

APPENDIX B

Archaeobotanical Data

TABLE 3 Summary Botanical Dataset

	Late Ngre / Early Kuulo	Mid-Late Kuulo	Early Makala	Late Makala	Totals
Contexts	5	5	4	4	18
Samples	44	129	77	31	281
Total liters collected	160	605	188	142	1095
Charcoal count	6,998	21,802	7,117	10,051	45,968
Charcoal weight	107	367	192	211	877
Unidentifiable Plant Remains					
Nonseed plant remains	1,292	2,778	1,291	1,182	6,543
Seed fragments	134	357	498	142	1,131
Nut/fruit shells	8	3	1	18	30
Identified seeds	217	371	5,743	127	6,458
Total Counts	8,649	25,311	14,650	11,520	60,130

TABLE 4 Ubiquity Analysis, by Mound and Context

Phase	Site	Mound identification	No. of samples	<i>Pennisetum glauca</i> (incl. cf.) [*]	<i>Sorghum bicolor</i> (incl. cf.)	<i>Zea mays</i> (cupule + kernel + cf.)	<i>Byproduct</i>
Late Ngre / Early Kuulo	KK	138	4	0	0		
	KK	101, L. 20–25	6	100	17		
	NK	3	3	100	67		
	NK	6	21	48	5		
	KK	148	9	75	0		
	NK	8	2	50	0		
<i>Total/Avg. for phase</i>			45	56	4	—	—
Mid-Late Kuulo	KK	101	15	93	0	0	40
	NK	8	6	100	0	0	17
	NK	7 lower	26	19	4	0	15
	KK	118	55	35	5	15	5
	NK	7 upper	25	48	0	0	32
<i>Total/Avg. for phase</i>			127	44	3	6	17
Early Makala	MK	5	49	43	33	10	
	MK	6	15	20	13	0	
	NK	8	5	60	20	20	
	A-212	1	4	100	50	0	
	B-112	1	3	100	0	100	
<i>Total/Avg. for phase</i>			76	45	28	12	—
Early/Late Makala	Banda Rockshelter	9	9	11	0	22	
Late Makala	BK	6	6	0	0	33	
	MK	9	8	13	0	38	
	MK	10	8	13	0	0	
<i>Total/avg. for phase</i>			22	9	0	23	—

Abbreviations: NK: Ngre Kataa (site); KK: Kuulo Kataa (site); MK: Makala Kataa (site); BK: Bui Kataa (site); lower: structure that is stratigraphically lower; upper: structure that is stratigraphically above the lower structure.

^{*} This and the next three columns report the percentage of samples in a given context where the indicated taxon was recovered; for example, 100 indicates that 100% of samples yielded the taxon. To calculate ubiquity, the number of samples with a given taxon is divided by the total number of samples and multiplied by 100 to generate a percentage. Totals for each phase are averages for the phase, calculated by dividing the total number of samples in that phase with that taxon by the total number of samples in the phase and multiplying by 100. The pros and cons of ubiquity analysis are further considered in chapter 2, backnote 9.

TABLE 5 Summary Count and Percent Frequency Data for Grain Crops

Phase and site	Mound identification	Count: Pearl millet (<i>Pennisetum glaucum</i>) (incl. cf.)	%: Pearl millet	Count: Sorghum (<i>Sorghum bicolor</i>) (incl. cf.)	%: Sorghum	Count: cf. <i>Digitaria</i>	%: <i>Digitaria</i>	Count: Maize (<i>Zea mays</i>) (cupule + kernel + cf.)	%: Maize	Count: All grains
<u>Late Ngre/Early Kuulo</u>										
KK	138	0	0	0	0	0	0	0	0	0
KK	101, L. 20–25	44	98	1	2	0	0	0	0	45
NK	3	30	91	3	9	0	0	0	0	33
NK	6	35	95	2	5	0	0	0	0	37
KK	148	15	100	0	0	0	0	0	0	15
NK	8, L. 10–29	34	100	0	0	0	0	0	0	34
<i>Total/avg. for phase</i>		158	96	6	4	0	0	0	0	164
<u>Mid-Late Kuulo</u>										
KK	101	42	100	0	0	0	0	0	0	42
NK	8	8	80	1	10	0	0	1	0	10
NK	7 lower	24	92	2	8	0	0	0	0	26
KK	118	43	67	4	6	0	0	17	27	64
NK	7 upper	27	100	0	0	0	0	0	0	27
<i>Total/avg. for phase</i>		144	85	7	4	0	0	18	11	169
<u>Early Makala</u>										
MK	5	2,631	55	2,098	44	0	0	17	0	4,746
MK	6	3	60	2	40	0	0	0	0	5
A-212	1	12	55	10	45	0	0	0	0	22
B-112	1	4	31	0	0	0	0	9	69	13
<i>Total/avg. for phase</i>		2,650	55	2,110	44	0	0	26	1	4,786
<u>Late Makala</u>										
BK	6	0	0	0	0	0	0	13	100	13
Banda Rockshelter	9	1	33	0	0	0	0	2	67	3
MK	9	1	20	0	0	0	0	4	80	5
MK	10	1	100	0	0	0	0	0	0	1
<i>Total/avg. for phase</i>		3	14	0	0	0	0	19	86	22

Note: Two kinds of data are displayed in this table: simple seed counts and the percentage frequency of a grain relative to other grains. The latter measure is calculated by dividing the count of a particular grain taxon (e.g., pearl millet) for a particular context (e.g., KK M138) by the total number of grains (pearl millet, sorghum, maize, and *Digitaria*) for

(Contd.)

TABLE 5 (Continued)

that same context (e.g., KK M138) and multiplying the result by 100 to provide a percentage. The resulting number gives us an idea of the importance of a particular grain (e.g., pearl millet) relative to all the other grains. Phase averages make the same calculation by dividing the total count of a given grain taxon by the total number of all grains for the phase.

Abbreviations: NK: Ngre Kataa (site); KK: Kuulo Kataa (site); MK: Makala Kataa (site); BK: Bui Kataa (site); lower: structure that is stratigraphically lower; upper: structure that is stratigraphically above the lower structure.

TABLE 6 Presence/Absence of Plant Taxa, by Phase

	No. of samples	Late Ngre / Early Kuulo	Mid-Late Kuulo	Early Makala	Early/Late Makala (Banda Rockshelter)	Late Makala
Grain crops and grasses	Mound contexts*					
<i>Dactylonium aegypticum</i>	1		+			w
<i>Digitaria</i> cf. <i>exilis</i>	1					
<i>Pennisetum glaucum</i>	20	+	+	+		+
cf. <i>Pennisetum glaucum</i>	15	+	+	+	+	
<i>Sorghum bicolor</i>	11	+	+	+		
cf. <i>Sorghum bicolor</i>	6	+	+	+		
<i>Zea mays</i>	7		+	+	+	+
cf. <i>Zea mays</i>	1		+			
Poaceae (probable domesticates)	18	+	+	+		+
Nongrass taxa						
cf. <i>Abelmoschus esculentus</i>	2					+
<i>Adansonia digitata</i>	1			+		
<i>Afromamum melegueta</i>	2	+	+			
<i>Butyrospermum parkii</i> (shell)	7	+		+		
cf. <i>Capsicum</i> sp.	1					+
cf. <i>Cassia occidentalis</i>	1					+
<i>Cassia tora</i>	3		+	+		+
<i>Ceiba pentandra</i>	1					
<i>Celtis integrifolia</i>	2	+				+
<i>Elaeis guineensis</i> (shell)	1		+			
cf. <i>Euphorbia</i> sp.	1		+			
<i>Ficus</i> sp.	8	+	+	+		+
cf. <i>Indigofera tinctoria</i>	1					+
cf. <i>Laportea aestivans</i>	1		+			
<i>Nicotiana</i> cf. <i>rustica</i>	3–5	+ ?	+	+		+
<i>Piliostigma thonningii</i>	1		+			
<i>Portulaca foliosa</i>	2			+		+

(Contd.)

TABLE 6 (Continued)

	No. of samples	Late Ngre / Early Kuulo	Mid-Late Kuulo	Early Makala	Early/Late Makala (Banda Rockshelter)	Late Makala
Grain crops and grasses	Mound contexts*					
<i>Portulaca</i> sp.	2			+		+
<i>Sida</i> sp.	1					+
<i>Vigna unguiculata</i>	1				+	
cf. <i>Vigna unguiculata</i>	4	+	+			
<i>Zaleya pentandra</i>	8	+	+			+
Apocynaceae	1				+	
cf. Asteraceae	1		+			
Boraginaceae	3	+	+			
Boraginaceae/Euphorbiaceae	1		+			
Chenopodiaceae/Amaranthaceae	6		+	+		+
Cucurbitaceae	2					+
cf. Cucurbitaceae	1					
Cyperaceae/Polygonaceae	1			+		
Euphorbiaceae/Lamiaceae	5	+	+	+		
Euphorbiaceae/Malvaceae	1			+		
Fabaceae	8	+	+		+	+
cf. Fabaceae	6	+	+	+		+
Lamiaceae (<i>Cassia/Ocimum</i>)	1		+			
Malvaceae indeter. (cf. <i>Sida</i> sp.)	3	+	+		+	
Polygonaceae	2			+		+
cf. Solanaceae	2			+		+
cf. Verbenaceae	1			+		
Unknown Type 58	1				+	

* Indicates the number of broadly defined contexts in which a taxon was found. See Logan and Stahl (2017) for more detail on how mound contexts were defined.