

Status and Gender in Hawaiian House Complexes

Kirsten Garwood Vacca

University of Hawai'i – West O'ahu

Michael J. Kolb

Metropolitan State University of Denver

Abstract

This research compares excavated material collected from Sites 50-50-10-2090 and -2091 (Kēōkea Maui), a pre-European contact (c. 1650 C.E.) kauhale house complex, to a model of expected findings derived from Hawaiian oral traditions and ethnohistoric accounts of household gender and status activities. Our goal is to critically analyze the relationship between the Hawaiian system of 'ai kapu (taboo) and the use of space within house sites to better understand the diversity of the daily lived experiences and the multiplicity of gender and status interactions that household members engaged in. Results indicate a distinct post-1650 C.E. intra-site distribution of faunal remains that is concomitant with status and potentially gender food consumption. This patterning, however, does not ideally match the model derived from ethnographic descriptions.

Introduction

Exploring the material culture of Hawaiian house sites is vital for a better understanding of ancestral social structures. Traditional household spaces were designed around the the 'ai kapu (taboo) system of sanctions that governed social interaction to accommodate daily subsistence and production activities. Research on households is therefore fundamental for understanding how communities differentially interpreted and adhered to these restrictions in their daily lives.

Our goal is to answer a series of important questions that have not been properly addressed even though archaeologists have researched kauhale (house sites) for decades. Specifically, did the implementation of social sanctions at the district- and community-levels result in variations in spatial practice from the stated ideal in the mo'olelo (ethnohistorical accounts of myth, legend, and history)? How did households differentially participate in 'ai kapu restrictions? Are current archaeological approaches to kauhale adequate for assessing the design and use of features? Finally, how has the perpetuation of western gender

constructs impacted the interpretation of kauhale? In addressing these questions, we critique the primacy afforded Western histories of colonized spaces and the “discourse of sufficiency” that leads to a reliance on a limited set of contact-era Hawaiian historians.

Our approach reflexively engages the historical literature in ways that allows for *diversity* rather than *homogeneity* to guide our analysis of the archeological record. We employ a place-based understanding of class and gender to differentiate how historically proscribed gendered and classed relationships intersect and materialize in household space. We argue that a cluster of east Maui house sites (the uplands of Kula district) exhibit some evidence of gender separation, but do not neatly adhere to the normative practices of historical house organization. We adduce multiple lines of evidence to support our findings, including analysis of material remains, the spatial bifurcation of household architecture, previous archaeological research, and historical and ethnographic records. Results indicate that the reliance upon architecture and macro-artifact data alone might be problematic for fully engendered interpretations, and that additional lines of evidence, such as micro-artifact and micromorphological

analyses could add clarity to spatial divisions without needing to move toward the more destructive method of complete areal excavations.

Previous Household Research in Hawai'i

Hawaiian habitation sites have been recorded, excavated, and analyzed since the 1960s (see Kahn 2014, 2016 for detailed reviews). Much of this work focuses on landscape organization, particularly at the ahupua'a (community) level (Allen and McAnany 1994; Earle 1977; Handy and Pukui 1972; Kolb 1997; Kolb and Snead 1997; Sahlins 1992). Ahupua'a research addresses the organization of labor and the distribution of cultural structures on the landscape (Kolb and Snead 1997); household economic scalar change (Field *et al.* 2010; Field *et al.* 2011); the social relations and connections of households to the community (Holm 2006); and temporal change of social relationships within the community (Kolb 1997).

Research on inter- and intra-site variability of house complexes has gained traction in the Pacific (Kahn 2016:12-13) yet continues to be underrepresented in Hawaiian household literature. The limited research into variability of house features that has taken place has addressed the types of features on the landscape (e.g., Cordy 1981; Green 1967, 1970; Weisler and Kirch 1985); temporal house construction (e.g., Field *et al.* 2010, 2011); and the ideological organization of space (Kahn 2016:12). Recent work has shifted away from architecture and instead focused on the variability in *use* of space within a household complex (e.g. McCoy and Codlin 2016; O'Day 2001; Van Gilder 2005). Few studies have explicitly addressed gender variation and the separation of archaeological spaces (exceptions include Kirch and O'Day 2003; Vacca 2019; Van Gilder 2005; Van Gilder and Kirch 1997). Some touch on gender in their analysis (e.g., Kirch and Sahlins 1992), but it is not a central theme.

Our research is an in-depth household analysis that follows the theme of examining functional variation of archaeological features and its implications for social systems (Weisler and Kirch 1985). We critically examine the historically documented 'ai kapu social restrictions that guided the use of household space to better articulate the gender and status interactions that household members engaged in. To clarify, we use the term 'house complex' or 'kauhale' to reference two or more architectural buildings utilized by a social group, and the term 'feature' to refer to an architectural building within a complex.

Markers of Social Difference

We begin our analysis by identifying material markers of gender and status differences that might exist in the archaeological record (see Conkey and Gero 1991:9; Nelson 2004:5). Looking to material at the household scale brings into focus the ways in which people aspired toward or transgressed gender ideologies in their daily lives. The information passed down in Hawaiian mo'olelo not only discuss gendered practices, but also how the many political ranks that were present in ancestral Hawai'i (e.g., Kamakau 1991:39-40) impacted gender performance, indicating that attention to variability in excavated kauhale across status lines will elucidate the intersectional relationship between class and gender.

Dozens of kauhale household clusters would have covered the landscape in each island political district (moku), stretching from the mountain to the ocean. The political restructuring associated with creating the ahupua'a community segments within each moku is estimated to have occurred in the 15th century C.E. (Malo 1951:28), an oral tradition substantiated by archaeological data (see Baer 2015; Cordy 2000; Hommon 2013; Kirch 2010). This period saw the intensification of Hawaiian 'ai kapu system that drastically affected daily life (Baer 2015:202; Beckwith 1976:294; Garwood 2010; Kamakau 1991:223; Kolb *et al.* 1997), guiding the subsistence and productive practices of household members. Table 1 lists the kauhale features built to accommodate both male and female tasks, but mo'olelo tell us that while commoners were punished for breaking 'ai kapu (Malo 1951:29), they were less likely to follow the ideal:

People who were of no account (*lapuwale*)...only cared for a little shanty...the fire-place was close to their head, and the *poi* dish conveniently at hand; and so, with but one house, they made shift to get along. People who were well off, however, those of respectability, of character, persons of wealth or who belonged to the *ali'i* class, sought to do everything decorously and in good style; they had separate houses for themselves and for their wives.

[Malo 1951:122]

Shiftless people oft-times lived in unsuitable houses, claiming that they answered well enough.

[Malo 1951:118]

Archaeological literature supports Malo's observations that lower status individuals built smaller

Table 1. Ideal Components of Hawaiian Kauhale.

Component*	Description	Use	Architecture†
HALE NOA**	House free of kapu	Sleeping house, no eating allowed. Separated into two halves, one half used as a sleeping area by the household, one half used as a sitting area for adults, play area for children.	Polygonal feature with smaller level internal surfaces. Low end: 17-24 m ² High end: 66 m ²
HALE ‘AINA**	Wāhine eating house	The space where wāhine worshipped and where wāhine and keiki ate together.	Polygonal feature with smaller level internal surfaces. Low end: 17-24 m ² High end: 66 m ² .
HALE MUA**	Kāne house	The space where kāne ate, communed with family deities, and left offerings.	Polygonal feature, up to 144 m ² in size.
HALE PE‘A**	Menstrual hut	Wāhine were confined within this hut during monthly infirmity.	Raised platform with small hut, built away from the rest of the complex.
HALE PAPA‘A	Store house	A house where inland dwellers stored tools and crops or other provisions until needed.	Large or uneven internal floors. Found within or close to agricultural fields.
HALE KUKU	Kapa beating hut	Where wāhine pounded bark into kapa.	Shed built next to a pen where kapa was laid out to dry (pen was made of stone and sticks).
Oven House**	for imu ovens	Used when cooking needed to be done inside, two imu ovens would be needed – one for kāne and one for wāhine.	Shed built to block the wind and keep out rain.

* According to the model established by Kamakau and Malo, proper kauhale minimally contained five of the components listed here.

** Indicated as required features. The other features were need-based.

† Adapted from Kolb *et al.* 1997

complexes (frequently consisting of one and two permanent features), while wealthier households built larger complexes (Kolb *et al.* 1997; Tuggle 1979).

Any discussion of kauhale necessitates a review of the gender-specific activities that are described in the oral histories. ‘Ai kapu regulations necessitated that kāne (men) prepare and process meals because certain foods were forbidden to wāhine (women), nor were wāhine allowed to touch kāne food. Households were required to build separate eating spaces for wāhine and kāne (māhū third gender spaces are not mentioned in the idealized mo‘olelo descriptions of kauhale), and a separate household cooking area where kāne prepared and processed meals. Wāhine and children were to eat in the hale ‘aina, a space also reserved for female worship. Kāne ate in the hale mua, a space reserved for male worship as well. The mo‘olelo infer that these principles were universally followed, even though such strenuous construction

demands would have been difficult for commoners with limited resources to adhere to (contradictory accounts do exist, e.g., Malo 1951:28).

A separate menstrual house, called the hale pe‘a, was also constructed for confining wāhine during their menstrual cycle. Other household wāhine brought food to those in the hale pe‘a. To stave off boredom, days were spent weaving (Handy and Pukui 1972: 10-11; Malo 1951:29). Other wāhine designated spaces were dedicated to weaving and kapa cloth making, household practices highly valued by the community and used to generate tribute paid to the ali‘i elites (Linnekin 1992). Craftswomen specializing in weaving and kapa making were said to be wealthy or well-off (Malo 1951:50).

The remaining kauhale structures listed in Table 1 were shared spaces except for the hale mua, a house specifically set aside for male household members for eating, lounging, ancestor worship, and communing

Table 2. Household Activities and associated material culture.

Activity	Gender (and status if relevant)	Associated Material Remains	Source
Poi Processing	Family	Stone poi pounder	Malo 1951:27 Handy and Handy 1972:113
Food Preparation	Kāne	Imu ovens	Malo 1951:29, 37
Food Consumption		Cutting implements (basalt, vol. glass)	Handy and Pukui 1972:177 Handy and Handy 1972:261 Hiroa 1957:22 Handy and Handy 1992:244
• Pig	Kāne (elite)		
• Dog	Kāne (elite)		
• Fish	Both (Kāne associated with red fish, shark, sea turtle, porpoise, eels, whale and ray; Elite status associated with Great ulua, amberjack, goatfish, surgeonfish, eels, bonefish, and parrot fish)	Scraping implements (shell) Wāhine were confined within this hut during monthly infirmity. A house were inland dwellers stored tools and crops or other provisions until needed. Phytoliths	Malo 1951:29; Titcomb 1972
• Bird	Both (commoners associated with junglefowl and small birds)		
• Banana	Kāne		
• Coconut	Kāne	Basalt splitter	Handy and Handy 1972:261
• Breadfruit	Both		
• Shellfish	Both	Shell midden	
Kapa Process:			
• Cutting down branches	Kāne	Sharp cutting implements (basalt)	
• Peeling Bark	Wāhine	Phytoliths	
• Soaking Bark	Wāhine		
• Beating Bark	Wāhine	Stone anvil and kapa beater	
• Kapa Cloth Creation and Decoration	Wāhine	Bone or urchin needles, sea urchin test (for dye) charcoal (for dye), pig Jaw	Kirch 1982:457
Hiroa 1957:186			
Kamakau 1976:110			

Matting				
• Collecting Leaves	Wāhine			
• Splitting, wilting and drying Leaves	Wāhine	Basalt and volcanic glass flakes, worked bird and fish bones (splitting tools)		Kirch 1985:193
• Braiding Mats	Wāhine	Phytoliths		
Fieldwork	Kāne (Wāhine worked the fields on Maui and Hawai'i)	Adze (used for carving o'o digging sticks)		
Deep Sea Fishing	Kāne	Fishhooks, sinkers		Malo 1951:122
• Making Fishhooks	Kāne	Pig and dog bone Turbo shell Abraders		Allen 1992; Emory <i>et al.</i> 1959; Hiroa 1957:326; Pfeffer 2001:86; Suggs 1961 Malo 1951:51
Adze Production	Unclear	Basalt cores Basalt hammerstone		
Wood Carving	Either (skilled workers)	Basalt adze Charcoal (for smoothing and shining)		Malo 1951:122
Shrines and temples	Hale mua (kāne), agricultural shrines or other sites of worship (either)	Branch coral		Kirch and Sharp 2005; Kolb 1994a:15, 2006; Weisler <i>et al.</i> 2005:274; Weisler and Kirch 1985:148
Architecture Construction	Kāne	Basalt cobbles and boulders Block coral Hard woods, pandanus, pili grass, tea leaves, banana trunk, sugar cane ferns		Malo 1951:122 Hiroa 1957:83-103

with the gods. Branch coral was placed as an offering in shrines (Kirch and Sharp 2005; Kolb 1994a; Wiesler and Kirch 1985:148) like those places of worship said to be in the hale mua (Kamakau 1976). Wāhine were not to enter these spaces when kāne were eating or worshipping, on penalty of death (Malo 1951:29). Keiki kāne (young boys) ate in the hale 'aina with wāhine until they were deemed old enough to participate in the ka i mua rite-of-passage ceremony and join the kāne (Handy and Pukui 1972:9).

Table 2 lists the routine household activities performed by various household members along with any associated material culture that could be archaeologically identifiable. The activities reliant on materials that preserve well tend to be more visible than others (particularly when archaeologists rely solely on macro-remains). For example, materials associated with kāne activities, such as cooking debris, religious offerings, and craft materials are easily found in the archaeological record. The materials associated with wāhine spaces are more difficult to discern. For example, we lack the knowledge of distinctive foods consumed solely by women, while weaving and cloth making leave few macro-material traces. Most wāhine spaces have been to date classified by the absence rather than presence of material remains, if mentioned at all.

Excavations in Kēōkea

The derived ethnohistorical markers of household gender and status activities may now be compared to excavated material collected from three pre-European contact house complexes from Kula, Maui. Kēōkea was an ahupua'a located on the western slopes of east Maui, situated within the main upland agricultural and habitation zone of Kula district, a territory running from the mountain to the ocean and overseen by a lesser chief (Sahlins 1992). Kēōkea would have been divided into 'ili and mo'o (extended family land plots) worked by various households (Handy and Pukui 1972:4; Ladefoged and Graves 2006:261). Approximately 100-200 individuals lived in the average-sized ahupua'a (Cordy 2000:50). The spread of permanent habitations into the uplands of Kula corresponded to forest clearance, beginning in the fifteenth century and increased sometime around 1650 C.E. (Kolb *et al.* 1997).

Over a thousand ancient house foundations (and associated features) were discovered in Kēōkea, most of them nestled six kilometers inland at approximately

750 m above sea level (Brown *et al.* 1987; Kolb 1994a, 1994b, 1997; Kolb *et al.* 1997; Pepalis and Kolb 2002). The region slopes gently from northeast to southwest and is punctuated by intermittently-fed stream gullies that separate the lava outcrops and ridges. This region was ideal for intensive sweet potato and dry taro farming, pig husbandry, and the foraging of dry mountain forest resources such as wood, shrubs, medicines, and birds (Fornander 1969:227-8; Kamakau 1961:142).

Figure 1 is a plan view map of Complex 2090/2091, a particularly large cluster of features from two separate archaeological sites. The shape, size, construction style, and material debris of these features suggest a permanent household that were likely occupied generationally. Complex 2090/2091 is comprised of seven habitation features, four of which are paired terraces (A1 and A2, B and C), built upon a slightly elevated 'a'a finger ridge with two gradually sloping swales to the west and east filled with agricultural terraces. Feature A1 is a paved terrace (114 m²) on the highest part of the finger ridge. The north and east boundaries of Feature A1 are level with the natural terrain, while the downslope west and south terraces reveal two exposed building phases, each approximately 20 cm thick. Feature A2 is a paved terrace (105 m²) located adjacent to and downslope of feature A1. At its highest point (to the south and west) of the terrace is 75 cm (3 courses high). Features B and C are paired paved terraces (127 m² and 153 m² respectively) located downslope of Features A1 and A2. Feature B sits 50 cm (2 stone courses high) above the natural terrain. Feature C is a terrace (153 m²) located adjacent to and downslope of Feature B and at its highest point (to the west), the vertical height is 95 cm high.

Three additional features (A, E, and G) are in the swale to the west. Feature A is a paved terrace (110 m²) located southwest of Features A1 and A2. The entire platform is 40 cm (two courses high above the natural ground). Feature E is a three-sided terraced enclosure (88 m²) located southwest of Feature B and C. The walls of this feature stand 90 cm high. Feature G is another enclosure (79 m²) located west of Feature C and has walls that stand 35 cm high.

Table 3 lists total area and excavation area for all seven of these features. A total of 59.5 square meters were excavated because this complex represents one of the largest concentrations of features in the ahupua'a and its significance needed to be assessed for cultural resource management and preservation. All test units were referenced to a North-South, East-

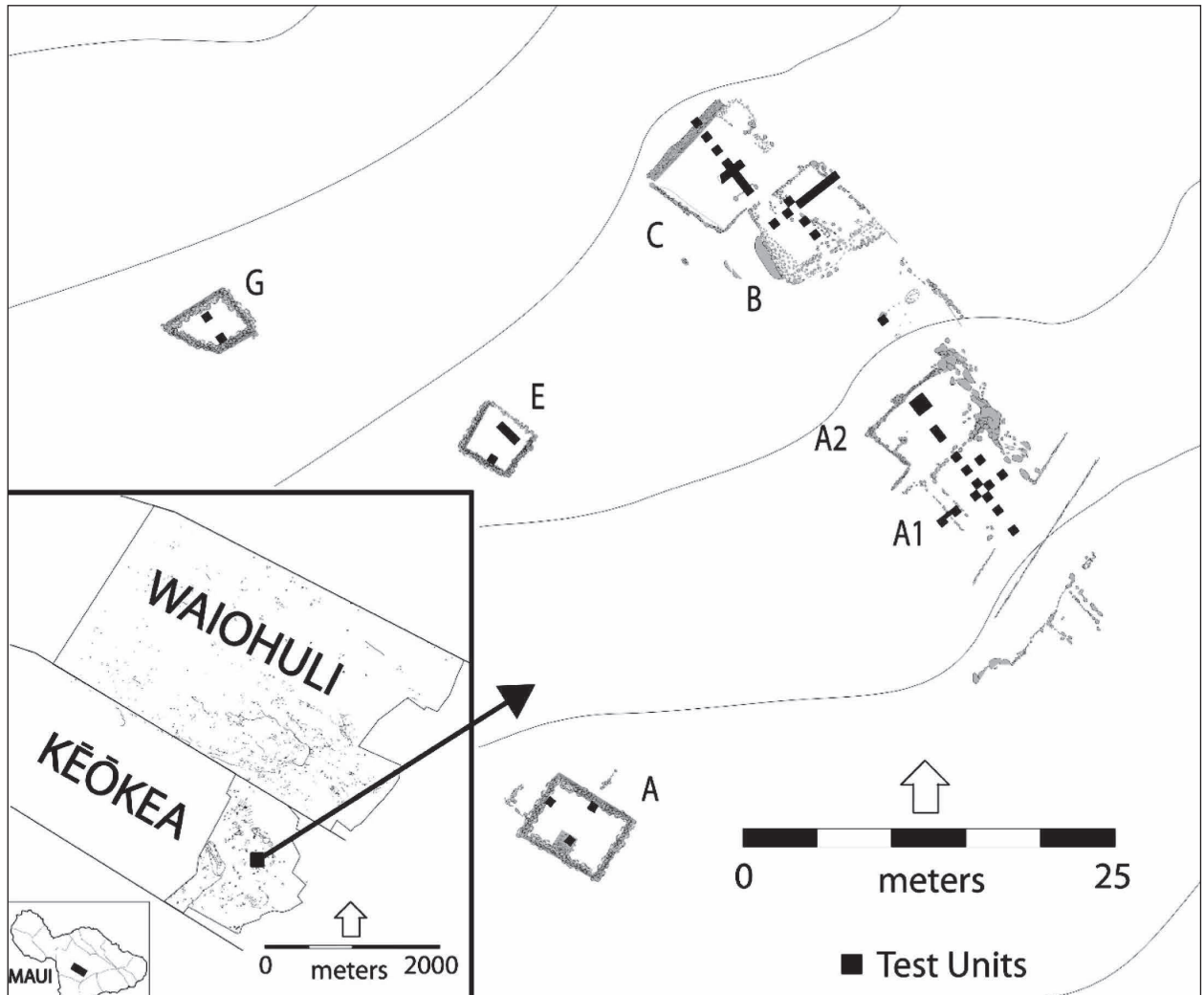


Figure 1. Plan view of the Kēōkea residential complex, Sites 50-50-10-2090 and -2091. Excavated features are denoted by letters. Elevation contours above sea level are at two-meter intervals.

Table 3. Median, Standard Deviation, and Total Area Excavated Per Feature.

Feature	Total m ²	Total m ² Excavated	Years B.P. with Two-Sigma Range
A1	114	14.5	490 ± 80 B.P. (C.E. 1305 - 1630); Beta-76682 70 ± 70 B.P. (C.E. 1670 - 1950); Beta-75709
A2	105	6	160 ± 60 B.P. (C.E. 1650 - 1950); Beta-77102
B	127	11.5	330 ± 60 B.P. (C.E. 1445 - 1950); Beta-75708
C	153	10.5	210 ± 70 B.P. (C.E. 1515 - 1950); Beta-75707
A	110	2	280 ± 70 B.P. (C.E. 1455 - 1950); Beta-77101
E	88	4	330 ± 60 B.P. (C.E. 1440 - 1670); Beta-77103
G	79	2	160 ± 60 B.P. (C.E. 1650 - 1950); Beta-77102

West grid system and excavated to at least 10 cm below the base of cultural occupation. The primary sampling strategy was to excavate along perpendicular transects so that the temporal distribution and spatial function could be determined. The specific location of each transect was subjectively laid out to align with visible cooking areas, but the placement of individual units was determined randomly.

The construction sequence of Complex 2090/2091 corresponds to the chronology of Kula settlement. Table 3 also lists eight ¹⁴C samples that were collected from burn features or charcoal found at the basal levels of floor pavements. Two ¹⁴C samples date from the period 1450-1650 C.E. The first was collected from a deep fire pit at 75 cm below the pavement of Feature A1, yielding a calibrated two-sigma date range of 1305-1630 C.E. (Beta-76682). The second date came from burned charcoal recovered at the base of the pavement of Feature E, at 45 cm below surface, with a two-sigma range of 1445-1670 C.E. (Beta-77103). The remaining dates are from the expansion phase of upland settlement after 1650 C.E. A second date from Feature A1 was recovered from the base of the burn feature at 35 cm below surface and yielded a two-sigma calibrated date range of 1670-1950 (Beta-75709). The remaining features (A, A2, B, C, and G) were all constructed after 1650 C.E. These dates indicate that by 1450 C.E., Complex 2090/2091 consisted of only two structures (Features A1 and E), and that the complex expanded in size and complexity after 1650 C.E.

Material Analysis

Most of the material recovered from Complex 2090/2091 is faunal midden, an important source of information for examining our derived ethnohistorical markers of household gender and status. All collected artifacts and debris were identified and tallied. The Number of Identified Specimens (NISP) is utilized as the primary measure of relative abundance, and then normalized to density using the total number of identifiable specimens for each group (NISP/m²). While a series of variables potentially alter NISP counts (e.g. taphonomy, preservation, data recovery techniques, identification procedural bias), we believe that NISP values are adequate for our purpose of general feature comparison.

Table 4 is a summary breakdown of the major categories of material remains and faunal taxa recovered from Complex 2090/2091. The total midden

weight and NISP values are listed for each taxon. Coral remains were used as ritual offerings as well as materials for the manufacturing of tools such as abraders or files. Shell remains include invertebrates such as urchins, bivalve clams, crustaceans, and unidentified mollusks. Urchins were a common food source and their spines served as files and abraders for the manufacture of bone, wood, and shell artifacts. Birds were an important source of protein and plumage for status items such as feather cloaks, and include owls (Strigids), rails, perching birds (Passeriformes), and geese (Anatids). Medium mammals represent one of the largest class of fauna recovered, and includes canines (domestic dog), swine (domestic pig), and unidentified medium-sized mammals.

Features A1 and A2

Features A1 and A2 are adjacent habitation terraces located on the upslope side of the kauhale complex. Feature A1 has two occupation phases, 1400-1650 C.E. and 1650 to 1820 C.E. Figure 2 shows funnel graphs of the standardized NISP counts (NISP/m²) of pre-1650 C.E. materials for Feature A1, while Figure 3 shows funnel graphs for the post-1650 C.E. materials. The low densities of material culture in the oldest occupation phase of Feature A1 suggests general use not associated with specialized activity or food processing. The available lines of evidence support a tentative interpretation that this feature may have initially been used as a temporary habitation area and hale noa (sleeping house) when it was the only feature located on the finger ridge.

Over time the function of Feature A1 shifted. This second phase cannot be clearly associated with any one type of activity, it is probable that ritual significance and status connotations were attributed to its use, perhaps as a hale mua or kāne house. Recovered materials include items associated with higher status individuals, such as food (e.g., surgeonfishes, jackfishes, goatfishes, and pig), coral, and worked artifacts (e.g., hammerstones, worked dog and pig bone, and adze fragments). Lithic working and potentially fishhook carving occurred in this space. Feature A1 debris was clustered in two separate areas, one with coral (including branch coral) and one with basalt debitage potentially signaling processing, cooking, and offering areas.

Feature A2 was a terrace added to Feature A1 between 1650 and 1820 C.E. Excavations revealed dense concentrations of shell, urchin, and fish bone.

Table 4. Total NISP values for each feature of Complex 2090/2091.

	A1	A2	B	C	A	E	G
Square meters excavated	14.5	6	11.5	10.5	2	47	26
Coral	1105	678	312	130	3	17	16
Shell	15	38	87	120	0	22	4
Urchin	1	4377	343	2850	0	84	3
Basalt	454	492	296	608	154	92	64
Volcanic Glass	13	2	40	47	11	10	464
Bird	404	160	546	111	9	80	7
Fish	2267	1987	799	433	1	36	23
Medium Mammals	3997	671	821	366	19	45	3
Branch coral	65	42	0	0	0	0	1
Acanthuridae (surgeonfishes)	44	15	15	4	0	0	1
Carangidae (jackfishes)	84	9	11	4	0	0	0
Congridae (eels)	25	0	0	0	0	0	0
Mullidae (goatfishes)	21	11	5	3	0	0	0
Sharks/rays	1	0	3	0	0	0	0
Canidae (dog)	17	2	7	4	0	1	1
Suidae (pig)	710	89	121	18	3	5	1

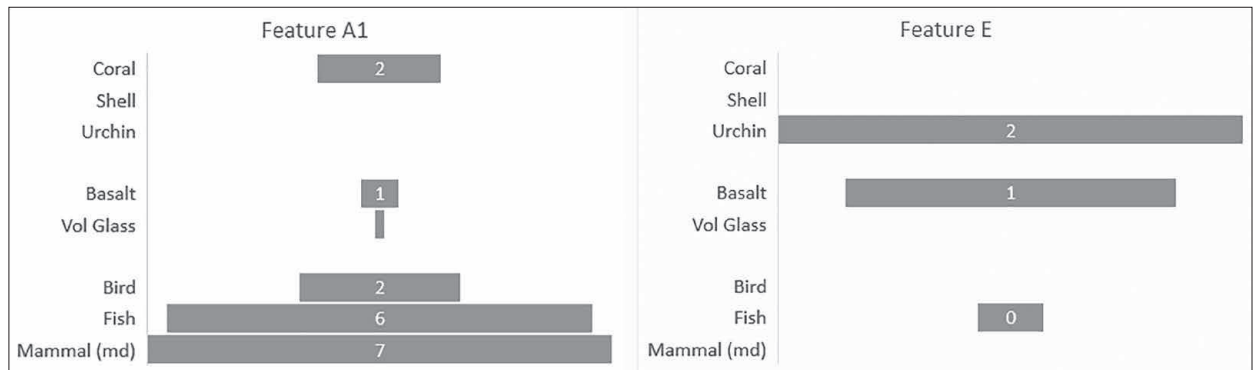


Figure 2. Funnel graphs of standardized pre-1650 C.E. NISP counts (NISP/m²) by feature.

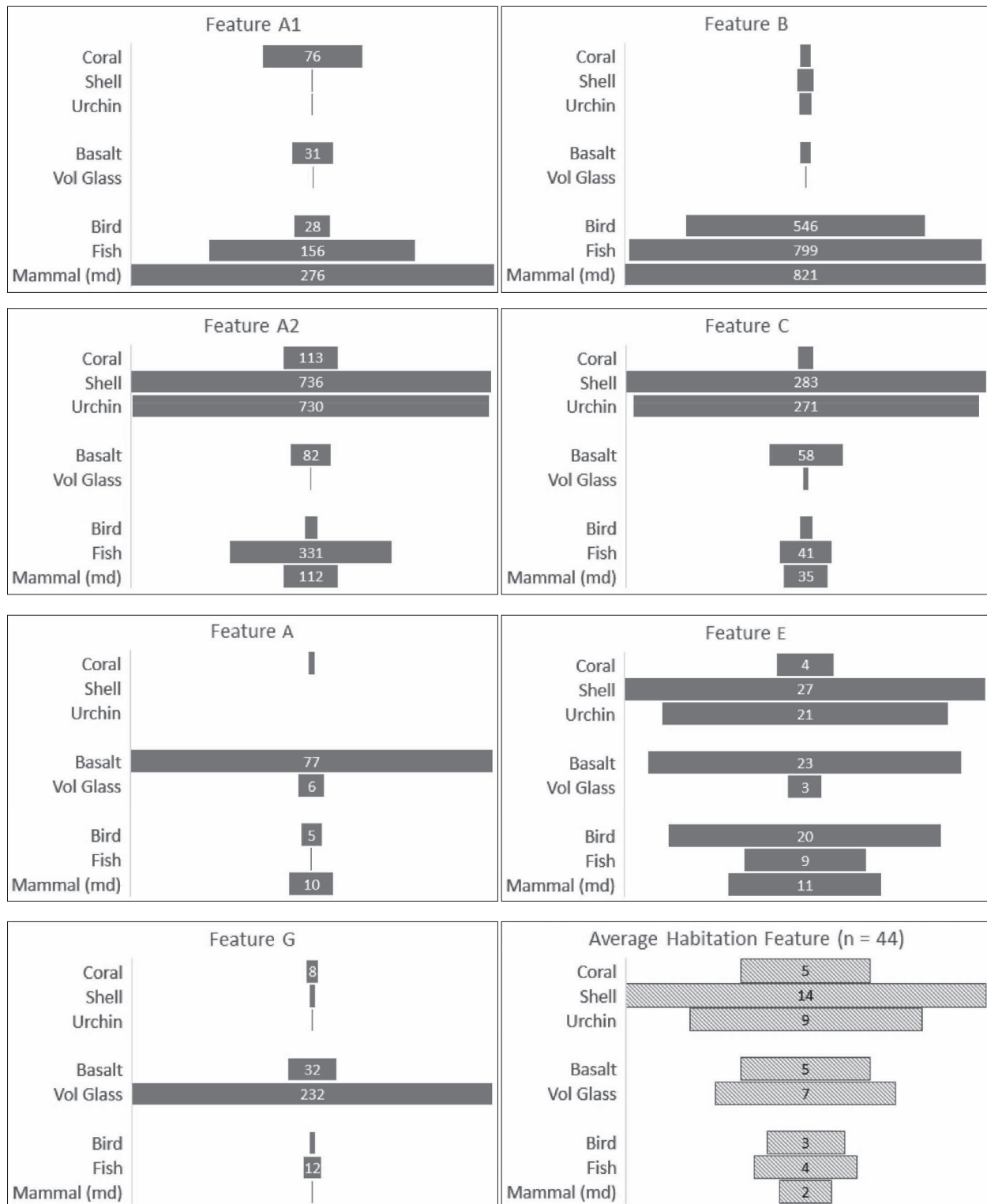


Figure 3. Funnel graphs of standardized post-1650 C.E. NISP counts (NISP/m²) for the features of Complex 2090/2091. The last funnel graph is the average standardized NISP counts for 44 habitation sites in Waiohuli (Kolb *et al.* 1997).

Coral was also present at higher-than-average densities compared to other excavated features. Mammal bone was present, but to a lesser extent than Feature A1. The lack of a clear cooking or food processing area in Feature A2 supports an interpretation of this feature as a space for craft production and/or food consumption. The presence of coral suggests potential ritual associations with this this space.

Features B and C

Features B and C represent a second pair of adjacent habitation terraces downslope of Features A1 and A2. Both structures were built between 1650 and 1820 C.E. The recovered materials from Feature B include large concentrations of mammal, fish, and bird bone, and much fewer quantities of shell, urchin, and stone materials. The basalt debitage density is comparatively low but includes a few polished flakes and adze fragments. Other than the large quantities of medium mammal bone, the faunal material does not clearly indicate that the space was exclusively utilized by one gender. The presence of some tools indicates that activities outside of food processing were also occurring in this space, potentially associated with making fishhooks or kapa work. Most debris were evenly distributed throughout the feature. One interesting observation is that funnel charts of material culture from Features B and A1 are quite similar; both have large concentration of faunal bone, but lesser concentrations of marine shell, stone, and coral. This suggests that both features served a similar function.

Feature C was a terrace built adjacent to Feature B. The highest density artifact type recovered from this feature was shell and sea urchin, with some bone and stone present. There was a large and dense charcoal concentration, indicating that this area was used for earth oven cooking. The funnel charts of Features C and A2 are also quite similar, suggesting that this space could have served a similar function for food processing and consumption.

Features A, E, and G

The three outlying features of Complex 2090/2091 were all used between 1650 and 1820 C.E., but their locations and material debris suggest a very different function than that of the paired habitation terraces of Features A1 and A2, and Features B and C. The use and function of Feature E is perhaps the most difficult to ascertain. It has a very low density of recovered

material, both in the pre-1650 C.E. phase, as well as the later post-1650 C.E. phase. No material category is represented by more than 27 pieces per square meter. The general lack of material may indicate that Feature E was not the primary habitation feature. Feature E may have served as a hale noa (sleeping house), evidenced by its lack of debris, a hale pe'a (menstrual house), evidenced by its raised U-shaped terrace, or a perhaps a hale kuku (kapa making house) where the macro-material traces of repeated activity have long since deteriorated.

Feature A also has very little domestic debris and so was not a habitation feature, but it does contain a high proportion of basalt materials. It too could also have served as a hale noa or a hale kuku. Feature G has one of the most unique material assemblages: it has the most volcanic glass, six times more than any other feature. Obviously, some tool-making or materials processing was occurring at Feature G, perhaps as a workshop or activities undertaken at a sleeping house.

Change Over Time

The residents of Complex 2090/2091 began constructing portions of their kauhale between 1400 and 1650 C.E., a period that was characterized by sweeping social changes and the expansion into upland marginalized regions. The homesteading of this land parcel in Kēōkea mirrors the expansion of population and the related socio-political features. The earliest phases at Features A1 and E reveal minimal activity, perhaps coinciding with temporary or intermittent occupation. This intermittent occupation would be consistent with the low intensity settlement of the uplands, with most activity focusing upon the exploitation of forest resources such as native birds (Kolb 1997b) and forest clearing for agriculture.

Complex 2090/2091 was expanded after 1650 C.E. to include seven total features, coinciding with population increase as more of the upland region was being put under cultivation. More intensive homesteading resulted in physical alterations of the landscape that built socially ascribed identity. Two sets of paired habitation terraces were constructed upon a prominent finger ridge. Funnel graphs indicate that these paired terraces served similar functions. The upper terrace for each (Features A1 and B) had a prevalence of bird, fish and mammal fauna. The lower terraces (Features A2 and C) had large quantities of shell and urchin. Features A1 and A2 are unique as well, having significant quantities of recovered coral.

Social Markers

The quality and quantity of debris corroborates the high-status nature of Complex 2090/2091. Figure 3 includes a funnel graph of averaged standardized NISP counts for 44 permanent habitation features from nearby Waiohuli (Kolb *et al.* 1997: 226). These habitation features from Waiohuli have low densities of recovered material, the largest category being shell with 14 pieces per square meter. They also average seven pieces of volcanic glass per meter, more than all the Complex 2090/2091 features except Feature G. The funnel graph for these averaged features is most

similar in shape to Feature E, a feature we suggest might be a hale noa, a hale pe‘a, or a hale kuku. The similarity of materials of Feature E to more “common” habitation features brings into question this functional interpretation; it may have been abandoned, only used intermittently, or occupied by a lower-status family.

The visibility of kāne and wāhine spaces may also be ascertained by examining the presence and distribution of cooking debris and religious offerings. Figure 4 illustrates the distribution of certain ‘ai kapu materials from the paired terraces of Complex 2090/2091 along with accompanying radiocarbon

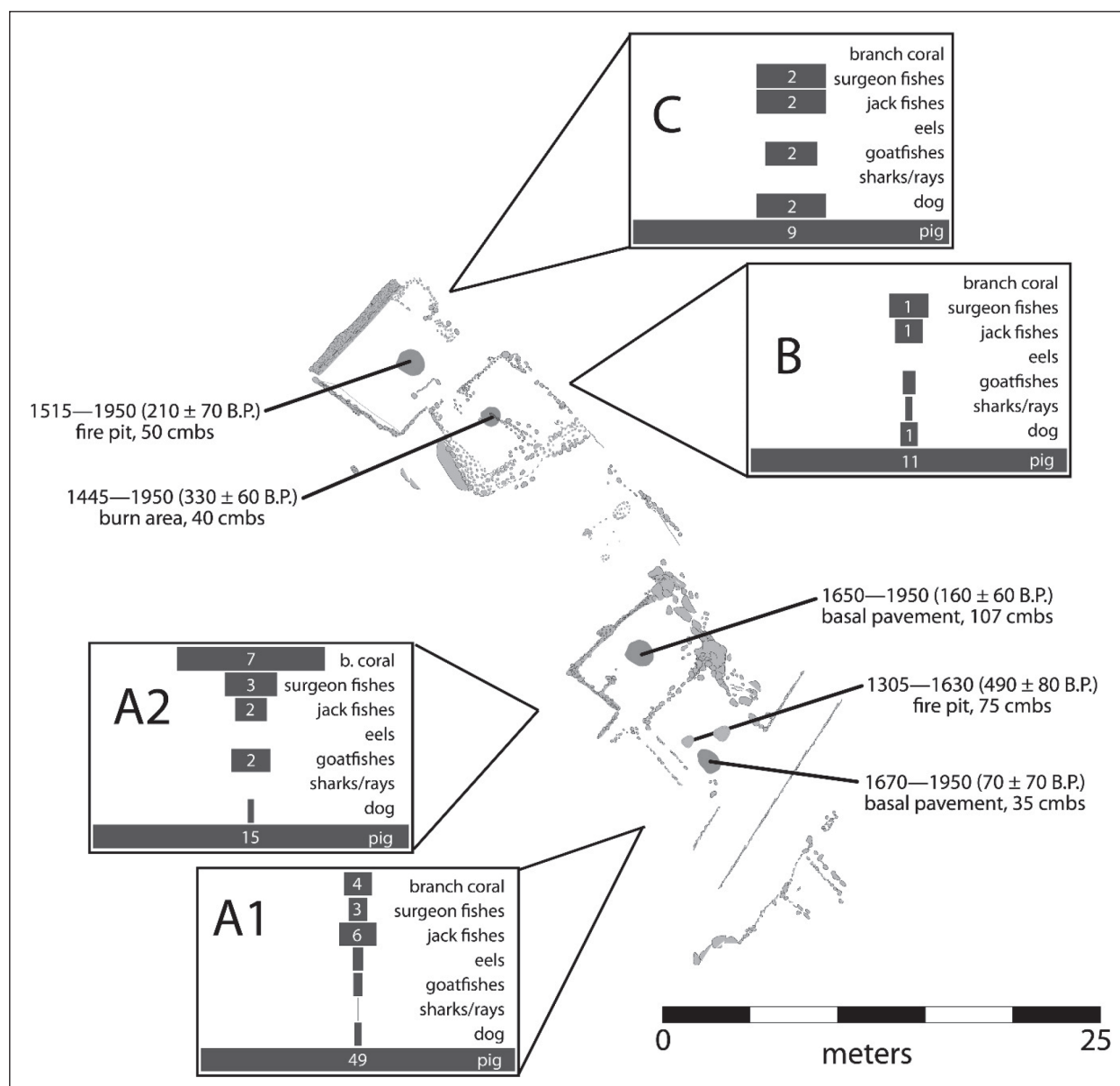


Figure 4. Funnel graphs of standardized NISP counts (NISP/m²) of status materials for the A1/A2 and B/C paired terraces (with accompanying radiocarbon dates).

dates. For example, branch coral may have been left as religious offerings in the hale mua. Surgeonfishes, jackfishes, eels, goatfishes, and sharks/rays were consumed by kāne and restricted for wāhine. Eels were prized as a food for the Maui elite (Titcomb 1972), as were goatfishes, raised in fish ponds along the Kēōkea and Waiohuli coastline six kilometers downslope (Pepalis and Kolb 2002). Dog and pig were consumed only by higher-status males, and pig rearing within the community was overseen by konohiki land managers (cf. Dixon *et al.* 2008).

The funnel graphs of Figure 4 reveal that all these ‘ai kapu items were present at Feature A1. The most eel, jackfishes, and pig were recovered here, as well as branch coral. The presence of these items corroborates the general faunal data, supporting the notion that Feature A1 likely served as a hale mua. Pig bone is particularly prevalent (15/m²) at Feature A1, three times more than any other feature. Feature A2 has a similar composition of ‘ai kapu materials as A1, except it lacks eels and has significantly less pig bone (49/m²). It does however have more branch coral (7/m²). This space was obviously used for food processing and consumption, particularly shellfish and urchin, but its physical proximity to Feature A1 and the presence of coral suggests it too had ritual associations. Both Features B and C have many of these ‘ai kapu items present as well, but in lower numbers. Most notable is the lack of branch coral at these structures, which suggests no ritual connotations. Yet the material remains from Feature B mirror those of Feature A1 (emphasis on faunal bones), and those of Feature C mirror Feature A2 (emphasis on shellfish and urchin).

The funnel graphs of these ‘ai kapu foods for the four residential terraces indicate that the gendered division of space within the houses cannot be clearly discerned. While there appears to be some separation of food types, a basic tenet of Hawaiian social sanctions, the lack of clear presence/absence data make it difficult to discern whether this household was following these idealized ‘ai kapu restrictions. For example, the ubiquitous distribution of pig bone at Complex 2090/2091 as well as the smaller Waiohuli house features suggests that the ‘ai kapu was more of a social ideal, not strictly adhered to except in the most important elite households or royal courts. Commoner kāne did sacrifice pigs and then ate them, but only during certainly family religious ceremonies, such as welcoming boys into the hale mua as newly initiated kāne (Malo 1951:87-95). Male

chiefs certainly ate more pork and would preside over those special occasions when commoner kāne could feast on pig. The presence of shellfish and sea urchin in all the features is evidence of female labor, since wāhine and children were responsible for shoreline collection of shellfish and urchin but identifying women’s social spaces is more difficult and cannot be neatly determined by the mere presence of these marine resources.

Discussion

The excavations of Kēōkea’s Complex 2090/2091 reveal the many nuances of traditional household life of Kula farmers. The overall wealth of this kauhale is reflected in its architectural complexity and wealth of material remains, on par with craft laborers (Handy and Handy 1967:20) and the specialized farmers from Kohala District on Hawai‘i island (Field *et al.* 2010). The architecture of Complex 2090/2091 suggests that by 1650 C.E. it was a wealthy community household, perhaps the kauhale of a konohiki land manager, or lower-status ali‘i chief. The kauhale is particularly large, with seven total features. Each of these features are also large for kauhale houses, up to three times more than the average size of permanent habitation features (50 m²) excavated in Kula (Kolb *et al.* 1997: 161). Moreover, house location was important, and before construction could begin, a specialist was to be consulted about the placement of the house (Malo 1951). Elevation likely factored into decision making, as the height of one individual over another signified an unequal status relationship, often expressed between elite and commoner. Complex 2090/2091 was situated atop the finger ridge that would have looked out over Kēōkea’s agricultural fields, other kauhale, and the nearby agricultural heiau temple of Molohai (Kolb 1994b), representing the household’s position of authority to members of the community.

The material remains reveal distinctive patterns of status, ‘ai kapu, and food consumption among households. Paired residential terraces reveal a dual emphasis on the consumption of faunal remains on the upper terraces, with a heavier reliance on marine foods on the lower terraces. Sea urchin, an inshore marine species collected by wāhine, is plentiful at all four features—shedding light on the importance of women’s work in the subsistence economy of the household. Branch coral and the larger quantities of medium mammal bone likewise denotes the labor and activities of kāne in the upper paired habitation terraces.

The pre-1650 C.E. occupation of Feature A1 suggests this structure was intermittently used or regularly cleaned, indicative of a hale noa sleeping house. Post-1650 C.E. use included an expansion of the structure to include Feature A2, and the deposition of faunal remains and branch coral consistent with the function of a hale mua and kāne worship. There is also evidence of worked bone used for making certain fishhooks (deep-sea fishing was associated with kāne), along with knapping tools and biproducts, and more branch coral. Feature C included a pecked hammerstone (indicative of breaking open shells or finishing stone tool edges), higher densities of volcanic glass and sea urchin, worked basalt, and worked bird bone—materials that can be used for making kapa cloth. The densest artifacts recovered from Feature B were not materials associated with tools but rather faunal material, indicating food-related activities. An architectural separation of space inside this feature also suggests that eating occurred alongside other activities. Interpreting internal divisions, however, requires attention to the micro-scale use of houses.

The post-1650 C.E. spatial pairing of features is intriguing and has been documented in other locations on Maui (Vacca 2019). Such patterning suggests a bifurcation of household space that mirrors the social, age, or gender distinctions that became increasingly important in the late 17th century. It is possible that if Features A1 and A2 were associated with the hale mua, then the paired Features B and C were associated with wāhine in a way that did not fully adhere to all idealized ‘ai kapu restrictions, a trend also seen elsewhere in southeast Maui (Kirch 2016; Vacca 2019). Kāne foods, particularly pig, were collected from every feature suggesting that, contrary to ethnohistoric records, consumption of this normally ‘ai kapu food occurred within the hale noa that was meant to be free of ‘ai kapu, and perhaps eaten by wāhine. As Lilikalā Kame‘eleihiwa explains: “it was the Ali‘i Nui [nobles] who had to follow the dictates of the ‘Aikapu most closely, because they were the Akua [gods] on earth who mediated between ordinary humans and the destructive-reproductive forces of the unseen divinities of the cosmos” (Kame‘eleihiwa 1992). Others may have ignored certain ‘ai kapu restriction due to their lower status or because they believed they were irrelevant in their daily lives.

The lack of spatial clarity has no doubt been exacerbated by degrading perishable materials caused by household cleaning or curation practices, time,

climate, and site taphonomy. However, interpreting the gendered use of spaces in kauhale also requires a shift in the archaeological approach to households and the materials within. The reliance upon food alone to determine the use of space marginalizes wāhine in the house system, as so little is known about the composition of their meals. Further, the remains of food said to be solely consumed by males often had a second life as tools in crafting kapa or weaving mats—tasks traditionally considered wāhine work—meaning that the mere presence or absence of these remains cannot justify an interpretation of a space as belonging to kāne or wāhine. Another important consideration when interpreting the use of space is that the two most studied artifact classes in the Pacific are those associated with kāne—fishhooks and basalt adzes. The narrow focus on these tools has resulted in a dearth of research on materials associated with wāhine, and by extension, wāhine spaces. The importance archaeologists have placed on fishhooks and adze debitage over other types of domestic material culture is also problematic as it has led to a projection of western patriarchal ideals that value kāne work (and by extension, kāne spaces) over wāhine work (and by extension, wāhine spaces) in the kauhale. This projection of contemporary values also leads to the underlying assumption that said tools are the domain of men, when in fact wāhine spaces would evidence similar materials. Female labor required stone tools for kapa work, weaving, gathering, and material processing, and wāhine used fishhooks for inshore fishing. Unfortunately, studies of stone tools beyond adzes are rare (e.g., Allen *et al.* 1995) leading to the continued inability to interpret the majority of work that would have occurred in kauhale spaces, and the perpetuation of patriarchal western gender constructs in archaeological literature. Finally, household ceremonial practices leave behind material traces that are beneficial for interpreting space, but thus far the archaeological literature has emphasized male worship practices in the hale mua. There is still much to learn about wāhine worship as well, particularly the material associated with offerings to female deities (Malo 1951:81).

The features analyzed here demonstrate the complexity of household classification. The issues with interpreting the use of space in kauhale, outlined above, does not mean that understanding social constructs in the household is out of reach. Rather, the analysis presented in this paper provides insight

into a lived experience that diverges from the ideal, illuminating the type of analytical approaches that are needed moving forward. These revelations, both compliant and noncompliant with mo‘olelo and ethnographic records, suggest that a more robust data set for better identifying gender and status activities, particularly focusing on intra-feature partition of space, is necessary. Microartifact and micromorphological analyses that examine the depositional context of house floors would be beneficial in this case to identify the materials used to manufacture tools, clothing, and basketry. The analysis of the micro-record would also identify perishable fruits and tubers that were consumed daily. Floral material is undeniably important for contextualizing artifacts and better understanding the use of space and documenting depositional histories of house floors to gauge changing practices through time.

The refinement of household archaeology methods is important, but this does not negate the importance of oral traditions. We have noted here that it is inappropriate to uncritically project mo‘olelo descriptions onto practices that predate the written works by hundreds of years. However, part of the issue is that we have come to heavily rely on just a few ancestral voices, specifically contact-era historians such as John Papa ‘Ī‘ī, Samuel Kamakau, David Malo, and Mary Kawena Pukui. This “discourse of sufficiency” (Nogelmeier 2010) effectively ignores the perspectives expressed in the thousands of nineteenth century newspaper articles published at the same time as scholarly works, primarily due to language barriers (Silva 2004). It also ignores the perspectives of the many Hawaiians writing and speaking about their histories today. A proper understanding of the regional patterns in social practices requires a concerted effort moving forward to engage a ‘braided knowledge’ approach by building our archival resources and community partnerships.

Conclusion

The goal of this research has been to critically analyze the relationship between the Hawaiian system of ‘ai kapu and the use of household space from one large pre-European contact (circa 1650 C.E.) kauhale during a period of population increase, architectural expansion, and changing social structures. Using a limited number of historical documents created decades (in some cases centuries) after the period under investigation introduces complications that,

when left unchecked, can result in a portrayal of the ancient past as static and homogenous. Perpetuating assumptions about preserved macro-materials that associates worked stones or shell with male work and privileging male spaces over female spaces reinforces colonial gender ideals. Relying solely on macro-material remains exacerbates each of these issues, limiting the archaeologist’s ability to interpret the use of space in kauhale. Engaging an approach that accounts for these issues in the analysis and interpretation of the material record results in a more generative discussion of complex social relationships in ancient Hawaiian communities.

Surviving architecture exhibits considerable spatial variability that does not align with the ethnographic model of kauhale size or use. However, Complex 2090/2901 does exhibit distinctive pairing of features that may reflect social, age, or gender distinctions. These divisions become increasingly distinct in the second half of the 17th century. Second, several food processing/cooking/consumption spaces along with craft production and storage areas were visible. While some evidence of gender-specific tasks can be interpreted in these spaces, strict adherence to the ‘ai kapu was not observed. Specifically, the spatial division was observable within *and* between singular features; however, further clarity in the activities that were occurring in these spaces are needed. The overall size and wealth (as measured in artifactual debris) of these features was evident, but the differences were not dichotomous, rather the access to certain types of materials indicated a gradient of status. The variability inherent in these Kēōkea household data suggests that there is much to learn about daily ancient life throughout the islands and current archaeological research has only brushed the surface. Research that approaches the household should braid together Hawaiian ways of knowing with multiple lines of evidence is increasingly necessary if we are to avoid homogenizing the past.

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Authors' details

Kirsten Garwood Vacca

Anthropology, University of Hawai'i – West O'ahu

Address: 91-1001 Farrington Hwy, Kapolei, HI 96707. Email: kmvacca@hawaii.edu

ORCID: <https://orcid.org/0000-0002-0464-3463>

Michael J. Kolb

Sociology and Anthropology, Metropolitan State University of Denver Email: mkolb5@msu Denver.edu

ORCID: <https://orcid.org/0000-0002-5417-6816>

