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Rooted in Meaning: Plant Iconography on Nasca Polychrome Ceramics

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by

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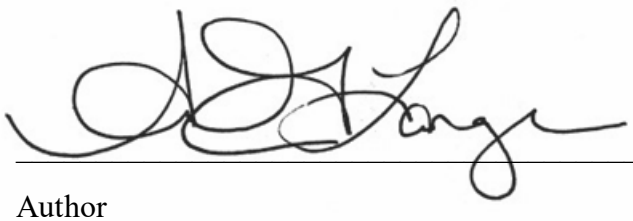
Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Art in Art History and Visual Culture
at
Lindenwood University



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ABSTRACT

Title of Thesis: Rooted in Meaning: Plant Iconography on Nasca Polychrome Ceramics

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This thesis explores the Nasca use of plant iconography as part of their polychrome ceramics produced at the end of the Early Horizon around 100 BCE to those produced in the beginning and middle of the Early Intermediate Period circa 1to 450 CE. During this time the religious site of Cahuachi was in use as a pilgrimage center as well as the production center of polychrome pottery. The Nasca created their colorful ceramics here to distribute to visiting pilgrims during times of festival or ritual. The culture's iconography has been studied extensively, most of which focuses on the forms of animals, people, divine beings, and trophy heads. However, one of the more prolific motifs on the Nasca ceramics are those of plants and vegetation. Very often images of plants that are painted as the main motif are considered decorative or mundane while plants incorporated into larger designs with mystical beings or abstracted figures are considered spiritual or sacred. While some iconographers have sorted these images into the categories of sacred or profane, this thesis works with Andean ontology to create a contextual approach that uses the Nasca concept of animism to view and interpret their material culture. The Andean penchant for duality and symbolism is another reason it is important to realize that plants represented in iconography were chosen for their importance rather than serving a merely decorative purpose. When animism becomes the basis of understanding the iconography, the spiritual nature of all plant motifs becomes evident. In addition to the use of Andean ontology and iconography, the inclusion of scientific data from palaeobotanical studies establishes the specific plants available to the Nasca by both foraging and cultivation. Some of these cultivated plants find their way into the visual depictions painted on polychrome ceramics and this thesis uses the scientific data along with the visual representations to compose a list of what plants were considered most sacred.

Keywords: Andes, Nasca, polychrome, ceramics, iconography,

Dedication and Acknowledgements

I would like to acknowledge and thank both past and present members of my thesis committee. I appreciate everyone's willingness and support in exploring a topic that straddles both art history as well as archaeology. Dr. Nicewinter's direction in my earlier studies gave me a much wider knowledge of the Andes at large and helped to shape the foundations of the work. I cannot thank Dr. Cantor enough for stepping up as committee chair so late in the game and her enthusiasm for incorporating chemical data into an art history thesis. I so appreciate your support and patience. My interest in Pre-Columbian art is longstanding, but it was only two years ago I stumbled across the Nasca on a trip to Chicago. Luckily at the time I was in Dr. Landry-Montes's class and she encouraged me to explore this new passion. Without her support, I doubt this thesis would exist. In my time at Lindenwood, Dr. Olsen stood out over and over for his obvious dedication to hist students' learning. As a teacher myself, this meant so much to me, and encouraged me to seek his involvement in a thesis so far afield from his own research. I feel lucky to have learned from him in class and more so to have worked with him on this committee. Thank you once again to everyone for their input and the time they set aside to help with my work.

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My children rarely knew a time when I was not back in school in some way. These two are why I still strive to be better every day. Em and Alex, I am so proud of each of you for following your own paths and becoming such interesting humans! I love you so.

To my mom.

It was you who gave me the freedom, even as a young child, to spend hours with the big blue atlas and the coveted National Geographic magazines or climbing trees and pretending to explore the world. It is because of you that I learned to delight in differences rather than fear them. No one has given me more support, through unimaginable losses, highs, lows, and all the in-betweens, and your love has never once faltered or even skipped a beat. Watching you as a single mother gave me the example to face anything head on. You raised me strong, fearless, and so loved - and it is because of your faith that I have never given up. You are my hero.

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Chapter 1: Introduction

The Nasca created textiles, ceramics, and enormous geoglyphs as part of their religious beliefs but among these, it is the painted and decorated ceramics that were the largest vehicles for the proliferation of their religious ideology. [1] This thesis studies the plant imagery on Nasca ceramics using Andean ontology as the methodological framework. Nasca plant motifs are an understudied group but using palaeobotanical results with consideration of the iconography allows for new explorations into the topic. The plants represented in Nasca ceramics were actual resources verified by the palaeobotanical record, however, while many plants were consumed as food, they were not all used for ritual offerings, and they were not all represented on the ceramics. Combining Andean ontology with palaeobotanical evidence places the pottery within the context of Nasca agricultural and religious practices to determine what specific plants were represented and how these relate to Nasca spirituality. In doing so, this study also refutes the practice of separating Nasca artworks into categories of sacred or profane, a practice that reflects a European concept of dichotomy.

Beginning around 100 BCE to 450 CE the Nasca people limited production of their colorful pottery to the religious center of Cahuachi.[2] These vessels were created here and then passed on to those who visited during times of festival. The ceramics were often small and easily portable in a wide variety of shapes and decorated in a range of colors. The creators of the vessels did not aim for true naturalism and as such, the vessels are painted with slightly

[1] The spelling "Nasca" refers to the Pre-Columbian culture, while the spelling "Nazca" refers to the European spelling of the current town and other geographic locations; Simon Martin, *On Pre-Columbian Narrative: Representation Across the Word-Image Divide* (Boulder: University Press of Colorado, 2016), 55.

[2] Kevin Vaughn and Hendrik Van Gijseghem, "A Compositional Perspective on the Origins of the 'Nasca Cult' at Cahuachi," *Journal of Archaeological Science* 34 (2007), 814-822.

abstracted and flattened imagery that encompasses a variety of figures, animals, plants, and designs. In addition to ritual activities, the Nasca attached great meaning to created objects as part of the interaction of humans and animated beings imbued with a type of life force.

The vessel *Anthropomorphic Mystical Being with Jicama* (fig. 1) is an example of a Nasca double-spout bottle, just over five inches tall. Here, most of the bottle's body is painted with a figure with large, wide eyes and whose body is divided into segments that wrap around the vessel, ending in another head, the mirror image of the first. The interweaving of symbols and motifs is a common hallmark of Nasca ceramics, as are the many meanings woven into the form. Approaching the work from the viewpoint of a traditional European art historian, the common focus may become the large head and arms of the figure with supporting elements found in the secondary designs and motifs. However common this approach is, it would fail to recognize important clues woven into the design by its Nasca creators such as the jicama, peppers, and leaves as well as the figure as the main deity of the Nasca.

The daily lives of the Nasca were embedded in the spiritual context as all activities, even those of subsistence, were seen as part of the cosmological collective whole including farming, building, and pilgrimage. What may seem like simple elements of any daily life, plants represented in Nasca paintings link interactions of the natural world with human and non-human participants. Andeans believed in an animistic spirituality where people have a social relationship with the environment and "take responsibility for their relationship with animals, plants, places, things, and people" in the world.[3] Now that archaeologists, art historians, and paleobotanists are working together to access new technologies the resulting information makes working with plant

[3] Bill Sillar, "The Social Agency of Things? Animism and Materiality in the Andes," *Cambridge Archaeological Journal* 19, no. 3 (2009), 374; Ann-Marie Hansson and Andreas G. Heiss, *Plants Used in Ritual Offerings and in Festive Contexts* (Oxford: Oxbow Books, 2014), 311.

remains and plant imagery a new and exciting way to understand Nasca symbolism more fully. To begin, it is interesting to consider that the colorful and vibrant Nasca ceramic vessels existed in sharp contrast to the monochromatic desert of the Atacama that at first may seem so devoid of life.

Geographic Location

The Nasca inhabited the Peruvian south coast where the region, in its most flexible understanding, ranges from the Paracas Peninsula north then southward through the Ica Valley and finally into the Nazca Drainage basin (fig. 2). The eastern boundary of the Nasca ends with the Andes mountains though this is a somewhat fluid boundary, and the western bank of the Nasca territory is flanked by the Pacific Ocean some 31 miles (50 km) away. This area of Peru, rocky and arid, is crossed by seasonal streams fed by the snow melts of the Andes with extremely dry deserts of dark rock and scrub vegetation to the west before reaching the sea.

Subterranean irrigation channels known as *puquios* were built by the Nasca people to access underground water tables to irrigate their fields as well as bringing the precious resource to their villages. Even today there are functional *puquios* that remain in use as testaments to the will and resourcefulness of the people determined to survive in the region.[4] While the irrigation channels allowed the Nasca to propagate a variety of crops across inhospitable land, agricultural interchange known as verticality enabled them to share resources with one another.[5] Verticality

[4] Christina Conlee, "Nasca Culture Integration and Complexity: A Perspective from the Site of La Tiza," *Journal of Anthropological Archaeology* 35, (2014), 235; C. M. Kellner and M.J. Schoeninger, "Dietary Correlates to the Development of Nasca Social Complexity A.D. 1–750," *Latin American Antiquity* 23, no 4 (2012), 495.

[5] T. D. Dillehay, "A Singular Perspective on the Influence of Andean Theory in Archaeology" in *South American Contributions to World Archaeology* ed. Mariano Bonomo and Sonia Archila, 319-335 (New York: Springer International, 2021), 322; Giuseppe Orefici and Josué Lancho Rojas, "The Nasca and Its Environment," in *Ancient Nasca World: New Insights from Science and Archaeology,* ed. Rosa Lasaponara, Nicola Masini, and Giuseppe Orefici, 163–180 (New York: Springer International, 2018), 39-40; E. Webb, C. White and F. Longstaffe, "Dietary Shifting in the Nasca Region as Inferred from the Carbon- and Nitrogen-Isotope Compositions of Archaeological Hair and Bone," *Journal of Archaeological Science* 40*,* no. 1 (2013): 129–139.

was a system of agriculture where certain hamlets grew crops based on their appropriate climate and these resources would be exchanged with other groups in differing climates.

The knowledge of plant and resource availability helps establish what was available to the Nasca through cultivation or foraging. This information provides a framework to verify plants found in the iconography and supports interpretations of plant representation on Nasca ceramics. Based on archaeological and botanical remains, sources agree that the Nasca diet was primarily vegetation with a smaller percentage of protein.[6] Furthermore, using carbon-and nitrogen-isotope testing, scientists have studied the compositions of plants from the present and past to reconstruct a food web model for the Andes.[7] These models consider the availability of the plants that would have been available to the Nasca through cultivation or foraging and how these plants were used as food. The current model indicates that the chili pepper, some beans, pacae, and lucuma are the oldest cultivated crops, dating back to 8000 BCE followed by squash and lima beans, and finally maize by 6000 BCE (Table 4).[8] Over time and with cultivation, more and more plants became available to the Nasca.

As it concerns nutrition and consumption, these same palaeobotanical studies verified that the Nasca most often consumed squash, maize, a variety of legumes and beans including

[6] Giuseppe Orefici and Josué Lancho Rojas, "The Nasca and Its Environment," 31; Kellner and Schoeninger, "Dietary Correlates to the Development of Nasca Social Complexity," 499; Webb, White and Longstaffe, "Dietary Shifting in the Nasca Region," 131.

[7] Human tissue samples were taken from remains that were exhumed from fifty grave sites throughout the Rio Grande de Nasca drainage including the sites Cahuachi, Las Trancas, Huaca del Loro, and additional sites spanning early, middle, to late Nasca occupation. Webb, White, and Longstaffe, "Dietary Shifting in the Nasca Region," 129–139.

[8] Orefici and Rojas, "The Nasca and Its Environment," 35.

peanuts, and a large variety of peppers.[9] In addition to these, root vegetables and tubers such as the achira, manioca, and jicama were also eaten frequently.[10] It is widely accepted that once agriculture was established, it changed very little across the Andes until the arrival of the Spanish in the mid-sixteenth century when new crops such as wheat, sugar, and rice were introduced as non-native plant cultigens.[11] The plants Nasca people chose for cultivation, offerings, and representation in the iconography play a large role in this thesis and is a powerful link in our understanding of the Nasca people and their use of plant imagery.

Cultural History

Archaeologists have long been the forerunners in establishing chronological information through excavation of both material culture and human remains.[12] Presently, the most widely used system of chronology for the Andes can be found in Table 1. This arrangement is broken into Horizons and Periods where Periods refer to changes on a regional, smaller scale, and Horizons refer to large-scale changes. It is important to note that these date ranges refer to changes in settlement patterns, population density, and sociopolitical shifts and do not always directly parallel the phases we see in the decoration of ceramic vessels.

The Nasca people lived between 100 BCE to 750 CE in what is now modern-day Peru. It is confirmed through genetic testing that the Nasca were direct descendants of the Paracas

[9] A variety of analysis methods confirm this including C_4/C_3 testing, isotope testing, as well as bone and hair sampling. Kellner and Schoeninger, "Dietary Correlates to the Development of Nasca Social Complexity," 490-508; Webb, White and Longstaffe, "Dietary Shifting in the Nasca Region," 129–139.

[10] Orefici and Rojas, "The Nasca and Its Environment," 32.

[11] Robyn Cutright, "Reconstituting Cuisine: A Culinary Perspective on Collapse, Conquest, and Resistance from Pre-Columbian Peru," *Food Studies: An Interdisciplinary Journal* 12, no. 2 (2022), 23.

[12] Ingmar Unkel, Bernd Kromer, Markus Reindel, Lukas Wacker, and Günther Wagner, "A Chronology of the Pre-Columbian Paracas and Nasca Cultures in South Peru Based on AMS ^{14}C Dating," *Journal of Archaeological Science* 39, no. 7 (2012), 551.

culture (fig. 2) who inhabited the Paracas peninsula north of the Nasca between 800 BCE to100 BCE.[13] Frontier theory can be applied here to better understand the movement from one group to another. The first step in this process focuses on a group of individuals that has broken away from a larger, established culture.[14] Stratified and dated excavations establish that Cahuachi, a large pilgrimage site, was already being used for religious practices by the Paracas when between 100 BCE to 1 CE a group known as the "Nasca Cult" broke away from the Paracas and became the Nasca culture, moving southward into the Rio Grande Basin where early Nasca settlements have been excavated.[15]

This group moved from the Paracas region and established many new settlements in the south while maintaining Cahuachi as their main religious center. At this point, as a new group, the Nasca would be reusing familiar concepts and iconography while adapting to a new environment and circumstances. During this time the Nasca would have continued to share a language, cultural traditions, and many of the religious contexts of the Paracas.[16] As this initial part of the frontier stage ended, the Nasca experienced a renewed desire to distance themselves even further from the original "mother" culture and would have resulted in other settlements further away. While the Nasca continued southward to establish new settlements they would also

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[13] The date range for the Paracas group is circa 800 to 100 BCE. Kevin J. Vaughn and Hendrik Van Gijseghem, "A Compositional Perspective on the Origins of the 'Nasca Cult' at Cahuachi," *Journal of Archaeological Science*, (2007), 816; The use of paleobiologic analysis was used to extract DNA from fossilized remains to compare the DNA genomes and structures across a variety of Andean groups in order to ascertain ancestry and lineage. Helaine Silverman and Donald Proulx, *The Nasca* (Malden: Blackwell Publishing, 2005), 16.

[14] Hendrik Van Gijseghem, "A Frontier Perspective," 419.

[15] Johny Isla and Markus Reindel, "New Studies on the Settlements and Geoglyphs of Palpa, Peru," *Andean Past* 7, no. 8 (2005), 60; Vaughn and Gijseghem, "A Compositional Perspective," 815.

[16] Van Gijseghem, "A Frontier Perspective," 424.

continue the cultural development of new terms, ideologies, and practices.[17] The differences between the Paracas and the Nasca, as well as the stages of Nasca development can be traced through what was left behind in their material culture.

Figural representation can be found in textiles as well as ceramic wares such as figurines, vessels, and musical instruments.[18] These representations are stylistic and generalized in nature and are associated with general roles denoted by clothing items, weapons, and facial markings. From their iconography as well as excavated remains, we know that the Nasca participated in cranial manipulation to produce a skull that was elongated by applying devices and pressure to a malleable infant skull. This practice was performed on both males and females, and though it seems to have been a common practice, not every child was manipulated as such.[19] Gender is very rarely denoted by genitalia and instead is often insinuated by specific clothing.[20] For example, men are more often portrayed in Nasca art and usually wore tunics or loincloths along with turbans, conical hats, or headbands held in place by slings. Their hair may be depicted long or short, and facial hair such as thin mustaches and goatees are not uncommon. Tattoos and body

[17] It is important to establish that the Nasca did not exist in a bubble of solitude. The Nasca were not alone during this time as contemporary cultures were also flourishing with their own notable achievements. These included the Moche, Recuay, and Cajamarca in the north, Lima along the central coast, and the Pucara in the south. These cultures have their own distinctions, and it is accepted that there was widespread trade throughout the Andes bringing groups into contact with one another over large distances.

[18] The Nasca enjoyed a life interwoven with rich traditions in their spiritual beliefs that made use of geoglyphs, textiles, musical instruments, and brightly painted ceramics. Remains of Nasca textiles are evidence of deep jeweled colors and intricate woven patterns and these were used as carriers of ideologies early in Nasca history. Based on remaining evidence however, the use of textiles as religious propaganda began to phase out around 200 CE and by 300 CE most textiles were simplified and used less for religious purposes. Silverman and Proulx, *The Nasca*, 77; Musical instruments such as clay panpipes, trumpets, and drums are found throughout Nasca burials, ritual sites, and in excavations of domestic remains. Despite a variety of stratified excavations spanning a multitude of dates, the musical component of ritual life seems to have remained a constant presence throughout the existence of the Nasca. Silverman and Proulx, *The Nasca*, 76.

[19] Silverman and Proulx, *The Nasca*, 69.

[20] Silverman and Proulx, *The Nasca*, 73.

markings are also common though they appear to vary based on the role of the figure, but earrings are common in both men and women.[21] Clothing and jewelry also vary depending on the role of the figure and these, in some cases, become symbols identified with a specific role. Again, Nasca art did not focus on specific individuals or events in their history but instead on themes and expressions of roles within the community that were an integral part of the way they saw the world.

The ceramic pottery tradition of the Nasca owes its beginnings to those established by the Paracas. While the differences between the two will be discussed later in more depth, one fundamental difference between them is the access of produced ceramic wares. Those vessels made with great care by the Paracas were reserved for an elite population in their society. However, in contrast, the Nasca distributed their fine ware pottery to those who came to the religious site, Cahuachi, as a part of pilgrimages that were held at specific times throughout the year.[22] The brightly painted pottery was distributed there across social divides as a means of religious propaganda, and as such, these vessels were available to all people, regardless of household status. Remains of Nasca polychrome pottery produced at Cahuachi have been found throughout the Nasca region in both ritual spaces as well as domestic ones, having been brought back from the religious pilgrimages. Remains indicate that these were used in homes as serving vessels, decoration, as well as ritualistic pieces and grave goods.[23]

The connection between ceramic production and the spiritual climate of the Nasca cannot be understated since this mode of creation and presentation was a vital part of the Nasca reality

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[21] Silverman and Proulx, *The Nasca*, 73.

[22] Helaine Silverman, *Ancient Nasca Settlement and Society* (Iowa City: University of Iowa Press, 2002), 135-136.

[23] Patrick Carmichael, "Nasca Pottery Production: Retrospect and Prospect," *Ñawpa Pacha* 40, no. 2 (2020), 135, 149.

and connection to their cosmological beliefs. The following chapter briefly discusses Andean ontology and its use to better understand the Nasca culture. The site of Cahuachi is also discussed further in terms of archaeological importance as well as its role in using ceramics for religious propaganda. The religious center is of primary importance to this thesis as the ceramic vessels produced here are compared with the remains of plants found in offerings on site. In this way paleoethnobotany is introduced as a new tool for art historical research in conjunction with common Nasca plant motifs.

Chapter 2: Literature Review

Our knowledge of ceramics in the Andes is the cumulative efforts of many fields of study. The addition of Andean animism to current discussions is important for an accurate understanding of the Nasca and how they saw the world around them. In some cases, especially those of Euro-centric analysis, plants may be relegated to the mundane part of human existence unless explicitly shown in ritual settings. Donald Proulx, the author of *A Sourcebook of Nasca Ceramic Iconography*, falls into this very trap when discussing plant iconography. He insists that plant representations are either religious, in the case of the elaborate and overtly spiritual images, or mundane, in the case of simple plant representations, and even when illustrated with figures.[24] However, Nasca ceramics defy this type of classification even when organized by scholars and contemporary iconographers once the works are considered within their indigenous context.[25]

This is a mistake that is rectified when paired with the proper cultural ontology. Ontology is described by María Cecilia Lozada and Henry Tantaleán as questions "relating to being and existence."[26] This includes the consideration of a culture's conception of time and temporality as well as what constitutes a life force or animated being. By using Andean ontology as a major methodological process, one can better assess the use and meanings of iconography as part of the Nasca ceramic vessels.

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[24] Donald A. Proulx, A *Sourcebook of Nasca Ceramic Iconography* (Iowa City, University of Iowa Press, 2006), 18.

[25] Kevin Vaughn, "Early Nasca Craft Consumption," *Latin American Antiquity* 15 (2004): 62.

[26] María Cecilia Lozada and Henry Tantaleán, *Andean Ontologies: New Archaeological Perspectives* (Gainesville: University Press of Florida, 2019), 3.

Andean Ontology

Dichotomy is not new in archaeology or art history, but the use of labels such as sacred and profane are constructions that were not part of the Nasca world and therefore should not be used to assess the Nasca and their material culture.[27] As such, it is also important to view cultures both as part of a macrocosm as well as the microcosms that held their own unique differences. Although this thesis is rooted in specific Nasca elements, they did not exist in a vacuum as many Andean cultures saw their world through an animistic lens where the environment was alive and personified.[28] Recently, author Tamara Bray published her work *The Archaeology of Wa'kas: Explorations of the Sacred in the Pre-Columbian Andes* where she invites the reader to abandon traditional European dichotomy and learn about the various states of "being" in Andean thought.[29]

The idea of being is rooted in agency - of having one's own point of view, that extends to both naturally occurring *and* man-made objects, creating an interactive world of participants. Bray attempts to describe this idea of non-human personhood in a way that Euro-centric readers will grasp, noting that this agency/personhood is based on the ability of things to perform and interact with humans.[30] Using Andean animism as a valid concept is a huge step towards a more accurate understanding of the Andean people and their reality, for, in our European mindset, we

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[27] The division into categories such as sacred and profane are modern constructions that did not exist in literature until the Enlightenment period of Western society. Hansson and Heiss, "Plants Used in Ritual Offerings and in Festive Contexts." In *Plants and People: Choices and Diversity through Time*, ed. Alexandre Chevalier, Elena Marinova, and Leonor Peña-Chocarro, (Oxford: Oxbow Books, 2014), 311.

[28] Elizabeth DeMarrais, "Animacy, Abstraction, and Affect in the Andean Past: Toward a Relational Approach to Art," *Cambridge Archaeological Journal* 27, no. 4 (2017), 656.

[29] Tamara Bray, *The Archaeology of Wa'Kas: Explorations of the Sacred in the Pre-Columbian Andes* (Boulder: University of Colorado Press: 2015), 23.

[30] Bray. *The Archaeology of Wa'Kas: Explorations of the Sacred in the Pre-Columbian Andes,* 28-31

are missing the conception of things as autonomous beings, living or non-living, with roles that are active participants in the lives of people. Researchers often ask how using or making things affects our perception, but rarely is it asked how the material, as a participant, affects us in a symbiotic relationship.

If the reader accepts the vital life force inherent in the Andean world of animism, then approaching the creation and use of ceramics must be considered within this context. Nasca ceramic vessels produced at Cahuachi were of spiritual significance and would be imbued with a type of agency or spirit.[31] Even now, Andean potters who practice the same ontological beliefs as their ancestors have described clay as being "named entities" with temperamental natures easily affected by the potter's experiences and feelings.[32] These long-standing beliefs are often older than written histories and art historians rely instead on iconographic and archaeological evidence to interpret what is left behind. However, applying Andean animism to Nasca ceramics, the iconography should be seen as part of the whole not a separate element existing on the surface of a vessel, but in its entirety as a unique being.

The use of Andean ontology provides new ways to develop knowledge of the symbols that remain from the past. The Nasca pantheon was vast and included divine manifestations of anthropomorphic beings as well as animals and plants. At the heart of this are the concepts of reciprocity and renewal, the personhood and agency of most things, and the lack of boundary between religious and so-called secular arenas. [33] The idea of reciprocity in giving and receiving

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[31] Catherine J. Allen, "The Whole World Is Watching: New Perspectives on Andean Animism," In *The Archaeology of Wak'as: Explorations of the Sacred in the Pre-Columbian Andes*, ed. Tamara Bray, (Boulder: University of Chicago Press, 2015), 46.

[32] Carmichael, "Nasca Pottery Production," 152.

[33] Mary Strong, *Art, Nature, and Religion in the Central Andes Themes and Variations from Prehistory to Present*, (Austin: University of Texas Press, 2014), 17. The theme of reciprocity is found throughout the Andes in a variety of areas including religion, social relationships, and many more. For more information on the various

is one that is foundational throughout the Andes, however for this thesis the use of reciprocity focuses on the bonds between offerings to spirits and the belief that these offerings ensured continued favorable conditions for living in the harsh and arid landscape.[34] When viewed this way, natural resources such as plants and animals become important elements in the religious arena along with deities and other spiritual representations.

The idea of plants having a type of agency or status is not unique to the Nasca. Food archaeology seeks to use human relationships with food to explore themes of identity, politics, and ideology since humans assign a variety of meanings and importance to different foods.[35] Guillermo Salas Carreño writes about the need for anyone outside of the Andean reality to consider that places, food, and material objects are vehicles for types of animate forces that cohabitate with persons in this world and beyond. His current work involves the role of food as a way of linking people, places, and spirituality with the cultivation of foodstuffs such as plants.[36] Carreno's emphasis on cultivation of natural resources in conjunction with the spiritual provides additional support in endowing Nasca plant imagery with the weight of religious symbolism. For the Nasca, cultivation of plants was part of their relationship with reciprocity as these plants would become part of offerings and festive meals.

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applications of reciprocity I would suggest *Andean Ontologies* ed. by María Cecilia Lozada and Henry Tantaleán, *Art, Nature, and Religion in the Central Andes* by Mary Strong, and Sabine McCormick's Religion in the Andes: *Vision and Imagination in Early Colonial Peru*.

[34] Building on the idea of food resources and spiritual reciprocity, Bill Sillar uses the example of 'mutual consumption' where, "people give nourishment to the animate world they can expect to be fed in return."[34] This explanation reinforces the idea of Andean reciprocity where through types of offerings people are responsible for feeding the land and deities, expecting to be rewarded in return. Sillar, "The Social Agency of Things," 370; Strong, *Art, Nature, and Religion,* 45.

[35] Katheryn C. Twiss, *The Archaeology of Food: Identity, Politics, and Ideology in the Prehistoric and Historic Past* (Cambridge: Cambridge University Press, 2019), 13.

[36] Guillermo Salas Carreño, "Places are Kin: Food, Cohabitation, and Sociality in the Southern Peruvian Andes," *Anthropological Quarterly* 89, no. 3 (2016): 813–840.

Cahuachi

Nasca ceramics as means of religious expression is rooted to the site of Cahuachi as the place of ceramic production between circa 100 BCE to 450 CE.[37] The production and distribution of Nasca ceramics being linked to the great pilgrimage center is foundational in creating an accurate contextual approach. If one considers the Nasca region at large, it was primarily home to hamlets of varying sizes and small villages. Few sites were large enough to warrant the label of the city, although Cahuachi, Los Molinos, Llipata, and La Trancas have been labeled as "centers" with more centralized layouts.[38] The theories surrounding Nasca's social structure and urban centers have changed time and time again with updated research and technology along with excavations of Nasca sites.[39] Cahuachi, the largest complex, was originally thought to be a bustling urban area only to be relabeled later as a pilgrimage center as sites first thought to be living spaces have since been uncovered as ceremonial mounds rather than dwellings.[40] It is the knowledge of Cahuachi and its religious significance that helps shape connections between Nasca religion and their polychrome ceramics.

Under the Nasca, Cahuachi grew in importance, bringing in people from throughout the region. Helaine Silverman has proven the site's use as a religious pilgrimage center, which resulted in helping to reframe our knowledge of the Nasca.[41] She spent years collecting data and

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[37] Proulx, *A Sourcebook of Nasca Ceramic Iconography,* 26, 35-37.

[38] Conlee, "Nasca Culture Integration and Complexity," 236.

[39] In the late twentieth century anthropology and archaeology experienced a growing interest in sources of power other than warfare and state-structure politics. One of these areas of interest was the use of religion/religious leaders and their construction of power. This is especially tricky for cultures with no written history, as the focus relies on remaining architecture and visual elements left behind such as iconography for teaching specific ideologies. Conlee, Christina A., Dennis Edward Ogburn, and Kevin J. Vaughn, *Foundations of Power in the Pre-Hispanic Andes* (Arlington: American Anthropological Association, 2005), 4.

[40] Helaine Silverman, *Cahuachi in the Ancient Nasca World* (Iowa City: University of Iowa Press, 1993), 30.

[41] Silverman, *Cahuachi in the Ancient Nasca World,* 1993.

interpreting excavations at the site where, she writes, "The number of musical instruments found at Cahuachi alone – ceramic panpipes and drums – and the images that support an emphasis on ceremonialism underscore this interpretation."[42] This is further substantiated by Giuseppe Orefici who discusses the ceremonial robes, religious ceramics, and painted fabrics that have been excavated in Cahuachi[43]

> full ceremonial robes and painted fabrics were found that formed part of the clothing used in the religious ceremonies at the ceremonial center. Various representations of myths relating to the presences of characters in combat were found among the group of painted fabrics, considered unique among the material known to belong to Nasca Culture, both because of their size and the fact they were found all together in storage specially prepared for their burial.[44]

These excavations were carried out with extreme care to maintain stratification sections to date and chart buildings and remains throughout Cahuachi's long use. Once established as a pilgrimage site, the evidence provided much needed information on how Cahuachi operated as the main site of Nasca pilgrimage and festival.

Van Gijseghem refers to this stage in frontier theory as the Pioneer Effect when origin myths are adapted or new ones are created, often using landscape features as a focal point.[45] Coupled with his studies in archaeology, he believes that this is when Cahuachi's religious

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[42] Additional scholars such as Patrick Carmichael, Kevin Vaughn, and George Lau support the belief that Cahuachi functioned as a pilgrimage center and maintained only a small year-round population. Their studies have ranged from landscape acquisition to form social identities, iconographic details, and material culture to establish further proof that Cahuachi was the main center of religious worship for the Nasca population who would travel to the site at various times of the year despite the distance. Silverman, *Andean Archaeology*, 106.

[43] Orefici, "The Ceremonial Center of Cahuachi: Its Origins and Evolution." In *Ancient Nasca World: New Insights from Science and Archaeology,* ed. Rosa Lasaponara, Nicola Masini, and Giuseppe Orefici, (New York: Springer International, 2018), 330.

[44] Orefici, "Religion of Nasca Culture," In *Ancient Nasca World: New Insights from Science and Archaeology,* ed. Rosa Lasaponara, Nicola Masini, and Giuseppe Orefici, (New York: Springer International, 2018), 175-176.

[45] Hendrick Van Gijseghem, "A Frontier Perspective," 423.

leaders would have established power by adopting new names and spiritual functions to the landscape and natural elements.[46] By this time the center was inhabited by a small population of priests or shamans year-round as well as those responsible for producing the famed polychrome ceramics.[47] Using elaborate textiles, panpipes, drums, and more, the grand nature of the space itself would have been impressive and inspired awe in the pilgrims who visited in times of ceremony. It was during these visits when the colorful ceramics would be passed out and later carried back to other hamlets and homes throughout the Nasca region.[48]

Christine Hastorf studies the foods and plants used in Andean feasts and domestic settings including those of Cahuachi. Comparing her research to the ceramic vessels of the Nasca, she believes that all images on these vessels should be considered important and symbolic.[49] She also believes that meals set in ritualistic contexts, such as those that would have occurred at Cahuachi, had a "special life force that made them more important than normal food."[50] These important meals combined with the religious setting gave the polychrome ceramics with great significance. Orefici reminds the reader that these events were rooted in religion and "the gods were constantly to be found in the images on the ceramic objects that were used in the sacred areas."[51] It is the fact that ceramics were produced here at Cahuachi, a place so

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[46] Van Gijseghem, "A Frontier Perspective," 423.

[47] There is still no way to determine if skilled artisans resided at Cahuachi with the priests or if, in fact, it was the priests themselves that produced and painted the polychrome pottery. Orefici, "Religion in Nasca Culture," 175-178.

[48] Carmichael, "Nasca Pottery Production," 155; Conlee, "Nasca Culture Integration and Complexity," 236.

[49] Christine Hastorf, "Andean Luxury Foods: Special Food for the Ancestors, Deities, and the Élite," *Antiquity* 77, no. 297 (2003), 549.

[50] Hastorf, "Andean Luxury Foods," 551.

[51] Orefici, *Religion in Nasca Culture*, 178.

important in the Nasca cosmology, and then used in the proliferation of spiritual ideologies, that serves as a reminder how important these ceramics were to the Nasca people.

Ceramic Dating

Nasca ceramics have been discovered throughout the Nasca region including those settlements far from Cahuachi. Because of these widespread locations, archaeologists Kevin Vaugh, Hector Neff, and Helaine Silverman still believed as late as 1999 that Nasca polychrome ceramic production was likely a household affair even though excavations could not verify any tools to do so at the household level.[52] New ceramic dating studies that use the analysis of ceramic composition can establish the site of clay sources and raw materials used in the creation of a vessel. The ability to locate a site source provides a foundational clue to build upon for a better understanding of the social context of ancient cultures and their material production.[53] Information gathered in this manner can also provide clues to possible distribution networks as was discovered by Vaughn and Neff.

In late 2000, Vaughn and Neff embarked on a large study using compositional analysis that would change our understanding of Nasca ceramics forever.[54] Using new technology known as Neutron Activation Analysis (NAA) they compared raw clay samples to ancient Nasca vessel

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[52] Earlier works by these authors state that Nasca ceramic production was likely a household affair because of the sheer number and variety of polychrome sherds found within domestic remains all throughout the region. Helaine Silverman first mentions the move away from this idea in her work *Ancient Nasca Settlement and Society* where she discusses the data correlated by Vaughn and Neff that establishes Cahuachi as the producer and distributer of Nasca ceramics. Silverman, *Ancient Nasca Settlement and Society* (Iowa City: University of Iowa Press, 2002). Hector Neff and Kevin Vaughn discuss the change in their hypothesis when presenting their findings in, "Moving beyond Iconography: Neutron Activation Analysis of Ceramics from Marcaya, Peru, an Early Nasca Domestic Site." *Journal of Field Archaeology* 27, no. 1 (2000): 75-90.

[53] Druc, "What is Local?" *Journal of Anthropological Research* 69, no. 4 (2013), 486.

[54] Vaughn and Van Gijseghem, "A Compositional Perspective," 2007.

sherds.[55] For the study, raw clay samples were taken throughout the Nasca region, including the grounds in and around Cahuachi. These clay samples were analyzed for their chemical composition and compared to the chemical composition of ancient Nasca pottery sherds. They discovered an overwhelming percentage of polychrome ceramics were made from a homogenous mixture, meaning one type of clay from one specific source.

The sherds from polychrome ceramics created between 100 BCE to 450 CE matched the chemical composition of the clay samples taken from Cahuachi.[56] Sherds dated after 450 CE tested with increasing frequency of heterogenous mixtures, meaning that the clay used to create these samples were from multiple sites, no longer solely produced at Cahuachi. This fits with the belief that around 450 CE pottery production began moving away from Cahuachi to include more localized productions in the various sites. This progression away from Cahuachi parallels a series of natural disasters that affected the religious site including periodic events such as El Niño as well as several severe droughts and mudslides.[57]

The study's results have rewritten Nasca history as well as serving as a defining point in ceramic seriation tables. More importantly for this thesis, the results proved that for several hundred years, this religious center was the sole provider of polychrome ceramics that served as spiritual propaganda until around 450 BCE. The use of clay from Cahuachi to create the vessels elevates their status further and they would have been potent objects of agency and power.

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[55] "Sherd" is the archaeological term for a broken piece of ceramic material. Kevin Vaughn and Hector Neff, *Moving beyond Iconography: Neutron Activation Analysis of Ceramics from Marcaya, Peru, an Early Nasca Domestic Site* (Abingdon: Routledge, 2000); Silverman, *Cahuachi in the Ancient Nasca World*, 1993.

[56] Vaughn and Van Gijseghem, "A Compositional Perspective," 2007.

[57] The ecological records indicate a series of disturbances in the form of natural disasters directly affected Cahuachi, causing damage to the land and buildings. Giuseppe Orefici and J. Lancho Rojas, "The Nasca Area and its Environment," 29; Webb, White and Longstaffe, "Dietary Shifting in the Nasca Region as inferred from the carbon-and-nitrogen-isotope compositions of archaeological hair and bone," 130.

Nasca Artworks

Also located around Cahuachi are the widely recognized geoglyphs known as the Nasca Lines.[58] The common assessment now is that these lines were created as pathways for religious purposes, and like other iconographic forms, they represented important elements in their animistic pantheon.[59] Many of the images are similar to petroglyphs found nearby at Cahuachi as well as some very late Paracas imagery found in textiles and ceramics.[60] These images are part of the foundational development in pottery as the Nasca shifted away from the Paracas tradition.

Most Paracas ceramic vessels were of natural colors, but there are a small percentage cataloged as "black ware" (fig. 3) due to their firing conditions, and "fine wares" that contained more colorful depictions. Fine wares for the Paracas are considered mostly non-utilitarian and are further distinguished by having more decoration than those used as serving or storage containers. Fine wares were often decorated with images denoted as religious or symbolic made by etching grooves into leather hard vessels (fig. 4). After the initial firing, the ceramics were painted with a substance made from ground plant matter and sticky resin. Afterward, the vessels were fired again in large, open fires.[61] This process allowed color to adhere to the vessel surface

[58] These enormous line drawings in the desert have captured the imagination of many since Mejía Xesspe, a Peruvian scholar, discovered them accidentally in 1926. Parisina Malesta, *The Nasca Mystery* (The Unesco Courier, 1998), 47; Besides the 800 straight lines carved into the desert floor, there are as many as 300 geometric figures, and 70 biomorphic figures of plants and animals. Jason Golomb, *Why the Nasca Lines are Among Peru's Greatest Mysteries* (2021).

[59] Conlee, "Nasca Culture Integration and Complexity," 237.

[60] Aside from the well-known Nasca Lines, the Nasca also created colorful textiles, ceramic vessels, figurines, and musical instruments. Music and ceremony were integrated into the rituals of the Nasca, and ceramic creations included panpipes known as *antaras,* trumpets, and ceramic drums. Antaras especially have a long history in the Nasca region and are some of the oldest examples of ceramic artwork found in homes, burials, and even ceremonial caches. Conlee, "Nasca Culture Integration and Complexity," 242.

[61] Donald Proulx, *Sourcebook of Nasca Ceramic Iconography,* (Iowa City: University of Iowa Press, 2006), 9-10.

although in time these colored surfaces would flake away.[62] Vessels considered fine ware also had thin, delicate walls – a trait that becomes a hallmark with Nasca development in their own ceramic traditions.[63] The fine wares of Paracas are a far cry from the sophistication of the Nasca, but one can see the progression from Paracas imagery into early Nasca work where they also served religious functions to appease natural forces.[64]

Nasca Ceramics

Based on the reuse of Paracas iconography, Nasca religion appears to have maintained its early roots with that of the Paracas pantheon. These beliefs would have been animistic as well and supported the cosmological view of reciprocity and renewal discussed in Andean ontology. As the Nasca culture became more settled and the use of Cahuachi intensified, the animistic beliefs remained while the iconography underwent changes.[65] The first person to write a historical narrative of the Nasca was Peruvian historian, Horacio H. Uteaga in 1919. After studying symbols found on both textiles and ceramics, he declared all Nasca imagery was representative of "religious significance."[66] He was followed by anthropologist Eduard George Seeler in 1923, who attempted a classification of Nasca ceramic imagery and immediately agreed

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[62] Patrick Carmichael, "Proto-Nasca Art and Antaras," *Ñawpa Pacha: Journal of Andean Archaeology* 40, no. 2 (2020), 122.

[63] Carmichael, "Proto-Nasca Art and Antaras," 125.

[64] For additional sources on Paracas ceramics consider Anne Paul's *Paracas Art & Architecture: Object and Context in South Coastal Peru* (Iowa City: University of Iowa Press, 1991), Patrick Carmichael, "Nasca Origins and Paracas Progenitors," *Ñawpa Pacha, Journal of the Institute of Andean Studies* 36, no. 2 (2016): 53-94.

[65] Though this progression and these changes are widely accepted, an interesting theory was brought to light in 1993 by Maria Rostworowski who hypothesized that the main deity in the Nasca pantheon was the god Kon who was in charge of water resources. She uses additional evidence to link this with the Paracas and Nasca mythology of "Felino volador" who was a quadruped that flew and brought forth rain. These do bear a striking similarity to the Nasca's Anthropomorphic Mystical Being though without written histories or reliable sources from non-biased settlers, I doubt this can be substantiated. Orefici, "Religion in Nasca Culture," 164-165.

[66] Proulx, *Sourcebook of Nasca Ceramic Iconography*, 50.

that agricultural fertility was the basis of Nasca art and religion and could not be separated from its iconographic images.[67]

This thesis uses the general breakdown of Nasca pottery into nine phases originally established by Richard Dawson along with the stylistic strains developed by Dawson's student, John H. Rowe (Table 2).[68] Although the ceramic group used for this study are those produced at Cahuachi between 100 BCE to 450 CE, also known as N1- N3, this is not the end of Nasca ceramic development, merely the end of those being produced solely at the religious center.[69] The images used herein will illustrate a variety of differences in shape, use of negative space, the complexity of designs, and the interlacing of forms. Specific design elements pertaining to each of these are referred to as stylistic strains.

The first phase, Proto-Nasca or N1 (Table 5) are greatly influenced by the Paracas, minimally incised with pre-fired paint application, and have large areas of negative space (fig 5). The ceramics produced between circa 1 to 450 CE are known as the Monumental Phases (N2, N3) and are considered some of the most varied and informative for those researching the development of ideological icons and visual narratives which were expanding rapidly at the time.[70] In comparison with the earlier Proto-Nasca ceramics, these were painted with more attention to naturally reproduce forms of animals, plants, some human figures, and deities.[71]

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[67] Silverman and Proulx, *The Nasca*, 127.

[68] Proulx, *Sourcebook of Nasca Ceramic Iconography*, 27.

[69] The expanded date range of 100 BCE to 450 CE includes the development of the Nasca Cult as it breaks away from the Paracas. At this time Cahuachi was already in use by the Paracas and would be taken over by the Nasca. The ceramics produced at this time are considered Proto-Nasca as traditions developed from the mother group to the new cultural group. However, most scientific testing confirms that these ceramics were being made at or around Cahuachi, a tradition that continues until around 450 CE with Cahuachi's decline.

[70] Christina Conlee, "Local Elites and the Reformation of Late Intermediate Period Sociopolitical and Economic Organization in Nasca, Peru," *Latin American Antiquity* 14, no. 1 (2003), 49.

[71] Gijseghem, "Frontier Perspective," 438.

Additionally, incising lines, a Paracas technique, disappears unless thin and confined to small areas. During this time Nasca artists still used areas of open space that were often painted in white, black, or red (fig. 6).[72] Additionally, several elements in Nasca ceramic vessel decoration were developed at this time and remained part of Nasca ceramics for their duration. One such development was the use of thick, black outline that contoured all painted elements. These black lines were painted along the edge of images after color was applied to add distinction and visual interest to the images. One might wonder if this painterly decision may have had its roots in the beginning of Proto-Nasca art where vessels were decorated with incised lines.

Arguably the most significant development during this time was the expansive color palette of the Nasca. Their polychrome ceramics visually stand out from their Andean counterparts due to their surface treatment. While iconography also developed into unique compositions, it is the striking difference of the painted surface that is at first the most notable. Most Andean cultures used a palette containing five or six colors however, the Nasca developed a sophisticated palette comprised of a wide variety of pigments in the range of 15-16 colors including black, white, reds, browns, oranges, yellow, gray, blue, violet, and pink (fig. 7).[73]

The timing of applying the colored slip also sets the Nasca apart. While the Paracas painted their wares after firing, referred to as post-firing, the Nasca artisans applied paint before the firing of the vessel, known as pre-firing. This pre-fire application allowed the paint to adhere to the surface through a chemical change during the firing process, which avoided the flaking off

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[72] Carmichael, "Nasca Pottery Production," 140.

[73] The Nasca ground minerals and pigments into a fine powder that was mixed with a watered-down clay known as slip. These slip paints kept the colored particles suspended in liquid until they were fired and became part of the surface. Their wide variety of colors came from a variety of sources including iron oxides, carbon, and even kaolin. To create a variety of hues from these main sources, the minerals could be mixed with ash as well as specific ratios of water to slip. Proulx, *A Sourcebook of Nasca Ceramic Iconography*,"12-16; Patrick H. Carmichael, "Nasca Pottery Production," 141.

color that affected other Andean ceramics such as those produced by the Paracas. An additional surface treatment of Nasca ceramics is the use of burnishing. This was done before the vessel had been painted and slightly dried. A smooth stone was used to rub the surface of the vessel, to create a smooth surface. Once fired, the vessel surface became shiny, almost glass-like, which enhances the natural brightness of the colors (fig. 7).

In terms of design and style, later Monumental ceramics (N3) used less negative space, but continued using a background of white or red, along with the characteristic black outline, applied after all other colors. *Double Spout Vessel Depicting Anthropomorphic Mystical Being Tasting a Trophy Head* (fig. 7) is an excellent example of the characteristics found at the pinnacle of the phase with vivid colors, a glassy surface, and the crisp, black outline. Here it is also noticeable that the main figures have been expanded to fill most of the vessel's surface area leaving much less negative space than its N1-N2 predecessors. The later styles seen from N4-N7 are those that were produced by artisans throughout the region after the decline of Cahuachi and N8/N9 refer to pieces believed to have been produced after the assimilation of the Nasca into other groups. Though these are not specifically used in this thesis, Table 5 provides brief information and images for N4-N7. Although designs and iconographical changes are evident throughout Nasca seriations, this thesis uses the vessels produced at Cahuachi to concentrate on the plant imagery produced in a religious context.

Palaeobotanical Evidence

Paleobotany is itself a diverse field and has long been part of interdisciplinary work. For this specific thesis, palaeobotanical information centers on the use of fossilized or otherwise preserved plant remains, even those on a microscopic level. These remains may be tested to

ascertain their origin and plant type and it is these studies discussed herein.[74] Using palaeobotanical evidence allows the reconstruction of those parts of societies that overlap with natural resource use. This provides evidence of specific plants that were carefully cultivated in the harsh climate. These remains have allowed researchers to reconstruct elements of agriculture practice and are used here to confirm specific plants depicted on Nasca ceramics.

As a discipline, archaeology shifted in the early twenty-first century to include the use of paleoenvironmental data with ethnographic studies to understand the social structure of a culture.[75] To investigate the plants depicted on Nasca ceramics, information from the chemical analysis of plant remains are needed to assist in deciphering their meaning. The recent work *The Ancient Nasca World: New Insights from Science and Archaeology* presents steady research into plant remains found in excavations of both ritual and domestic sites over the last twenty years.[76] It is believed that food offerings were meant as part of the Andean's religious reciprocity where offerings were a way to ensure crop fertility and survival in their harsh environment. The research presented herein indicates that plants whose images decorate ceramic wares were singled out as those with important religious meaning and this is supported by extensive work at the religious site of Cahuachi where food and plant remains are found in wells and caches for offerings.[77]

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[74] Thomas N. Taylor, Edith Taylor, and Michael Krings, *Paleobotany: The Biology and Evolution of Fossil Plants* (New York: Elsevier Inc, 2008), 2-4.

[75] ***Paleoethnobotany*** is defined as the study of human-plant interactions in the past. Christopher T. Morehart and Shanti Morell-Hart, *Beyond the Ecofact: Toward a Social Paleoethnobotany in Mesoamerica* (Berlin: Springer, 2013), 3; David Pacifico and Ilana Johnson, *Diverse, Dynamic, and Enduring: Ancient Households on the North Coast of Peru* (Boulder: University of Colorado Press, 2021), 19.

[76] Rosa Lasaponara, Nicola Masini and Giuseppe Orefici, *The Ancient Nasca World New Insights from Science and Archaeology* (New York: Springer International Publishing, 2018).

[77] Lasaponara, Masini and Orefici, *The Ancient Nasca World*, 117-118.

Plant remains have also allowed botanists and ethnographers to compile lists of what plants were local and available without agriculture, as well as those that needed to be cultivated, requiring attention (Table 3). Considering that cultivated plants required more work and effort, they were likely deemed more important to meet the needs of reciprocity as offerings to deities. Christine Hastorf and Sissel Johannessen focus on this type of contextual transformation using symbolic concepts developed by Lévi-Strauss.[78] They noted that plants have a variety of symbolic meanings depending on the required amount of care or stage of preparation. In other words, a potato's meaning can change depending on if it is intact, chopped, stewed, or an ingredient in a particular recipe.[79] In this same vein, a plant requiring cultivation and care would be seen as more important than one simply found by foraging. The analysis of plant remains is vital as it helps establish plant usage in various settings, linking back to plant representation in the iconographical representations of Nasca ceramics. This collected information adds to our growing concepts of the Nasca and how their spiritual iconography was transmitted through the distribution of these vessels.

Conclusion

The supposition that plants represented alone are meant to be interpreted as mundane reflects the Eurocentric idea that plants are not important players until placed into an overtly spiritual context. The use of Andean ontology as a methodological framework allows us to

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[78] Christine Hastorf and Sissel Johannessen, "Pre-Hispanic Political Change and the Role of Maize in the Central Andes of Peru," *American Anthropologist* 95, no. 1 (1993), 120.

[79] Hastorf points out that using multi-layered analysis makes some of the unseen past more visible. She encourages the use of both macro-data that can been seen with the naked eye along with micro-data that includes "macro-remains, pollen, phytoliths, starch, biochemical markers" and more data has additional applications besides quantitative aspects. Hastorf and Johannessen, "Pre-Hispanic Political Change and the Role of Maize in the Central Andes of Peru," 120. The term macro-remains is used to reference part of the macro nutrient group such as proteins, fats, and carbohydrates. Deborah M. Pearsall. "Commentary: Paleoethnobotany Beyond Diet, Environment, and Ecology." In *Social Perspectives on Ancient Lives from Paleoethnobotanical Data*, ed. Matthew P. Sayre and Maria C. Bruno. (New York: Viking Penguin, 2018), 173

reconsider the iconography of the Nasca by adopting the animistic outlook used by the ancient culture. Patrick Carmichael championed this outlook by saying that "we must take a contextual approach by recreating, to the extent possible, the worldview of those who made and used the objects of our study."[80] It is this worldview that allows the role of plants to be explored as overtly religious in meaning.

Supporting this claim, the information gathered on Cahuachi, its function and production of polychrome vessels, proves its role as a producer and distributor of Nasca religious ideals. These designs were spiritual in their context and such items went on to serve as religious reminders throughout the Nasca region. Finally, the use of botanical data retrieved from paleobotanists allows the researcher to compare recovered plant remains with their site origin as well as comparing the species to those represented on the Nasca ceramics being studied. Together, the methodologies and fields of study used in this thesis allow for the comparison of plants available to the Nasca to those used in ritual offerings and ceramic vessel creation taking place at Cahuachi.

[80] Carmichael, "Nasca Pottery Production," 151.

Chapter 3: Zoomorphic & Phytomorphic Imagery

When studying Nasca ceramic vessels it is imperative to remember that the vessel and its imagery serves as a word-image substitute for this preliterate culture who left behind no written records or language. However, a common predicament is the lack of any map or key to decipher the symbols left behind. In Pre-Columbian Peru this is often the case, and it is the visual iconography that leads us from "A to B" in absence of written language. Nasca art requires an understanding that visual elements are joined, combined, or repeated, which results in hybrid designs containing zoomorphic elements as part of the whole ceramic vessel's state of being. The images often contain elements of both plant, animal, and/or figural combinations with multiple meanings and inferences that would have been understood by the Nasca people. The two zoomorphic combinations most related to this thesis are the Anthropomorphic Mystical Being and trophy heads conjoined with plant motifs.

The representation of plants changed as the Nasca developed, moving away from singular plant motifs during the early Nasca pottery stages, to becoming part of complex assemblages. Such combinations grew in number during the Monumental Phases and continued to develop in abstraction throughout the Nasca seriations (Table 5). Phytomorphic images are those that contain plant-like attributes and often contain elements that are both plant and figural. The increase of use of these image combinations began in early N2, continued to increase, and are still present in the Transitional Phases of N4-N5. Afterwards, elements of plants are identifiable occasionally with the later seriations becoming so abstracted it is hard to be sure. The Nasca use of such joined images are another way to view the interconnectedness of all elements in the Andean world view, and it is important to remember that these motifs would have contained information and suppositions that were lost to us through time. The best we can do now is

establish the identification of the motifs we understand and build upon these using a contextual approach.

The Anthropomorphic Mystical Being

The figure that represents the greatest form of divinity is based on a feline motif and developed as a zoomorphic combination referred to as the Anthropomorphic Mystical Being (AMB) (fig.7). Not only is this being widely represented, but it will become the main form in which much of the plant imagery becomes embedded. The development and use of the Anthropomorphic Mystical Being is believed to have begun when the Nasca broke away from the Paracas. At this time, the people would have continued many of the Paracas' animistic beliefs while making their own adaptations. These changes are charted through iconographic traditions in lieu of any written record, but based on early iconography it seems likely that the AMB is a combination of three main Paracas motifs: Paracas cat imagery, the flying god of Paracas and the Oculate Being (fig. 8).[81] What will become the major icon of Nasca deification appears to have been the combined influence of these motifs, and was represented in a myriad of ways throughout Nasca existence.

In early representations the AMB is often painted holding vegetation, a farmer's digging stick, weapons, or even trophy heads.[82] As the motif develops it becomes synonymous with agricultural bounty through the depictions of trophy heads and plants in and on its body and even protruding from its tongue.[83] Though elements surrounding or within the AMB may change to

[81] This is an extremely limited breakdown of a complex change and does not represent the complexity found in the Paracas culture as well. Orefici, "Religion in Nasca Culture," 163.

[82] Decapitated heads, known as "trophy heads," were used by the Nasca both in the real world as well as symbolically in their visual culture. This is discussed in more detail later in this chapter.

[83] Orefici, "Religion in Nasca Culture," 166.

reflect the addition of plants, animals, or designs, it always retains a few of the same identifiable characteristics such as a large head, wide eyes, a mouth mask with whiskered protrusions, a shell collar, bangles, and diadem. The whiskered mouth mask remains a feline feature connected to ultimate divinity while the diadem is considered a possible link to earlier ancestor worship.[84]

As the AMB visually develops over time, it becomes joined with plant imagery through the development of a long body that often wraps around vessels, referred to as a signifier (figs. 9, 21).[85] Later developments see the addition of a tip at the end of the signifier, much like the tip of a tail. These tips are referred to as a terminator, and they often change in shape and symbolism.[86] There are times the terminator takes the form of a plant such as the AMB whose terminator takes the form of a fruit known as a lucuma (fig. 6).[87] As the inclusion of terminators became more common, these tips ranged from a wide variety of animals, plants, weapons, and trophy heads. This same modification appears in *Anthropomorphic Mystical Being with Sprouting Head Motif 1* (fig. 9), *Anthropomorphic Mystical Being with Peppers* (fig. 14), and in *Anthropomorphic Mystical Being with Sprouting Head Motif 2* (fig. 21) where a trophy head is placed at the end as the terminator.

Aside from the signifier and its terminator, the AMB's meandering body is often depicted with ornaments hanging from it that may range from simple shapes, animal forms, and plant motifs. Additionally, smaller images, geometric shapes, bands, and decoration were interwoven

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[84] Orefici, "Religion in Nasca Culture," 167.

[85] Holding a vegetable or fruit is one of the more common symbols seen in variations and very often the AMB is painted in conjunction with specific plants and general leaf motifs. In this way, the AMB has also become the "divinity dispenser of agricultural products" as described by Vaughn, "Early Nasca Craft Consumption," 88.

[86] Proulx, *A Sourcebook of Nasca Ceramic Iconography*, 50.

[87] The lucuma fruit was from a tree cultivated by inhabitants of the area very early. Remains of lucuma fruit and seeds are found in offerings throughout Cahuachi.

with the AMB to produce a composite being that touched on a variety of life forms including marine and land animals, plants, and trophy heads. This resulted in filling the picture plane with little remaining negative space and when combined with the main AMB image wrapping around the vessel, illustrates that the cosmological forces at work are all encompassing. Elizabeth DeMarrais points out that as Nasca art became more abstracted, some motifs were left more identifiable than others. In her opinion it is the images left behind that deserve our attention as symbols of importance, possibly indicating the interconnectedness of the elements remaining. Very often, the remaining motifs that are recognizable even after other elements are abstracted include some of the characteristics of the AMB like the mouth mask as well as plants, some animals, and trophy heads.[88]

Trophy Heads

An important part of the Nasca spiritual culture is the use of trophy heads. The taking of heads, or headhunting, was a common practice for the Nasca as verified by archaeological records of numerous caches of heads buried in ceremonial caches or near agricultural sites, sometimes individually wrapped or placed in jars.[89] The symbolic nature of these interments implies, in lieu of written records, the importance of burying these heads to ensure the cycle of growth and regeneration so important to a desert society. The act of placing objects into the ground as a manifestation of "planting" is seen in burials as well. These have unique qualities that link their specific characteristics with the concern for the land's continued fertility. The deceased were wrapped in layered bundles, very similar to the plant bundles used in ritual

[88] DeMarrais, "Animacy, Abstraction, and Affect," 663.

[89] After being separated from the bodies, a large hole was drilled into the base of the skull to remove the brain, followed by a smaller hole located in the forehead to allow for a length of rope to pass through for carrying. Later, the severed heads were treated in a variety of ways from pinning the lips together with cactus spines, to ceremonial cuts in the face and head. Silverman and Proulx, *The Nasca,* 77; Silverman, *Andean Archaeology*, 107-109.

offerings, with the number of layers possibly suggesting one's social rank in society. These wrapped bodies were then placed into the ground much as seeds are planted to "ensure continued fertility of the earth."[90]

Trophy heads are, quite simply, prolific in Nasca iconography. They are represented in a variety of ways (Table 7) including phytomorphic representations with plant like appendages. Nieves cautions the reader to carefully consider the Andean use of signs with several meanings, rather than being strictly naturalistic in their visual form. The use of interchangeable symbols is based on a concept mentioned by Giuseppe Orefici called "secondary manifestations." This is the use of imagery or symbols as secondary stand-ins.[91] Trophy heads are widely considered the equivalent representation of seeds and as such, those depicted with plant motifs (Table 7) should most certainly be considered interchangeable with planting seeds/growth/harvesting. Ann-Marie Hansson and Andreas Heiss focus on food and plant-based reciprocal interchanges as being the result of nature's continual regeneration. Their literature pairs the dichotomies of "fertility and funeral" as part of the food and plant continuum that is observable in nature and then acted out in cultures. They write, "it is from the dead that new life springs, and it is the offering which brings energy to the force of transformation and creation."[92]

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[90] At times these body-bundles were also accompanied by broken and/or unbroken pottery, human hair, as well as food bundles such as plants or beans. These burials are extremely like those practiced by the Paracas, where bodies were wrapped in layered bundles, sometime accompanied by wrapped plants or dressed in formal garb dependent on their station. This was more so the case for the Paracas Necropolis group rather than the Paracas Cavernas. Silverman, *Andean Archaeology*, 103. For additional reading on the Paracas, I would suggest Lawrence S. Owens and Peter Eeckhout's *Funerary Practice and Models of the Ancient Andes: The Return of the Living Dead*, (Cambridge: Cambridge University Press, 2015).

[91] Orefici, "Religion in Nasca Culture," 172.

[92] Hansson and Heiss, *Plants Used in Ritual Offerings and in Festive Contexts*, 313.

The use of trophy heads brings us back to this idea as they most often are connected to the concept of "seeds" and the act of being planted to sustain life and fulfilling the duty of reciprocity. In fact, the use of trophy heads has become so synonymous with planting and seeds that there is room for argument that the two are interchangeable in most instances. The use of duality, multiple-meanings, and complex symbolism that manifest ideas of power and control over agriculture is part of the Nasca world view and is part of the process of understanding their iconography.

Patrick Carmichael references the "sprouting head motif" as those trophy heads depicted with vegetation protruding from their mouths as one of the most potent symbols for representing a link between agricultural abundance and the disembodied heads.[93] As seen in the rolled-out drawing of the *Anthropomorphic Being with the Sprouted Head Motif 1* (fig.9) the AMB has the long signifier body that would have wrapped around the entire vessel. Although this is a drawing, the actual painted surface would have encompassed all angles of the vessel and no matter the angle or side, the signifier would have been visible even if only in sections. The use of trophy heads along the entire signifier as well as the terminator becomes highly significant and would have filled the viewer's vision no matter how the vessel was turned. The trophy heads along the signifier are those of the sprouting head motif where two-pronged stalks emerge from the mouth of each trophy head. These stalks are tipped with plant-like motifs that resemble leaves though it is arguable these are peppers.[94] Although the main AMB head as well as the

[93] Vaughn, Kevin. "Early Nasca Craft Consumption," 68.

[94] The discussion of pepper iconography appears later in this paper, but common pepper iconography is also found in Table 6.

terminator as a trophy head do not contain plant imagery, the concept of the whole being as part of agricultural bounty has already been established by the rows along the signifier.

The Nasca development and representation of plants on their polychrome ceramic vessels offers art historians an opportunity to gather meaningful insight into the culture. As the Nasca visual language developed plants were used both as individual elements as well as part of phytomorphic combinations that incorporated plant-like elements. The variety of AMB developments throughout the Nasca existence is astounding and serves as a visual codex of Nasca iconology and the ultimate link bringing all visual symbols under the banner of the sacred.

Chapter 4: The Nasca Pantheon of Plants

The importance of natural elements and agricultural fertility are illustrated throughout Nasca art works with plants at the center of Nasca's agricultural focus on regeneration. Therefore, the use of plant iconography must be approached with the ontological importance it deserves, embracing a concept where the utmost meaning is placed on land, fertility, and water as the most significant aspects of an early agrarian society.[95] Palaeobotanical remains provide evidence of what plants were consumed and offered for rituals and these two groups, when compared, leave a unique set of plants that correlate to those featured on the ceramic vessels.

There are a variety of ways researchers seek to incorporate or shape data from palaeobotanical studies. While some of these are strictly empirical, archaeologists and art historians seek to understand the role of plants in a cultural setting. Paleoethnobotany uses remains to establish the relationship that existed between humans and plants, with many of these interactions being influenced by the availability of resources, climate, and geography.[96] These avenues of inquiry may include social factors such as the engagement with plants that represent entities and have an agency of their own.[97] These concepts align with the Andean ontology discussed in the previous chapters. The palaeobotanical data collected herein tells us what foods were most consumed, but this does not equate to the most often depicted.

Ceramics are uniquely situated in the historical past to help study food by using the decorations that adorn the outside, and what many ceramic vessels held within. Through ceramic analysis, the art historian and paleobotanist can work together to learn about ancient plants

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[95] Helaine Silverman, *Ancient Nasca Settlement and Society* (Iowa City: University of Iowa Press, 2002), 5.

[96] Matthew P. Sayre and Maria C. Bruno, *Social Perspectives on Ancient Lives from Paleoethnobotanical Data* (New York: Viking Penguin, 2018), 2.

[97] Sayre and Bruno, *Social Perspectives on Ancient Lives,* 4.

through site sources, botanical residues, even the vessel shape and size.[98] For the study of Nasca plant iconography these two disciplines overlap once again allowing us to identify plant motifs, and establish whether these plants were grown, found, consumed, or used in some other way.

Based on archaeological and botanical remains, many sources agree that the Nasca diet was primarily vegetation with a small percentage of protein. Protein sources were largely consumed from land mammals with minimal protein from ocean sources.[99] Furthermore, using carbon-and nitrogen-isotope testing, scientists have studied the compositions of flora and fauna from both the present and past to reconstruct a food web model for the Andes giving us a glimpse into what plants were available and consumed.[100] The resulting information indicates that the more commonly consumed plants included squash, maize, a variety of legumes and beans including peanuts, and a large variety of peppers.[101] Root vegetables such as the achira, yuca, jicama, and potatoes were also included.[102]

The list of cultivated plants allows for the comparison of the images on the ceramics with the food and plants available to the Nasca. Here the most depicted plants are beans, peppers, yuca, maize, jicama, lucuma, and peanuts, while squash, potato, and achira are not commonly

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[98] Twiss, *The Archaeology of Food,* 41-42.

[99] Orefici and Rojas, "The Nasca and Its Environment," 31; Kellner and Schoeninger, "Dietary Correlates to the Development;" Webb, White and Longstaffe, "Dietary Shifting in the Nasca Region," 131.

[100] Webb, White and Longstaffe, "Dietary Shifting in the Nasca Region," 129–139.

[101] A variety of analysis methods confirm this including C_4/C_3 testing, isotope testing, as well as bone and hair sampling. Kellner and Schoeninger, "Dietary Correlates to the Development," 490-508; Webb, White, and Longstaffe, "Dietary Shifting in the Nasca Region," 129–139.

[102] This thesis uses edible plant cultigens to refer to those species that required agricultural innovation to be grown in the Nasca environment (Table 3) and non-cultivated edible plant*s* to refer to edible vegetation growing in the wild, available to the Nasca people through foraging. Achira, yuca, jicama, and potatoes are starchy root vegetables that were cultivated by the Andeans including the Nasca. However, the carbohydrate content of these vegetables is high and therefore affects their preservation and remains in the ancient botanical record. Orefici and Rojas, "The Nasca and Its Environment," 32.

shown.[103] Though it can be argued that these last three are represented in some Nasca iconography, their images appear few and far between in comparison with the others. This discrepancy between the two lists indicates that the illustrated plants were selected from available resources for a specific reason, which is likely related to the amount of work required to cultivate a particular plant. The potato which required little work and similar plants that were foraged or needed little care are represented much less often if at all, compared to those who needed a great deal of attention. Those needing more attention also make up the list of plants used for offerings excavated at Cahuachi (Table 4).

This outlook intersects with the Andean world view in that plants have a significant role in their society beyond alimentation as entities that are used specifically by humans as spiritual currency. A factor in understanding the animism in the Andes includes the use of multiple meanings based on transformation. Seeds are planted, plants are harvested, and then depending on their final form, may be used raw, dried, or cooked. What scholars often miss is that each transformation of a material is considered another step in defining the new and transformed substance, and with each subsequent transformation a new, higher rank of importance.

Offerings from Cahuachi

This thesis is the first to consider botanical evidence and compare such to the ceramic iconography to determine the most sacred of plants. Plant remains and plant residue are found throughout the Nasca region both in ritual and domestic settings. When dealing with domestic remains of plants however, one must consider the accuracy of results based on such a small

[103] There are also generic flower and leaf shapes that have not been identified as belonging to a specific plant and often do not contain any specific markings or shape to do so. Orefici, "Religion in Nasca Culture," 168-169.

sample since complications from small-scale domestic remains may lead to inaccurate results.[104] When offerings are discussed in this section, they refer to those found in Cahuachi, which were quite large in quantity and therefore allow for a more thorough study. This focus is also important because it aligns contextually with the use of plants for spiritual purposes in the setting where the religious polychrome pottery was produced.

As of 2018, with the publication of *The Ancient Nasca World,* the largest amount of plant offerings by weight were the inedible soapberry seeds, squash seeds, maize, inedible cotton seeds, and dried aji peppers.[105] Additional offerings in smaller, yet still sizable quantities, included lima beans and jack beans, jicama, lucuma, and peanuts. These are all cultivated species, requiring special human attention to thrive with the human act of domestication. It seems likely that the attention and care in cultivation equaled a transformation that increased its significance.[106] With that in mind, it is not surprising that the edible plants from this list are those that also appear with more frequency in Nasca iconography.

Beans & Seeds

Bean and seed imagery is one of the most represented in early Nasca iconography and may occur visually as individual beans and seeds or as a pod. Eventually, as is the case with most Nasca plant iconography, the singular bean or pod becomes integrated into the representation of the Anthropomorphic Mystical Being as a zoomorphic image. The iconography of seeds and

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[104] Small or limited amounts of remains produce much less carbonized material so there is less to discover. Other concerns include those rituals that do not involve fire, therefore do not produce any carbonized remains, as well as complications arising from thorough cleaning that have removed traces of material. Matthew P. Sayre and William T. Whitehead, "Ritual and Plant Use at Conchopata." In *Social Perspectives on Ancient Lives from Paleoethnobotanical Data*, ed. Matthew P. Sayre and Maria C. Bruno (New York: Viking Penguin, 2018), 139.

[105] Orefici, "The Ceremonial Center of Cahuachi," 340.

[106] Christine Hastorf, and Sissel Johannessen, "Pre-Hispanic Political Change and the Role of Maize," 121.

beans was of symbolic importance in Andean societies prior to the arrival of Europeans. Beans are described by Lasaponara, Masini, and Orefici as being representative as "seeds of life" and are shown in over fifty-two ways throughout Nasca ceramics and textiles, a small selection of which can be found in Table 6.[107] Seeds and beans are associated with fertility, agricultural richness, and in some cases part of death imagery. [108] Archaeological research has led to the discovery of beans used alone or with other plants as a main staple in ritual offerings and stored caches in Cahuachi with the most common being the seeds of squash, followed by lima beans and the large jack bean.[109]

Ana Nieves notes that seeds and beans are frequently depicted throughout Nasca iconography but are often categorized as an everyday observation on some vessels, while considered a spiritual icon when used in conjunction with others.[110] This is the same argument that is nullified when using the Nasca ontology as a lens through which all iconography is seen. Bean and seed imagery is found throughout the Nasca ceramic seriation and whether depicted alone or part of an assemblage, should be seen as a spiritual element.

One of the earliest examples of Proto-Nasca (N1) pottery (fig. 5) illustrates the important nature of bean imagery as it is used repeatedly here in the earliest Nasca phases. This vessel was created when the people were establishing their own distinctive group away from the Paracas.

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[107] These depictions of seeds are counted using the most minute detail. For example, a bean motif with two sprouts and the exact motif with three sprouts are each counted separately. Lasaponara, Masini and Orefici, *The Ancient Nasca World*, 437.

[108] Ana Nieves, "More than Meets the Eye: A Study of Two Nasca Motifs," *Andean Past* 9, no. 13 (2009), 229.

[109] Luigi Piacenza, "The Role of Plants in Nasca Culture," in *Ancient Nasca World: New Insights from Science and Archaeology,* ed. Rosa Lasaponara, Nicola Masini, and Giuseppe Orefici (New York: Springer International, 2018), 106.

[110] Nieves, "More than Meets the Eye," 2009.

Already we see how important beans were since they are the only decorative element on the vessel. Typical of Proto-Nasca/N1, there are areas that are minimally incised with pre fired paint application and have large areas of negative space.[111] Looking closely the edges of the bean forms, they are incised and lightly painted black (fig. 5 detail). The main band of decoration is flanked by a large area of reddish brown both on the stirrup spout as well as the bottom of the vessel, common elements of the Proto-Nasca/N1phase. Despite the large areas of negative space, it is quite clear that the beans are the focus.

Another example (fig. 10) that was created not too long after, represents the Monumental phase and is divided into two bands, with the smaller bottom band dedicated to a row of red steps repeated in a pattern. The larger top section is filled with beans that stare out with human-like eyes in a naturalistic representation of where the helix of a seed is located.[112] This anthropomorphized nature of seeds is no accident. The Nasca were fond of visual duplicity, and often bean imagery is used with or in place of trophy heads and vice versa, underscoring the importance of "planting" to ensure agricultural fertility.[113]

As Nasca imagery developed into more abstracted and interwoven compositions, seeds and beans are still found, though often as circles and dots. Such circles are represented in the body of the *Anthropomorphic Mystical Being with Seed Signifier* (fig. 11). Here the long, meandering signifier is painted with undulating borders of black and yellow. Inside these borders are the round, brown seeds that fill the entirety of the signifier. More interesting perhaps are the

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[111] Carmichael, "Nasca Pottery Production," 140.

[112] The helix of a seed is where the beginning of cellular growth takes place. This growth spirals outward as tissues grow and expand. In most seeds this may appear as a centralized dot, hardened area, or a specific localized color. In these examples the helix of the seeds look like eyes and judging by species, are located in the same place as the helix of an actual specific seed.

[113] Lasaponara, Masini and Orefici, *The Ancient Nasca World*, 437.

tiny white lines that flank the seeds and look as if they are indicators of movement. As a result, the body of the AMB looks as if it is filled with lively motion from the seeds inside. Where these seeds are illustrated as large circles, smaller dots are also considered to represent seeds and are most often seen on the faces of harvester figures such as the *Harvester Vessel* (fig. 23).

Peppers

While beans can be argued to be the most represented plant, the chili pepper, or aji, is undoubtedly in close second place if not tied.[114] Luigi Piacenza writes about pepper depictions as being present in all stages of Nasca pottery seriations and they are represented both alone or part of phytomorphic combinations, most often with the AMB or farmers.[115] In some of the earlier phases of Nasca ceramics the chili pepper (Table 6) is seen in profile without decoration other than being filled in with a basic color (fig. 12). Just as beans changed through time, later representations of chili peppers also changed, becoming slightly thicker versions, and denoted with vertical stripes down the body of the plant (fig.13). The pepper motif is repeated frequently throughout the Nasca seriations and is one of the more prolific plant images found repeatedly in conjunction with the AMB. In an early Nasca vessel (fig. 14), the AMB is depicted with the commonly protruding tongue, the end of which is shaped to mimic the pepper. In its right hand it holds a phytomorphic staff combination with a pepper at the bottom and a yucca at the top. More importantly, the body and signifier of the AMB is decorated with pepper symbols protruding from the bottom and ending in a trophy-head signifier.

[114] Aji is used interchangeably for the chili pepper in this region. In this thesis, any plant denoted as a pepper refers to this specific plant.

[115] Piacenza, "The Role of Plants in Nasca Culture," 106.

Yuca

Yuca, also known as cassava or manioc, appears very early in Nasca iconography (fig. 14) and is most often represented with a top stalk and three protrusions that branch downward. Like so many Nasca motifs, the yuca symbol has several iterations (Table 6) and continued to grow more stylized and abstracted throughout the seriation styles. It is entirely possible to miss the yuca symbol in later designs if one is not familiar with its earlier beginnings. However, once the abstracted version is identified, it can be found even in places it may have been previously overlooked. As such, it becomes one of the most represented plants in Nasca iconography along with beans and peppers. Despite this, the yuca plant is glaringly absent in excavated remains for offerings at Cahuachi.

It is in instances such as these that palaeobotanical data is helpful, but also not the sole representation of truth. Just because this particular plant was not found in offerings at Cahuachi, does not mean that such offerings did not exist or, if they did not, that there would not be a plausible reason. First, when comparing the lists of edible and cultivated offerings found at Cahuachi with those plants most often represented in Nasca iconography, yuca is the only one missing from Cahuachi. However, yuca is so often represented in Nasca iconography that its absence as an offering seems puzzling. The answer probably lies in the chemical composition of the plant itself. Yuca as a root vegetable is high in starch, and biologically unstable for preservation.[116] This is a unique instance where a highly represented plant is not found in preserved offerings, but that is likely due to its quick decomposition and rather than its never

[116] Once harvested, yuca undergoes a chemical change referred to as post-harvest physical deterioration (PPD) that renders it quickly inedible. This process hastens the plant's physical breakdown and as such, very little is preserved physically. Only retrieval from bone and hair isotope sampling can show if yuca was consumed. Sánchez, T., et al, "Changes in Extended Shelf Life of Cassava Roots During Storage in Ambient Conditions." *Postharvest Biology and Technology* 86, (2013): 520.

being used. It is highly unlikely that a plant so widely represented, second only to beans and peppers, would have been ignored for inclusion in ritual settings.

In *Small Bowl with Yuca Plants* (fig. 15) the entire vessel is dedicated to the yuca symbol, separated with thin vertical lines in between each and a rim of red on the top and bottom. The stalk of the yuca is rendered with wavy outer contours and a cut-away in the middle revealing several wavy lines. The lower portion of the yuca is made up of three protrusions that face downward and are, in themselves, made of flowing lines that come together at a bottom point. Later however, as seen in Table 6 the yuca has changed into a plain rectangular stalk with pointy, protrusions. These simplified forms are seen in *Zoomorphic Heads with Yuca* (fig.16) and in *Anthropomorphic Mystical Being with Yuca Tongue* (fig. 17).

Zoomorphic Heads with Yuca (fig.16) is painted on a deep bowl with one elongated figure wrapping around the entire vessel. Each end of this figure is represented by a zoomorphic head with animal-like ears and a tongue in the shape of a yuca. This is not the AMB head we are used to seeing, and so may represent a different deity, or based on the alternating colors of the heads, ears, and tongue, a concept based on duality. The yuca plants, abstracted down to a three-pronged shape are painted in opposite colors, but retain horizontal lines in the stalk area as a way to denote that this is a specific plant and not simply a forked tongue. The *Anthropomorphic Mystical Being with Yuca Tongue* (fig. 17) does not use any horizontal lines in the stalk, but instead has a painted black stalk with the tuber bottom of the plant painted in orange. This same orange is repeated in the depiction of a pepper on the right of the AMB as well as highly abstracted designs in the AMB signifier that are similar to bean depictions seen earlier (fig. 10).

Maize

The concept of transformative processes that imbue a plant with elevated meaning finds its perfect example in maize, which is not original to the area.[117] Over time, Andeans were able to cultivate a variety of maize that were suited to specific cooking methods as well as use in ritual offerings and the making of chicha.[118] In each step of transformation from its natural state, a plant attains a different status as would be understood by the Nasca people who relied on maize in various aspects of their life. Even today, this process of transformation remains evident in the Andes where corn kernels are cooked in soups as part of a recipe for nutrition, but chicha remains a spiritually charged substance.[119] Christine Hastorf and Sissel Johnson have studied the history of maize and its transformative qualities that reach its pinnacle in the making and partaking of chicha.[120] This drink is well known as a long historical tradition in the Andes and its uses such as

> a prime mediating substance, establishing links and relationships not only between social and kin groups, but between human groups and spiritual beings. It is a symbolic seal to contracts – spiritual (e.g., asking for fertility of the herds and land), economic (e.g. work and exchange of goods), and social (e.g., marriage).[121]

Using carbon-and nitrogen-isotope testing, studies have shown that maize made up the largest percentage of the average Nasca diet as well as being used in ritual offerings found

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[117] Using palaeobotanical data, researchers believe maize entered South America through a route from Central America, though studies are still being conducted to trace its original roots of origin. Kellner, C. M., & Schoeninger, M. J. "Dietary Correlates to the Development of Nasca Social Complexity (A.D. 1–750)." *Latin American Antiquity* 23, no 4 (2012): 495.

[118] A beer used in rituals and ceremonies throughout the Andes, often made from fermented maize.

[119] Hastorf and Johannessen, "Pre-Hispanic Political Change," 120.

[120] Hastorf and Johannessen, "Pre-Hispanic Political Change," 117.

[121] Hastorf and Johannessen, "Pre-Hispanic Political Change," 118.

throughout Cahuachi.[122] As an iconographical element, maize appears more often by itself in earlier ceramics (fig. 18), a unit divided by diagonal lines with additional protruding lines at the top. These are painted parallel in some cases or form crosshatching in others (fig. 19). After N2 maize is used in conjunction with other forms and loses some of its independent features such as the long lines representing cornsilk. Table 6 provides the most common maize motifs, one of which can be seen in *Deity with Plants and Corn* (fig. 20). Here the recognizable diadem from the AMB remains, but the main head of the figure resembles that of the Sprouting Head Motif seen in use with trophy heads. This is further enforced by the same pronged plant protruding from the mouth. However, in the clasped hands of this figure is one single corn icon standing out from the rest of the generalized plant motifs. This corn representation is the blockier, simplified version that is most often identified in later Nasca phases.

Another example of this type of corn representation is evident in the rolled-out drawing of the *Anthropomorphic Mystical Being Sprouting Head 2* (fig. 21). In this example, the corn plants are found protruding from the second to last trophy head on the signifier as well as the terminator trophy head. In this last, the sprouting head motif is no longer generalized plant shapes, but the obvious corn plant emanating from the three-pronged tongue of the trophy head. Multiple studies correlate the symbolic importance of chicha as also increasing during this phase, and thus it is possible that as the importance of chicha increased, a symbol yet to be identified was incorporated into the Nasca iconography.

Jicama

Another symbolic plant in the Nasca visual lexicon is the jicama. Not only is this plant found in the iconography of ceramics, but also in domestic and religious settings, Paracas and

[122] Webb, White, and Longstaffe, "Dietary shifting in the Nasca Region," 133.

Nasca textiles, and it has been identified as one of the large geoglyphs in the Nasca lines.[123] Jicama is also among the vegetative offerings found in Cahuachi's burial tombs and ritual caches, though not one of the more prolific offerings recovered.[124] In earlier representations, the jicama is painted like an inverted, narrow raindrop - bulbous at the top and tapered down to a long, slender end with filled in color (fig. 22), much like the representations of peppers discussed earlier.

However, as the Nasca seriations develop, jicama is represented with a rounded, bulbous top, not dissimilar to a turnip, with dots or markings in the body, accompanied by leaves at the top and/or root appendages branching off from the sides and occasionally, the bottom. In the *Harvester Vessel* (fig. 23), the harvester holds a jicama along with its leafy foliage in his right hand where it is placed in plain view surrounded by negative space.[125] This same compositional arrangement, placing the jicama in proximity to the main figure but in a space with no competition for focus, can be seen in the *Anthropomorphic Mystical Being with Jicama* (fig. 1). Here the jicama is adjacent to a complex AMB design and is located at the bottom left of the AMB's mouth. This vessel is also a great example to observe the use of pepper shapes being incorporated into the design as well as the dual snakes located on either side of the AMB head. Just as in so many cultures, the inclusion of snakes or serpents usually functions as symbols of fertility.

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[123] Piacenza, "The Role of Plants in Nasca Culture,"109.

[124] Giuseppe Orefici. "The Ceremonial Center of Cahuachi: Its Origins and Evolution," 329–342.

[125] The figure is identified as a ceramic harvester based on the scattered dots (as seeds) that are present on his face. Proulx, *Sourcebook of Nasca Ceramic Iconography*, 91-92.

Lucuma

The lucuma fruit is grown on a tree that was domesticated and cultivated by the Nasca.[126] The seeds of this plant are found among roasted offerings and ritual caches in Cahuachi, and in one interesting case, the large seeds were hollowed out and stuffed with mice trophy heads.[127] The fruit of the lucuma has also been found at Cahuachi, though in smaller amounts than its seeds, possibly due to the fact that the fruit did not last as long in preservation as the seeds. As it pertains to polychrome ceramics, the lucuma is found both alone and in part of phytomorphic assemblages and can be easily identified in later seriations by its heart-shape motif (Table 6).

Lucuma Vessel with Vines (fig. 24) represents the earlier depictions of lucumas that are painted with a focus on triangular shapes as precursors to the more common heart shape of later variations. These are quite different from *Cat Deity with Lucuma Terminator* (fig. 6) where the heart shape can be seen in the terminator. This latter vessel represents a feline deity, possibly an earlier simplified form of the AMB with similar lucuma-shaped plant motifs protruding all around the contour of its body. At this point, it cannot be determined if these are meant to be generic plant/leaf shapes or represent additional lucuma fruits. A later vessel, the *Anthropomorphic Being with Lucuma Tongue* (fig. 25) also uses a generic leaf shape to decorate the signifier of the AMB, however here the protruding tongue, which is very nearly the same length of the head and therefore a prominent focus, is tipped with a distinct lucuma motif that is also found in Table 6.

[126] Piacenza, "The Role of Plants in Nasca Culture," 110.

[127] Piacenza, "The Role of Plants in Nasca Culture," 113.

Peanuts

In deciphering plant representation, it is sometimes difficult to distinguish peanuts from other segmented bean pods. Though Proulx insists the peanut was represented like a long tuber denoted with crosshatching, other iconographers lean towards a representation not too dissimilar from other bean pods.[128] The peanuts excavated in Cahuachi were found throughout the ritual caches both by themselves as well as with other plants. These legumes were also among the offerings that are more often roasted, a process that would not only increase its nutritional value, but also transform its importance.[129]

An early Nasca vessel (fig. 26), depicts the peanut motif as the only main decoration on the vessel with a white horizontal line that runs under the rim of the vessel and singular thin vertical lines placed in between each peanut pod designs. This vessel is also unique in that it predates the use of the characteristic black outline and instead, has made use of white lines to form the contours of the peanut motif. These are elements that place the vessel in the earlier part of the Nasca development when the culture was first establishing control of Cahuachi as their central place of religious production and pilgrimage. The earlier vessel contrasts with a double spout bottle (fig. 27), which is more characteristic of the Monumental Phase of Nasca pottery production.

In *Anthropomorphic Being with Peanuts* (fig. 27) the recognizable AMB takes up most of the picture plane and holds three segments of peanuts in its right hand. The differences between the earlier vessel and this one is immediately clear. The peanuts in the later vessel are now

[128] Proulx's design is similar in shape to a bean pod, but the only decoration are the crosshatched lines. He only gives this one example, and it seems unlikely based on their physical presence at Cahuachi that they would be so underrepresented. Proulx, *A Sourcebook of Nasca Ceramic Iconography*, 169.

[129] Piacenza, "The Role of Plants in Nasca Culture," 104.

secondary to the AMB rather than being the sole decoration of interest. In addition to this change, the peanut pods are painted clearly and now have smaller black circles in the middle to denote the internal seeds.

Conclusion

The plant offerings recovered from caches in Cahuachi revealed beans, maize, jicama, and peppers with smaller offerings of lucuma and peanuts usually found mixed in an assortment of beans wrapped in cloth.[130] The use of food as an offering to natural forces or deities is seen in cultures all over the world. These offerings are not random and are made up of carefully selected items just as they are carefully selected for inclusion in the iconography. For the Nasca, the selection of these items in terms of plants relied heavily on whether the plants were cultivated and tended. The idea of special status because of its need to be tended by humans is also not new. In the earliest stages of colonial conquest, the friar Martin de Murúa observed the Inka use of sacrificial plants and animals as only things "tended and augmented with solicitude and care can true esteem be show to the *huaca* or deity."[131] Though the Nasca preceded the Inka, the use of specific plants on Nasca ceramics supports this idea. When compared, the edible and cultivated plants found to make up the offerings at Cahuachi are the same we find illustrated on the colorful ceramics.

[130] Orefici, "The Ceremonial Center of Cahuachi," 339-341.

[131] The term "huaca" refers to a sacred place, most often imbued with a life force. Hastorf and Johannessen. "Pre-Hispanic Political Change," 121.

Chapter 5: Plants & People

Sacred imagery for the Nasca has been defined by both past and present historians, as the depictions of priest-like figures, warriors, trophy heads, and the myriad of fantastical beings of an anthropomorphized nature.[132] However, through Andean ontology plants are also established as sacred, which is reflected in the material culture and iconography. Up until now, the argument for including all plant representation within a sacred arena has focused on the singular plant motifs in earlier Nasca art followed by their combination with the Anthropomorphic Mystical Being (AMB) and trophy heads. However, plants are also seen in their relationship to human figures, most notably farmers. It behooves us to recollect that human figural representation on Nasca ceramics did not represent individuals but focused on specific and important roles, such as farmers.[133]

The absence of genre scenes underscores the belief that all images on Nasca ceramics were spiritual in nature and as such, farmers are added to the list of sacred imagery. It stands to reason that if the categories of profane and sacred were accurate then there would be images that reflect the normalcy of everyday events. In fact, in Nasca ceramics there are no identifiable physical tasks such as traveling, weaving, or other ordinary occupations that would undoubtedly be present in Nasca communities. Why the disparity? Within the same line of questioning then, one must ask why farmers are important if bakers are not. Obviously, the professions chosen for visual documentation serve a highly important purpose and not merely as an observation of the ordinary.

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[132] Proulx, *Sourcebook of Nasca Ceramic Iconography*, 49.

Farmers

Other than the AMB, the most common figure represented with plants is the farmer. They are among some of the earliest figural representations of humans in Nasca pottery and are almost always depicted in rigid frontal or profile poses with their arms turned outward. Their hands are always full of either plants, decorated digging sticks, or both (fig. 28). Although they are usually depicted in small groups or alone, they are not represented in an active task such as planting or harvesting. Farmers remain one of the more easily recognizable motifs throughout Nasca existence since their visual representation does not alter much. Even in their earliest representations they are painted wearing conical hats with dark vertical stitching in the front (fig. 28) and this remains a hallmark of their role through the Nasca seriations. Additional elements that denote farmers include a cloth wrapped at the waist that extends between the legs and attaches at the back (fig. 28). Later, as ceramic styles develop, there are some adaptations, where farmers appear slightly more animated and show signs of abstraction (fig. 29), drawn with exaggerated proportions, widened torsos, and extra-long arms. They are still wearing the stitched conical hat and loincloth to denote their position, but they are not holding staffs of vegetation or digging sticks. Instead, here their hands have grown into a plant-like shape resembling the yuca (Table 6).

The farmer in Nasca ceramic iconography focuses on the role in maintaining the cycle of reciprocity and renewal. As research in food archaeology increases, we are becoming more aware of plants that have "embodied symbolic meanings" that may affect their interpretation.[134] The representation of a specific plant in Nasca iconography must be considered from more than

[134] James T. Watson, and Iván Muñoz Ovalle, "Early Andean Diaspora, Culinary Traditions, and Dietary Continuity in the Periphery," *Current Anthropology* 60*,* no. 2 (2019), 264.

one angle as should the figures that accompany them. Trophy heads are, for all purposes, now seeds themselves and farmers are more than just field workers who occasionally grace the surface of a vessel. Instead, they are active participants in a cosmological continuum, part of a delicate system navigating the world.

The Farmer-Warrior

Before discussing the interesting concept of the Farmer-Warrior, it is important to establish the normal conventions of a warrior in Nasca iconography. Depictions of warriors are most often denoted by the carrying of weapons and/or trophy heads, as well as wearing a cap that is often secured by a head band (fig. 30). More often than not, warriors were shown holding a spear throwing device known as an atlatl (fig. 31) in addition to bundles of long spears (fig. 32). The atlatl is a device used to launch spears long distances and in ancient Peru were "long and cylindrical [with] a fingerpeg attached to the proximal end which distinguishes it from most other spearthrower types. The fingerpeg is often made of wood, stone, or bone, and the hooks are made from shell, bone, stone, or copper."[135] In *Warrior Holding a Trophy Head and Atlatl* (fig. 30) the warrior is holding an atlatl in his right hand while clutching a trophy head in the left. On the back of the vessel, another trophy head is depicted as if being carried on the back of the warrior. These standard elements found in warrior motifs are also found in figures that defy simple labels and will be referred to as a farmer-warrior.

The combining of warrior and farmer elements produces a hybrid figure that contains symbolic elements of both (fig.33). Although *Farmer-Warrior with a Bountiful Harvest* is an excellent example of the conjoined elements, it is not alone. There are multiple vessels with

[135] Zachary R. Critchley, "The Art of the Spearthrower: Understanding the Andean Estólica through Iconography," (Phd. diss. Binghamton University, 2018) 14.

representations that depict warriors dressed in the same conical hats as farmers, further blurring the lines between the roles. Considered from an ontological perspective however, this hybrid figure is not completely surprising. The Nasca farmers were already figures who represented the important act of planting and tending that allowed continued reciprocity between natural forces and deities to maintain the status quo. Warriors are depicted with weaponry and most often seen with trophy heads, which have been established as metaphoric seeds that would be "planted" in the ground. Combining the two results in a figure whose role is part of a cosmological cycle with planting and reciprocity at its core, not really farmer or warrior but possibly a combination of the two even if only symbolically.

Farmer-Warrior with a Bountiful Harvest (fig. 33) was crafted as a bottle that is wider and round at the bottom, tapering upwards ever so slightly to a shaped head. The shaped head is immediately identified as the focus of the vessel owing to its three-dimensionality as well as its location at the top of the bottle. Because the eye of the viewer is immediately drawn to the head, the first element one identifies with the figure is the conical hat with vertical stitching, that of a farmer. After recognizing the figure as a farmer, the tattoo markings on the cheeks may come as a surprise. These are bilateral and are a simple black ring with a black dot in the middle. Tattoo facial markings are not uncommon in Nasca art but are more often found on other figures such as warriors. However, it is possible this circular motif was chosen as a representation of seeds, again bridging the gap between warrior and farmer.

From the front, the figure is seen dressed in a tunic, rather than the traditional loincloth of a farmer. To add further surprise, the farmer, who was established as a farmer by his hat, is not holding the normal elements of painted digging sticks or vegetation. Instead, his arms are bent inward in a position of alert readiness, clasping a thick atlatl in his right hand and three long

spears in the left. Turning the vessel, one prepares to see trophy heads, the normal bounty of a warrior however, it is not a load of trophy heads but instead, the figure's bag is filled with plants. This is the bounty of a farmer, not a warrior, and yet now that the back of the head is also visible, we find a sling rests there as it does in so many iterations of warriors.

To modern viewers this may seem surprising, but it is unlikely this would have been the case for the Nasca people at the time. Andean ontology has already allowed for the conjoining of images to serve as links to Nasca's agrarian spiritualism. To further understand this particular shift in joining the farmer and the warrior, additional insight may be gleaned from considering the environment. The harsh landscape challenged the Nasca to adapt and to use the idea of reciprocity through offerings to ensure agricultural fertility. However, if one accepts that trophy heads were needed as part of this arrangement, then warriors are also tasked with collecting items to ensure agricultural abundance.

There was a surge of warrior imagery in Nasca ceramics towards the close of N3 and this continued through to N7. Initially, many researchers believed that the inclusion of more warrior icons meant there was an increase in warfare, a likely assumption. However, evidence has arisen from multiple studies that the area was plagued with natural disasters during this time which would have affected the ability to maintain substantial agricultural abundance.[136] In an effort to increase the chances of better crop yields, offerings would have increased, which is supported by stratified excavations at Cahuachi.[137] Among these offerings would be an increased need for trophy heads, and the warriors who collected them. While the assumption of increased warfare

[136] Conlee, "Nasca Culture Integration and Complexity," 238.

[137] Orefici, "The Ceremonial Center of Cahuachi."

may be accurate or not, it is an interesting parallel to consider the need for additional trophy heads in a time when rain and fertility would be desperately needed.

It is no accident that the choice of plants represented on this vessel are those same plants that are substantially represented in other ceramics and likewise found in ceremonial offerings at Cahuachi. There are twelve plants painted onto the vessel, each in pairs, and they are jicama, maize, lucuma, peppers, and peanuts. When one compares these plants to those both used as offerings, and that required cultivation (table 5), the representation of these specific plants makes perfect sense and upholds the belief that plants requiring cultivation are those visually represented on ceramic vessels.[138] The choice of these plants is no more random than it ever was, everyone and everything is a player on a spiritual, sacred stage.

Conclusion

Using Andean ontology to study plant iconography encourages us to remember that these elements play a "fundamental role in rituals, as symbols in these rituals, and in belief systems."[139] The nature of plant offerings and ceramic depictions bring us back to reciprocity and the Andean concept of exchange with deities. Nasca identity was firmly entrenched in the landscape where the living world was comprised of animate forces to be consulted and entreated including resources such as clay and materials used to craft vessels. The expression of this cosmological view found its carrier in the ceramic vessels produced at Cahuachi, and it was at Cahuachi where the Nasca population wanted spiritual forces to govern the "development of nature to favor their crops as well as their own survival."[140] All of these elements come together

[138] Orefici, "Religion in Nasca Culture," 171.

[139] Watson and Ovalle, "Early Andean Diaspora," 264.

[140] Piacenza, "The Role of Plants in Nasca Culture," 117.

as evidence of the importance of the iconography that appears on Nasca ceramics. Each plant depiction is part of what archaeologist Guiseppe Orefici describes as "ritual vision" that includes all figures as well as the animal and botanical worlds that all "contributed to the harmonious system arising from the centrality of the universe, which is the core of the daily life of the Nasca." A pepper was never *just* a pepper, and a farmer was always an actor on the spiritual stage.

Conclusion

This thesis establishes the link between those plants represented on painted ceramics with those that made up the majority of plant offerings found in the religious center of Cahuachi. As a result, plant iconography can and should be considered religiously symbolic in all its permeations throughout Nasca ceramic seriations from Proto-Nasca beginnings to the transitional phases as Cahuachi began to decline. This is an exciting prospect that brings much needed attention to using palaeobotanical data in conjunction with ontology and iconography.

The dating studies completed with Neutron Activation Analysis discussed here were truly cutting edge for their time. The original studies used sherds and clay samples that were excavated throughout the region. The results provided monumental information that was helpful to chronological studies as well as our attempts to understand how Nasca polychrome ceramics moved throughout the region. However, after these studies the current literature has remained quiet even though the technology has continued to remain in use in other archaeology fields. One of the reasons for this may be due to the lack of willingness on the part of museums and collectors to have their Nasca ceramics tested, an expensive prospect and one that does not directly benefit these institutions more than updating a label.

To move forward with the results of these studies and build on them, there is much to be done. Museums and collectors need to be brought into the conversation on dating remains. Provenance is of course a highly important factor in this conversation, but without access to additional vessels, the ability to gather enough data for a truly insightful study remains unlikely. This is unfortunate because the ability to pinpoint the clay sources of these vessels is a window back into time that would allow us to answer the questions about production location and

distribution. In turn, these answers help to more closely recreate the Nasca culture as well as other cultures who came into contact with them.

The same concerns apply to the palaeobotanical data being collected as well. Luckily, data is being collected by researchers from a variety of fields and not just those in art history, meaning the data will, hopefully, remain available in the future. On the other hand, establishing plants in the botanical record is only part of the story, and as in the chemical analysis, more vessels are needed to create a clearer picture. It remains to be seen however if vessels from museums and collections have undergone such thorough cleaning and/or restoration that vital microdata has been lost. Still, for the art historian, scientific data is not the end of the story. Historically, those in our field have used insight into material culture, iconography, and ethnography in an attempt to reach an authentic understanding of those they study.

No study can be complete without adequate respect for the culture's ontological foundations. Using Andean ontology as a methodological tool is not only insightful, but the responsible choice for research. One of the interesting themes that continued to surface during this thesis was the idea of *huacas* relating to natural formations, but also a possible link to created objects of power. Considering this, polychrome ceramics would have existed in the framework to be or become power objects in religious ideology. It is plausible that these vessels were objects of power that may have governed rituals and activities in their domestic settings, an interesting thought for further study.

Plants as a theme of study is only just beginning. The list of plant remains for this thesis only compares those identified on the ceramics with those found in the religious setting of Cahuachi. However, the list of consumed and identified plants is much longer and further work in domestic settings would be helpful to flesh out a more accurate picture of how these plants

were used in Nasca daily life. In addition to this, there are symbols on various Nasca ceramics yet to be identified that are plant-like and require additional attention. One such plant is the pacae and the growing research on Cahuachi suggests the image of this plant was found on decorated tomb walls in the pilgrimage center.[141] It would stand to reason that if this is the case, symbolism will also be found in polychrome ceramics. Art historians and archaeologists take these enticing tidbits in stride and as new data comes to light, we adapt and change course as needed.

[141] Orefici, "Religion in Nasca Culture," 171; Orefici, The Ceremonial Center of Cahuachi."

Tables

Table 1. An Andean chronology detailing the timeline in years, Horizons and Periods.

Dates	Periods
800 A.D. 700 A.D.	Middle Horizon
600 A.D. 500 A.D. 400 A.D. 300 A.D. 200 A.D. 100 A.D. 0 100 B.C.	Early Intermediate
200 B.C.	Early Horizon

Table 2. Comprehensive Chart for Nasca Ceramics

Dates	Periods	Dawson's Ceramic Phases	Stylistic Strains
800 A.D. 700 A.D.	The Middle Horizon	9 8	Disjunctive
600 A.D. 500 A.D.	Early Intermediate Period	7 6	Proliferous
400 A.D. 300 A.D.		5 4	Transitional
200 A.D. 100 A.D. 0 100 B.C.		3 2	Monumental
100 B.C. 200 B.C.	Early Horizon	1	Proto-Nasca

Note: The Andean chronology with Dawson's ceramic seriation sequence, and Rowe's Stylistic Strains.[142]

[142] Proulx, A *Sourcebook of Nasca Ceramic Iconography*, 26.

Table 3. Cultivated, edible plants identified in the Nasca diet.[143]

Common Name	Latin Name	Notes
Achira	(*Canna edulis*)	Also known as arrowroot
Ají	(*Capsicum frutescens*)	Also known as chili peppers
Apple guava	(*Psidium guayaba*)	
Avocado	(*Persea americana*)	
Butternut squash	(*Cucurbita moschata*)	Also referred to as lacayote
Cassava	(*Inga feuillei*)	Commonly referred to as yuca
Jack-beans	(*Canavalia plagiosperma*)	
Jíquima	(*Pachyrhizus tuberosus*)	
Kidney beans	(*Phaseolus vulgaris*)	
Lúcuma	(*Pouteria lucuma*)	
Maize	(Zea mays)	
Mandioca	(*Manihot esculenta*)	Also known as manioc
Pallar bean	*(Phaseulus lunatas)*	Also known as the lima bean
Peanut	(*Arachis hypogaea*)	
Plum	(*Bunchosia armeniaca*)	
Potato	*(Solanum tuberosum)*	
Squash	(*Cucurbita máxima*)	Also referred to as pumpkin
Sweet potatoes	(*Ipomoea batatas*)	Also known as camote
Yacon	(*Polymnia sonchifolia*)	

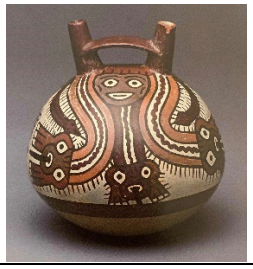
Table 4. The Study Group of Plants

Date Range of Cultivation (BCE)	Most Frequently Consumed	Found in Ritual Caches at Cahuachi	Most Represented in Iconography N1-N3
Around 6000 Maize Between 8000-6000 Lima Bean Pumpkin/Squash By 8000 Beans Chili peppers Lucuma Pacay	Achira Beans Jicama Maize* Peanuts Peppers Potatoes Squash Sweet Potatoes Yuca	Soapberry Squash Seeds Cotton Seeds Chili Peppers Jicama Maize kernels and cornatas Lucuma fruit and seeds Lima Beans Peanuts	Beans Chili Peppers Yuca Maize Jicama Lucuma Peanuts

Table information assimilated and compiled by A. Lange, 2023.

[143] Orefici, and Rojas, "The Nasca and Its Environment," 32-35; Lasaponara, Masini and Orefici, *The Ancient Nasca World,* 113, 339; Webb, White, and Longstaffe, "Dietary Shifting in the Nasca Region," 129–139.

Table 5.

Early Horizon	**Early Intermediate**		
100 BCE-1 CE	1CE – 450 CE	450-600 CE	600-700 CE
N1	**N2/N3**	**N4/N5**	**N6/N7**
Proto-Nasca - minimally incised with pre-fired paint application and large areas of negative space.	**Monumental** Vessels no longer carry incising lines unless they are tiny and confined to small areas. N2 often retains large areas of open space with a painted background. A variety of paint colors are used on single pieces beginning around and after N2. N3 vessels have less open space, where figures are painted larger, and a thicker black line becomes used.	**Transitional** Pottery production was moving away from Cahuachi. Vessels are further divided into bands of colors and depictions. One can also note the beginning trend towards the abstraction and interlacing of figures.	**Proliferous** These vessels are highly abstracted with interlaced forms with little to no negative space. It is possible these were the last to be produced by Nasca artists before being assimilated into other Andean cultures.[144]
	**N2** 	**N4** 	**N6** 
	**N3** 	**N5** 	**N7** 

Note: The vessels created during 700-800 CE, known as the Disjunctive, are no longer readily included as part of the Nasca style, with the complete loss of the most recognizable motifs. It is believed at this time the ceramics were being designed with the influence/assimilation of the Wari or changes from the Loro.[145]

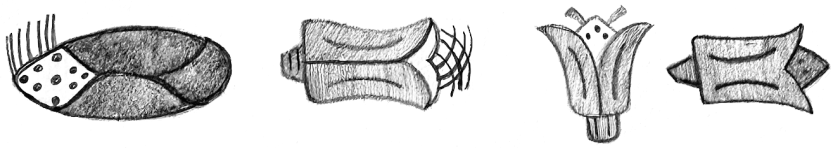
[144] Carmichael, "Nasca Pottery Production," 153.

[145] Proulx, *A Sourcebook of Nasca Iconography*, 46-48.

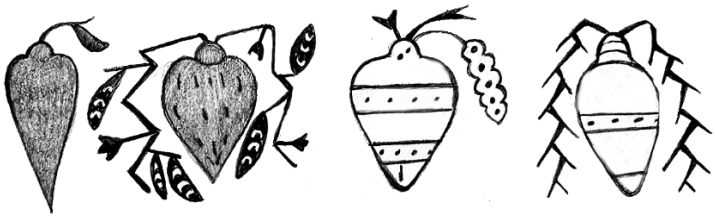
Table 6. Common Nasca Plant Motifs

a. Beans/Seeds

b. Maize



c. Jicama

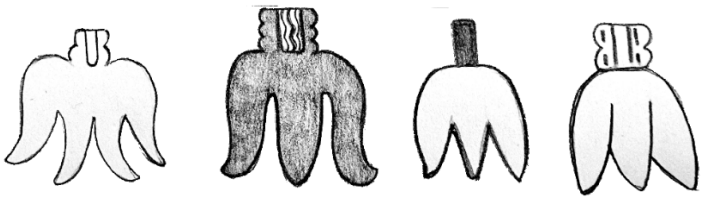


d. Lucuma

e. Peanuts

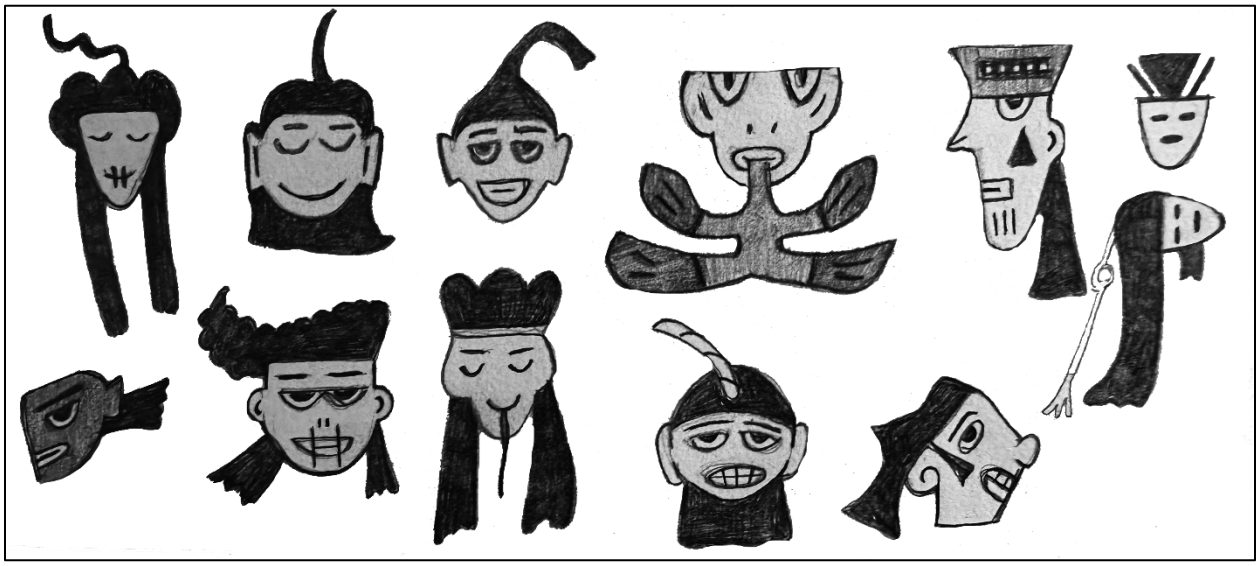
f. Peppers

g. Yucca



Note: Line drawings of common plant iconography found on Nasca polychrome ceramics. Drawings by A. Lange, 2023.

Table 7. Sample Trophy Head Motifs



Note: Line drawings of common trophy head iconography found on Nasca polychrome ceramics. Drawings by A. Lange, 2023.

Figures

Figure 1. *Anthropomorphic Mystical Being with Jicama,* ca 200–400 CE, Nasca, Ceramic and pigment, 13 × 11.4 cm. Courtesy of the Metropolitan Museum of Art.

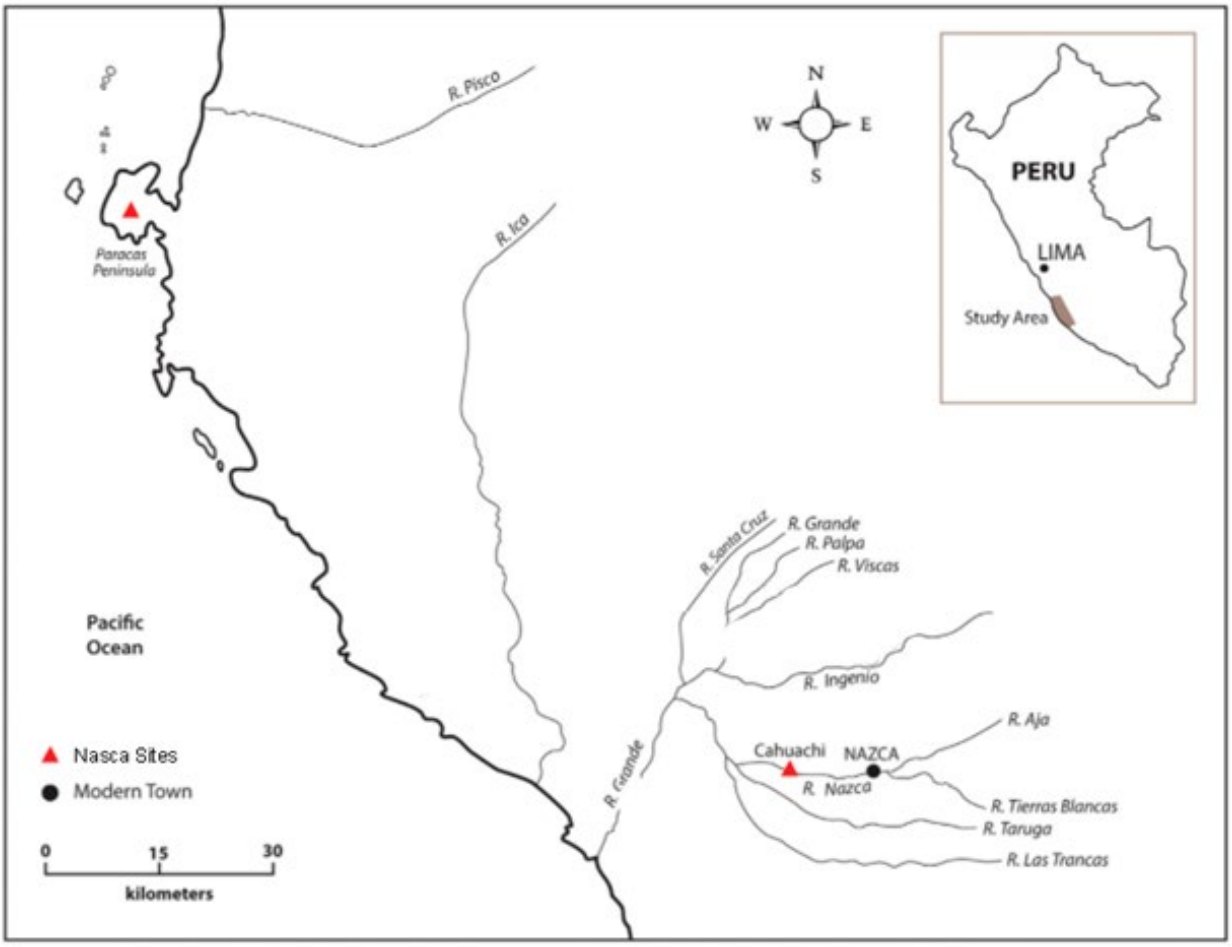


Figure 2. Map of the South coast of Peru showing the regions mentioned in the text, map modified and updated by the author, 2022, A. Lange.

Figure 3. *Bowl Depicting Incised and Painted Abstract Crouching Figure,* 650–150 BCE, Paracas, Ceramic and pigment, 7.6 × 14.3 cm (3 × 5 5/8 in.), Art Institute of Chicago Museum.

Figure 4. *Paracas Vessel X88.832,* ca 800-100 BCE, Ceramic, Paracas, 16 x 15 x 15 cm, Courtesy of the Fowler Museum at UCLA.

Figure 5. *Proto-Nasca Vessel,* Ca 100 BCE, Nasca, Ceramic and pigment, 17.80 cm x 14.70 cm. Courtesy of the Fowler Museum at UCLA.

Figure 6. *Jar Depicting a Feline with Vegetal Motifs Emerging from its Body,* ca 180 BCE–500 CE, Nasca, Ceramic and pigment, 12.5 × 13.5 cm. Courtesy of the Art Institute of Chicago.

Figure 7. *Double Spout Vessel Depicting AMB Tasting a Trophy Head,* 180 BCE-500 CE, Nasca, Ceramic and pigment, 17.2 × 14.9 cm. Courtesy of the Art Institute of Chicago Museum.

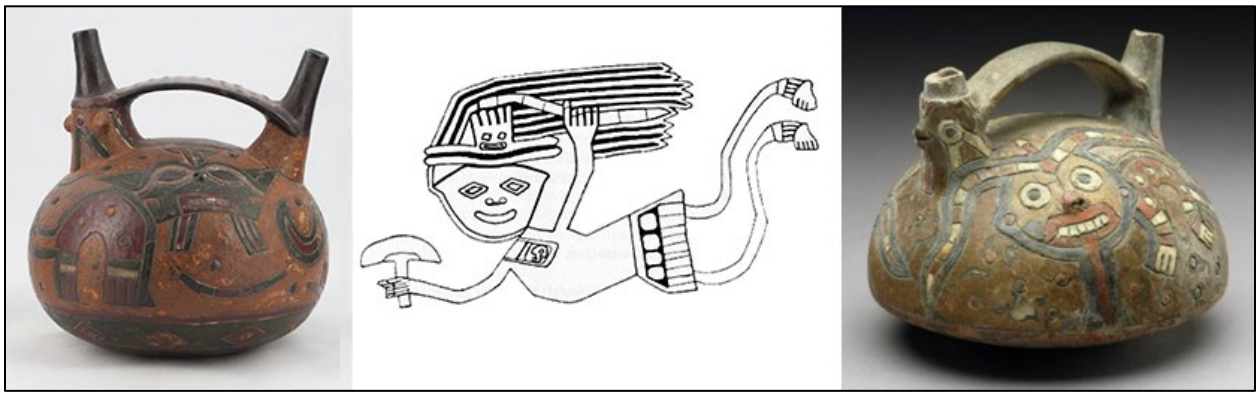


Figure 8. *The Three Deities from Paracas*. From left to right, the feline form, a drawing of the Flying God of Paracas, and the Oculate Being. Composite image by A. Lange, 2023.

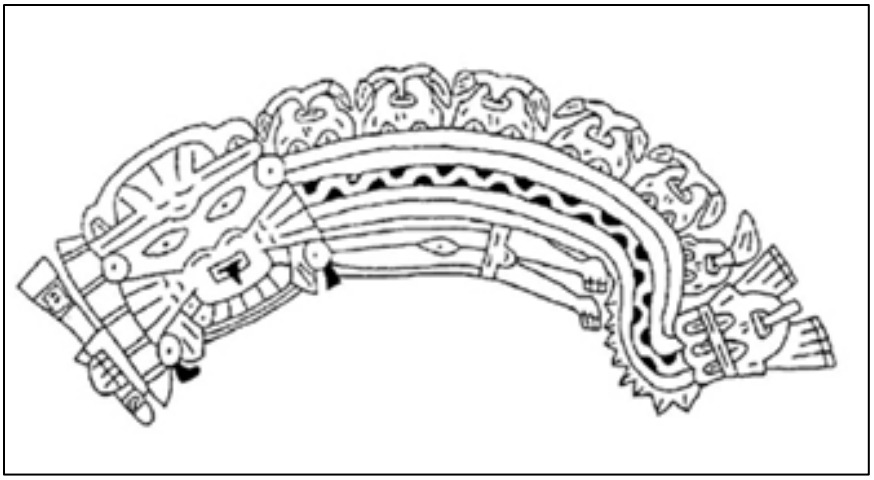


Figure 9. *Anthropomorphic Mystical Being with Sprouting Head Motif 1*, Rolled-out line drawing credited to Elizabeth A. Carmichael, 1994.[146]

Figure 10. *Bean Vessel with Step Design*, ca 180 BCE–500 CE, Nasca, Ceramic and pigment, 19.5 × 15.9 cm. Courtesy of the Art Institute of Chicago.

[146] Carmichael. "Nasca Pottery Production: Retrospect and Prospect," 2020.

Figure 11. *Anthropomorphic Mystical Being with Seed Signifier*, ca 100 BCE – 800 CE, Nasca, Ceramic and pigment, 17 x 18.90 x 10.50 cm. Courtesy of the Fowler Museum at UCLA.

Figure 12. *Nasca Vessel with a Band of Peppers,* ca 100 BCE–600 CE, Nasca, Ceramic and pigment, 17.78 x 14.61 x 14.61 cm. Courtesy of the Minneapolis Museum of Art.

Figure 13. *Double Spouted Vessel: Pepper Design,* ca 100 BCE–200 CE, Nasca, Ceramic and pigment, 17.78 cm diam. Courtesy of the Seattle Art Museum.

Figure 14. *Anthropomorphic Mystical Being with Peppers*, ca 100 BCE–800 CE, Nasca, Ceramic and pigment, 13.5 x 11.5 cm. Courtesy of the Fowler Museum of UCLA.

Figure 15. *Small Bowl with Yuca Plants,* ca 100 BCE–800 CE, Nasca, Ceramic and pigment, 14.30 x 12.70 cm. Courtesy of the Fowler Museum of UCLA.

Figure 16. *Zoomorphic Heads with Yuca,* ca 100 BCE–800 CE, Nasca, Ceramic and pigment, 7.90 x 20.00 x 20.00 cm. Courtesy of the Fowler Museum of UCLA.

Figure 17. *Anthropomorphic Mystical Being with Yuca Tongue*, ca 100 BCE–800 CE, Nasca, Ceramic and pigment, 18 x 15 cm. Courtesy of the Fowler Museum of UCLA.

Figure 18. *Nasca Vessel with Maize,* ca 100 BCE–800 CE, Nasca, Ceramic and pigment, 18 x 8 x 17 cm. Courtesy of the Fowler Museum of UCLA.

Figure 19. *Orange Vessel with Maize,* ca 100 BCE–600 CE, Nasca, Ceramic and pigment, 12 x 8.50 cm. Courtesy of the British Museum, London.

Figure 20. *Deity with Plants and Corn,* ca 100 BCE–600 CE, Nasca, Ceramic and pigment, 15.5 cm. Courtesy of the British Museum, London.

Figure 21. *Anthropomorphic Mystical Being with Sprouting Head Motif 2*, Rolled-out line drawing credited to Elizabeth A. Carmichael, 1994.[147]

Figure 22. *Early Vessel Depiction of Jicama*, photograph, 2018, Luigi Piacenza.[148]

[147] Carmichael. "Nasca Pottery Production: Retrospect and Prospect," 2020.

[148] Luigi Piacenza, "The Role of Plants in Nasca Culture," 106.

Figure 23. *Harvester Vessel,* ca 100 BCE–300 CE, Nasca, Ceramic and pigment, 20.3 x 12.1 x 14 cm, Courtesy of the St. Louis Museum of Art.

Figure 24. *Lucuma Vessel with Vines*, ca 180 BCE-500 CE, Nasca, Ceramic and pigment, 16.5 × 15.9 cm. Courtesy of the Art Institute of Chicago

Figure 25. *Anthropomorphic Mystical Being with Lucuma Tongue*, ca 200CE-500 CE, Nasca, Ceramic and pigment. Courtesy of the British Museum.

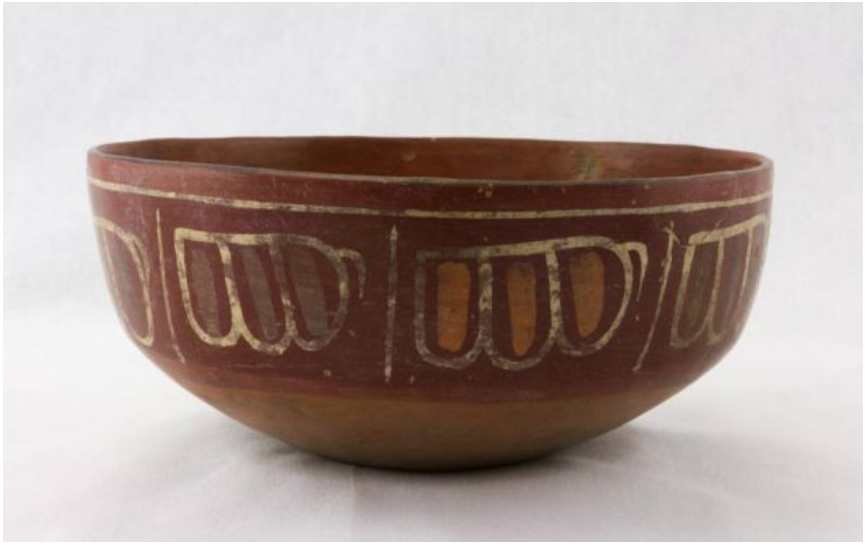


Figure 26. *Early Nasca Vessel with Peanut Motif*, ca 100 BCE–800 CE, Nasca, Ceramic and pigment, 21.60 x 16.80 cm. Courtesy of the Fowler Museum of UCLA.

Figure 27. *Anthropomorphic Mystical Being with Peanuts*, ca. 200-300 CE, Nasca, Ceramic and pigment, National Museum of Scotland.

Figure 28. *Two Vessels of Farmers,* ca 180 BCE–500 CE, Nasca, Ceramic and pigment. Courtesy of the Art Institute of Chicago.

Figure 29. *Farmers with Yuca*, ca 180 BCE–500 CE, Nasca, Ceramic and pigment. Courtesy of the Art Institute of Chicago.

Figure 30. *Warrior Holding a Trophy Head and Atlatl,* ca 180 BCE–500 CE, Nasca, Ceramic and pigment, 17.8 × 10.5 cm. Courtesy of the Art Institute of Chicago.

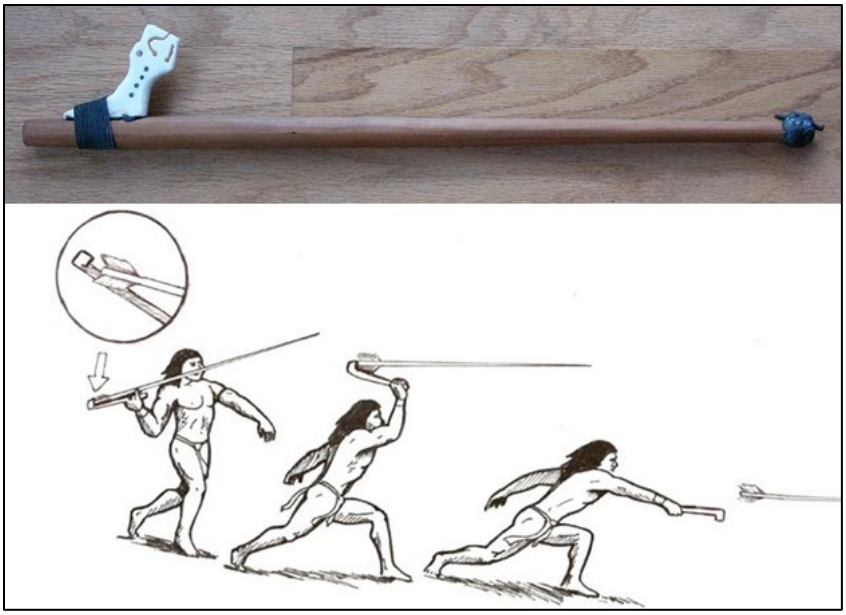


Figure 31. An Atlatl and an illustration showing an atlatl in use, 2018, Zachary Critchley.[149]

Figure 32. *Jar Depicting Hunters with Coyotes, Lizards, Serpents, and Birds,* Ca 180 BCE–500 CE, Nasca, Ceramic and pigment, 16 × 17.2 cm. Courtesy of the Art Institute of Chicago.

[149] Critchley, Zachary R. "The Art of the Spearthrower," 2018.

Figure 33. *Farmer-Warrior with a Bountiful Harvest,* ca 350–500 CE, Nasca, Ceramic and pigment, 14.3 cm. Courtesy of the Art Institute of Chicago.

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