stratum; but its relationship with the dated scattered charcoal is unclear. The star mound post-dates the charcoal in this stratum by an undefined period of time.

Table 1. Sites with Cultural Deposits Dating between 1500–1000 cal BP.

Lab No.	Site	Provenience	CRA	Calibrated Age BP (2σ)	Calibrated Age BC/AD (2σ)	Reference
SAVAI'I						
WK-13869	Pulemelei	Trench 3, earth oven	1157 ± 44	1180–960	770–990 AD	Martinsson-Wallin, <i>et al.</i> 2005
WK-15502	Pulemelei	Trench 13, charcoal concentration	1134 ± 37	1180–960	770–990 AD	Martinsson-Wallin, <i>et al.</i> 2005
'UPOLU						
UGa-1985	SU-17-91, Tulaga Fale	Pit A	1115 ± 75	1260–1200 (4.4%), 1190–910 (91.0%)	690–750 AD (4.4%), 760–1040 AD (91.0%)	Hewitt 1980a; Jennings & Holmer 1980
UGa-1990	SU-17-483, Apulu HHU	Base of pit	1205 ± 70	1280–970	670–980 AD	Holmer 1980b; Jennings & Holmer 1980
UGa-1991	SU-17-552, Ten Points	Base of star mound	1620 ± 65	1700–1370	250–580 AD	Hewitt 1980b; Jennings & Holmer 1980
TUTUILA						
Wk-13050	AS-31-116, Pava'ia'i	Fea. 253, TU 2, L. I/2	1584 ± 44	1570–1370	380–580 AD	Carson 2005
Wk-13049	AS-31-116, Pava'ia'i	Fea. 253, TU 2, L. I/2	1564 ± 41	1540–1360	410–590 AD	Carson 2005
Beta-152732	AS-31-131, Faleniu	Fea. 40, STP 27/28, L. II, charcoal subfeature	1050 ± 40	1060–910	890–1040 AD	Cochrane, <i>et al.</i> 2004
Beta-165151	AS-31-131, Faleniu	Fea. 106, TU 1, L. II/1	1020 ± 50	1060–790	890–1160 AD	Carson 2005
Wk-14532	AS-31-171, Pava'ia'i	Location 3, L. III	1657 ± 58	1700–1410	250–540 AD	Addison, <i>et al.</i> 2005
Wk-15844	AS-31-171, Pava'ia'i	Location 1, L. III	1561 ± 32	1530–1380	420–570 AD	Addison, <i>et al.</i> 2005
Wk-15842	AS-31-171, Pava'ia'i	Location 2, L. IV	1512 ± 31	1520–1320	430–630 AD	Addison, <i>et al.</i> 2005
Wk-16246	AS-31-171, Pava'ia'i	Location 2, L. II	1066 ± 35	1060–920	890–1030 AD	Addison, <i>et al.</i> 2005
Wk-15849	AS-31-171, Pava'ia'i	Profile 28	1125 ± 31	1140–950	810–1000 AD	Addison & Asaua (2006)
Beta-15019	AS-34-34, Maloata	TP 1, L. IV	1240 ± 80	1300–980	650–970 AD	Ayres & Eisler 1987
Wk-11500	Āfono	BT-12, L. VI	1289 ± 39	1300–1130	650–820 AD	Addison & Asaua (2006)
Wk-11501	Āfono	BT-12, L. VII	1195 ± 41	1260–1200 (11.1%), 1190–1050 (76.6%), 1040–980 (7.7%)	690–750 AD (11.1%), 760–900 AD (76.6%), 910–970 AD (7.7%)	Addison & Asaua (2006)
Wk-15685	Āfono	Waterline Trench, 90 cmb1	1213 ± 33	1260–1200 (16.9%), 1190–1050 (78.5%)	690–750 AD (16.9%), 760–900 AD (78.5%)	Addison & Asaua (2006)
Wk-15686	Āfono	Waterline Trench, L. III	1226 ± 33	1270–1060	680–890 AD	Addison & Asaua (2006)
Wk-15687	Āfono	Profile 4, L. IV	1086 ± 35	1060–930	890–1020 AD	Addison & Asaua (2006)
Wk-15688	Āfono	Profile 4, L. IV	1055 ± 34	1060–920	890–1030 AD	Addison & Asaua (2006)
Wk-15690	Āfono	Profile 4, L. V	1287 ± 34	1300–1170 (93.8%), 1160–1140 (1.6%)	650–780 AD (93.8%), 790–810 AD (1.6%)	Addison & Asaua (2006)

Table 1 continued.

Lab No.	Site	Provenience	CRA	Calibrated Age BP (2σ)	Calibrated Age BC/AD (2σ)	Reference
Beta-82503	Amaua	Section C, Stratum F, L. V, Burial	1070 ± 60	1170–900 (92.2%), 860–800 (3.2%)	780–1050 AD (92.2%), 1090–1150 AD (3.2%)	Eisler 1995
Wk-18325	Aūto	Profile 8, L. III	1329 ± 30	1310–1220 (76.6%), 1210–1180 (10.4%)	640–730 AD (76.6%), 740–770 AD (10.4%)	Addison & Asaua (2006)
Wk-11506	Fagamalo	TU-1, L. III	1396 ± 44	1390–1260	560–690 AD	Addison & Asaua (2006)
Wk-11507	Fagamalo	TU-2, L. II	1218 ± 40	1270–1050	680–900 AD	Addison & Asaua (2006)
Wk-16986	Faleniu	Profile 6, L. V	1304 ± 34	1300–1170	650–780 AD	Addison & Asaua (2006)
Wk-16987	Faleniu	Profile 8, L. III	1179 ± 32	1180–980	770–970 AD	Addison & Asaua (2006)
Wk-18314	Faleniu	Profile 15, L. IV	1416 ± 31	1370–1285	580–665 AD	Addison & Asaua (2006)
Wk-18315	Faleniu	Profile 15, L. IV	1482 ± 31	1420–1300	530–650 AD	Addison & Asaua (2006)
Wk-18321	Faleniu	Profile 18, L. III	1639 ± 31	1620–1410	330–540 AD	Addison & Asaua (2006)
Wk-13001	Fatu ma Futi	TU-1 (Phase I), L. IV	1630 ± 42	1690–1670 (1.0%), 1620–1400 (94.4%)	260–280 AD (1.0%), 330–550 AD (94.4%)	Addison & Asaua (2006)
Wk-16932	Fatu ma Futi	TU-1 (Phase II), L. V	1524 ± 31	1520–1340	430–610 AD	Addison & Asaua (2006)
Wk-13002	Fatu ma Futi	TU-2, L. IV	1397 ± 50	1400–1240 (93.2%), 1210–1180 (2.2%)	550–710 AD (93.2%), 740–770 AD (2.2%)	Addison & Asaua (2006)
Wk-18522	Fatu ma Futi	TU-40, Spit 7	1341 ± 28	1310–1230 (85.0%), 1210–1180 (10.4%)	640–720 AD (85.0%), 740–770 AD (10.4%)	Addison & Asaua (2006)
Wk-18526	Fatu ma Futi	TU-40, L. IV	1339 ± 28	1310–1230 (83.8%), 1210–1180 (11.6%)	640–720 AD (83.8%), 740–770 AD (11.6%)	Addison & Asaua (2006)
Wk-18528	Fatu ma Futi	TU-19, Spit 12	1303 ± 29	1300–1170	650–780 AD	Addison & Asaua (2006)
Wk-18529	Fatu ma Futi	TU-45, L. III/IV	1279 ± 28	1290–1170	660–780 AD	Addison & Asaua (2006)
Wk-18525	Fatu ma Futi	TU-28/29 Baulk	1229 ± 30	1270–1160	680–890 AD	Addison & Asaua (2006)
Wk-16930	Fatu ma Futi	TU-1, L. IV/2	1057 ± 31	1060–920	890–1030 AD	Addison & Asaua (2006)
Wk-18323	Lauli'i	Profile 6, L. V	1280 ± 37	1300–1130 (93.6%), 1110–1090 (1.8%)	650–820 AD (93.6%), 840–860 AD (1.8%)	Addison & Asaua (2006)
Beta-94528	Malaeimi	Unit 7W, Stratum III	1200 ± 80	1290–960	660–990 AD	Suafo'a 1998
Wk-12993	Vaipito	Trench 1, East Baulk	1451 ± 52	1510–1460 (4.1%), 1420–1280 (91.3%)	440–490 AD (4.1%), 530–670 AD (91.3%)	Addison & Asaua (2006)

OFU

Beta-35924	AS-13-1, To'aga	Transect 5, Unit 15, L. II	2100 ± 70	1810–1440	140–510 AD	Kirch 1993
Beta-26463	AS-13-1, To'aga	Unit 3, L. II	1910 ± 50	1530–1270	420–680 AD	Kirch 1993; Kirch <i>et al</i> 1989
Beta-26465	AS-13-1, To'aga	Unit 13, L. IB	1600 ± 70	1250–930	700–1020 AD	Kirch 1993; Kirch <i>et al</i> 1989
Beta-35600	AS-13-1, To'aga	Transect 5, Unit 17, L. IIIB	1190 ± 70	1270–960	680–990 AD	Kirch 1993
Wk-14534	AS-13-1, To'aga	Anchor A-17, L. III	1105 ± 39	1130–1100 (1.5%), 1090–930 (93.9%)	820–850 AD (1.5%), 860–1020 AD (93.9%)	Addison & Asaua (2006)

TA'Ū

Beta-154147	AS-11-1, Fagā	L. V, beneath Burial 5	1240 ± 40	1280–1060	670–890 AD	Shapiro & Cleghorn 2002
Beta-104536	AS-11-1, Fagā	Seaward-Inland Transect, TU 1, L. VIII	1100 ± 60	1180–920	770–1030 AD	Cleghorn & Shapiro 2000
Beta-109583	AS-11-1, Fagā	Seaward-Inland Transect, TU 8, L. VIII	1050 ± 60	1090–790	860–1160 AD	Cleghorn & Shapiro 2000
Beta-109582	AS-11-1, Fagā, Fea. Complex L	TU 9, L. IV	1260 ± 50	1290–1070	660–880 AD	Cleghorn & Shapiro 2000
Beta-104539	AS-11-1, Fagā, Fea. Complex S, Fea. S-3	TU 5, L. II	1090 ± 80	1240–1200 (1.6%), 1190–890 (88.0%), 880–790 (5.8%)	710–750 AD (1.6%), 760–1060 AD (88.0%), 1070–1160 AD (5.8%)	Cleghorn & Shapiro 2000

Tutuila

AS-31-171, Pava'ia'i

AS-31-116, Pava'ia'i

Site AS-31-116 includes 25 stone walls, 11 terraces, nine mounds, one stone enclosure, and one surface artifact scatter in Pava'ia'i immediately inland of the Tafuna Plain (Carson 2005:106). Excavations through a stone retaining wall for a terrace produced two dates calibrated ~1600–1400 BP. The charcoal samples were obtained from beneath the terrace retaining face, pre-dating its construction. Three pottery sherds were recovered from the same layer as the charcoal samples, but it has been suggested that the cultural deposit may be in a secondary context (Carson 2005:111). No other cultural material was associated with this deposit.

Site AS-31-171 is another site located in Pava'ia'i village. Five radiocarbon samples dating to ~1700–900 cal BP were obtained from three locations throughout the village (Addison, et al. 2005; Addison and Asaua 2006). Four of the dates were obtained from a stratum capped by an intact volcanic ashfall (Addison, et al. 2005). Three of the four dates, dating ~1700–1400 cal BP, came from charcoal concentrations with no associated cultural material. One sample, dated ~1700–1400 cal BP, is associated with a Polynesian Plainware deposit. No other cultural material was recovered.

Table 2. Attributes of Cultural Deposits Dating to 1500–1000 cal BP.

Provenience	Location	Architecture	Ceramics?	Lithic Artifacts?	Shell and/or Coral Artifacts	Faunal Remains?	Other Associated Features?
SAVAI'I							
Pulemelei	Inland	- (pre-dates mound)	?	?	?	?	Earth oven
'UPOLU							
SU-17-91, Tulaga Fale	Inland	- (pre-dates stone platform)	-	+	-	-	Probable earth oven
SU-17-483, Apulu HHU	Inland	- (pre-dates stone platform)	-	-	-	-	Large oval pit feature
SU-17-552, Ten Points	Inland	- (pre-dates star mound)	-	?	-	-	-
TUTUILA							
AS-31-116, Pava'ia'i	Inland	- (pre-dates terrace)	Secondary deposit?	-	-	-	-
AS-31-171, Pava'ia'i	Inland	-	+	-	-	-	-
AS-31-131, Faleniu (multiple locations)	Inland	- (pre-dates terrace)	-	-	-	-	-
AS-34-34, Maloata	Coastal	-	-	+	-	-	-
Āfono	Coastal/Inland	? Possible gravel paving, postholes	Secondary deposit	?	-	-	? Burials?
Amaua	Coastal	-	-	-	-	-	-
Aūto	Coastal	-	+	?	+	?	?
Fagamalo	Coastal	? Possible gravel paving	-	?	-	?	-
Fatu ma Futi	Coastal	+ Postholes, gravel paving, stone alignments	-	+	+	+	+
Lauli'i	Coastal	+ Gravel paving	-	-	-	-	+ Burials
Malaeimi	Inland	-	?	?	-	-	-
Vaipito	Inland	+ Terrace	-	?	-	-	? Possible earth oven
OFU							
AS-13-1, To'aga	Coastal	+	+	-	+	+	Earth oven
TA'Ū							
AS-11-1, Fagā	Coastal	- (pre-date paving and platform)	-	+	+	+	-

AS-31-131, Faleniu

Site AS-31-131 includes 77 terraces, 57 walls, nine platforms, eight mounds, two stone rings, and one stone enclosure in Faleniu inland of the Tāfuna Plain (Carson 2005: 121). Excavations at two features produced radiocarbon dates ~1100–800 cal BP. One sample dated a charcoal lens, identified as an ash dump, within earthen terrace fill at Feature 40 (Cochrane, et al. 2004: 191). No other cultural material was associated with the charcoal feature. The second date was obtained from excavations through an earthen filled terrace, Feature 106. The sample directly underlay the terrace retaining edge, and was from a non-ceramic stratum overlying a ceramic bearing deposit. Carson (2005: 127) states that the radiocarbon date range ‘equals or pre-dates the non-pottery-bearing terrace construction, and it equals or post-dates the deposition of the eroded pottery in the underlying layer.’ No other cultural material is directly associated with this deposit.

Addison and Asaua (2006) list another five dates from Faleniu village, which are calibrated at ~1600–1000 BP. Associated artifactual and stratigraphic information has yet to be published.

AS-34-34, Maloata

Site AS-34-34 is located in Maloata Valley on the northwest coast of Tutuila. Pre-contact and historic features and surface artifact scatters are distributed along the shoreline of Maloata Bay and in the valley proper (Ayles and Eisler 1987: 32). Excavations along the lower valley floor revealed a lithic-artifact-bearing deposit dated ~1300–1000 cal BP (Ayles and Eisler 1987: 72). Several basalt flakes, fire-altered stone, and charcoal are associated with this radiocarbon date. No other artifacts or features were recorded.

Āfono

Six dates calibrated ~1300–900 BP have been obtained from cultural deposits in Āfono Village located along the northeast coast (Addison and Asaua 2006). Two of the dates (Wk-11500 and Wk-11501) are from charcoal in superimposed strata that each contained a single ceramic sherd, however, both strata are interpreted as being in secondary contexts. The remaining dates from Āfono are from the center of the modern village and indicate continuous habitation since ~1300–1000 BP. The cultural deposits associated with these dates include stone pavings, postholes, combustion features, lithic artifacts, and burials.

Amaua

One charcoal sample from excavations at Amaua Village along Fagaʻitua Bay along the south shore of Tutuila dates ~1200–800 cal BP (Eisler 1995: 21). The charcoal was obtained from sediment directly underlying a human burial, although there is no direct evidence for association be-

tween the charcoal and the burial. This date cannot be firmly associated with a particular event or cultural material.

Aūto

A cultural deposit containing plainware pottery and shell ring/bracelet fragments in Aūto Village along the south shore at Fagaʻitua Bay has a single radiocarbon date calibrated ~1300–1200 BP (Addison and Asaua 2006). This deposit underlies a stratum with a large amount of basalt flakes.

Fagamalo

The lowest cultural stratum at Fagamalo Village, located along the northwest coast adjacent to Maloata Bay, dates ~1400–1000 cal BP (Addison and Asaua 2006). There is a possible coral gravel paving in this stratum, but proximity to the beach raises the possibility of natural deposition of the gravel, such as during storm events. No other cultural material is reported from this deposit. This stratum is below a deposit with large amounts of basalt flakes.

Fatu ma Futi

Fatu ma Futi, located along the south shore at the western side of Pago Pago Harbor, has been extensively excavated and provides a large suite of radiocarbon dates (Addison and Asaua 2006). The earliest deposits span ~1600–1000 cal BP and contain gravel pavings, stone alignments, postholes, fire-altered stone, lithic artifacts, and invertebrate and vertebrate faunal remains. The initial cultural strata appear to represent the occasional use of a newly formed beach for marine resource procurement. Overlying these deposits is a stratum with evidence of large-scale lithic manufacturing. Interestingly, the entire sequence at Fatu ma Futi is aceramic.

Lauliʻi

Lauliʻi is a similar coastal setting to Fagamalo, however located along the southeastern shore. A single date calibrated ~1300–1100 BP from the basal cultural deposit at Lauliʻi has been obtained (Addison and Asaua 2006). This deposit contains at least one burial, and perhaps architectural features such as a gravel paving, postholes, and hearths. No portable artifacts or midden have been reported.

Malaeimi

Malaeimi Valley is located at the northern edge of the Tāfuna Plain. A radiocarbon date calibrated ~1300–1000 BP has been obtained from the valley (Suafōʻa 1998); however, no detailed provenience information correlating the radiocarbon dates with the cultural material, which includes abundant lithic artifacts and pottery, has been published.

Vaipito

A single radiocarbon date, calibrated ~1500–1300 BP, has been obtained from a cultural deposit at Vaipito far in the interior of Pago Pago Valley (Addison and Asaua 2006). The Vaipito date comes from a terrace fill stratum in a 2000-year sequence of superimposed terraces. The ~1500–1300 cal BP deposit is stratigraphically bracketed by an underlying plainware pottery-bearing stratum dated ~2000 cal BP and a superimposed stratum with evidence of large-scale basalt tool manufacture dated ~700 cal BP (Addison and Asaua 2006). No artifacts or midden were recovered from the mid sequence deposit. This site provides evidence that by the start of the dark ages people had already been living far inland on Tutuila for ~500 years.

Ofu

AS-13-1, To'aga

Site AS-13-1 is located on the To'aga coastal flat along the southeast shore of Ofu Island. Four dates from the extensive excavations undertaken at To'aga date to the period of interest (Kirch 1993). Three of these four dates, calibrated ~1500–1300 BP and ~1300–900 BP, date aceramic cultural deposits. The fourth, and earliest, date calibrated ~1800–1450 BP, provides the youngest age for ceramics at To'aga (Kirch 1993: 89). Nearly all of these dates are associated with invertebrate midden deposits, with some including small amounts of vertebrate faunal remains (Nagaoka 1993). Along with the pottery, an unfinished shell fishhook and an echinoid spine abrader were recovered from one of the deposits. Additionally, one date was obtained from a subsurface 'ili'ili paving, while another date predates construction of a surface platform (Kirch and Hunt 1993b: 56, 61). No lithic artifacts, discounting fire-altered stones, were derived from the Dark Age deposits.

More recently, an additional date calibrated to this interval has been obtained from To'aga (Addison and Asaua 2006). A large earth oven feature in close proximity to the current beach provided a date of ~1100–900 BP. The top of the oven is more than one meter below the surface, and its location relative to the coast suggests that by ~1000 cal BP the To'aga coastal flat had perhaps attained its present shoreline.

Ta'u

AS-11-1, Fagā

Site AS-11-1 is located on the Fagā coastal flat along the north coast of Ta'u Island. Five radiocarbon dates calibrated within the period under study have been obtained from archaeological investigations at Fagā. One date calibrated ~1300–1050 BP was obtained from charcoal removed from a bulk sediment sample stratigraphically associated with a human burial (Shapiro and Cleghorn 2002: 61–63). It is

not apparent how this sample dates the interment or any other specific cultural material or event. The four remaining dates were obtained from excavations across the coastal flat carried out by Cleghorn and Shapiro (2000). All of the dates fall within ~1300–800 cal BP, dating aceramic cultural deposits containing numerous lithic artifacts, including basalt adzes, flakes, an anvil, and a hammerstone, one shell fishhook, and vertebrate and invertebrate faunal remains. These deposits represent the earliest occupation of Fagā identified thus far.

A SUMMARY OF THE DARK AGES

The Dark Age period, ~1500–1000 cal BP, has been given considerable socio-cultural significance that presently has little basis in the archaeological record (see also Smith 1999, 2002). From a culture-evolutionary perspective, this must be an important time during which an initial Ancestral Polynesian Society developed into a later hierarchically organized chiefly society. Burley and Clark (2003: 240) state that 'it was here [during this period] that the foundations for late prehistoric Polynesian polities were forged.' Because of its formative significance, they suggest that evidence for increased political hierarchy, group divisions, and competition should be archaeologically apparent. Green (2002: 140) is wary of terming this a 'formative' period for later socio-cultural developments, but postulates that there was a general continuity within Sāmoan culture with an expanded settlement and use of the landscape. Smith's (1999, 2002) review of the West Polynesian archaeological record pre-dating ~1000 BP identified the loss of dentate-stamped decoration and complex vessel forms (e.g. Lapita ceramics) as the primary change in material culture during approximately 2000 years. Her results are supportive of general continuity in the archaeological record preceding construction of large field monuments beginning ~1000 BP. This review is complementary to Smith's analysis as it focuses specifically on the centuries immediately preceding a major change in the record, and includes previously unavailable data.

In terms of the archaeological record, this period is bracketed at one end by cultural deposits most often characterized by their pottery and at the other end by later monumental architecture and expansive settlements. Archaeologists have noted that an absence of pottery has made identification of these deposits difficult (Burley and Clark 2003: 240; Green 2002: 140), while also noting that little research has been tailored specifically to the examination of this portion of the archaeological record (Burley 1998: 380–381; Burley and Clark 2003: 240). For this reason, the 18 sites from across the Sāmoan islands that have deposits dating to this period were characterized.

The following paragraphs will summarize the attribute data presented in Table 2. General observations and patterning of the archaeological record are suggested by the data. Coastal and inland locations were occupied during

this period, and may include a variety of architectural features. Lithic artifacts are present, although at a lower frequency than may be expected, with well-dated major lithic manufacture coming only after the Dark Age. Pottery is very infrequent in these deposits, and only occurs at the earliest end. Invertebrate and vertebrate midden has been recorded from some deposits, although few detailed analyses have been conducted.

With respect to location, these sites represent a variety of locales glossed by categorization as 'coastal' or 'inland.' However, using these general categories, coastal sites have been identified on Ofu and Ta'ū with inland sites at Savai'i and 'Upolu. Both coastal and inland sites have been recorded on Tutuila.

All of the dates from Savai'i, 'Upolu, and Ta'ū provide *terminus post quem* dates for different surface architectural features (stone platforms, paving, star mound, and large stone mound), but they do not provide direct chronological information regarding architecture during the period ~1500–1000 cal BP. In this case, Tutuila provides three directly dated architectural features from Fatu ma Futi (pavings, alignments, and postholes), Lauli'i (paving), and Vaipito (terrace), with two additional possible gravel paving and postholes from Fagamalo and Āfono.

Surprisingly, only four cultural deposits at SU-17-91 (Tulaga Fale), AS-34-34 (Maloata), Fatu ma Futi, and Fagā contain lithic artifact assemblages. Shell artifacts have been recorded at Aūto, Fatu ma Futi, To'aga, and Fagā, while faunal remains have been collected from Fatu ma Futi, To'aga, and Fagā. The most common associated features are earth ovens and burials.

The ceramic evidence gathered in this review has implications for the chronology of pottery production and use in Sāmoa. Only three of the 18 sites contained primary ceramic deposits. Two of these deposits, AS-31-171 (Pava'ia'i) and Aūto are on Tutuila, while the third is the To'aga site on Ofu. Chronologically, To'aga provides the earliest date range from ~1800–1450 cal BP followed by AS-31-171 (~1700–1400 cal BP) and Aūto (~1300–1200 cal BP). Based on this review, the presence of pottery in deposits from ~1500–1000 cal BP is rare. Clark (1996: 451) has proposed that 'pottery was widely used in Samoa through the first half of the first millennium A.D. [and during] the next few centuries pottery use declined, even disappeared at some locations,' although it may have continued up to 1300–1600 A.D. The present data suggest a very limited distribution of pottery by ~1500 cal BP, which is approximately in line with the earlier proposals by Green and Davidson (1974; Green 1974) and Kirch and Hunt (1993a).

Although very little detailed information from most of the Dark Age cultural deposits has been reported, the data from To'aga and Fagā are important exceptions. Comparison of the results of the analyses from the To'aga and Fagā assemblages demonstrates a significant degree of spatial

variability between nearly contemporaneous deposits within the small, closely grouped islands of Manu'a. The To'aga deposits from this interval begin with pottery, which quickly drops out of the sequence, and contain abundant vertebrate and invertebrate faunal remains, some non-lithic artifacts, and no lithic artifacts. In contrast, the deposits from Fagā have produced numerous basalt artifacts including formal tools, retouched and polished flakes, and manufacturing flakes along with invertebrate and vertebrate midden. Future comparisons between the assemblages throughout the archipelago are needed to explain changes in Sāmoan culture during this time. Publication of the extensive excavations at Fatu ma Futi will further this end.

Our current knowledge of the archaeological record in Sāmoa during the period ~1500–1000 BP is extremely limited, yet it offers minimal support for the 'formative' characteristics hypothesized by Burley and Clark (2003: 240). Barring three primary pottery-bearing deposits, pottery is absent from most locales, suggesting that it is during these centuries that pottery production ceases in many, if not all, communities in the archipelago. Identifying changes in associated or contemporaneous material culture during this period requires further analysis. For the two sites that do have an appreciable amount of analyzed cultural material dating to this time, significant variability in these assemblages is noted. Comparable data sets are needed from across the island group to expand our understanding of group interaction, lithic/bone/shell/coral artifact technologies, subsistence strategies, and settlement. Although presently painted in broad brush strokes, a methodology that documents variability in the archaeological record, at a number of scales, will be necessary to analyze change in material culture through time and space. It is only with such data that we can begin to explain processes of culture change and complexity.

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