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Christine A. Hastorf Steamed or Boiled: Identity and Value in Food Preparation

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Christine A. Hastorf

Steamed or Boiled: Identity and Value in Food Preparation

How do daily meals resemble larger feast gatherings? In many cultures every act associated with food is filled with meaning and sanctity. Feasts usually feed more people than daily household meals, and by their scale, gain centrifugal meanings. These ritual foods for the deities, ancestors, and large groups do not often look like daily meals in the Andean region. One of the goals of the Taraco Archaeological Project (TAP) is to study the past foodways in the Lake Titicaca Basin, Bolivia. Evidence of unusual ingredients suggests that experimentation with exotic foods occurred in ritual settings on a community level, reflecting centripetal constructions in these larger meals.

Andean archaeology; cooking; meals; Andes; rituals; performance; discursive practice.

In welcher Weise gleichen tägliche Mahlzeiten größeren festlichen Zusammenkünften? In vielen Kulturen ist jede mit Nahrung verbundene Handlung mit Sinn und religiöser Bedeutung aufgeladen. Bei Festen werden meist mehr Menschen verköstigt als bei Mahlzeiten im Haushalt. Durch diesen größeren Rahmen erlangen Feste nach außen wirkende, zentrifugale Bedeutung. In den Anden gleichen solche rituellen Speisen für Götter, Ahnen und größere Gruppen selten alltäglichen Mahlzeiten. Eines der Ziele des Taraco Archaeological Project (TAP) ist es, zu untersuchen, wie in der Vergangenheit in der Region um den Titicaca See (Bolivien) Nahrung produziert, verarbeitet und konsumiert wurde. Das Vorkommen von ungewöhnlichen Zutaten legt nahe, dass in rituellen Zusammenhängen auf Gemeindeebene mit exotischen Lebensmitteln experimentiert wurde, was integrierende Aspekte dieser größeren Mahlzeiten widerspiegelt.

Archäologie der Anden; Kochen; Mahlzeiten; Anden; Rituale; Performanz; Diskursive Praktiken.

1 Introduction

Food participates in the creation of self. Shared consumption of food and drink is at the heart of social relations and identities. Who we are is not just what we eat bio-chemically, but how we feel about our bodies/minds throughout our waking hours. For subsistence farmers, both past and present, food can be like a family member, residing in the home or barn, tended, cared for, and nurtured. Thus when meals are created from these previously living beings, decisions are made as to what shall be selected for consumption. Meals are transformative: both daily and ceremonial meals impact participants at the time of

First I want to thank Susan Pollock for inviting me to the TOPOI Berlin symposium. The reviewers have helped made the paper better: thank you. I have many people to thank within the Taraco Archaeological Project, especially Melanie Miller, Maria Bruno, José Capriles, Kate Moore and Matt Bandy. The National Science Foundation and the Wenner Gren Foundation supported our fieldwork in Bolivia. My sons Kyle and Nick participated in this work, and I dedicate this article to them both.

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consumption, corporeally through satiation and contentment, but also meaningfully, as they can reaffirm or rupture a sense of self within society, through the usual sharing of food among a group of people.

The difference between the everyday meal and the group feast may be slight or significant, but it is always culturally constructed, and therefore should be inferred from the data rather than assumed *a priori*. How one consumes is related to who one is, as one's identity is embedded within a tradition that is reinvented with every meal. Even in societies with institutionalized structures of authority, political power is constantly challenged and negotiated, and so the role of the commensal politics of feasting is just as complex and multifaceted in forging societal relations. These are the fluid situations we have to deal with in our archaeological examples as we seek to trace how meals reflect and create societies in the past.

In this paper I will address such reflexive issues of personal identity through the material and cognitive practices that are involved in food preparation and consumption. By focusing on a specific region where I have been completing archaeological field work for some years with a team of archaeologists, we have gathered material evidence to help shed light on the actions of preparation, the locations of consumption, the quality of the food ingredients, and the ceremony of presentation. This example is from the high plains of the Andean mountains on the Taraco Peninsula along the shores of Lake Titicaca, Bolivia. In this paper, I will tack back and forth between the Andean data and concepts of gastropolitics.

I see these gastropolitical issues as cultural archaeological issues, activating theories of person - thing relations in practice, rather than broader scales of social interaction, evidenced in globalism studies.¹ This approach focuses on small-scale activities to better understand the larger, broader activities that include individual decisions, community consensus, and identity formation at several levels. For archaeologists, rituals and daily practices are activities rooted in materiality and time, so there should be many avenues of analysis, but most basic are agency and performance.² Optimally we want to be able to identify evidence for daily as well as special, unique ritual meals. I begin with a discussion of ceremonial meals.

There are multiple ways of creating ceremonial feast foods out of daily meals: more food, different foodstuffs, different preparations, different presentations, unusual timing and location of the meal, and who is participating. This allows us to assume that there will have been different materialities associated with feast meals, especially in the size and decoration of serving vessels, different cuts of meat, frequencies of plants, and presence of exotic ingredients or forms of presentation. But there are also different styles in presentation.

2 Feasts

Identification of the material remains of special meals is not always straightforward in the archaeological record. But to begin to ask questions about past feasts we need to think about frames of reference we can use to help us identify and investigate such meals. I want to outline several of these aspects that can be brought to bear on the Andean data I am using to discuss meal preparations in the past. Utensils, ingredients, display, and performance provide axes from which to think about feasts' social position and will be addressed here to clarify how these meals can be uncovered in the past. Food scholars have identified a range of markers that help us notice different meals and their

1 Gell 1998.

² Geertz 1980; Dobres and Robb 2000.

potential impacts. The most common terminology applied in archaeology comes from a book edited by Dietler and Hayden.³ While these authors discuss political meals, there are many types of social conditions that can be associated with ceremonial meals. At one end of a spectrum of unusual meals we can begin with what in the United States are called potluck meals, similar but not exactly the same as what Dietler and Hayden define as a solidarity feast. These meals are politically non-discursive in that they do not have an overt aggrandizing goal. Potluck meals are feasts among equals, where each participant brings a dish to share, in an ambience of equality, with the purpose of community building.⁴ Such meals often have great diversity, as food dishes are prepared and brought by many different people. Today at such occasions we can see a range of plates and bowls with no order to the display. Archaeologists Eric Blinman,⁵ James Potter and Scott Ortman⁶ look at this feast type through ceramic analysis across American Southwestern settlement room-blocks as examples of leveling events in these egalitarian, small-scale farming communities. Blinman uses the distributions of cooking jar sizes in several feasting locales to identify communal feasting. Mixed vessel sizes found in feasting deposits suggest to him decentralized planning of such community consumption, like potluck dinners we see today.

A contrasting community meal is the patron-client, patron-role, promotional/alliance commensal feast. These events emphasize the formal hospitality provided between unequals.⁷ The patron-client feast defined by Dietler is similar to Hayden's commensal feast.⁸ There is an overt political tinge to these gatherings where asymmetrical relations are manifest and even institutionalized. Equal reciprocity is not expected, rather these renew subordination as political, social and/or economic debt occurs at each feast. Largesse and gracious hospitality are important characteristics for the host, with a centripetal force of expansion yet obligation, even at times with a taste of shaming the visitors.⁹

An iconic example of a patron-client feast is the potlatch feast from the Pacific Northwest, where years of planning go into a multi-day feast giveaway.¹⁰ These targeted, large meals gain their status from the elaborate sequence of give-aways, completed in honor of a specific cultural moment, celebrating births, puberty rites, weddings, funerals, or honoring the deceased. Such events become a performance, gaining prestige through the style of presentation and sharing large amounts of food and gifts, supplied and prepared by the organizers' centralized resources. The food ceremonies are orchestrated and elaborately prepared, drawing on resources well beyond a single household. These feasts have an authorship that redefines the host's interpersonal standing among the community and perhaps wider afield. Serving vessels are specifically utilized for these large, potlatch meals, highly decorated and of extra large size. Food ingredients can be unusual; different cuts of meat, larger portions, different flavorings, and so on. These meals are memorialized through the dramatics of presentation as well, the special ingredients and the rarely used serving vessels, in addition to explicit gifting. These ceremonial meals have an overt political goal, to enhance the status of the hosting family who aims to have their distinctive event long remembered. The abundant give-away allows for the political repositioning of families and kin groups, as debt and obligation tilt to the receivers. Such events ripple through the society for many years.

- 3 Dietler and Hayden 2001.
- 4 Blinman 1989.
- 5 Blinman 1989.
- 6 Potter and Ortman 2004.
- 7 Dietler 2001, 82; Hayden 2001, 55.
- 8 Hayden 1996, 128–129.
- 9 Young 1971.
- 10 Codere 1950.

When thinking about the commensality of feasts and daily meals, one can think about what daily meals look like and how larger feast gatherings might be similar or different. Dietler notes that feasts are marked differently from daily meals, providing a base for us to seek the distinct material evidence for different meals.¹¹ From the two ceremonial meals briefly discussed here, we can propose a trajectory that can be followed from the daily meal to prepare and perform for larger gatherings.

The discursive side of practice includes those performative, commemorative and semantic processes that actively and consciously draw upon and transmute the long-lived social traditions of a community. In contrast, non-discursive practices include habitual, bodily practices that tend to be unconscious, or at least non-verbal, routinized and 'natural.'¹² At such events, sharing a meal with the deities, as Sallaberger (this volume) discusses for Emar on the Middle Euphrates, illustrates how people activated meals to resonate with past ones, as the current meal reaffirms and adjusts social setting and interpersonal relations.

Ceremonial meals such as those described for Emar become discursive in part by their uniqueness. Such consciousness engages the participants to think about actions that usually do not receive their attention in meal preparation (are non-discursive). Ritually charged, named events heighten meaning through discursive planning, preparation, presentation, and consumption. While memories are consciously and specifically engaged to reconstruct previous ceremonial meals, recreating their sequence, makeup, and actions, each new ritual slips from the previous one, both in the memory loss from the previous one and in the physicality of the meal, with ingredients or recipes altered in each new reenactment. Thus meal orchestrators will try to reconstruct the previous meal, yet also might consciously want to change parts of it, to make them more significant/memorable. Thus changes allow for tradition re-enforcement but also creativity within conformity. Such slippage in these reenactments, outlined by Butler,¹³ provides the possibilities that social identities are reinforced but also negotiated within each meal.

Feasts can be the *performance* of the contract between people and deities from which believers cannot escape. Reciprocity is central to social and political formation, as communal meals become instrumental in powering relationships of mutual obligation, difference, and inclusion, all within the reestablishment of a social community.

As we have learned from Mauss' discussion of the core role of the gift in most meaningful social contracts,¹⁴ we can safely say that food is the most common gift between people and deities. Such commensal contracts make consumption strategic, whether it is the symbolic eating by the dead and the deities, or the participant's eating of the ritual food. These performative presentations in the form of gifts and offerings are the materializations of social interactions and social contracts.

Today Andes ceremonial gatherings often include formal entrances of the different self-identifying participants, called the *entrada*. This event provides for the recognition of each group. Ritual food for the deities at such events is not often presented in a daily meal format, but also adds specific ingredients, such as alcohol, herbs, amulets, incense, or, in the case of the Andes, coca leaves (*Erythroxylum coca*).

Therefore it is not surprising that as archaeologists look for ritual commensality they locate and identify some of these activities in the material record. Different materialities and temporalities associated with special meals begin to help us to identify them. Because many small-scale societies see all food and all consumption as sacred acts, much like working on the land, our archaeological charge becomes to more discursively seek the

12 Roddick and Hastorf 2010.

13 Butler 1993.

14 Mauss 1967.

¹¹ Dietler 2001, 70.

range and variability of meals exhibited in archaeological settings. To do this we should work more discursively ourselves with meal variants and what they might have meant in their settings. From these material exercises we can more clearly discuss the values and social relations of the people we are studying. Feasts not only feed more people than the sum of their daily meals, they often also feed the spirits and hold a place in participants' memories and identities.

Food scholars have established that feasts are temporally discursive, in that they require different amounts of time, different types of stores, and often are prepared in different locations.¹⁵ There is often an unusual and elaborate performance of the food presentation, types of consumption, and discard. Such meals stand in contrast to daily meals temporally as well as materially. This discursivity transmits throughout the host community, as plans, preparations, and contacts are activated. People meet to gather foodstuffs, transport them, and plan the ceremony, rippling out centrifugally amongst the community and beyond. In this way, the anticipation of the event brings many into a discursive relationship with the event, both before and after its occurrence.

3 Daily Meals

While the shape and tempo of daily meals vary around the world today, as in the past, due to their relentless regularity they are usually quite routinized. The timing of food preparation and consumption throughout the day in any one area is habitual. For any group, the first meal of the day often occurs at the same time of day with the same ingredients. Each of our national cultures has official lunch hours. These meals are often non-discursive, in that they are less elaborate or planned, and at times less communal than special commensal events such as feasts. For example, farmers in Mexico often eat alone during the day, stopping by the kitchen when they have time between tasks.¹⁶ Individuals in urban China catch a quick bite from street vendors.

As Mary Weismantel has pointed out,¹⁷ all groups have a cuisine, whether simple or elaborate. In each community's spectrum of consumption styles, their cuisine has more and less elaborate dishes and meals, whether ingredients, cooking, or presentation. It is during the communal daily meals that family politics are enacted. It is in the feast meals that wider sharing creates a different sense of community. Weismantel's subtle interpretation of the operative consumption rules within Ecuadorian family food culture,¹⁸ much like Mary Douglas' meal structurations, demonstrates how gender politics are active in family meals.¹⁹ The farming families of Zumbagua Ecuador plant a range of Andean and Middle Eastern-origin crops, primarily consuming what they produce. With increasing input from wage labor by family members, they also buy what are considered foreign foods, such as bread, rice, and noodles.²⁰ Despite the mix of food traditions, all ingredients are usually prepared in the traditional ways, as either a formal meal of hot food around a soup or gruel, or a plate of potatoes and meat, or snacks of grains, beans, or potatoes. While the men oversee the field planting and harvest, it is the women who control the larder and the food distribution.²¹ Her power emanates from the cooking and serving of the daily meal.

- 15 Appadurai 1981; Douglas 1997 [1972]; Dietler 2001.
- 16 Stanley Brandes, personal communication, 2009.
- 17 Weismantel 1988.
- 18 Weismantel 1989; Weismantel 1991.
- 19 Douglas 1997.
- 20 Weismantel 1991.
- 21 Hastorf 1991.

Decisions regarding this order [of receipt] belong to the woman doing the serving, normally the senior woman of the house. She herself merely ladles the food into bowls, remaining seated by the fire, while a child or a younger woman does the actual serving. But it is the woman at the hearth, as she hands over the bowl, who indicates to whom it will be served.²²

While the meal is constructed around soup, there are different portions of meat and potatoes that can be added to the bowl. The contents are carefully constructed with specific quantities of each ingredient, designed for each person.²³ This construction is done with care and thought. Each proffered foodstuff has social meaning, stating the relationship between the server and the served through chunks of meat, potatoes, and beans. An important force within this act of serving the meal is the quality of the gift. It is a grave offence to refuse any food that is offered in these meals, especially second helpings. Thus even the simplest of meals recursively drives the shifting daily family politics. There is an agency to even a daily evening meal, in that each relationship is reassessed and reconfirmed through the act of cooking, serving, and eating.

This agency cuts both ways, controlling as well as activating empowerment for the preparers. While there are decisions to be made, meals are so tradition-bound that there are codes of ingredients and processing for most daily and ceremonial meals in any society or family. We must position our work on the meals of a society by answering the question, what are the ranges of meals in any given society? As we see in Halstead's paper in this volume, the core foods in specific meals vary throughout the day in every culture. The difference between the everyday meal and the feast may be significant, but it is culturally constructed and therefore must be studied in the context of the available resources, the production, tastes, and values. Meal types and values should be inferred from the data rather than assumed *a priori*. It is with this individualistic quality of feasts and quotidian meals in mind that I now turn to the Andean region to study the relationship of daily and feast food.

4 Meals in Andean Society

Materially important criteria for studying meals are the ingredients and their preparation. As in many cultures meals of any sort in the Andes are essential in every social contract and especially in connection with the deities. Consumption is truly the glue of society. Ritual ingestion therefore is always strategic both for humans and their spirits.²⁴ Food and drink are part of the reciprocal exchange with the ancestral powers driven by mutual obligations, completed through the transferring of substances and their accompanying social interactions. Ethnographers have noted that many Andean feasts include an element of feeding the dead.²⁵ These meals require the living to eat to excess, in order to feed those who are not materially present. Thus some ceremonial meals ideally consist of too much food for the participants. These can leave visible traces in the archaeological record. Symbolic variants of these meals can be much more ephemeral. Some ancestral food sharing is only coca leaves and drink. These gifts to the ancestors are much harder to encounter archaeologically. Daily family foods will be less elaborate and the portions are not in excess. These tend to be more centripetal, in that while they reenact all other meals, they also reconfirm the boundaries of the eating society. After presenting some background I turn to the blurred and fluid contextual information concerning the range of meals that can be identified and discussed in this past.

22 Weismantel 1988, 179.

- 24 Isbell 1978.
- 25 Isbell 1978; Bolin 1998.

²³ Weismantel 1988, 180.

4.1 Ingredients

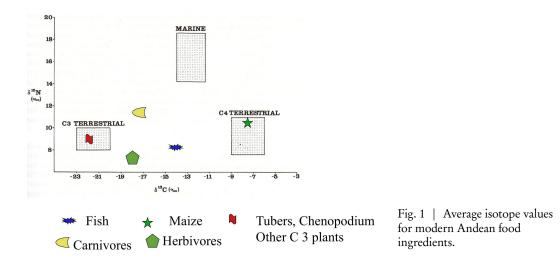
In the highland Andean region, the core foods have grown out of a range of indigenous Andean geophytes, starch-bearing tubers. The main tubers are potatoes (*Solanum* spp.), *oca* (*Oxalis tuberosa*), *isañu/mashua* (*Tropaoleum tuberosum*), and *ulluco* (*Ullucus tuberosus*). There are additional storage-bearing plants that people living at various elevations domesticated and continue to eat today. These four crops are the common harvested foods, with potato dominating the planting and diet both now and in the past. These plants can grow in quite cold, high conditions from the coast on up to 4000 meters above sea level (m asl). The other tubers besides the potato are more like vegetables and are often included in the meal with the potato.

A second major native food is quinoa (Chenopodium spp.). This pseudocereal forms a major part of the diet throughout the highlands, cultivated from elevations of 3000m asl up. It can grow in more saline and drier condition than the tubers, allowing for staple crop production in most parts of the highlands. Amaranth (Amaranthus sp.) seeds are also part of the crop repertoire, but have always been a minor contribution, unlike in Mesoamerica. More common in the lower elevations are the two main bean domesticates, the common bean (Phaseolus vulgaris) and the lima bean (Phaseolus lunatus). But there was also the jack bean (*Canavalia* sp.) along the coast and the lupine (*Lupinus mutabilis*) in the higher arable regions. Beans seem to have been a steady if less common food source across both the coast and the highlands. These beans were clearly domesticated in different locations in South America, the lima bean on the western slopes of Ecuador and the common bean in the southeastern Andean slopes. We do not know where the lupine was domesticated, but given its high altitude adaptation, it seems likely that it would be in the central highland valleys. The chile pepper (*Capsicum* spp.) was more common on the coast and only moved into the highlands regularly as far up as it could be grown, about 3200m asl. Beyond that it had to be traded up, which has been done for at least 3000 years. Peppers were domesticated in multiple locations, making them guite versatile. Today peppers are important in sauces to flavor all meals, but at least in the high plains, they continue to be traded in.

Another native food source is from the Cactaceae family having a range of genera with edible fruits. These taxa are not really domesticated but the plants have been clearly curated and nurtured so that they have been part of the diet throughout the drier Andean region. These plants are often added to flavor meals, much like the many herbaceous plants that also were gathered to spice up soups and sauces. Those plants, too, are wild but nurtured.

The main non-local plant eaten in the pre-Colombian highlands is maize (*sara*, *Zea mays*). This crop expanded out of Mesoamerica around 7000 years ago and was planted and traded throughout the western hemisphere. It became a common crop in the Andean mountains around 1000 BCE, and thus for the time periods I am studying here, it was present in the region, as it took time to be selected to grow in the many diverse microzones of the Andes.

The main meat resources were the camelids (*Llama* spp.), guinea pigs (*cuyes, Cavia* sp.), wild fish, and birds (along with their eggs). The domestic animals, like the majority of the plant foods, were locally domesticated somewhere in the central Andean area. While steady contributions to the diet, there is no morphological evidence that either the fish or the birds were domesticated. Together these foods provided quite a diverse diet, especially on the coast, where there were dense and varied marine resources. In the region of my study, on the shores of Lake Titicaca, there continues to be a focus on the lake fish in the diet, which vied with the camelids in the inhabitants' prehistoric core diet, as we shall see below.



To learn about how these ingredients were used in both daily and ceremonial feasts, staple isotope organic analysis was completed in 2004 at the stable isotope laboratory at the University of California-Berkeley by Melanie Miller. Forty-three interior charred food remains from early, middle, and late Formative cooking vessels have been analyzed. These include ceramics from both domestic and ceremonial contexts. To understand the past values of food remains, we must understand and present the individual plant and animal food sources for comparison. Figure 1 presents the modern taxa values from our extensive modern plant and animal analyses. We use this to compare with the archaeological results. I refer the reader to Ambrose²⁶ for a thorough description of how to read data on such a figure. Crucial for us here are the carbon isotope values along the X-axis. These carbon values reflect the evidence for C_3 and C_4 ingredients cooked in these pots. Maize is a C_4 plant with a carbon value between -7 and -11 parts per mil, the tubers and quinoa are all C3, with values more around -17 to -25 parts per mil.

4.2 Processing

In most cuisines, there is a range of processing and cooking possibilities, well beyond Lévi-Strauss' raw and cooked options. Most common in the Andean meals of the past were drying, boiling, steaming, and roasting, based on the utensil evidence as well as the plant and animal treatments recovered in the archaeological record. This is the region where meat is dried on lines, and from where the English language received its term for dried meat, jerky, originating from the Quechua word *charqui*. It seems likely therefore that fish were also often dried for storage.

While we know that the Andean meal has changed over time, especially with Hispanic influences most prominently evident in noodles, rice, and fava beans, many meals still are comprised of indigenous ingredients and created in traditional cooking styles. Now many rural households have gas cooking fires, rather than dung or wood, but boiling still seems to dominate the cooked food. In the Altiplano today, the main meals comprise *boiled soups or gruels*, strongly starch-based with some meat or fish added (Fig. 2). Boiled food is often presented in two meals a day, in the early morning and at midday, with something lighter like a tea in the evening after the sun has set. Solid foods would be served at midday (or feast meals).



Fig. 2 | The family meal in Santa Rosa, Bolivia. Photograph by Maria Bruno.



Fig. 3 | Steamed feast preparation in Chiripa. Photograph by the author.

In contrast, for local highland feasts, either for multiple families, politically important community members, or several communities coming together, the meal is *steamed and roasted*, requiring communal preparation outside (Fig. 3). These feast earth ovens are called *watias* (in Aymara) or *pachamancas* (in Quechua). They are built in the open air and require heating up cobbles or dirt clods in a make-shift hearth, excavating and lining a pit with the hot stones, layering vegetation and food, then covering the pit with soil or simply placing the food amongst the heated clods and covering them with dirt. This mound then cooks the food items for some hours. These baked foods taste differently from boiled food, retaining more flavor. Multiple tuber species are usually added to the pit, making these feasts not only larger and drier meals than normal but with more diverse ingredients.

While one cannot assume that what occurs in the present occurred in the past, with the many slippages of meaning over so many meals, external and internal political and economic pressures and value, I have discussed these local, rural feasts to show how daily meals can differ from ritual ones in the same region but in a different time.

A third type of meal that must be identified and brought into our discussion, the meals for the dead ancestors. Today, these Andean meals can range from libations and cigarettes to huge piles of tubers and meat, seen at the graves of the recently deceased. In the archaeological record we do have examples of the more ephemeral ritual meals, that is small food offerings or even simply incense burners, like the small ancestral offerings we see today. At La Galgada, a Formative site in northern Peru, there is evidence for spicy food offerings to the deities in ceremonial hearths.²⁷ Whereas today we libate alcohol, offer burnt coca leaves and special foods to the earth before beginning an excavation, in the past local people placed herbs and spices in small fires as food for the ancestors (evidenced in small burning sites within ceremonial structures on the Chiripa mound). These meals are expressly for the deities and are not consumed by the living. There are many examples of such food offerings to deities around the world, although there are meals that people did eat after the deities were "finished."²⁸

27 Grieder et al. 1988.

28 Lev-Tov and McGeough 2007.



Fig. 4 | The southern Titicaca Basin region.

5 The Formative Titicaca Basin

My archaeological study of ceremonial feasts and daily meals comes from a small-scale farming-fishing region in western South America, located in the Bolivian altiplano, along the southern shores of Lake Titicaca. While today the residents live within a modern state, they interact as though they do not, in that the community and families are more important in local, daily decisions than in the province or the state. This is not to say that the state does not have any influence, but that their lives are based quite locally, in the fields, the lake, and the patios of these families. The region I work in is on the Taraco Peninsula, which juts into the smaller, shallower part of Lake Titicaca (Fig. 4). People fish daily in the early morning, catching fish for the day's meals as well as to sell in the city of La Paz, Bolivia. In the past it is likely that fish were eaten fresh, although some could have been dried for future consumption. In the rainy season the farmers plant their seeds and tubers for the austral autumnal harvest. There are often several fallow years within a field's planting cycle. Small herds of cows, pigs, and sheep now graze along the water's edge, where well-watered wild herbaceous plants grow. In the past there would have been camelids grazing on the peninsula.²⁹ While the political and social dynamics are different, many of the daily agricultural practices have continued, making the core foodways quite similar in the past and present on the Peninsula.

While the Andean altiplano has had human occupants for at least 10,000 years, entering after the glaciers retreated, their settlement history, based on archaeological research to date, displays evidence for mobile populations until about 4,000 years ago, probably moving between the lake shores up into the mountains with the seasons. Beginning in what is termed locally the Formative period, evidence for marking the basin with architectural features began with ceremonial gathering places rather than domestic communities. With more archaeological investigation we can now divide up the Formative period into phases (Fig. 5). Domestic residences could have been present at that time, but their remains were not constructed with permanent material, but more likely with hides, sticks, and mud, making that evidence invisible. Thus the earliest data we have of lasting landscape marking consists of walled spaces and rock cairns.³⁰

²⁹ Moore, Steadman, and deFrance 1999.

³⁰ Aldenderfer 1990; Aldenderfer 1991; Hastorf 2003.

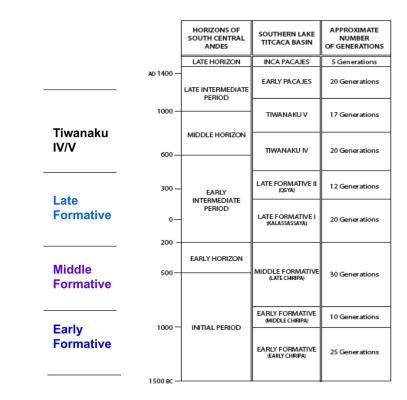


Fig. 5 | The Titicaca Basin archaeological phasing.

5.1 Meal Evidence through Time

5.1.1 Early Formative

In the southern basin, archaeologists have uncovered the earliest evidence for lasting architecture in Early Formative (1500–800 BCE) sites.³¹ On the Taraco Peninsula, Chiripa sits upon three culturally contoured terraces, rising up from the lake.³² In Early Formative times, these natural terraces were culturally accentuated to form a place for ceremonial construction. At Chiripa (Fig. 4), the architectural sequence begins with a large plastered surface within an enclosing wall on the lowest and the uppermost terraces (Fig. 6, noted by green dots). Next to the lower surface are midden deposits of domestic trash, but we have no domestic *in situ* deposits for that era. There surely were more domestic deposits in between these two locations, but the historic hacienda dug up that area to make mudbrick walls (represented by the blue dot on the middle terrace of Fig. 6).

At Chiripa in these early settled times, we find that there is no significant difference between domestic and ceremonial ceramic distributions of jars and bowls. Of interest is an especially large cooking pot found in a young person's grave, along with several birds of prey (Fig. 7). The main contextual difference in the ceramics hints at a trend we see increase in later periods, with more burnished and decorated wares in the ceremonial deposits, suggesting an interest in presentation, even if the food was the same in both settings. Both the plant and animal food remains show similar distributions across what we have defined as domestic and ceremonial contexts.³³

32 Hastorf 1999.

33 Hastorf 1999.

³¹ Bennett 1936; Bennett 1948; Kidder 1956; Browman 1978; Browman 1991; Mohr Chávez 1988; Portugal Ortíz 1992; Lémuz Aguire 2001; Cordero n.d.

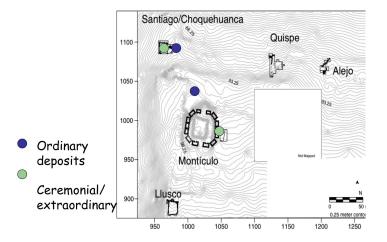


Fig. 6 | Early Formative Chiripa site map with locations of excavated deposits. The green dots note the ceremonial/civic deposits, and the blue dots identify where domestic material was encountered.

The Early Formative stable isotope data from seven decorated and seven plain ware vessels creates a tight cloud in carbon-thirteen values (Fig. 8). Only the nitrogen values show a wide distribution (Y axis), suggesting peeled potato cooking at the feasts in three of the vessels (the three stars at 0 value, due to the lack of nitrogen in the potato storage tissue, as in peeled potatoes ³⁴).

5.1.2 Middle Formative

It is in the Middle Formative phase (800–200 BCE) that the social world of the region was more materially active. Social and architectural changes are evident at the higher number of settlements on the peninsula. During this time the populace fills in the peninsula, founding settlements every 4km along its shores.³⁵ At Chiripa, on top of the upper terrace enclosure a series of small structures are built upon a raised platform around an enclosed surface (the green dots around an inner court in Fig. 9). This mound complex has many ramifications for a community's identity as well as world-view. The layout permitted all local residents to gather in front of the complex as well as snugly into the central plaza, a space of approximately 21m by 20m.³⁶

The participants within that enclosure were spatially set apart from community (domestic) life for the period of the ceremony, having visual access upward (probably to the night sky). At such a community gathering only a few people could move out from the central enclosure into the small, closed chambers for selected rituals, this architecture suggesting private, hidden activities (being five by eight meters in size). These structures were rebuilt and remodeled a series of times, allowing us to note the specific shifts in the renewals and remodeling of the buildings. For example, this population clearly thought that re-plastering the chamber floors every generation was important. This allows us to 'see' the agency of the Chiripa residents in their beliefs concerning their engagement with the ancestral spirits, as renewal was of great value for them. These rebuilt small rooms materially illustrate how they focused regular attention on the structures' repair and contents and therefore a triangular agency between the living, the material in and of the structures, and the ancestors, suggesting even a Gellian sense of power within the buildings and what they hold. Towards the end of this renovation sequence, these small structures were elaborated with smaller side chambers, bins (Fig. 10), where foodstuff, mummy, and ritual paraphernalia storage occurred.³⁷ In addition, we have encountered small fire installations containing charred herbaceous plants within some of these ritual structures, suggesting that smoke offerings occurred within these roofed structures.

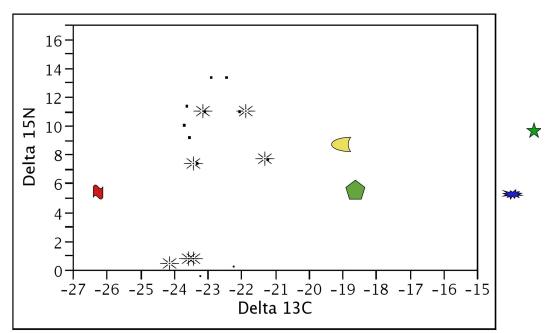
- 35 Bandy 2001; Bandy 2004.
- 36 Browman n.d.
- 37 Bruno and Whitehead 2003; Hastorf 2003.

³⁴ Miller personal communication.



Fig. 7 | Early Formative feast and daily cooking pots.

Fig. 8 | Early Formative stable isotope values from pottery residues. Analyzed by Melanie Miller.



Po

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 $\delta13C \ x \ \delta15N$ graph: Early Formative Pottery Residues (N=14) decorated=7 % ordinary=7 .

Systematic excavations have uncovered ceremonial storage, ritual presentations, and communal gatherings on the mound. Most importantly, this architecture provides an image of both centrifugal coming together in group performance with the inclusion of the whole community in and around the open areas of the mound and central plaza, as well as centripetal, restricted access to the small encircling chambers. Within the selective, perhaps familial or house-based structures we see the materiality of exclusion performance.

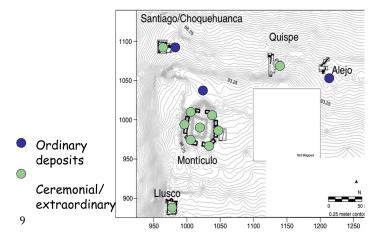


Fig. 9 | Middle Formative Chiripa site map with locations of excavated deposits. The green dots note the ceremonial/civic deposits and the blue dots identify where domestic material was encountered.

Fig. 10 | Photo of bin on mound at Chiripa. Photograph by the author.



In these structures we have found not only burning as renewal, but also burning herbs as likely ceremonial food offerings. The cooked food residues for the living participants are located in the open areas of this mound complex, which was open to many more participants.³⁸

Perhaps the most illustrative of the Middle Formative sectors is the Choquehuanca-Santiago sector (Fig. 11). In the right image in Figure 11 (b and c), I present the overview plan of the excavations completed by the Taraco Archaeological Project. There we have evidence of domestic structures, roughly oval in shape. From this domestic material we have learned that cooking was accomplished using a complex of pot-bellied boiling

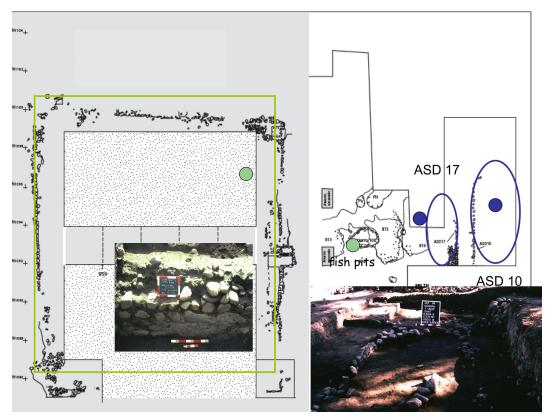


Fig. 11 | The Choquehuanca-Santiago sector. (a) Plan of the Choquehuanca sunken early-middle Formative enclosure (outlined in green), (b) plan of the domestic trash and domestic structures to the east of the enclosure (the domestic structures are outlined in blue), and (c) photograph of one of the domestic structure walls.

vessels, with small roughly finished serving and eating bowls. The neighboring ceremonial evidence from Choquehuanca and the mound complex contains a range of similar cooking vessels, but, like earlier times, there is a greater density of decorated vessels, continuing the trend of an interest in civic feast presentation. Found between this sector and the sunken enclosure are small pits that are filled with charred fish bones interspersed with burial pits, suggesting special cooking locales for fish.³⁹

When we turn to a neighboring Middle Formative settlement, Kala Uyuni (KU), where our project also has excavated (Fig. 12),⁴⁰ we see that the Middle Formative ceremonial enclosures up on the hillside (AC) are distinctly separate from the thick domestic deposits on the lower slopes of the hill (AQ). These data suggest that at this time there was a more discrete difference in distribution of food-related equipment.

On the upper, sloping hillside, two Middle Formative sunken enclosures were built sitting on bedrock in what is called the Achachi Coa Kkollu sector. These two Middle Formative semi-subterranean trapezoidal structures both have quite clean surfaces with small midden dumps outside of their walls and several dense pits filled with *carachi* fish remains (*Orestias* spp.) (Fig. 13). Carachi today is considered a much more flavorful fish than the other taxa. Standing in the center of one of these enclosures is an *in situ* monolith, with clear evidence of offerings of small, carved stones (*conopas*) and food, reflecting chthonic powers.⁴¹ The deposits surrounding these two sunken enclosures contained

40 Bandy and Hastorf 2007.

³⁹ Moore, Steadman, and deFrance 1999; Hastorf 2003.

⁴¹ Allen 1988; Allen 2009; Astvaldsson 1994; Bray this volume.

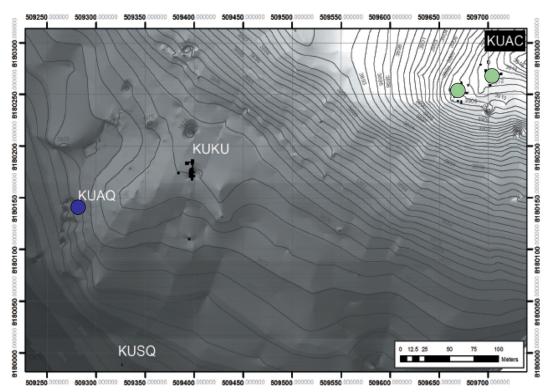


Fig. 12 | Kala Uyuni site map (by Eduardo Machicado). The green dots note the ceremonial/civic deposits, and the blue dots identify where domestic material was encountered.

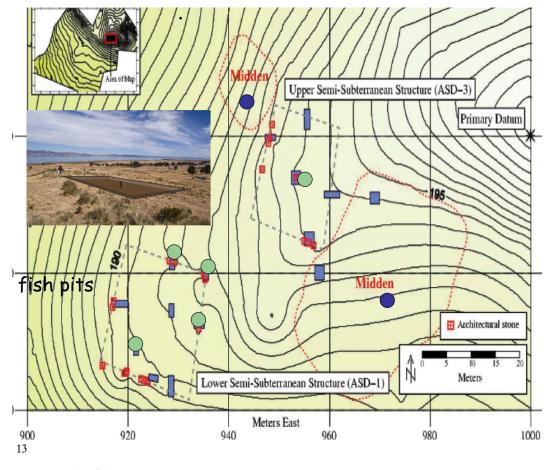
denser amounts of burnished and slipped wares, including serving jars and bowls, than the domestic deposits. Large bowls/jars for serving and small bowls for consuming are more than twice as common as elsewhere within Middle Formative contexts. Further, the ceramic serving vessels are more decorated, as are the smaller consumption cups, suggesting these participated in larger and more performative events than in earlier times (Fig. 14).

It is in the domestic sector (KUAQ, Fig. 12) that we encountered significantly more cooking wares.⁴² In fact the ceramicist, Lee Steadman, has noted that there are no cooking pots in or around these sunken enclosures, only serving dishes, allowing us to identify a discrete feasting location. Middle Formative ritual sectors show the first evidence of special foods in addition to special dishes. In the hillside ceremonial sector of Kala Uvuni (KUAC, Fig. 12) as well as in the Quispe enclosure at Chiripa, we encountered the first micro-botanical evidence for maize (Zea mays) in the form of phytoliths and starch.⁴³ Two manos contained maize starch, and one also had maize cob phytoliths. Maize is an introduced crop, rare in this area until 700 years later, during the height of the regional Tiwanaku influence.⁴⁴ Nevertheless, maize, in the form of starch and phytoliths, begins to turn up in ceremonial contexts here on the peninsula as well as to the northeast, in other ceremonial structures along the southern shore.⁴⁵ No maize evidence was found in the Middle Formative domestic deposits, suggesting that when it was present it was prepared expressly for special feasts. These Middle Formative ceremonial sectors seem to have hosted discursive, potlatch-like feasts, with more than quotidian planning and preparation in and around the ceremonial structures.

- 43 Logan 2006; Logan, Hastorf, and Pearsall (submitted).
- 44 Wright, Hastorf, and Lennstrom 2003.

⁴² Steadman 1999.

⁴⁵ Lee 1997; Chávez and Thompson 2006.



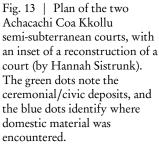


Fig. 14 | Middle Formative ceramics: (a) decorated serving bowls, (b) liquid serving jug, (c) consumption bowls.



By the Middle Horizon (AD 500–1000) maize turns up in all households of the regional center, Tiwanaku, but there, too, maize seemed to have been mainly prepared for rituals or feasts.⁴⁶ Re-enforcing the performance qualities of the KUAC enclosures, we also encountered the first evidence for tobacco (*Nicotiana* sp.) in these Middle Formative deposits.⁴⁷ Interestingly, although not considered a feast food for humans, tobacco is often considered food for the deities, which is supported by the seed evidence in the upper KUAC ceremonial sector.

46 Wright, Hastorf, and Lennstrom 2003.

47 Bruno 2008.

Other highly charged food preparation and consumption evidence is illustrated in the fish bone distributions. The less tasty, lake fish taxa, suche (Trichomycterus rivulatus) and mauri (Trichomycterus dispar), are more common in the Middle Formative domestic midden areas of KUAQ than in the ceremonial deposits KUAC.⁴⁸ These two taxa are mud-dwelling fish that are not considered the best fish from the lake.⁴⁹ The higher quality fish, the carachi (Orestias agassii, carachi negro and O. luteus, carachi amarillo), was more commonly encountered in the ceremonial sectors, in the small pits just outside of the Choquehuaca enclosure (Fig. 11), suggesting special ingredients were cooked, consumed, and deposited in these ceremonial enclosures.⁵⁰ One example studied in detail and noted on Figure 11 is a small pit that was highly stratified, with alternating orange and ash layers. This pit contained an extremely high density of fish bones, plants, and ash. Moore and Hastorf⁵¹ think the pit was an *in situ* earth oven. The dominant contents of the pit are fish bones, many fused Chenopodium seeds, along with parenchyma fragments, some vitrified, suggesting a meal of tubers, Chenopodium, and carachi fish. All fuel types were found in the pit, including grass stalks, dung, and especially wood. The faunal remains were dominated by calcined fish bones and scales, suggesting a hot fire but not directly applied to the fish. The plant remains also suggest high heat with many clinkered, or fused, seeds and fragments. The upper and lower layers of the pit are discrete and seem to have resulted from two different burning episodes. The top of the pit had remarkably low fragmentation of fragile fish bones, suggesting in situ cooking. The lower portion of the pit had a higher temperature, supported by the denser calcined bone. This depositional pattern makes sense for an enclosed pit that cooked for hours. The vegetable portion of this steamed meal looks to be similar to the other ceremonial Middle Formative sectors, but without the maize.

Figure 15 presents the twenty-five Middle Formative isotopic results from cooking pots, 15 from decorated jars and 10 from unslipped vessels. Here we also see a hint of maize for the first time in the star to the right along the X axis (with a -17 parts per mil carbon value), corroborating what Logan et al. found in the starch and phytoliths.⁵² This maize-enriched vessel was encountered in the Llusco ceremonial court.

Overall, even the cooking pots seem to have higher nitrogen isotope values than in previous centuries, telling us that people ate slightly more meat than they had earlier. This suggests that they herded and ate more camelids as well as farming more intensively, with the lake slowly retreating and opening up the pampa for nearby farming.

While we have little evidence of specific feast menus, we know from the mound structure bins at Chiripa that the Middle Formative communities contributed local food ingredients to their parties. Potatoes and large *Chenopodium* were stored in some of these bins. The maize we see entering in the Middle Formative could have been traded in as well as have been in the early stages of selection for production in the warmer lake-side micro-zones.⁵³

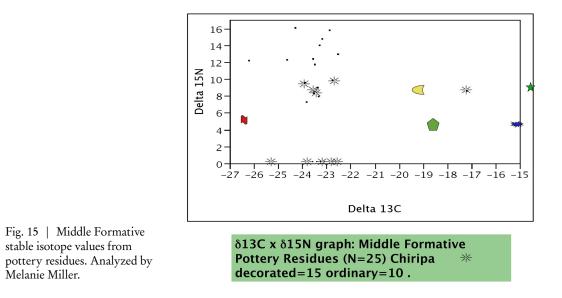
The Middle Formative feast evidence suggests potlatch events, drawing on family and extended family stores, with the finest burnished and decorated bowls brought out for food presentation. Evidence for cooking the feast suggests that it was more communal at Chiripa, often being cooked nearby the event, whereas at Kala Uyuni the food was brought in from quite a distance to the ceremonial precinct. We do need more Middle Formative domestic sectors excavated to confirm this hypothesis. While people were

- 51 Moore and Hastorf 2000.
- 52 Logan, Hastorf, and Pearsall (submitted).
- 53 Browman 1989; Bruno and Whitehead 2003.

⁴⁸ Capriles Flores 2006.

⁴⁹ Tchernavin 1944.

⁵⁰ Moore and Hastorf 2000.



basically eating more of their usual fare at these feasts, the fish taxa as well as maize were notably special, along with the forms of presentation, suggesting discursive, planned, and organized feasts.

5.1.3 Late Formative

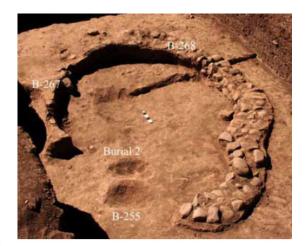
The Late Formative phase is identified by the construction of new types of ceremonialism on the Taraco Peninsula. The Chiripa mound stops being rebuilt and is filled in. We must turn to Kala Uyuni to see ceremonial structures that were built in this phase on the lower slopes of the hillside (KUKU, Fig. 12). There, we have uncovered a sequence of small structures, the first built literally into sterile sediment. These ceremonial structures are more complexly built, lining up along the eastern side of the built platform.⁵⁴ We have learned from these deposits that there were more decorated red rimmed and polychrome bowls in the ceremonial areas, whereas the domestic structures and middens were filled with unpainted jars and bowls, mainly cooking pots (*ollas*). In ASD 2, the most explicitly ceremonial structure TAP has excavated, there were many more decorated serving bowls than in ASD 5, the rougher oval, domestic structure with evidence of hearths and cooking pots (Fig. 16).

We can continue to distinguish between domestic and ceremonial material in this phase, as this dichotomy becomes even clearer, suggesting that the residents found this arena to be a specific place to make social points about their place in the world. Presentation and consumption evidence are both present in these Late Formative structures. The more externally elaborate ceramics illustrate the increasing interest in ceremonial performance, placing feasting at the core of ceremonial life. There is now a fairly distinct range of presentation and consumption ceramics that can be associated with feasting, distinct from the more roughly made cooking vessels. These presentation bowls are not only larger than earlier, but are usually more decorated, now being incised and slipped.⁵⁵ While there is evidence of food presentation, incense burning, and noise making within the ceremonial spaces, there was little food processing evidence nearby the structures.⁵⁶ In the ceremonial sectors, decorated ceramics are the most common artifact. The domestic areas contain many fewer decorated specimens, highlighting the presence of the slipped

56 Steadman 1999; Steadman 2003.

⁵⁴ Hastorf et al. 2010.

⁵⁵ Roddick 2009; Steadman 1999; Steadman 2007.



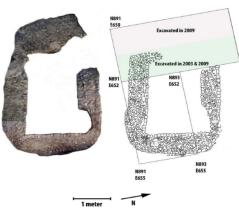


Fig. 16 | Photographs and drawings of structures ASD 2 and ASD 5.

and incised wares in the civic sectors. Elaborate, large red/brown slipped, extra-large necked vessels, with diameters from 30 to 34cm become the cooking pots for the large feasts and other gatherings. In comparison, the normal size of daily cooking vessels ranges around 18 to 19cm in diameter. These extra-large jars and large serving bowls make up 20% of the ceremonial ceramic assemblage, suggesting that again these meals were more like a potlatch-like feast form, in that groups of people came together to prepare large quantities of food using special recipes and vessels. Furthermore, this food was served in uniform red-slipped bowls, as if there was a new code of proper presentation for this time.

Further evidence of the shape and components of the Late Formative feasts comes from the carbon and nitrogen stable isotope data analyzed from 16 interior ceramic vessel scrapings (Fig. 17).

Little maize seems to have been included in these cooking pot dishes. Two C_4 enriched pots were located in the Late Formative domestic middens. All of the other cooked food values are solidly C_3 , which would mean quinoa and tubers dominated the plant component of the meals. Much more variable are the nitrogen values, along the Y-axis. These values reflect a wide range of plant and meat components in the stews. Surely meat was cooked in some of these pots, in addition to plant foods. From this initial study, we can see that maize, if present, was probably not part of these Late Formative cooked stews, prepared for either home or ritual.

Evidence for exotic food preparation has only recently come to light at Chiripa. In addition to the new, larger ceremonial food presentation ceramic shapes and the teacuplike bowls that are regular in these contexts, Middle Formative ritual sectors also have evidence for ceramic braziers for burning fragrant herbs and wood (with sooted interiors), as well as ceramic 'trumpets' for the ceremonial performance.⁵⁷ These trumpets are considered to have been used like the large marine *Strombus* shells portrayed in Moche

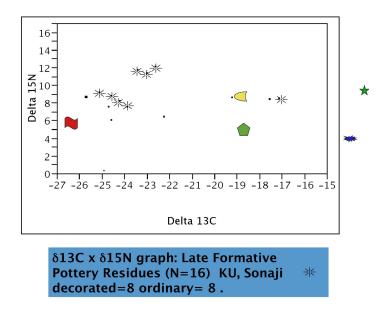


Fig. 17 | Late Formative stable isotope values from pottery residues. Analyzed by Melanie Miller.

iconography and found at Chavín de Huantar as well as many other whistles across the Andes.⁵⁸ Such trumpets or other noise-makers would have called people, both alive and dead, to the ceremony designating ritual time as well as space, engaging more senses at one time. Stone palettes are occasionally found in these same contexts. We have uncovered nose sniffing bone tubes.⁵⁹ To date, we have four bone snuff tubes and one spoon spatula from the Middle and Late Formative phases. These data begin to suggest the onset of use of hallucinogenic plants, which were also exotic at the time, as part of ritual feasting within these Late Formative ceremonial contexts. Thus food for the body and for the mind had become essential ingredients for rituals, both consumed in group settings.

Several small hearths have been excavated in the Late Formative enclosures. Some have dense concentrations of fish.⁶⁰ Similar to the domestic sectors however, quinoa and tubers dominate the plant taxa.⁶¹ Even though there are exotic foods adding zest and rarity to the larger feasts, the most obvious differences from the domestic rubbish are the more ubiquitous large animal bone evidence. Whole camelids were being roasted at these feasts.

5.1.4 In Sum

Through Formative times, we see a spectrum of commensal acts in the Titicaca area, with increasing evidence for more elaborate performative feasts. The Formative food data yield evidence of unusual ingredients in ceremonial locations, such as the first maize on the peninsula, suggesting that experimentation with the display of exotic foods occurred in ritual settings on a community level.

Over time the gathering spaces for the ceremonies remained large enough to accommodate many people, although we also see that there were nested and restrictive locations for ceremonial feasting in the middle phase. We also get a sense that the larger supra-household feasts were more diacritical, more like a potlatch, in that special pots for cooking, serving and eating were worth the effort to make and use. The later

- 58 Rick personal communication; Donnan 1976; Lumbreras 1989.
- 59 Moore personal communication.
- 60 Moore and Hastorf 2000.
- 61 Bruno 2008.

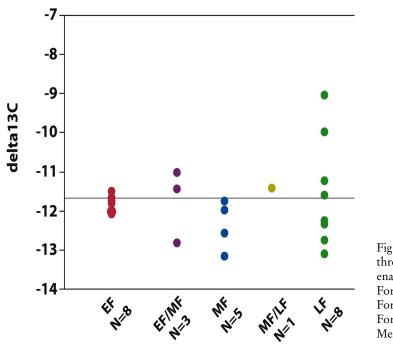


Fig. 18 | Human diet evidence through time in carbon tooth enamel isotopes. *EF* is Early Formative phase, *MF* Middle Formative phase, and *LF* Late Formative phase. Analyzed by Melanie Miller.

ceremonial cooking pots were larger on average than the domestic cooking pots, while the consumption pots became smaller, suggesting a different place for the individual during the event.

Figure 18 provides our initial isotopic evidence from human tooth enamel of the average diets of some of these people. The X axis progresses over time and the Y axis is the carbon stable isotopic value. By the Late Formative (LF) there is maize evidence in some of the diets recorded in the inhabitants' teeth. We also see a much broader dietary spread at this time.

6 Conclusions

Early and Middle Formative commensal evidence presents the first material indications for feasts being different from daily meals in the southern Titicaca Basin. This is most evident in the distribution of special ceramic wares in ceremonial feast locations. In these times the foods consumed are the same, but there are more exotic foods in the ceremonial areas. Later, in the Late Formative years there are more noticeable ceremonial serving sets along with different preparations, suggesting that the individual participant was receiving more attention. This is a perfect example of Butler's slippage, as basically the same food and drink were being served, and yet things had changed throughout society, from the making of the pots and meals to the preparation and serving of the food. The hosts were positioning themselves and their visitors differently than were the Middle Formative folk.

Both ingredients and cooking methods seem to mark the feast meals as different from the domestic meals. Boiled soups and stews seem to have been typical daily meals, with a focus on *mauri* fish soups. Special feasts included pit-steamed fish and mashed tubers in addition to the daily soups. Ground food is rare in this cultural setting. Meat and/or fish were consumed in all settings, but we have suggestions that there was more steamed meat and fish in the ceremonial meals. In the feasts, *carachi* was selectively caught and cooked for these large, signified meals. What little evidence for difference there is increases in Middle Formative ceremonial meals, mainly for quinoa *(kañawa)* and, of course, through the entrance of maize in ceremonial locations. Moments of discursivity and thus agency with the importation of exotic foods and unusual preparations support this increasing differentiation and marking of the larger feasts through the Formative times, which were more discretely created and deposited across the settlements. Architecture and ceramics suggest that ceremonial meals were spatially and sensually discursive, suggested by the explicitly constructed spaces for social gatherings reflecting a great deal of work and planning by the hosts.

The most diverse diet seems to have been in the Middle Formative times, at the height of the local, autonomous ceremonial centers, as farming and herding intensified, suggesting there was more meat as well as a range of ingredients moving around. Much like today, the archaeological examples presented in this paper suggest that roasting/steaming were reserved for special meals, while boiling occurred in both venues.

Foreign and expensive foods, new flavors, new preparations, and new materialities in presentation seem to have been introduced in feast meals with the onset of new ceremonial values.

We can see from this brief overview that even in small-scale farming societies, feast meals were strategic, memorializing past meals while harkening to the future and the possible potentials of new relations. These meals became increasingly transformative, having social agency through their performances within the marked and meaningful spaces created by the geography crafted by the people. Meals were offerings, as they met obligations in both directions, gifts by people to deities and gifts from the deities to the people. In the data presented here, we can begin to see in the food choices, the agency and the value of the feast planners in the past, which is a goal of this commensal study of both daily and ceremonial meals.

Bibliography

Aldenderfer 1990

M. Aldenderfer. "Late Preceramic Ceremonial Architecture at Asana, Southern Peru". *Antiquity* 64 (1990), 479–493.

Aldenderfer 1991

M. Aldenderfer. "Continuity and Change in Ceremonial Structures at Late Preceramic Asana, Southern Peru". *Latin American Antiquity* 2.3 (1991), 227–258.

Allen 1988

C.J. Allen. The Hold Life Has. Washington, D.C.: Smithsonian Institution Press, 1988.

Allen 2009

C.J. Allen. "Let's drink together, my dear!': Persistent Ceremonies in a Changing Community". In *Drink, Power and Society in the Andes*. Ed. by J. Jennings and B. Bowser. Gainesville: University of Florida Press, 2009, 28-48.

Ambrose 1993

S. Ambrose. "Isotopic Analysis of Paleodiets: Methodological and Interpretive Considerations". In *Investigations of Ancient Tissue*. Ed. by M.K. Sandford. Langhorne, Penn: Gordon and Breach Science Publs., 1993, 59–130.

Appadurai 1981

A. Appadurai. "Gastro-politics in Hindu South Asia". *American Ethnologist* 8.3 (1981), 494–511.

Astvaldsson 1994

A. Astvaldsson. Wak'a: An Andean Religious Concept in the Context of Aymara Social and Political Life. PhD thesis. Department of Spanish and Spanish American Studies. London: King's College, 1994.

Bandy 2001

M.S. Bandy. *Population and History in the Ancient Titicaca Basin, Bolivia*. PhD thesis. Department of Anthropology, University of California, 2001.

Bandy 2004

M.S. Bandy. "Fissioning, Scalar Stress, and Social Evolution in Early Village Societies". *American Anthropologist* 106.2 (2004), 322–333.

Bandy and Hastorf 2007

M.S. Bandy and C.A. Hastorf. "Kala Uyuni and the Titicaca Basin Formative". In *Kala Uyuni: An Early Political Center in the Southern Lake Titicaca Basin: 2003 Excavations of the Taraco Archaeological Project*. Ed. by M.S. Bandy and C.A. Hastorf. Vol. 64. Contributions of the Archaeological Research Facility. Berkeley: University of California, 2007, 135–143.

Bennett 1936

W.C. Bennett. "Excavations in Bolivia". Anthropological Papers of the American Museum of Natural History 35.4 (1936), 329–507.

Bennett 1948

W.C. Bennett. "A Revised Sequence for the South Titicaca Basin; A Reappraisal of Peruvian Archaeology". *Memoirs of the Society for American Archaeology* 4 (1948), 90–92.

Blinman 1989

E. Blinman. "Potluck in the Proto-kiva: Ceramics and Ceremonialism in Pueblo I Villages". In *The Architecture of Social Integration in Prehistoric Pueblos*. Ed. by M. Hegmon and W.D. Lipe. Cortez, Colorado: Crow Canyon Archaeological Center, 1989, 113–124.

Bolin 1998

I. Bolin. *Rituals of Respect: The Secret of Survival in the High Peruvian Andes*. Austin: University of Texas Press, 1998.

Browman 1978

D. Browman. "The Temple of Chiripa (Lake Titicaca, Bolivia)". In *El Hombre y La Cultura Andina, III Congreso Peruano*. Ed. by R. Matos Mendieta. Lima: Editora Lasontay, 1978, 807-813.

Browman 1989

D. Browman. "Chenopod Cultivation, Lacustrine Resources, and Fuel Use at Chiripa, Bolivia". *The Missouri Archaeologist* 47 (1989), 137–172.

Browman 1991

D. Browman. "The Dynamics of the Chiripa Polity". Paper presented at the 47th International Congress of Americanists, New Orleans, 1991.

Bruno 2008

M. Bruno. Waranq Waranqa: Ethnobotanical Perspectives on Agricultural Intensification in the Lake Titicaca Basin (Taraco Peninsula, Bolivia). PhD thesis. Department of Anthropology, Washington University, 2008.

Bruno and Whitehead 2003

M.C. Bruno and W.T. Whitehead. "Chenopodium Cultivation and Formative Period Agriculture at Chiripa, Bolivia". *Latin American Antiquity* 14.3 (2003), 339–355.

Butler 1993

J.P. Butler. *Bodies that Matter: On the Discursive Limits of 'Sex'*. New York: Routledge, 1993.

Capriles Flores 2006

J.M. Capriles Flores. A Zooarchaeological Analysis of Fish Remains from the Lake, Titicaca Formative Period (ca. 1000 B.C. – A.D. 500) Site of Kala Uyuni, Bolivia. MA thesis. Department of Anthropology, Washington University, 2006.

Chávez and Thompson 2006

S.J. Chávez and R.G. Thompson. "Early Maize on the Copacabana Peninsula: Implications for the Archaeology of the Lake Titicaca Basin". In *Histories of Maize: Multidisciplinary Approaches to the Prehistory, Linguistics, Biogeography, Domestication, and Evolution of Maize*. Ed. by J.E. Staller, R.H. Tykot, and B.F. Benz. San Diego: Academic Press, 2006.

Codere 1950

H. Codere. Fighting with Property: A Study of Kwakiutl Potlatching and Warfare 1792-1930. Monographs of the American Ethnological Society 18. Seattle: University of Washington Press, 1950.

Dietler 2001

M. Dietler. "Theorizing the Feast: Rituals of Consumption, Commensal Politics and Power in African Contexts". In *Feasts, Archaeological and Ethnographic Perspectives on Food, Politics, and Power*. Ed. by M. Dietler and B. Hayden. Washington, D.C.: Smithsonian Institution Press, 2001, 65–114.

Dietler and Hayden 2001

M. Dietler and B. Hayden, eds. *Feasts, Archaeological and Ethnographic Perspectives on Food, Politics, and Power*. Washington, D.C.: Smithsonian Institution Press, 2001.

Dobres and Robb 2000

M.-A. Dobres and J.E. Robb. Agency in Archaeology. New York: Routledge, 2000.

Donnan 1976

C.B. Donnan. *Moche Art and Iconography*. Los Angeles: UCLA Latin American Center, University of California, 1976.

Douglas 1997

M. Douglas. "Deciphering a Meal". In *Food and Culture*. Ed. by C. Counihan and P. van Esterik. London: Routledge, 1997, 36–54.

Geertz 1980

C. Geertz. Negara: The Theatre State in Nineteenth-Century Bali. Princeton: Princeton University Press, 1980.

Gell 1998

A. Gell. Art and Agency: An Anthropological Theory. New York: Oxford University Press, 1998.

Grieder et al. 1988

T. Grieder et al. "La Galgada in the World of Its Time". In *La Galgada, Peru: A Preceramic Culture in Transition*. Ed. by T. Grieder. Austin: University of Texas Press, 1988, 192–203.

Hastorf 1991

C.A. Hastorf. "Gender, Space and Food in Prehistory". In *Engendering Archaeology: Women and Prehistory*. Ed. by J. Gero and M. Conkey. Oxford: Blackwell, 1991, 132–159.

Hastorf 1999

C.A. Hastorf, ed. *Early Settlement at Chiripa, Bolivia: Research of the Taraco Archaeological Project*. Contributions of the University of California Archaeological Research Facility 57. Berkeley: University of California, 1999.

Hastorf 2003

C.A. Hastorf. "Community with the Ancestors: Ceremonies and Social Memory in the Middle Formative at Chiripa, Bolivia". *Journal of Anthropological Archaeology* 22 (2003), 305–332.

Hastorf et al. 2010

C.A Hastorf et al. "Informe de la Temporada 2009 del Proyecto Arqueológico Taraco Bajo la dirección de la Secretaría Nacional de Cultura, la Unidad Nacional de Arqueología de Bolivia y la Universidad de California, Berkeley" (2010). Presentado a la Unidad Nacional de Arqueología de Bolivia.

Hayden 1996

B. Hayden. "Feasting in Prehistoric and Traditional Societies". In *Food and the Status Quest: An Interdisciplinary Perspective*. Ed. by P. Wiessner and W. Schiefenhövel. Providence: Berghahn, 1996, 127–146.

Hayden 2001

B. Hayden. "Fabulous Feasts: a Prolegomenon to the Importance of Feasting Contexts". In *Feasts, Archaeological and Ethnographic Perspectives on Food, Politics, and Power*. Ed. by M. Dietler and B. Hayden. Washington, D.C.: Smithsonian Institution Press, 2001, 23–64.

Isbell 1978

B.J. Isbell. *To Defend Ourselves: Ecology and Ritual in an Andean Village*. Latin American Monographs 47. Austin: University of Texas, 1978.

Kidder 1956

A.V. Kidder. "Digging in the Titicaca Basin". University of Pennsylvania Museum Bulletin 20.3 (1956), 16-29.

Lee 1997

M. Lee. Paleoethnobotanical Report of Five Yaya-Mama Sites from the Lake Titicaca Basin. MA thesis. Department of Anthropology, University of Missouri, 1997.

Lémuz Aguire 2001

C. Lémuz Aguire. Patrones de asentiemiento arqueologico en la Peninsula de Santiago de Huata, Bolivia. La Paz: Licenciatura de Arqueologia, Universidad Mayor de San Andres, 2001.

Lev-Tov and McGeough 2007

J. Lev-Tov and K. McGeough. "Feasting at Late Bronze Age Hazor as Political and Religious Identity Expression". In *We Are What We Eat: Archaeology, Food and Identity*. Ed. by K. Twiss. Carbondale: Southern Illinois University Press, 2007, 85–111.

Logan 2006

A. Logan. The Application of Phytolith and Starch Grain Analysis to Understanding Formative Period Subsistence, Trade, and Ritual on the Taraco Peninsula, Highland Bolivia. MA thesis. University of Missouri, 2006.

Logan, Hastorf, and Pearsall (submitted)

A. Logan, C.A. Hastorf, and D. Pearsall. "'Let's Drink Together' : Early Ceremonial Use of Maize in the Titicaca Basin". *Latin American Antiquity* (2011). Submitted.

Lumbreras 1989

L.G. Lumbreras. *Chavín de Huántar en el nacimiento de la civilización andina*. Perú: Centro de Investigación y Promoción del Campesinado (CIPCA), 1989.

Mauss 1967

M. Mauss. *The Gift: Forms and Functions of Exchange in Archaic Societies*. New York: Norton, 1967.

Mohr Chávez 1988

K.L. Mohr Chávez. "The Significance of Chiripa in Lake Titicaca Basin Developments". *Expedition* 30.3 (1988), 17-26.

Moore and Hastorf 2000

K. Moore and C.A. Hastorf. "The Re-Interpretation of Cultural Context in Excavation and Analysis of Archaeobiological Samples from Chiripa, Bolivia". Paper presented in a symposium organized by Naomi Miller and Katherine Moore, Integrating Plants Animals and People in Archaeological Interpretation. 65th Annual meetings of the Society for American Archaeology, Philadelphia, April 7, 2000.

Moore, Steadman, and deFrance 1999

K.M. Moore, D.W. Steadman, and S. deFrance. "Herds, Fish, and Fowl in the Domestic and Ritual Economy of Formative Chiripa". In *Early Settlement at Chiripa Bolivia: Research of the Taraco Archaeological Project*. Ed. by C.A. Hastorf. Contributions of the University of California Archaeological Research Facility 57. Berkeley: University of California, 1999, 105–116.

Portugal Ortíz 1992

M. Portugal Ortíz. "Aspectos de la cultural Chiripa". *Textos Antropológicos* 3 (1992), 9-26.

Potter and Ortman 2004

J.M. Potter and S.G. Ortman. "Community and Cuisine in the Prehispanic American Southwest". In *Identity, Feasting, and the Archaeology of the Greater Southwest*. Ed. by Barbara J. Mills. Boulder: University Press of Colorado, 2004, 173–191.

Roddick 2009

A.P. Roddick. Communities of Pottery Production and Consumption on the Taraco Peninsula, Bolivia, 200 BC-300 AD. PhD thesis. Department of Anthropology, University of California-Berkeley, 2009.

Roddick and Hastorf 2010

A.P. Roddick and C.A. Hastorf. "Tradition Brought to the Surface: Continuity, Innovation and Change in the Late Formative Period, Taraco Peninsula, Bolivia". *Cambridge Archaeological Journal* 20 (2010), 157–178.

Steadman 1999

L.H. Steadman. "The Ceramics". In *Early Settlement at Chiripa, Bolivia: Research of the Taraco Archaeological Project*. Ed. by C.A. Hastorf. Contributions of the University of California Archaeological Research Facility 57. Berkeley: University of California, 1999, 61–72.

Steadman 2003

L.H. Steadman. "Análisis Cerámico". In *Proyecto Arquelogico Taraco Informe de la Temporada de Campo 2003: Excavaciones en Kala Uyuni*. Manuscript submitted to the Ministry of Culture. La Paz, Bolivia, 2003, 64–84.

Steadman 2007

L.H. Steadman. "Ceramic Analysis". In *Kala Uyuni: An Early Political Center in the Southern Lake Titicaca Basin: 2003 Excavations of the Taraco Archaeological Project*. Ed. by C.A. Hastorf and M.S. Bandy. Contributions of the Archaeological Research Facility 64. Berkeley: University of California, 2007, 67–112.

Tchernavin 1944

V. Tchernavin. "A Revision of Some Trichomycterinae Based on Material Preserved in the British Museum (Natural History)". *Proceedings of the Zoological Society of London* 114.9 (1944), 234–275.

Weismantel 1988

M. Weismantel. Food, Gender and Poverty. Prospect Heights, Illinois: Waveland Press, 1988.

Weismantel 1989

M. Weismantel. "The Children Cry for Bread: Hegemony and the Transformation of Consumption". In *The Social Economy of Consumption*. Ed. by B. Orlove and H. Rutz. Monographs in Economic Anthropology 6. Lanham, Maryland: University Press of America, 1989, 105–124.

Weismantel 1991

M. Weismantel. "Tasty Meals and Bitter Gifts: Consumption and Production in the Ecuadorian Andes". *Food & Foodways* 5.1+2 (1991), 79–94.

Wright, Hastorf, and Lennstrom 2003

M.F. Wright, C.A. Hastorf, and H.A. Lennstrom. "Pre-Hispanic Agriculture and Plant Use at Tiwanaku: Social and Political Implications". In *Tiwanaku and Its Hinterland: Archaeology and Paleoecology of an Andean Civilization. Volume 2: Urban and Rural Archaeology*. Ed. by A.L. Kolata. Washington, D.C.: Smithsonian Institution Press, 2003, 384–403.

Wu 2008

C.-C. Wu. Seeking Missing Foods: A Methodology for the Identification of Roots and Tubers as Important Food Sources for Agrarian and Non-Agrarian Societies. BA thesis. Department of Anthropology, University of California, Berkeley, 2008.

Young 1971

M. Young. Fighting with Food: Leadership, Values and Social Control in a Massim Society. Cambridge: Cambridge University Press, 1971.

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