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# Spectrum

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## Cacao's Relationship with Mesoamerican Society

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## Cacao's Relationship with Mesoamerican Society

***Hillary Christopher***

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### **INTRODUCTION**

We know what we eat, but do we eat what we know? Our diet extends far beyond nutrients and food availability—we imbue food with cultural significance. The meaning and use of a particular food is subject to change over time, but the fact that it holds a place in society remains constant. Improving technologies and intensified globalization have dispersed foods across the world and through time. An excellent example of such a food is *Theobroma cacao* L., now commonly known as chocolate (for a brief history of the plant, see McNeil 2006:1-28). It has a long history in human culture. By examining how it was first used, we can gain insight to an evolution of its meaning and eventually larger ideas on food studies.

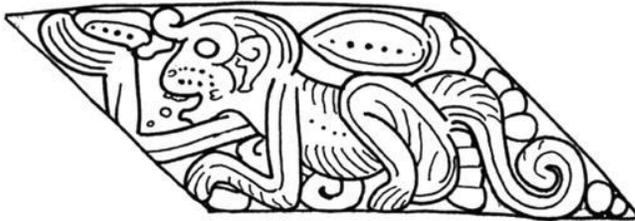
Cacao had great religious, political, and social weight in the Mesoamerican region. There is considerable evidence for the ritual use of cacao among the Preclassic Maya, and its role as noteworthy political currency appears to increase by Late Classic times, reflected in the vessels themselves and their archaeological contexts. The Preclassic era lasted from 2000 BC-AD 200 and the Classic from AD 200-700. I argue that while the ritual use and significance of cacao remained constant throughout time, the cacao-containing vessels, or “chocolate pots”, became recognized as powerful social objects unto themselves. In order to demonstrate this idea, this paper will discuss the ecology of cacao, Mesoamerican preparation, political and social elements, cacao pots, religious and ritual contexts, and cacao as a political currency.

### **ECOLOGY**

*Theobroma cacao*, the cacao tree, requires very specific conditions for it to grow healthfully. There is a rather small band from the equator that provides the necessary temperatures and conditions in which the tree thrives. Cacao needs high temperatures and high humidity within the shade of a larger canopy. Any wavering of this environment endangers the tree to disease, fungal infestations, withering, or death. On top of these particular needs, the cacao tree can only be pollinated by midges. Midges are very small flies similar to the North American no-see-ums. The seeds (cacao beans) are rather bitter when still green, deterring animals from eating them; the animals tend to go for the sweet, white pulp that surrounds the beans. The pods, in which about 30-40 seeds are held, are also deterrents because “the plant itself has no [natural] mechanism by which the pods can open” (Coe and Coe 2007:21). The plant thus relies on humans and

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monkeys for domesticated and wild varieties, respectively, to open the pods and disseminate the seeds (Coe and Coe 2007:22). Spider monkeys, for instance in Figure 1, are known to eat the seeds and disperse them through their excrement and are considered the “bringers of cacao” (Ogata et al. 2006:87).



**FIGURE 1.** Late Classic monkey shown with cacao pods and possible excrement. From Kerr Collection K4691, unprovenienced (Ogata et al. 2006: Fig. 3.10b).

This is one method for how the seeds are naturally disseminated to other locations. The tree’s overall sensitivity makes one wonder how it has survived to be such an important cultivar throughout ancient Mesoamerican culture up to its worldwide use today.

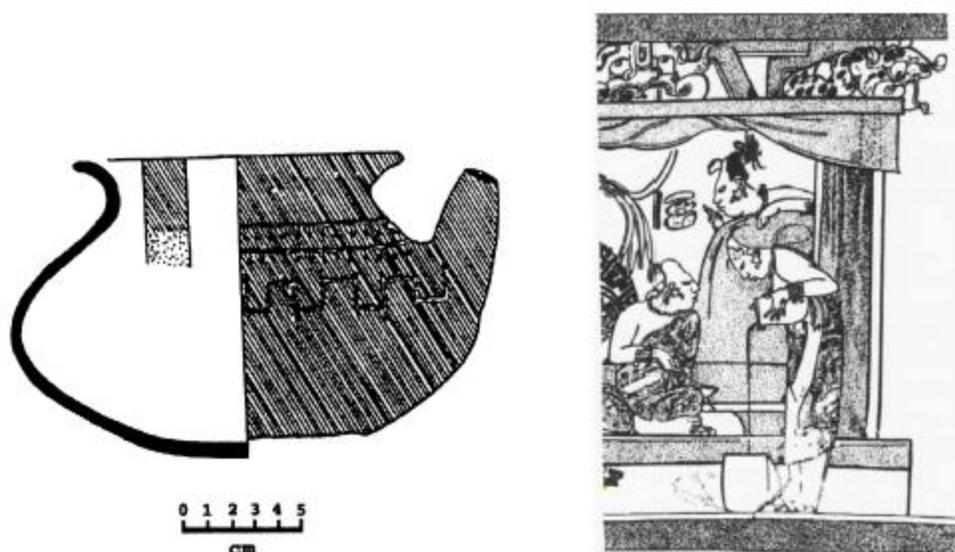
Other than environmental specificities, the exact origins of *T. cacao* are unknown. The broadest of knowledge includes that the tree originated in the Amazon Basin (Bletter and Daly 2006:35; Young 2007). When, exactly, is still unclear, as well as how it spread northwards to Central America. Young (2007:3) suggests that human interaction with *T. cacao* began with the peopling of South America. Evidence for the earliest presence of the cacao tree in Mesoamerica is limited to chemical signatures in archaeological ceramics from household contexts in Puerto Escondido, Honduras and dates to ca. 1400-1100 BC (Henderson et al. 2007:18938). Coe and Coe (2007:36) note that linguistic ties can be traced to 1000 BC. While it is difficult to determine the timeline and spread of cacao trees to Mesoamerica, it is easily traceable in ceramics. Theobromine is the signature chemical compound unique to *T. cacao*. This, in combination with the presence of caffeine, is definitive evidence for cacao use, as chocolate is the only substance in this region that contains both chemicals.

## CACAO PREPARATION

Like the cultivation of cacao trees, the processing of the beans and pulp is labor intensive. The pods grow directly from the trunk of the tree and when ripe are harvested. Both the pulp and beans are edible. The pulp can be eaten fresh or fermented into an alcoholic drink. Henderson et al. (2007:18939) argue that fermented pulp was the earliest and primary use of cacao in the Ulúa Valley of Honduras during the Early Formative period. Pulp fermentation is not necessary for chocolate production. The inability to test ceramics for alcohol presence from this time complicates this issue, while pulp chemical

signatures cannot be differentiated from the seed signatures (Powis et al. 2011:8597-8598). For chocolate production, the pulp is retained while the seeds ferment for a few days. They are then left to dry in the sun for a few weeks. The seeds are roasted and ground into a powder or paste, which can then be used in a variety of ways.

The most common use of cacao throughout Mesoamerica was a chocolate drink. It consisted of cacao powder or paste-cakes, water, and often was mixed with other additives, including chili powder, vanilla, and sometimes ground maize. The most desired aspect of the drink was the froth resulting from either blowing into a special spout (Figure 2) or pouring the liquid back and forth between two vessels (Figure 3). The froth, however made, “was the most highly prized attribute of the drink because the consumer experiences enhanced taste and aroma when the bubbles burst in the mouth, sending forth the encapsulated gustatory and olfactory sensations” (Reents-Budet 2006:215). Cacao drinks (pulp and bean drinks are considered distinct) speculatively began as a pleasurable



**FIGURE 2. (Left)** *Late Preclassic Vessel Burial 1 in Operation 2012 at Colha, Belize (Powis et al. 2002:Figure 7a)*

**FIGURE 3. (Right)** *The Late Classic Princeton Vase. Unprovenienced. The earliest depiction froth production (Coe and Coe 2007:48)*

drinking experience. The purpose was not to imbibe to drunkenness, but as a social and sensory interaction. It thus can be considered a physically stimulating drink and also served an important social role in ancient Mesoamerica, that by Late Classic times,

developed into an important tool for political interaction, which I discuss in the following paragraphs.

### **SOCIAL AND POLITICAL USES**

One of the many ways that people bond is by sharing food. This is universal throughout space, time, and context. Feasting in Mesoamerica was the dominating catalyst for functioning political and economic relations between groups. Feasts can be used to demonstrate a leader's power to his ruling people or to neighbors, or as celebratory functions within household rituals. Sometimes groups can get competitive over their feasts: Who had the best food? Was there impressive entertainment? How often are feasts held? Providing functions of grandeur increases public involvement and strength of a community. There is also larger political significance associated with feasts. Reents-Budet (2006:209) defines that "the participation in a feast obliged the attendees to reciprocate in the form of unspecified future support of the host as well as to sponsor their own feasting events." While one group provided an event that was open to the public and to invited groups, the political insinuation is strong.

Among these feasts included many foodstuffs, both every day and luxurious in economical terms. Cacao was among one of these foods. Trading cacao within a community requires a very organized system. A ruler could have extended his power to the periphery borders by demanding tribute of such things like cacao. Cacao would be grown in the rural areas and taken back to the urban center (for discussion on cacao as tribute, see Millon 1955:139-149) in various amounts. The codices that record these tribute transactions suggest that the cacao was still in bean form and not the drink. Transportation of beans is logically easier than traveling with liquid. The task was demanding, but it was assumed that the labor would be rewarded in feasts and increased commerce. This practice would also happen on a larger scale, potentially reaching across wide areas. It also set up trade of other goods such as clothing and salt, allowing more people access to these goods (Millon 1955:152). Increased trade and support for a ruler or urban center also helped develop the strength of that encompassing polity.

Cacao was a binding force within social and political interactions; it was a mode of exchange. Assuming a certain level of labor intensity for the cultivation and preparation of cacao products, the ability to produce copious amounts was quite impressive. This was shown either inside a political center or shown to neighbors as rightful bragging. Oddly enough, this competition helped drive further social stratification. That is, the initial designation of elites arose from individuals demonstrating their wealth, which included holding social events in which "they were engaged in distinguishing themselves socially and in creating social obligations that would eventually be the basis of political power" (Henderson et al. 2007:18939). While

it is true that everyone had access to cacao, we can assume that elites had more and regular access based on the fact that they were hosting these feasts. This element reinforces the social stratification.

### **CACAO POTS**

Ceramic evidence for cacao use is available in terms of chemical traces of theobromine and in the specific shape of the vessels. This is useful for determining when cacao use began and how it influenced social interactions. Among the Maya, we now know that cacao was being used in distinctive bottles and spouted "chocolate pots" as early as the early Preclassic period (1400-1100 BC) at Puerto Escondido in Honduras (Henderson et al. 2007), and at sites such as Colha and Cuello in the Middle Preclassic, and K'axob in the Late Preclassic in northern Belize (Hammond 1992; McAnany 2004; Powis et al. 2002). Some of these early vessels have tested positive for the theobromine chemical compound, confirming their use as cacao vessels (Powis et al. 2002). Testing ceramics for theobromine includes lightly scraping samples from the specimen, preferably from the base as that is where best preservation and least contamination occurs (Henderson et al. 2007:18940). The sample is then subject to chromatography and mass spectrometry which indicate chemicals within. This allows archaeologists to determine whether the item came in contact with substances, like cacao.

From there, the vessel form indicates how the cacao might have been used. During the Preclassic era, these pots almost always have spouts (for a detailed discussion of spouted vessels and cacao, see Powis et al. 2002). The earliest example to date of a chocolate pot was found at Puerto Escondido, Honduras within a household context (Henderson et al. 2007:18937). The vessel (Figure 4) would have been used for pouring and drinking cacao drinks during social events such as marriages and births (Henderson et al. 2007:18938). There is no blaring indication that froth was an important aspect at this point. Social interactions at Puerto Escondido were precursors to later social status development and stratification. Later ceramic forms produced vessels with a spout and a second wider opening (refer back to Figure 2). The spout was used to force air into the drink, enhancing the froth. This design fell out of use during the Classic period, which favored a cylindrical open-mouthed vessel used to pour into another to create froth. Powis et al. (2002:99) raise an interesting issue regarding the sudden drop in the appearance of spouted vessels at the beginning of the Classic era. They suggest that the rising influence of the Maya capital, Teotihuacan, might have initiated a shift in cacao preparation methods. However, the introduction of the pouring method might have formed independently in the Maya region, but the contact with highland cultures occurs simultaneously. Though the preparation method of a frothy cacao drink changed, it is important to note that the importance of cacao itself did not. The cacao drink's place in

Mesoamerican society was so fixed that the only alteration in its meaning occurred in regards to the vessels associated with it.



**FIGURE 4.** *Barraca Brown bottle form of sample 4DK-136 from Puerto Escondido (Henderson et al. 2007:Figure 3)*

In understanding the design of the vessels, scholars are able to surmise additional/alternative uses of the vessels. The “spouted vessels are a rare but diagnostic form of the [Preclassic] period” (Powis et al. 2002:86) telling us the Maya in Belize and Honduras—but also across other Maya areas—had a distinguishing trait of how they processed and utilized cacao. The spouted forms allowed air to be pushed through the larger body to form the desired froth. Thus we can assume that the spout had both preparation and serving functions (Powis et al. 2002:94). Typically, these Preclassic spouted vessels are undecorated, but sometimes they contain anthropomorphic faces or zoomorphic figures, images of animals, such as ducks (see Berry et al. 2004:208). Some examples have been found at the site of K’axob in northern Belize. In some cases, spouted vessels contain depictions of cacao pods. In the latter case, the imagery provides a clue to their use, but mostly the function and use of these spouted “chocolate pots” (as they have been traditionally described even prior to chemical testing) is inscribed in the form itself. The imagery includes scenes of feasts and characters offering related foods, such as tamales and the cacao drink.

These spouted vessels are found primarily in burial contexts (Powis et al. 2002:87; McAnany 2004). Spouted vessels have been found at Colha burials at

Operation 2012 and 2031 (see Figure 2), at Cuello in Burial Feature 219 in Platform 34, and at K'axob (Operations I, VIII, XI) (Powis et al. 2002: Table 1). The burials are primarily elites, who had the most access to cacao drinks (see discussion on feasting). Whether the cacao drinks—and sometimes beans—were offerings to the “gods” or to aid the deceased in their journey through the afterlife is unclear. The previous vessel form like the Barraca Brown bottle was not normally seen in burial contexts. This suggests that by the time spouted vessels became the primary chocolate pot style, their integration into social and political structures was well-formed. Placing a spouted vessel with an elite burial signifies his social prominence even in death. This idea evolved into form and designs of Classic chocolate pots.

Later Classic period examples of chocolate pots contain the glyph for cacao (*kakaw* in Mayan) and are painted with specific iconography that provides clues to their role in elite courtly life. By the Classic and Post Classic periods, it is clear that cacao drinks were consumed primarily by the elite class due to the specific iconography. Classic commoners had access to cacao products, but whether it was in the same context as the elites is unclear—they were cultivating it, but much of it may have been paid as tribute to elites and consumed in feasts sponsored at the royal courts in the large urban centers (Millon 1995:139-149). The archaeological record naturally reflected how elites had proportional access to goods as their status dictates. An Early Classic tomb, Tomb 19, of an elite individual from Río Azul, Guatemala included several ceramic vessels that tested positive for cacao (Coe and Coe 2007:46-47). One vessel, known simply as the Río Azul vessel (Figure 5a), had a number of hieroglyphs on it. Stuart (1988) was able to partially decode the script and managed to translate the glyph *kakawa* (from which we have cacao and cocoa) twice in a phrase. He speculates that the unknown words preceding each *kakawa* indicate two types of cacao drinks. It is possible that these two

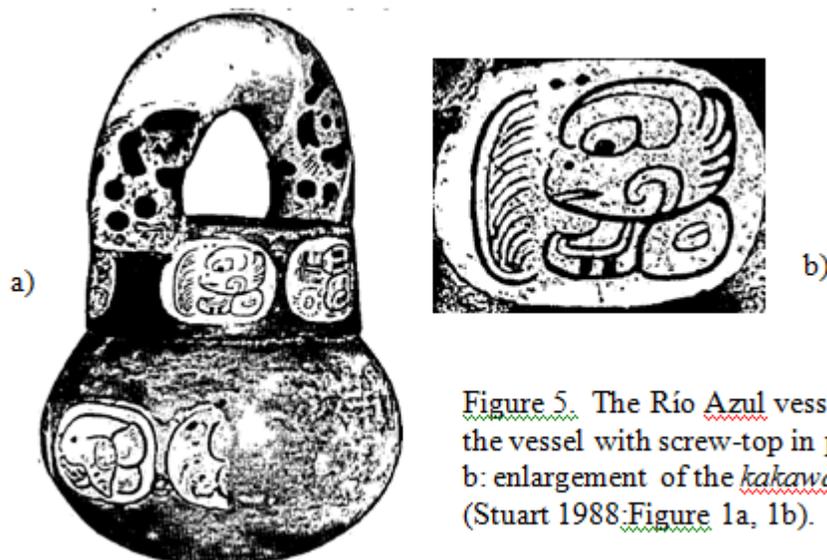


Figure 5. The Río Azul vessel; a: the vessel with screw-top in place; b: enlargement of the *kakawa* glyph (Stuart 1988:Figure 1a, 1b).

drinks were made of pulp and beans, used in different contexts, or were simply flavored differently. Until these glyphs are translated, we are unable to prove any of this as true because of the testing results that limit distinguishing cacao drink traits. The Río Azul vessel is also unique because of its screw-on lid. Such a feature meant that “the whole pot could be held by the handle without the risk of accidental spillage” (Stuart 1988:153). We can assume then that it held liquid cacao that was carried and not immediately consumed. Until more about this vessel and/or the individual it was buried with is known, we will not know if the portable quality of this pot was used in trade or ritual setting. It is unlikely that this vessel held tribute cacao (see above) or meant for frothing. Whether this pot was actually used before in the individual’s life, or if it was specially crafted so that they may *carry* cacao into the underworld raises even more questions about this vessel that cannot be answered now.

## RELIGIOUS RITUAL

One of the major Maya deities is the Maize God. Within the Popol Vuh, the Maya creation myth, the father of the Hero Twins, Hun Hunahpu is thought to be the Maize God (Taube 1985). The myth describes the decapitated head of Hun Hunahpu becoming a calabash or in one version, a cacao pod, and placed on a cacao tree. This Maya creation myth stresses the relationship between maize and cacao (Kufer et al. 2006; Martin 2006). Both foods are seen as reverent items that sustain life (maize is the staple food among the Maya, while cacao is socially and ritually binding). Thus the Maize God brings forth the two most important crops. Braakhuis (2009:3) discusses how the severed head of Hun Hunahpu as a cacao pod relates to Nicarao chiefs’, of southern Nahuatl in Central Mexico, power in the Classic. Maya kings publically displayed severed heads of their enemies. As Hun Hunahpu’s head was “equivalent” to a cacao pod, cacao pods could then be used in ritual rites that required a (representation of a) severed head. This transforms cacao from a mere food and highlights its critical role in Mesoamerican ritual and ideology.

Maize and cacao are both found in the mythical Mountain of Sustenance, which contains the chief foods for humans. There is also a practical connection to maize and cacao in modern agriculture as Kufer et al. (2006:600) describe:

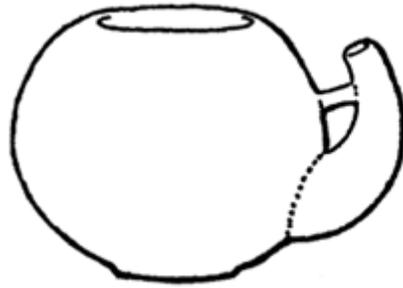
For Maya farmers, planting cacao under a canopy of other useful tree species offers an opportunity to produce a valuable product with the added benefit of obtaining additional important resources from the shade trees, while protecting the soil from erosion. This contrasts the production of maize (and beans) through slash-and-burn agriculture, which is potentially unsustainable if fallow periods are too short. A conceptual link between maize and cacao in Maya cosmology, as indicated by the use of both in

ritual offerings, may thus represent the two important elements of a successful shifting cultivation system—healthy open fields and a healthy diverse forest.

The benefits of this dual system—though the two crops are not necessarily grown together in rotating cycles—provide both ecological resourcefulness and access to the two ritual crops. In addition, the two crop harvests may recreate the idea of rebirth. The cacao harvest (end of the crop cycle/death) begins as maize is being planted (birth) and so represents the cyclical phenomenon of rebirth (Dreiss and Greenhill 2008:58-59). Maize and cacao share a similar processing method for drinks as well as having both of their edible portions in a row, relating to the human characteristics (Kufer et al. 2006:605). It so happens that the maize-cacao relationship is further deepened by the fact that both fruits grow directly from the plant's trunk. Kufer et al. (2006:603-604) note that there are a number of anthropomorphic, or generally human-like, plants that are included in ritual drinks. These plants can have parts that simply look like human features (head, arms, heart, etc.) or, like the maize and cacao plants, grow head-like fruits. Some may say that this connects to the idea of human sacrifice as their "heads" are in essence being removed from their "bodies" when harvested (Kufer et al. 2006:603-604).

### **THE EVOLVING SOCIAL AND POLITICAL CURRENCY OF CACAO**

I have discussed how cacao drinks have been used in ritual and political settings, and will now explore how the veneration for the drink slowly shifted to the vessels in which the drink was contained. There are three stages of ceramic evolution pertaining to cacao drinks. The earliest known example of cacao in use is a Barraca Brown bottle/jug (sample 4DK-136) predating the Middle Formative at 1400-1100 BC in northern Honduras (Henderson et al. 2007:18938). This is a simple bottle form, demonstrating an early way of preparing or consuming cacao drinks. Henderson et al. (2007:18939) suggest that due to this shape, it likely was not used for frothing, but pouring. Spouted vessels from the Late Preclassic began as functional ways to produce froth. However, Powis et al. (2002:94) note that some of these spouts were deliberately unusable due to the positioning (Figure 6). They conclude that these vessels were not made to be used for pouring or for frothing but, as I believe, as symbolic memorabilia of cacao drinks. I argue that this non-functional form showed transitional meaning of cacao and its vessels. The supporting bridge on the spout of Figure 6 is not uncommon; the spout was most definitely supposed to be there, but its angle made it useless. Veneration of cacao and its uses with social and political exchange began extending to the vessels in which the drink was held. Vessels like the one seen in Figure 6 became gifts as symbolic cacao, maintaining the intention of a cacao gift without necessarily containing any cacao.



**FIGURE 6.** *A non-functional spouted vessel found in a burial in Mound 6 at Santa Rita Corozal (Powis et al. 2002: Figure 7b).*



**FIGURE 7.** *Classic Buenavista Vase of Buenavista del Cavo, Belize (Reents-Budet 2006:Figure10.7a)*

The transition of functional vessels to ones that are used as symbols of power in political interactions does not take away from cacao's significance. The vessels became an additional gift along with the cacao itself. If this is the case, then the highly decorated, open cylindrical vessels of the Classic style were used as "sociopolitical propaganda" and "portable proclaimers of elite power...and, to a certain extent, precious codices" (Reents-Budet 2006:214). The focus went from the power of the cacao drink to the vessel itself, imbuing it with its own sense of animacy. The Buenavista Vase (Figure 7) of a Classic burial at Buenavista del Cayo, Belize depicts a powerful ruler, K'ak' Tiliw. The glyphic text marks the vase as his, specifically. As these vessels contained the cacao gifts and were transported across various distances, elites could brand his power, essentially, by

marking the very vessel that contained his gift. Thus “the vessels had become a key component of feasting events that were directly connected to elite sociopolitics and economics” (Reents-Budet 2006:213). It is clear that these vessels formed into a type of political currency; their function became overshadowed by the fact that their presence alone connoted specific political meanings during such events, like feasts, in which they often appeared.

## CONCLUSION

It is interesting examining the shift in vessel decoration through time. Vessels dating to the Classic era do not have spouts, and are instead open at the neck; the cacao drink is poured back and forth between two vessels. The decorations were much more detailed and contained images of people making the drink. It is unclear whether these vessels served as drinking cups or simply as containers for cacao preparation, presentation, and gifting; it is possible to use the same vessel for many purposes (preparation, serving, imbibing, and ultimately, gifting). It may have been much like today's one-pot meal versus a formal, multiple-course meal where different vessels were used to prepare and present foods—both scenarios may have occurred and would contain cultural implications of their own.

The development of status differentiation in ancient Mesoamerica appears to correspond with the introduction of spouted vessels and greater use of cacao among elite groups during the Preclassic. As cacao consumption increased and trade dispersed its use, numerous cultures are seen using cacao as a form of social and political currency. The power of cacao then influenced the use and form of vessels used in social contexts. Further examination of how this function within society extended to the practice of using cacao pots in burial contexts would shed even more light on food's influence on Mesoamerican life.

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