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Peanuts and Power in the Andes: The Social Archaeology of Plant Remains from the Virú Valley, Peru

Lindi J. Masur[1*], Jean-François Millaire[2], and Michael Blake[3]

Abstract. We present new data highlighting the symbolic and ritual association of peanuts (*Arachis hypogaea*) on the north coast of Peru during the Early Intermediate Period (200 BC to AD 800). Recent paleoethnobotanical work at the two Virú polity sites of Huaca Gallinazo and Huaca Santa Clara has revealed a distinctive distribution of peanut remains in contexts associated with elite and ceremonial practice, including performative feasting and burial ritual. In contrast, peanuts were rarely recovered from domestic spaces associated with quotidian practice. Furthermore, unlike staple crops such as maize (*Zea mays*) or beans (*Phaseolus* spp.), their low frequencies in state-run storage facilities suggest peanuts did not have a significant role in the polity-wide redistribution economy. Information drawn from historical documents and archaeological excavation beyond the Virú Valley likewise suggests differential consumption of peanuts, which were largely linked to ritual practice across the greater Andean region.

Keywords: Virú, peanuts, elite feasting, paleoethnobotany, social archaeology

Introduction

A recent paper by Morehart and Morell-Hart (2015:483) admonishes paleoethnobotanists for our difficulties in "transcend[ing] the ecofact," or, rather, the reluctance or neglect of moving beyond ecological inquiry and engaging with social archaeological themes, such as political ecology and identity. Indeed, the field has seen a recent shift beyond theoretical frameworks of human behavioral ecology, historical ecology, and niche construction towards a paleoethnobotany of social practice, and rightfully so (see Sayre and Bruno 2017). At the most basic level, plant remains left behind from the production and consumption of food in the past, whether quotidian or ceremonial, are created by social practices. These are practices fundamental not only to the reproduction of social structures, but which also contribute to cultural transformation (Morehart and Morell-Hart 2015:488). Heeding this movement, this paper examines the social practices surrounding the production, distribution, and consumption of one economic plant, peanuts (*Arachis hypogaea*), at the Early Intermediate Period (200 BC to AD 800) sites of Huaca Santa Clara and Huaca Gallinazo, located in the Virú Valley, La Libertad region of Peru (Figure 1).

Despite the wealth of botanical remains preserved at north-coastal archaeological sites (Table 1), the use of peanuts in pre-Hispanic ceremonial practice has largely been overlooked, aside from a few scholarly works (Bourget 2006; Donnan 1976; Fournier 2004). Archaeologists have long considered peanuts to have been a generic staple crop despite mounting evidence to suggest otherwise. Furthermore, most reports of the recovery of peanuts from archaeological contexts lack detailed spatial or quantitative information necessary for making social interpretations.

We first provide a brief overview of why peanuts may have been so valued in

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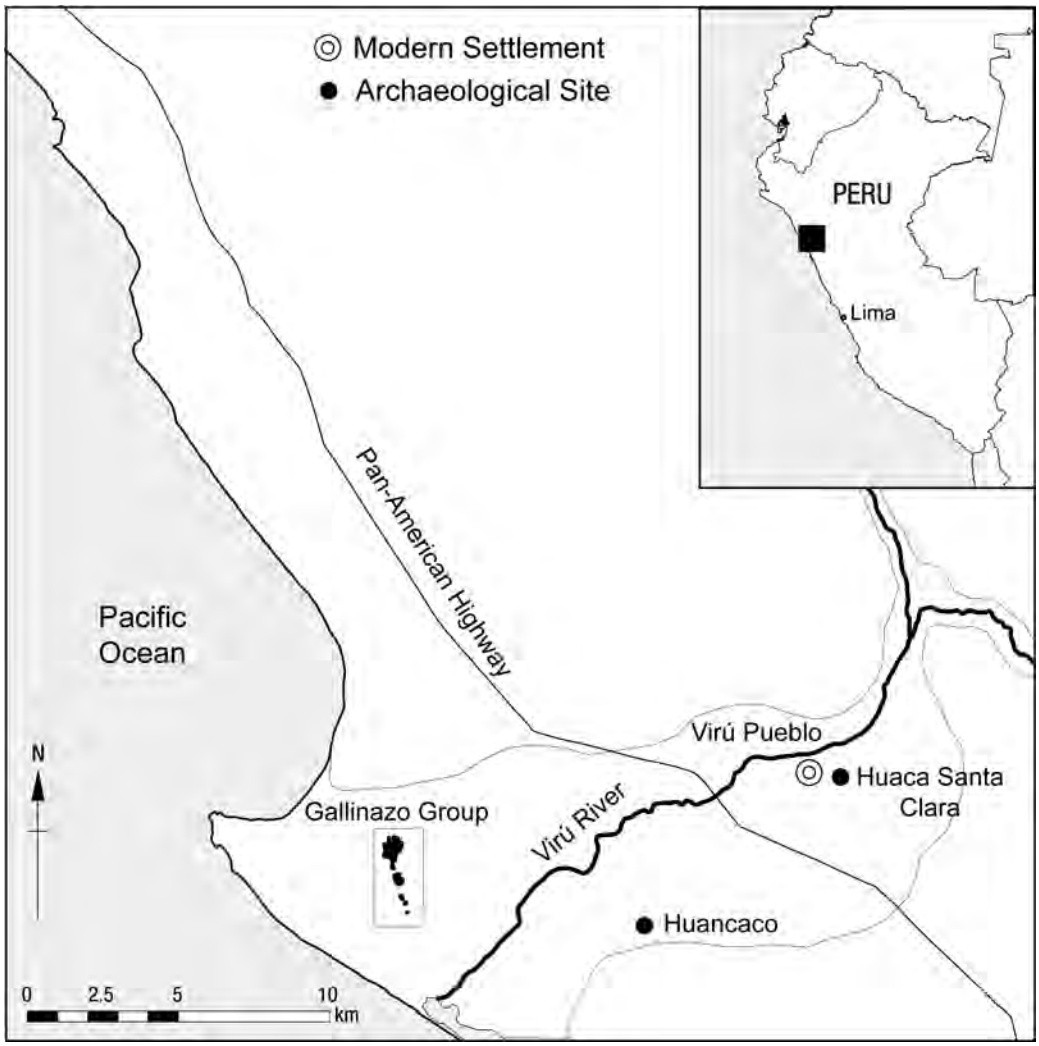

Figure 1. Map depicting the Virú Valley, Peru, and archaeological sites associated with the Virú polity including the study sites Huaca Santa Clara and the Gallinazo Group.

Viruñero society. Pre-Hispanic and early colonial peanut use in north-coastal art and ceremonial contexts will then be explored and contrasted with our case study at the two Virú polity sites of Huaca Santa Clara and Huaca Gallinazo. In order to understand the relationships between plants and ancient Viruñeros, our study transcends an ecological account of species present in the botanical assemblage and examines the role of peanuts in Early Intermediate Period, social practice, highlighting their primary association with burial ritual, feasting, and other elite-dominated contexts.

Why Peanuts? Labor, Nutritive, and Symbolic Considerations

Despite the presence of peanuts in ritual contexts on the north coast of Peru, they have been given very little attention by archaeologists, perhaps correspondent to the use of "peanuts" in the American lexicon as referent for something of little worth or importance. However, their significance

Table 1. Edible plants[a] and algae species from Virú Valley study sites.

	Scientific name	Common name
Plants	*Prosopis chilensis*	Algarrobo
	Persea americana	Avocado
	Phaseolus spp.	Bean
	Ipomoea batatas	Camote
	Capsicum sp.	Chili pepper
	Bunchosia armeniaca	Cansaboca
	Annona cherimola	Chirimoya
	Pouteria lucuma	Lucuma
	Physalis peruviana	Ground cherry
	Psidium guajava	Guava
	Canavalia sp.	Jack bean
	Zea mays	Maize
	Inga feuillei	Pacae
	Arachis hypogaea	Peanut
	Cucurbita maxima	Squash
	Manihot esculenta	Yuca
Algae	*Gigartina chamissoi*	Mococho

[a] Nomenclature after Towle (1961) and Fernández Honores and Rodríguez Rodríguez (2007).

within the fabric of Viruñero elite social practice serves as a basis for re-orienting our perceptions of how they may have been valued in the past. Modern, small-scale peanut cultivation in developing nations without the use of industrial equipment has been noted to be a "very labor-intensive," "high risk," and "economically unattractive" endeavor (FAO 2002:15). This is, in part, due to the plant's unique development cycle. Peanut plants possess gynophore structures, commonly called pegs, which serve to push the developing pods below ground level for the remainder of their growth. As the pod finishes maturing out of sight, a high level of expertise is required to assess and time harvesting without reducing yields (FAO 2002:16). Harvesting is also considerably laborious. The FAO (2002:20) estimates that roughly 40% of a peanut farmer's time is invested in harvest-related tasks per crop cycle.

While it is difficult to estimate the productivity of peanut farming during the Early Intermediate Period, data from the early days of the Green Revolution suggest that peanut yields were lower than cereal grains like maize and have been greatly improved by modern technical interventions (Table 2). Differences in production quantities might be a result of both desired labor investment as well as culturally appropriate uses. Of potential relevance is an ethnography of Mocheros, outside of nearby Trujillo, conducted in the early 1940s by Gillin (1945). His work describes, in great detail, their small-scale irrigation agriculture and use of medicinal plants. However, peanuts were not reported to be consumed frequently or in substantial quantity during his study, although a small amount were indeed cultivated (Gillin 1945:59).

There are many reasons why peanuts would be a valued food in pre-Hispanic Andean societies. Peanuts, like most seeds and grains, store exceptionally well in cool and dry environments (Woodoof

Table 2. Peanut[a] vs maize cultivation in Peru from earliest and most recent years on record.[b]

	1961		2016	
	Peanuts	**Maize**	**Peanuts**	**Maize**
Area harvested (ha)	1,670	253,396	4,089	464,887
Yield[c] (hg/ha)	12,575	13,419	17,065	32,477
Production (tonnes)	2,100	340,037	6,977	1,509,809

[a] In FAOSTAT database peanuts are categorized as "groundnuts, with shell."
[b] Recorded by FAOSTAT (2018).
[c] Identified as calculated as opposed to official data.

1966:85) and, when kept in the pod, may last between eight and ten months (FAO 2002:42). As they are well suited for long term storage, they may have been useful as agricultural tribute or tax, for instance, in the Virú polity's redistribution economy. Peanuts are also highly nutritious (Table 3); today, they are known for their high fat and protein content, as a good source of B vitamins (especially niacin), and of minerals such as copper and chromium (Estrella 1990; Savage and Keenan 1994; Woodroof 1966). The subterranean development of their fruit—their pods growing towards the underworld—has also led Bourget (2006) to propose that peanuts were part of a crop complex associated with death and fertility. Coupled with their high labor investment and potentially risky yields, elites may have included peanuts in ritual feasts to not only showcase the agricultural productivity of the valley, but also to highlight their access to the sacred.

Ritual and Symbolic Consumption of Peanuts

Peanuts for the Living

Documentary sources since the Colonial era have noted that Andean peoples were not only aware of the high nutritive value of peanuts but had varying medical and ritual uses for the plant. While we acknowledge that this information should not be faithfully projected into the distant past, it nevertheless may provide insight on the importance of peanuts in Andean tradition beyond everyday consumption. According to Vega (1966 [1609]:501), in Inca society, peanuts were eaten toasted or combined with honey to make marzipan-like cakes. More recently, sources mention they were eaten roasted, fried, salted, boiled, ground, mashed, used as additives in sauces, or fermented into *chicha de maní* (a fermented peanut beverage) (Bonavia 1991:131; Estrella 1990:113;

Table 3. Nutritional composition of peanut kernels (raw, per 100 g).[a]

Calories	**Macronutrients**		**Micronutrients**	
564	Protein (g)	26	Calcium (mg)	69
	Fat (g)	47.5	Phosphorus (mg)	401
	Carbohydrate (g)	18.6	Iron (mg)	2.1
			Thiamine (mg)	1.1
			Riboflavin (mg)	0.1
			Niacin (mg)	17.2

[a] Modified from FAO (2002:55)

Fernández Honores and Rodríguez Rodríguez 2007:107; Gillin 1945:53; Kaulicke 1997:72–74; Nicholson 1960). Peanuts have had many perceived medicinal properties, including aphrodisiac effects. Peanut oil has been used as a treatment for alopecia (Estrella 1990:113) and its milk, when combined with that from almonds and *Lagenaria* seeds, has been documented to be a soporific, an aid in preventing jaundice, and a kidney cleanse (Cobo 1890 [1653]:360).

During the early Colonial period, peanuts were often featured in performative ritual. In Inca society, they were among a handful of select crops incorporated in offerings to the creator god Viracocha (Rowe 1946:309). Peanut consumption as part of ritual acts during pre-Hispanic times has been suggested by a number of archaeologists (Arsenault 1992; Chicoine 2011; Fournier 2004; Gumerman 1994, 1997a; Hastorf 2003). At the Late Moche sites of Huaca Colorada, San Ildefonso, Catalina, and Portachuelo de Charcape, in the Jequetepeque Valley, peanuts are associated with performative feasts carried out on ceremonial platforms and patios for a community-wide audience (Duke 2017; Swenson 2006:132–133). Their importance in displays of conspicuous consumption is further underscored in botanical evidence from feasting contexts at Early Horizon sites in the lower Nepeña Valley, where they are the second-most consumed crop after maize (by count) at both Huambacho and Caylán (Chicoine 2011; Chicoine et al. In press).

Peanuts were featured recurrently in Moche art (Bourget 1994; Donnan 1973, 2008; Fournier 2004; Quilter 2010:135; Uceda 2008). In the Moche, Santa, and Chicama valleys, ceramic pendants often featured peanut shells (Figure 2a), created using molds of actual pods (Bernier 2010). These were mass-produced by professional craftsmen at workshops like Cerro Mayal alongside a variety of other Moche ritual wares (Jackson 2008). Peanuts were also represented on prestigious metallic objects. For example, a golden parrot carrying a peanut in its claws was uncovered at Huacas de Moche (Uceda 2008:167–168). However, the most impressive peanut objects come from the tomb of the Lord of Sipán in the Reque Valley (Alva 2001; Alva and Donnan 1993). Aged between 35 and 45 years old, this member of the ruling elite was buried in a coffin with eight retainers, sacrificed animals, and 451 finely crafted funerary ornaments. Among these was an impressive necklace (Figure 2b) composed of twenty oversized gold and silver peanut replicas (Alva 2001:227), further underscoring the association of peanuts with power and the elite.

Peanut designs have also been included on other types of Moche art. Peanut pods were painted on ceramics or included as sculpted elements on stirrup spout vessels, often arranged on stacked gourd plates (Figure 2c). This is particularly noteworthy in the context of depictions of ritual performances. A renowned fine line drawing known as the "Presentation of Plates" scene displays food, including peanuts, sitting on stacks of gourd plates waiting to be served to an important figure during a feasting ceremony (Bourget 1994; Donnan 1976:67; Hastorf 2003:550).

Peanuts were also depicted on textiles. One specific example, an *unku* (tunic) from an Early Horizon settlement in the Nazca or Rio Grande Valley, features an image of farmers enacting a fertility ritual (O'Neale and Whitaker 1947:294–296). Several rows of embroidered figures holding an assortment of crops can be identified. Peanuts are on the garment in five scenes. O'Neale and Whitaker (1947) surmise that their presence along with corn and beans is reflective of their increasing importance in the valley's changing subsistence economy.

Peanuts for the Dead

According to Cobo (1890 [1653]), beyond their role in Inca diet and medicine, peanuts were commonly used as offerings

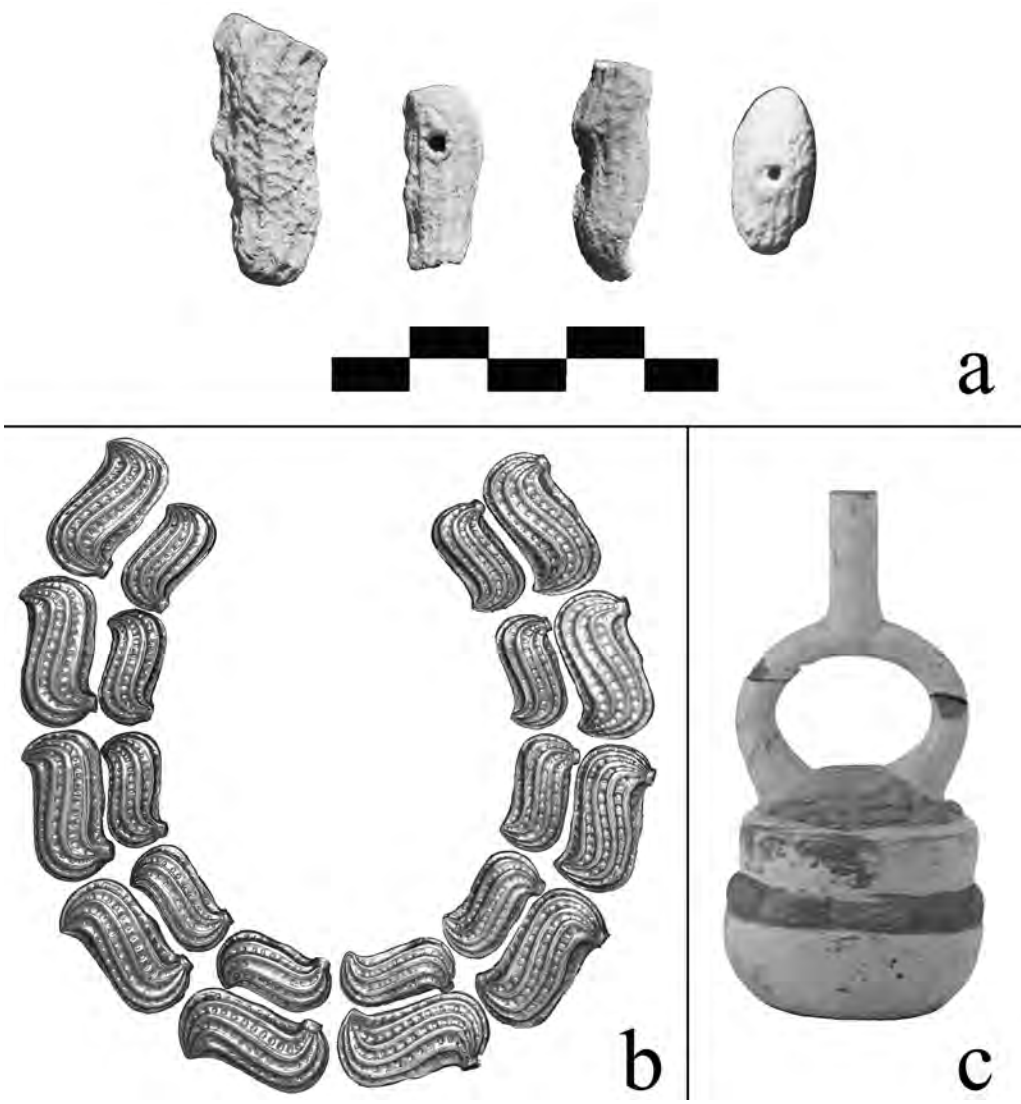

Figure 2. A. Peanut pendant beads from Cerro Mayal. Photograph courtesy of Margaret A. Jackson, Cerro Mayal Project. **B.** Necklace of gold and silver peanuts recovered in the tomb of el Señor de Sipán. Photograph by Susan Einstein, courtesy of Christopher Donnan. **C.** Early Intermediate Period stirrup spout vessel from the Virú Valley depicting an offering of peanuts and maize on stacked gourd plates. Photograph courtesy of Museo Larco, Lima, Perú; catalogue # ML006429.

for newly-deceased individuals, ancestors, and the supernatural. Funerary contexts and art demonstrate that, in Moche society, the dead were often provided with a meal for their journey to the afterlife, which was presented on a gourd plate (Figure 3). These offerings commonly included peanuts, especially in high-status graves (Donnan 1995; Gumerman 1994, 1997a; Jackson 2008; Millaire 2002; Strong and Evans 1952; Towle 1961; Ubbelohde-Doering 1966, 1983). Their inclusion in funerary contexts extends to the central and south coasts of Peru as well (Kaulicke 1997; Towle 1952; Valdez 2005; Verano 1991). Coupled with their depictions on gourd plates on

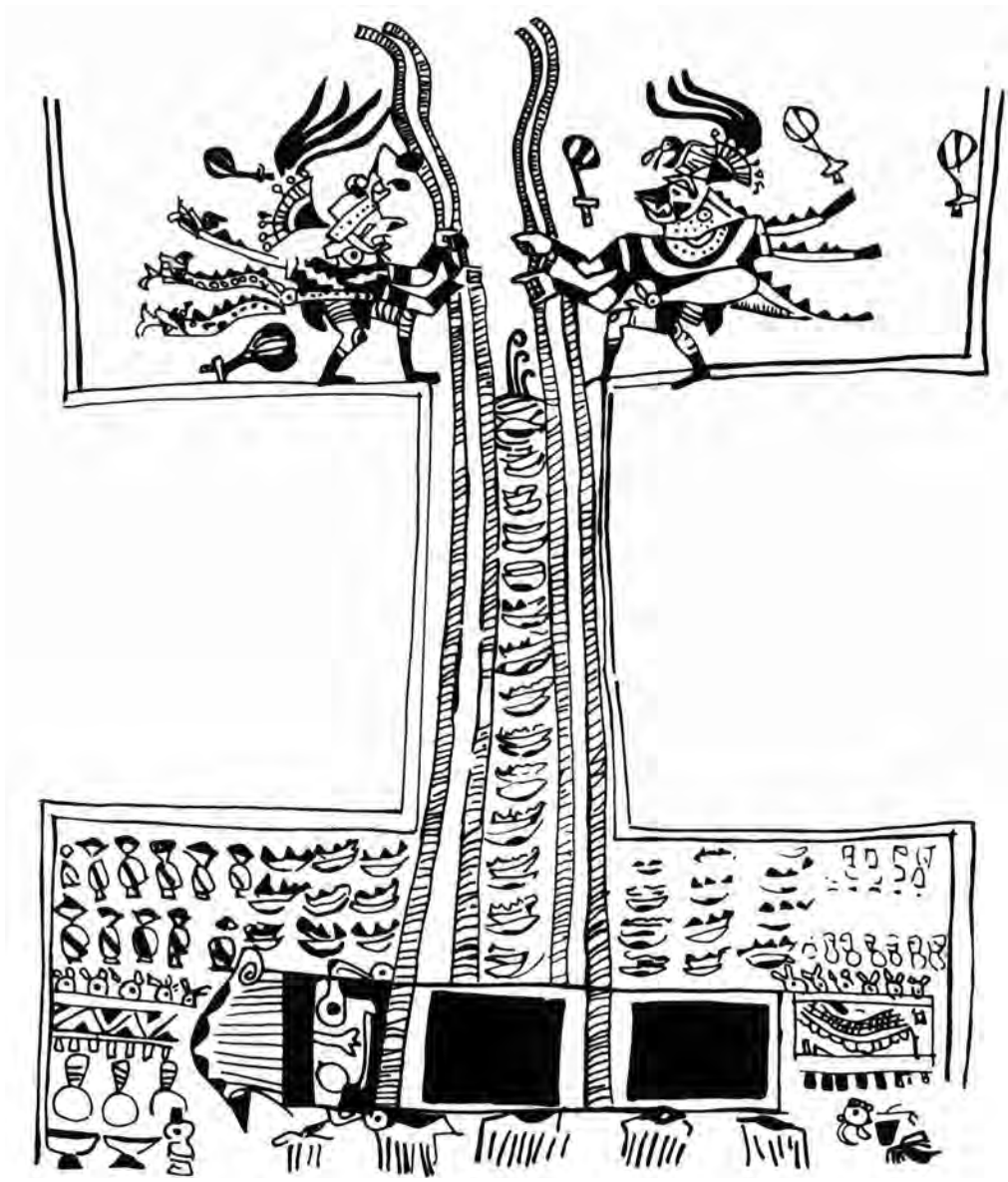

Figure 3. Moche "Burial Activity" scene depicting offerings placed on stacked gourd plates being lowered into the burial chamber of a high status individual. Illustration by Donna McClelland, courtesy of Dumbarton Oaks Research Library and Collection.

Moche ceramics, they clearly played a key role in feasting practices for both the living and the dead (see also Hastorf 2003:549).

Millaire's (2002) re-visitation of Gumerman's (1994, 1997b) study of Moche period burials from Pacatnamú also illustrates the importance of peanuts as funerary offerings. While Gumerman (1997a:246) concluded that the most elaborate burials at Pacatnamú were of individuals buried in cane coffins, re-analysis reveals another indicator of high-status: the quantity of gourd containers left as offerings (Millaire 2002:129–130). While peanut remains (n = 119) are limited to only a single burial, they are associated with Burial 9, a male of

50+ years buried in a cane coffin alongside two ceramic vessels and 19 gourds, the largest quantity among the burials (Gumerman 1997b). In this light, it appears peanuts were only afforded to those of the highest position in Pacatnamú society.

Materials and Methods

Study Sites

Paleoethnobotanical work was carried out at the archaeological sites of Huaca Santa Clara (V-67) and Huaca Gallinazo (V-59). These two settlements, located about 15 kilometers apart, were integral to the administration of the developing valley-wide state occupied between the second century B.C. and the sixth century A.D. During this time span, the valley saw a significant increase in population size and agricultural productivity, the establishment of a four-tiered settlement hierarchy, and the emergence of many large urban settlements (Fogel 1993; Millaire 2010a, 2010b; Millaire et al. 2016; Willey 1953).

Huaca Santa Clara

Huaca Santa Clara is a mid-sized settlement built on the flanks of a small hill in the middle Virú Valley and is thought to have been the polity's administrative center (Millaire 2010a). Standard radiocarbon dates suggest this occupation dates back to the first and possibly second century B.C. and lasted until the seventh or eighth century A.D. (Millaire 2010a). The *huaca*, a triangular-based pyramid, features a building on its apex (known as Sector 1), three adobe brick platform terraces on each of its edges (Sectors 2, 4, and 6), and residential sectors towards the bases (Sectors 3, 5, and 7) (Figure 4). The civic building in Sector 1 consists of a solid adobe platform built directly on the rocky outcrop. Heavy looting and modern construction work have greatly affected the integrity of the vestiges in this part of the site, and therefore only limited excavations were undertaken in Sector 1. As a general trend, the low-lying areas of the site are comprised of simple domestic architecture and craft production zones. In contrast, excavations on the three mid-level terraces revealed a network of rooms of different size and utility, including possible elite residences with human burials and restricted access patios. Excavation on the terraces also revealed a large-scale storage system for food crops, leading Millaire (2010a) to argue that the site likely played a key role in the Virú polity redistribution system, functioning as a locus for the collection of agricultural products from the valley and the redirection of surplus to the urban center.

Huaca Gallinazo

The capital city of the Virú state was the Gallinazo Group site, what is now a concentration of approximately 30 mounds (Millaire 2010b; see also Bennett 1950; Strong and Evans 1952; Willey 1953). Huaca Gallinazo is the largest mound of the group, boasting an impressive ~82,000 m^3 civic-ceremonial building. Surrounding the *huaca* was a cityscape approximately 40 ha in size, comprised of densely populated multi-household architectural compounds. Population estimations range from 10,000 to 14,400 people living within the urban core (Millaire and Eastaugh 2011). Coring, magnetometer, and ground penetrating radar surveys show that agricultural fields surrounded the *huaca* and settlement mounds (Millaire and Eastaugh 2011, 2014). During the 2011-12 seasons, work was carried out on the main platform mound (the Southern Platform) and in one of the residential compounds (Architectural Compound 2) (Figure 5).

The Southern Platform (SP) is a large stage-like space (~100 × 20 m) that overlooks a wide plaza to the south of the civic building. Analogous with contemporaneous Moche sites, the platform was used by the polity's highest elite (some of whom may have been buried therein) as a performative space for ritual. This inlcuded feasting and the offering of food to

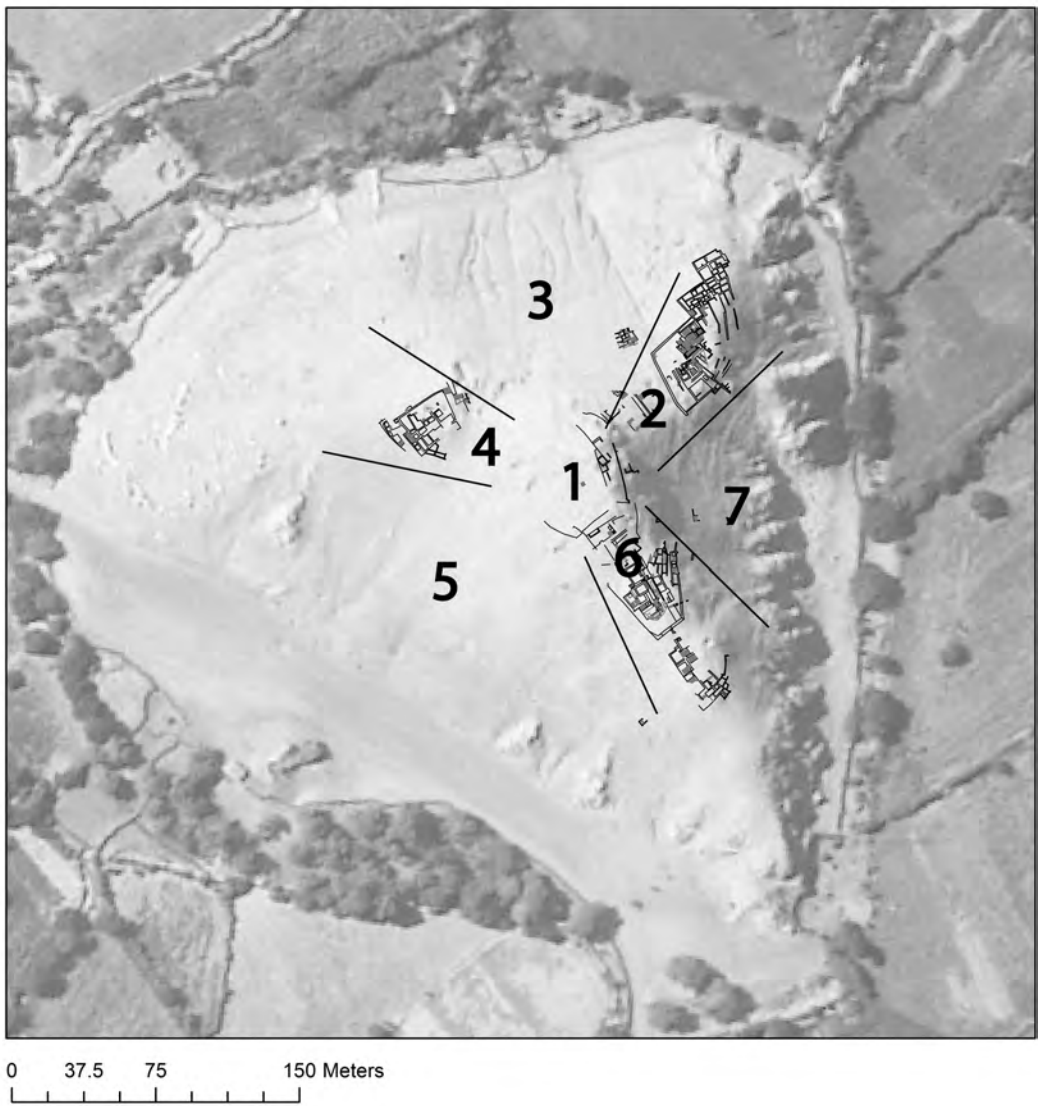

Figure 4. Aerial view of Huaca Santa Clara and Sector 1 (civic building), Sectors 2, 4, and 6 (adobe brick platform terraces), and Sectors 3, 5, and 7 (residential sectors at the base of the *huaca*).

ancestors, directed at the wider populace of the city or possibly the whole valley-wide polity (Millaire 2010b). Immediately west of the platform, two rooms (A-7 and A-8) that featured adobe hearths and burnt ceramics, as well as feasting waste, were uncovered that were similar to other feasting preparation contexts on the north coast (see Chicoine 2011; Swenson 2006). AMS radiocarbon dates suggest that the latest construction phases of the SP were used between cal AD 210 and 550 (2σ).

Architectural Compound 2 (AC2) is a complex of domestic residences located 150 m to the northwest of the civic-ceremonial building. This compound covers an area of approximately 90 m^2 and features a number of adjoining rooms with patios, living quarters, storage bins, and food processing waste. AMS radiocarbon dates

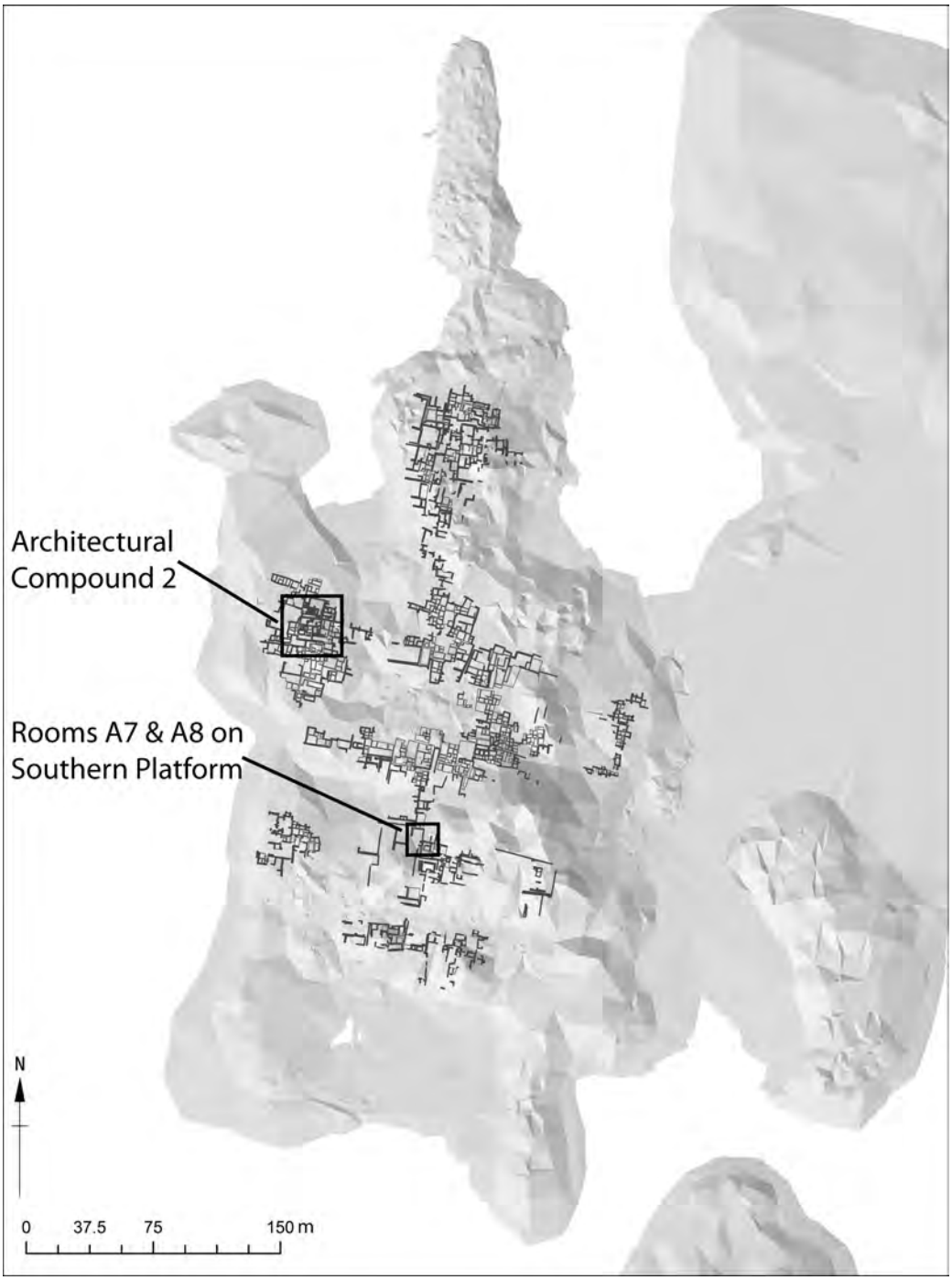

Figure 5. Map of Huaca Gallinazo and location of the Southern Platform (with civic-ceremonial and elite architecture, and rooms A-7 and A-8 featuring large quantities of feasting waste), compared with the location of Architectural Compound 2 (residential compound).

suggest that the rooms from AC2 sampled in this study were used between cal AD 230 and 440 (2σ), and, therefore, they were relatively contemporaneous with rooms A-7 and A-8, as well as the associated civic-ceremonial activities on the SP.

Sampling and Analysis

At Huaca Gallinazo, a minimum of ten liters of sediments were sampled from all levels and cultural features, such as hearths, middens, and storage vessels, with the exception of construction rubble, and screened through one-sixteenth inch mesh. All carbonized and desiccated seeds and plant materials from screening were retained. In addition, faunal remains from this process were also kept for analysis (see Johns 2017; Venet-Rogers 2013). Volumes in liters were recorded. Samples were taken using a combination of strategies, including composite (average) and point sampling, following the processes outlined by Pearsall (2010:69, 71) and Lennstrom and Hastorf (1992). One-liter subsamples were taken for one-millimeter screening, a decision made with reference to the methodology of previous projects in the region (Dionne 2002), methods outlined by Pearsall (2010) and Fritz (2005), and also transportation considerations owing to the relative remoteness of the site. Fine sieving was prioritized for subsampling, as desiccated remains can be damaged or destroyed in the process of flotation. Care was also taken to ensure evenness of sample collection between the domestic area (AC2) and the elite and civic-ceremonial area (SP). The ratio of sampled sediments (by volume) between these two sectors (AC2:SP) is 1:1.4, although more features and depositional layers were excavated in AC2 (a ratio of 1.2:1).

Sampling at Huaca Santa Clara only involved one-eighth inch screen collection as paleoethnobotanical analysis was not a priority at the time. Volumes were not recorded. Thus, densities of identified plant remains (counts per volume) cannot be calculated and compared with Huaca Gallinazo. Instead, percent frequency (specific plant counts divided by total amounts recovered) are used. While this method of data transformation is not a reliable means of evaluating inter-site differences (Hastorf 1990), this measure does allow meaningful intra-site comparison of the relative importance of plant foods, like peanuts, across different sectors of the site.

Results

Huaca Gallinazo

Thirteen plant taxa and one species of marine algae (Mococho) were identified in samples from elite and civic-ceremonial contexts on the SP (Table 4). Despite the greater number of layers sampled from AC2, a much smaller diversity of taxa is represented in the domestic samples (n = 7 including marine algae; Table 5). This disparity likely reflects the importance for elites to have a diverse array of foods for ritual feasts, something which was likely understood as a sign of prestige. Greater densities of edible plants on the SP compared to AC2 might also speak to the nature of these feasts; in the case of ritualized conspicuous consumption the semiotics of the food and performance may have been more important than the act of eating itself. As such, if waste was not a great concern, this would lead to the greater densities in our results. Food may have also been left uneaten purposefully, reserved for ancestors and deities. Possible taphonomic explanations are considered below.

Peanuts were present in 71% of the sampled layers from elite and civic-ceremonial contexts on the SP. In contrast, they are notably absent from AC2. This is significant considering the large quantity of peanut shell fragments found on the SP (n = 125) and their relatively high density in comparison to other plants, second only

Table 4. Densities (counts per liter) of edible plants from elite and civic-ceremonial contexts on the Southern Platform at Huaca Gallinazo.

Layer / Feature	Room# / Association	Algarrobo	Avocado	Bean cotyledon	Bean pod	Cansaboca	Chili pepper peduncle	Chili pepper seed	Ground cherry	Guava	Lucuma	Maize cob	Maize kernel	Maize stalk	Mococho	Pacae cotyledon	Peanut shell	Squash peduncle	Squash fruit	Squash seed	Yuca
84	7	.2	0.5	1	–	–	–	.2	–	.1	.3	1.6	2.2	–	–	–	1.4	–	–	–	–
85	7	.1	0.2	.1	–	–	–	.3	–	.1	–	.2	1.2	–	–	–	.2	–	–	–	–
88	7	–	.003	.015	–	–	.137	–	–	.006	.006	.058	.237	–	–	–	.009	–	–	–	–
97	7	–	.1	–	–	–	–	–	–	–	.3	.5	1	–	–	–	.1	–	–	–	–
103	8	.025	.008	.16	–	–	.063	–	–	.013	.023	.188	.338	–	–	–	.18	.003	–	–	–
106	8	–	.001	.012	–	–	–	–	–	.001	.001	.012	.011	–	.001	–	.002	–	–	–	–
92	a	–	–	–	–	–	–	x	–	–	–	x	–	–	–	–	–	–	–	–	–
125	b	–	–	–	–	–	–	–	–	.001	–	–	–	–	–	–	–	–	.001	.274	–
123	c	–	–	–	–	–	–	–	–	.017	.017	.033	–	–	–	–	.025	–	–	–	–
124	c	X	x	X	X	x	–	–	x	X	–	X	–	x	–	x	X	–	–	X	–
71	d	–	x	X	–	–	–	–	–	x	–	X	–	–	–	–	–	x	–	–	–
64	e	–	x	–	–	–	–	–	–	–	–	x	–	–	–	–	–	–	–	–	–
77	f	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	.059	–	–	–	–
101	g	–	–	–	–	–	x	–	–	–	–	–	–	–	–	–	–	x	–	–	–
80	h	–	–	–	–	–	–	–	–	.001	–	.003	–	–	–	–	.001	–	–	–	–
122	i	.006	.063	.019	.025	.006	.019	–	–	.05	.019	.506	–	–	–	–	.044	.031	–	.019	.006
127	j	–	x	–	x	x	X	–	–	x	x	X	–	x	–	–	x	–	–	–	–

[x] Indicates presence, but density < 0.001 fragments per liter, or volume is n/a and n < 10.
[X] Volume is n/a and n ≥ 10.
[a] Burial 3.
[b] Cache of objects.
[c] Test pit below floor 2 (eastern side of platform).
[d] Ash fill below surface level.
[e] Looter's back dirt.
[f] Fill inside ceramic jar.
[g] Fill below floor 2 (western side of platform).
[h] Test pit below floor 2 (western side of platform).
[i] Fill below floor 1 (eastern side of platform).
[j] Refuse deposit below floor 1 (eastern side of platform).

Table 5. Densities (counts per liter) of edible plants from domestic contexts (AC2) at Huaca Gallinazo.

Layer /Feature	Room	Algarrobo	Avocado	Bean cotyledon	Bean pod	Cansaboca	Chili pepper peduncle	Chili pepper seed	Ground cherry	Guava	Lucuma	Maize cob	Maize kernel	Maize stalk	Mococho	Pacae cotyledon	Peanut shell	Squash peduncle	Squash fruit	Squash seed	Yuca
65	1	–	–	–	–	–	–	–	–	–	–	.002	–	–	–	–	–	–	–	–	–
66	2	–	–	–	–	–	–	–	–	.2	–	1	–	–	–	–	–	–	–	–	–
74	2	–	–	–	–	–	–	–	–	.125	–	.047	–	–	–	–	–	–	–	–	–
75	2	–	–	–	–	–	–	–	–	–	–	.038	–	–	–	–	–	–	–	–	–
79	2	–	.008	–	–	–	–	–	–	–	.008	.023	–	–	–	–	–	–	–	–	–
81	2	–	–	–	–	–	–	–	–	–	–	.002	–	–	–	–	–	–	–	–	–
82	2	–	.002	–	–	–	–	–	–	.002	–	.017	–	–	.001	–	–	–	–	–	–
86	2	–	.003	–	–	–	–	–	–	–	–	.003	.003	–	.003	–	–	–	–	–	–
87	2	–	–	–	–	–	–	–	–	–	–	.008	.004	–	.004	–	–	–	–	–	–
89	2	–	–	–	–	–	–	–	–	–	–	.006	–	–	.006	–	–	–	–	–	–
91	2	–	–	–	–	–	–	–	–	–	–	–	.018	–	–	–	–	–	–	–	–
98	2	–	–	–	–	–	–	–	–	.1	–	–	–	–	–	–	–	–	–	–	–
67	3	–	–	–	–	–	–	–	–	–	–	.005	–	–	–	–	–	–	–	–	–
68	3	–	–	–	–	–	–	–	–	–	–	x	–	–	–	–	–	–	–	–	–
102	3	–	–	–	–	–	–	–	–	–	–	.056	.045	–	–	–	–	–	–	–	–
69	4	–	–	–	–	–	–	.001	–	–	–	.002	–	–	–	–	–	–	–	–	–
83	4	–	.001	–	–	–	–	–	–	.002	–	.048	.039	–	–	–	–	–	–	–	–
104	4	–	–	–	–	–	–	–	–	–	–	.050	.225	–	–	–	–	–	–	–	–
99	6	–	–	.013	–	–	–	–	–	–	–	.013	.075	–	–	–	–	–	–	–	–
100	6	–	–	–	–	–	–	–	–	–	–	–	.114	–	–	–	–	–	–	–	–
116	8	–	–	–	–	–	–	–	–	–	–	.124	–	–	–	–	–	.002	–	–	–

[x] Indicates presence, but density < 0.001 fragments per liter, or volume is n/a and n < 10.

to maize (Table 4). By count, peanuts were the third-most frequent edible plant on the SP after maize (*Zea mays*) and squash (*Cucurbita maxima*), comprising 9.8% of total fragments. The taxa represented in AC2 suggest access to agricultural staples such as maize and beans (*Phaseolus* spp.), as well as tree fruits like avocado (*Persea americana*), guava (*Psidium guajava*), and lucuma (*Pouteria lucuma*), which may have been planted along the peripheries of their fields. Mococho collection is likely associated with marine fishing activities—the zooarchaeological evidence of which is particularly abundant in this sector (Johns 2017; Venet-Rogers 2013), demonstrating the importance of marine foods in quotidian meals.

The absence of many plant species in the domestic sector, including peanuts, most likely suggests that there was differential access to certain foods among community members, and perhaps affirms that these items have a ceremonial or prestige association. For instance, most of the peanuts were found in A-7 and A-8, the two adjacent rooms on the SP associated with feasting preparation and waste. A large quantity of faunal material, including shellfish, fish, sea mammals, deer, and camelids, were also recovered from these rooms. Analysis of the mammal remains indicate that they represent a selection of choice cuts, such as upper limbs, a pattern which is also consistent with ceremonial feasting practices (Johns 2017; Venet-Rogers 2013).

On the Southern Platform, there is evidence for the inclusion of peanuts in burial ritual on the *huaca*. A small quantity of peanut shells (n = 2) were found alongside Burial 3, an infant interred with textiles, three gourd plates, and a *tinaja* (large jar), with possibly a smaller nested vessel inside (Millaire and La Torre Calvera 2011). This burial may have been a dedicatory offering from a later construction phase of the *huaca* (Dillon 2015). One peanut shell fragment was recovered from a sample taken from inside the *tinaja*, and the other from the surrounding matrix.

Huaca Santa Clara

At Huaca Santa Clara, given the different sampling methods and functions of space—for instance, no obvious spatial dichotomy of elite ritual feasting vs. quotidian meal preparation and consumption was identified—the questions we can ask regarding the role of peanuts at the site differ from those at Huaca Gallinazo. Arguably, the most interesting areas which yielded plant foods are the honeycomb-shaped storage areas (Sectors 2 and 4), thought to be repositories for agricultural tax. Although peanuts were present in the storage facilities, their relative frequencies are quite low (Table 6). Compared to staple crops like maize in Sector 2 (kernels and cobs n = 622, 62.3% of total plant fragments), or beans in Sector 4 (cotyledons and pods n = 1041, 59.6% of total plant fragments), peanuts only account for two percent of plant foods in Sector 2, and less than one percent in Sector 4. Their low frequencies suggest that they may not have played a major role in the redistribution economy of the Virú Valley, at least in comparison to the aforementioned staple crops.

Peanuts in general are not particularly abundant at the site in comparison to Huaca Gallinazo. They are notably absent from deposits associated with a civic building (Sector 1), as well as samples from contexts in the residential Sector 5, and make up a small proportion of the plant remains from residential Sector 3 (> 1%). The highest frequency of peanuts was in Sector 7, an area of ambiguous function, and their actual counts are quite small (n = 6). Peanuts are also present in Sector 6, the terraced platform adjacent to Sector 1, albeit in very small quantity. Of note, however, is the recovery of a single peanut associated with the grave goods of Burial

Table 6. Percent frequencies[a] (counts per total number of fragments) of edible plants across sectors at Huaca Santa Clara.

Sector	Sample n[b]	Algarrobo	Avocado	Bean cotyledon	Bean pod	Camote	Cansaboca	Chili pepper seed	Chirimoya	Guava	Jack bean	Lucuma	Maize cob	Maize kernel	Pacae pod	Peanut shell	Squash peduncle	Yuca
1	2	-	4.5	-	-	1.5	-	-	-	1.5	4.5	1.5	77.3	-	-	-	9.1	-
2	57	2.3	6.5	4.8	-	-	.6	.3	.2	3.3	5.4	2.4	44.1	18.2	3.8	2	6	-
3	8	.3	1.3	.9	.3	-	.6	-	-	56.6	2.2	1.9	29.1	-	-	.6	6.3	-
4	7	-	.1	59.3	.3	-	.2	-	-	.4	-	.5	5.3	33.5	.1	.2	.1	-
5	4	-	13	8.7	-	-	-	-	-	8.7	-	4.3	52.2	-	8.7	-	4.3	-
6	40	.4	4.5	14.6	1.5	-	.2	-	-	1.7	-	.9	64.4	4.5	1.3	1.2	4.7	.1
7	5	2.4	5.9	2.4	1.2	-	1.2	-	-	1.2	-	1.2	70.6	-	1.2	7.1	5	-

[a] Volume of floated and excavated materials are not available from this excavation, therefore densities cannot be calculated. Percent frequency is therefore presented to highlight the relative importance of all taxa across the site.
[b] Number of layers or features from which botanical remains were recovered within the sector.

9, an adult female retainer sacrificed in a large room interpreted as an elite living space (Millaire 2010a).

Taphonomic Considerations

Some post-depositional factors which could have influenced differences in spatial distribution of plant foods include refuse management practices and the presence of domestic animals or pests. It is possible that dogs, guinea pigs, or ducks living in residential compounds may have consumed some of the food waste remaining from quotidian meals (Shimada 1994:181). In addition, garbage was commonly burned or redeposited in construction fill, although Shimada (1994:181) notes that its use was usually limited to nearby remodeling of structures within the same complex or sector. Given this, and the lack of evidence for the presence of domestic animals or pests in AC2 (dung and other faunal evidence), we presume that these depositional differences are the result of human agency and differing practice between elite feasting and quotidian contexts.

Discussion and Conclusions: Peanuts, Power, and Prestige

Based on their nutritional profile and their long-term storage capacity, we expected peanuts to have been a key crop in the Virú polity's agricultural redistribution economy. However, our botanical analysis not only revealed their low relative frequencies in state-controlled storage facilities at Huaca Santa Clara, but also confirms our suspicions they were not a staple food in everyday meals. Their association with civic-ceremonial and elite architecture, as well as burial activities at Huaca Gallinazo, instead suggests they were consumed during ritualized activities. This might be explained, in part, by differential access to peanuts between elites and commoners, as well as symbolic associations restricting peanut consumption across time and space.

Differential Access to Economic Plant Resources in the Virú Valley

Given the evidence that peanuts had important symbolic meaning in Moche ideology and iconography, as well as their association with many high-status burials, representation on fine vessels, clothing, and high-status adornment, as outlined in previous sections, we propose that peanuts had a prestige association in pre-Hispanic north coastal Peru. Considering that hierarchies of power undoubtedly existed in the realms of local administration and access to the ceremonial and the sacred, and the aforementioned laborious nature of peanut cultivation, access to peanuts may have been unequal across Virú society.

Paleoethnobotanical work at the nearby site of Huancaco also noted a marked difference in the types of legumes found between the palace and the nearby domestic area (Dionne 2002:101). Located approximately midway between our study sites, Huancaco was a terminal Virú ruler's palace, occupied between the sixth and seventh centuries A.D. This was a time when interaction with the expanding Moche state increased to include participation in the wider Moche exchange system (Bourget 2010), but with the continued maintenance of local governance over people and resources (Millaire 2010a). Relative to the occupations of our study sites, it has been postulated that Virú polity elites founded Huancaco after Huaca Gallinazo's abandonment (Bourget 2010; Millaire 2010b). At this site, peanuts comprise roughly seven percent of the botanical material from the palace and were the most important legume recovered (Dionne 2002:93, 110). In contrast, at the nearby domestic site of V-317, species from the genus *Prosopis* (such as huarango and algarrobo), of which large stands grow nearby the site, were the predominant legumes in the assemblage (6.4% of botanical material recovered). Peanuts were relatively rare in the residences at V-317 (0.3% of the botanical assemblage), indicating a stronger associa-

tion of peanuts with ceremonial rather than domestic practice (Dionne 2002:96, 110). Dionne's (2002) findings confirm that the prestige association of peanuts extends diachronically within Virú society, in alignment with similar synchronous trends along the north coast.

Social Implications

As other Andean scholars (Chiou 2017; Costin and Earle 1989; Cutright 2009; Dionne 2002; Gumerman 1997b; Hastorf 1990, 2003; Ryser 2008) who have reported on the unequal distribution of foods have noted, social hierarchies result in different "needs, wants, and abilities to fulfill their goals" (Gumerman 1997b:106) between community members. The construction of dichotomous high- and low-class foods serves as a social tool for the internalization and reification of social divisions and creates a hierarchy of taste "preferences" (see Bourdieu 1984). Virú elites appear to have used peanuts among other symbols of prestige to reinforce social differences between themselves and commoners, perhaps as a way of controlling their access to the sacred. Elites in society were more apt to have consumed expensive or exotic foods, fundamental indicators of political or religious authority maintained by the control over certain economic and symbolic resources (Clark and Blake 1994; Goody 1982; Gumerman 1997b; Hayden 1996). In contrast, while non-elites may have participated to varying degrees in the ceremonial consumption of peanuts (as farmers presenting their peanuts as tax or tribute, or as spectators of elite feasting), and may have, indeed, consumed peanuts during their lifetimes, the producers of agricultural foods likely had greater access to a diverse array of animals and wild or managed plants which grew nearby the fields they tended (Gumerman 1997b:117).

Directions for Future Research

As Douglas (1999:232) wrote, food consumption does not occur in a social vacuum. Whether peanuts were part of a small meal enjoyed by a family, exacted as tribute or tax presented to elites, eaten as part of a feast hosted by local leaders, or left as a ceremonial meal for the deceased, they likely had various symbolic meanings depending on the context. Peanuts may have represented great wealth, power over surrounding communities, or domination of the landscape when they were present in lavish competitive feasts. They may have represented death and rebirth when left as part of a burial offering. Their depiction on fine vessels might have served to disseminate symbols of power, wealth, fertility, or death within society. However, peanuts may also have simply represented sustenance and nourishment as a component in an ordinary meal.

The role of commoners, their motivations, agency, and practice within these redistribution economies are often minimized in our archaeological interpretations (Lepofsky and Kahn 2011). This is due in part to the ample material correlates of elite activities, as well as the challenges of elucidating quotidian practice from simple domestic remains. Of course, as Sayre and Whitehead (2017) note, we should also consider that the preparation of foods for elite consumption may take place in domestic spaces. Further, quotidian practice does not negate the presence of ritual. Thus, the construction of dichotomous ritual and domestic spaces likely leads to interpretive oversimplification in archaeology (Sayre and Whitehead 2017:136). We believe, however, that it would be fruitful to further investigate the preparation and consumption of quotidian meals. In order to do so, we need to continue to prioritize paleoethnobotanical collection and analysis, moving beyond "laundry lists" to consider the social implications of plant-human relationships in the past.

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