

Deciphering the Nazca World: Ceramic Images from Ancient Peru

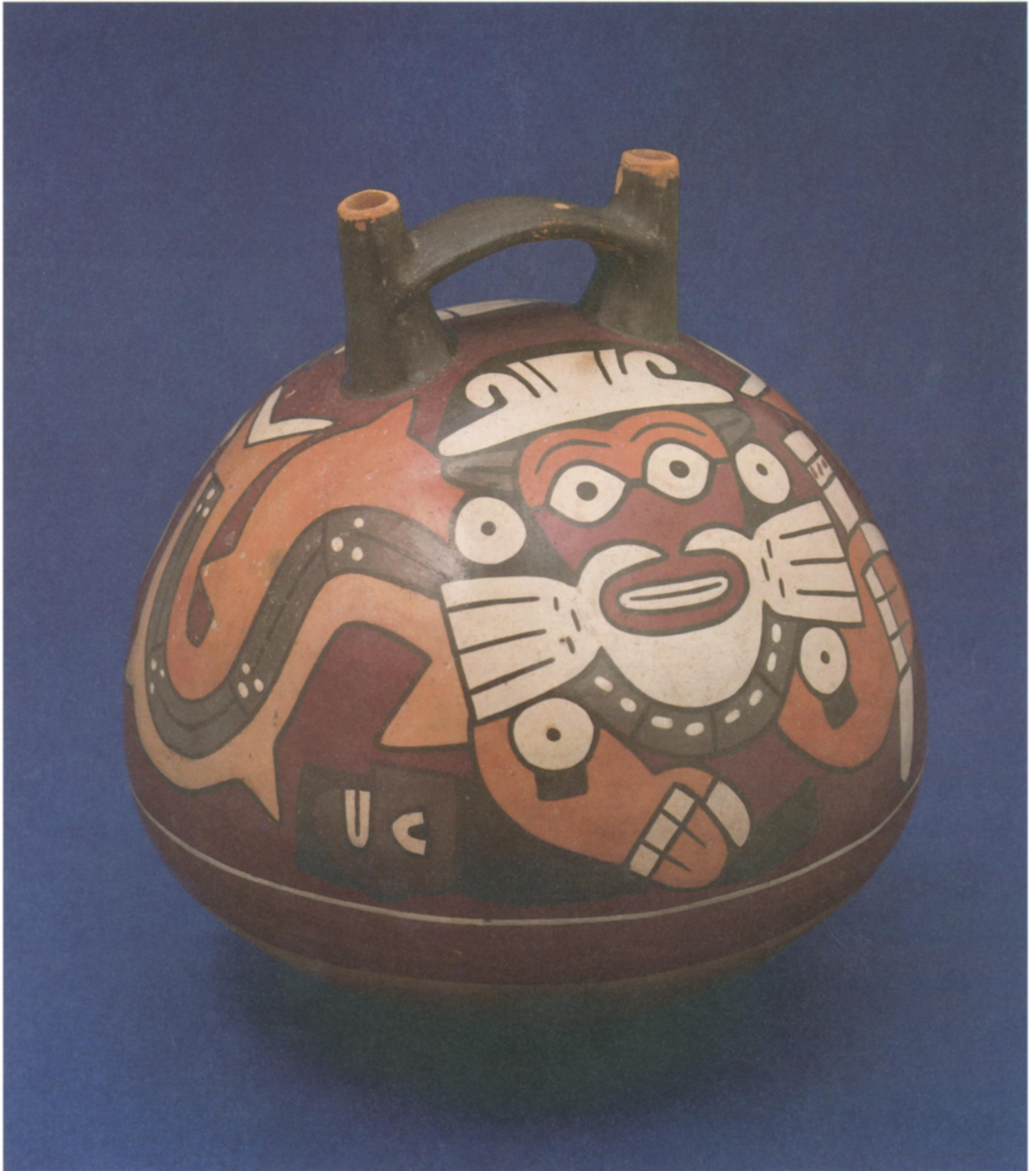
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THE COASTAL river valleys and high mountain basins of Peru were the setting for a succession of cultures that formed one of the New World's most splendid and diverse civilizations, rivaled only by that of ancient Mexico and northern Central America. Travelers who visit the archeological sites of the region are offered glimpses of this ancient cultural and artistic heritage in the spectacular ruins of Machu Picchu, the megalithic walls of Cuzco, and other well-known ruins of the Inca empire. Conquered in 1532 by the Spanish expedition of Francisco Pizarro, the Inca state encompassed a vast section of western South America, along the great Andean mountain chain from Ecuador in the north to the Bolivian plateau and Chile in the south. But, the empire itself was new and still politically unstable, having been formed only during the fifteenth century. Like the Romans, who adopted much from the earlier Hellenistic world and older kingdoms of the Mediterranean and Middle East, the Inca had incorporated ideas, institutions, and symbolic forms from a complex civilization of much greater age. The depth of this cultural heritage is beginning to be known as archeological explorations slowly reveal thousands of years of Andean culture, from remote Ice-Age migrations, the early establishment of coastal fishing settlements and the appearance of agriculture, to the gradual development of cities and elaborate state organizations. Archeological evidence shows that the evolution of this civilization was marked by the interaction of many peoples and by the rise and fall of a succession of regional capitals, states, and extensive empires.

In keeping with this political and ethnic diversity, ancient Andean art displays a broad range of visual languages, with great variety of materials, styles, and themes. The brilliant textiles, precious metals, ceramics, and monumental archi-

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PLATE 1 *Globular jar with pictogram*, c. 115/55 B.C. Earthenware with colored slips; h. 18.57 cm. (1955.2100). Photo: Kathleen Culbert Aguilar, Chicago.

The dating of these vessels is still imprecise: dates given here are approximate. Traditionally, vessels are assigned phase numbers in archeological reports, but they have been deleted here. Unless otherwise noted, all vessels illustrated are from the Nazca culture; are in The Art Institute of Chicago; are of earthenware with colored slips; and have been photographed by Kathleen Culbert Aguilar, Chicago.



ecture produced over many centuries form one of the world's most lively and powerful artistic traditions. Because these arts were manufactured by societies whose intellectual and spiritual life was unaccompanied by writing, their forms fulfilled a basic role in communicating essential cultural information, along with ceremonial dance and orally transmitted poetry and song. Works of art formed part of a set of complex symbolic codes that were easily recognizable to the knowledgeable members of society. The ancient arts of Peru thus are not only meaningful for their sophisticated designs, technical refinement, and expressive qualities, but also because they record historical processes and offer windows to other orders of thought—to ancient ways of looking at the world that are deeply rooted in the cultural traditions of this hemisphere and that continue to affect the lives of millions in Andean nations today.

The Art Institute of Chicago is fortunate in possessing an outstanding collection of Peruvian ceramics, including examples from most of the notable styles of a two thousand-year period, extending from the middle of the first millennium B.C. to the Spanish conquest in the sixteenth century. The ensemble comprises parts of the former Wassermann-San Blas/Nathan Cummings and Hans Gaffron collections acquired by the Art Institute during the late 1950s and early 1960s. Masterpieces from these collections were featured in early books published on ancient Peruvian art, and in Alan Sawyer's well-known *Ancient Peruvian Ceramics*, written when he was the Art Institute's first Curator of Primitive Art.¹ A selection of the finest works in the museum are now on permanent display in the new galleries of the Department of Africa, Oceania, and the Americas. Among the many vessels on view, the group of Nazca ceramics presents an especially striking display of subtle geometric shapes, warm earth colors, and bold surface designs with both representational and abstract imagery. Made in the South Coast region between about 180 B.C. and A.D. 500, Nazca ceramics are widely recognized as one of the most visually appealing and culturally informative Peruvian traditions. Yet they also remain one of the most enigmatic, for studies of Nazca ceramic imagery are only beginning to approach an interpretive phase. Here, we shall look at Nazca vessels as part of a larger symbolic system. The ideas and images encoded by these forms belong to a distinctive culture in a somewhat isolated region, yet they also express themes that have broader implications concerning art and thought in the evolution of Andean civilization.

Approaches to Nazca Art

Nazca artists created a range of vessels that includes spheres, domelike jars, open bowls, cylinders, and figural shapes. Characteristically, closed containers are surmounted by twin spouts bridged by a flat, straplike clay handle. In general, these vessels tend to have simple shapes without modeling, but the smooth, delicately curving surfaces are highly burnished and painted with a great diversity of images. The painted subjects are depicted in flat areas of color, usually bounded by lines, with no attempt to represent volume or depth. If volume was to be shown, it was achieved by using the shape of the vessel itself. With few exceptions, lines are restricted to describing the limit of color areas, and they do not have a separate, expressive life of their own. A rich palette of hues also characterizes Nazca ceramics: as many as twelve colors have been counted, more than in any other New World pottery tradition. Clay slips colored with mineral agents were painted on the terracotta vessel and fired in an oxidation atmosphere to produce colors ranging from deep Indian red, pink, orange, and ochre to violet, slate blue, and black and white.

It is clear that Nazca artists based their imagery on things seen and experienced in the world around them. It was the task of the ceramicist to represent selected features of their environment in figures that are more or less abstract but clearly recognizable (see pl. 2). At the same time, they created composite forms of elements separated from their original natural contexts and reassembled in new, abstract ways (see pl. 1). As we shall see, it is likely that such composite images were pictograms, representing concepts, ideas, or figures of speech. Still another category comprises masked beings with elaborate headdresses and other symbolic objects that refer directly to the religious and economic life of the Nazca region (see pl. 7).

By all accounts, this art describes a time, place, and culture far removed from the urban, technological world that most of us inhabit. Without written texts to help interpretation, it might seem impossible to bridge the gap between ourselves and that distant setting. There is nothing akin to the Rosetta Stone of ancient Egypt to give us the key to deciphering the meaning of these forms, nor is there a body of scriptures, as in Christian art, to explain symbolic figures. Indeed, we do not even know what language was spoken by the Nazca population. We may imagine, however, that the land, its animals, and its plants formed a storehouse not only of economic resources, but also of knowledge, expressed in stories, metaphors, and aphorisms rich in meanings and associations. In this respect, the environment served as a kind of school, providing a background of common empirical knowledge and cultural values. Among the farming people of Nazca towns, where education was not a matter of marked specialization or scholastic privilege, much of the traditional information shared by the community was transmitted as part of normal exchanges between individuals and between households. On festival occasions such as rites of passage or ceremonies of the agricultural cycle, such shared knowledge would be visibly expressed in song, dance, and costumed performances. The problem of approaching the world portrayed by Nazca art is one inherent in the investigation of many prehistoric or tribal arts and must be answered by marshaling clues and evidence from several related disciplines: studies of the natural setting, archeology, the history of art, and ethnology.

Reports on Nazca ceramics have appeared intermittently since the early decades of this century, and several of these form the point of departure for our present inquiry. Based upon archeological information from different sites and on a selection of vessels from the Wassermann-San Blas/Nathan Cummings and Hans Gaffron collections, Alan Sawyer established an outline of changes of style in Nazca ceramics. Elaborating on these observations and citing examples from other important collections, Donald Proulx later presented a more detailed discussion of the distribution of vessel types and their designs within the Nazca region, indicating the development of local styles at different times and places.² Numerous other scholars have identified and listed many of the subjects depicted in the Nazca repertory, such as birds, animals, and plants, as well as composite forms and human types and their activities.³

All of these reports make reasonably clear that, despite the diversity of forms, the appearance of local styles, and shifts in the development of new shapes and designs, Nazca ceramics show no major influence from other Peruvian peoples or radical innovations from within the tradition. Although certain subjects are emphasized at different times, the fundamental inventory of subjects remains relatively constant. The overall impression is one of a stable, conservative art, the expression of an isolated culture that did not experience outside conquest or intervention. But our knowledge of the chronology, styles, and categories of

PLATE 2 *Irregular globular jar with lizards*, c. 25 B.C./A.D. 65 (?). H. c. 16.5 cm. (1955.2096).

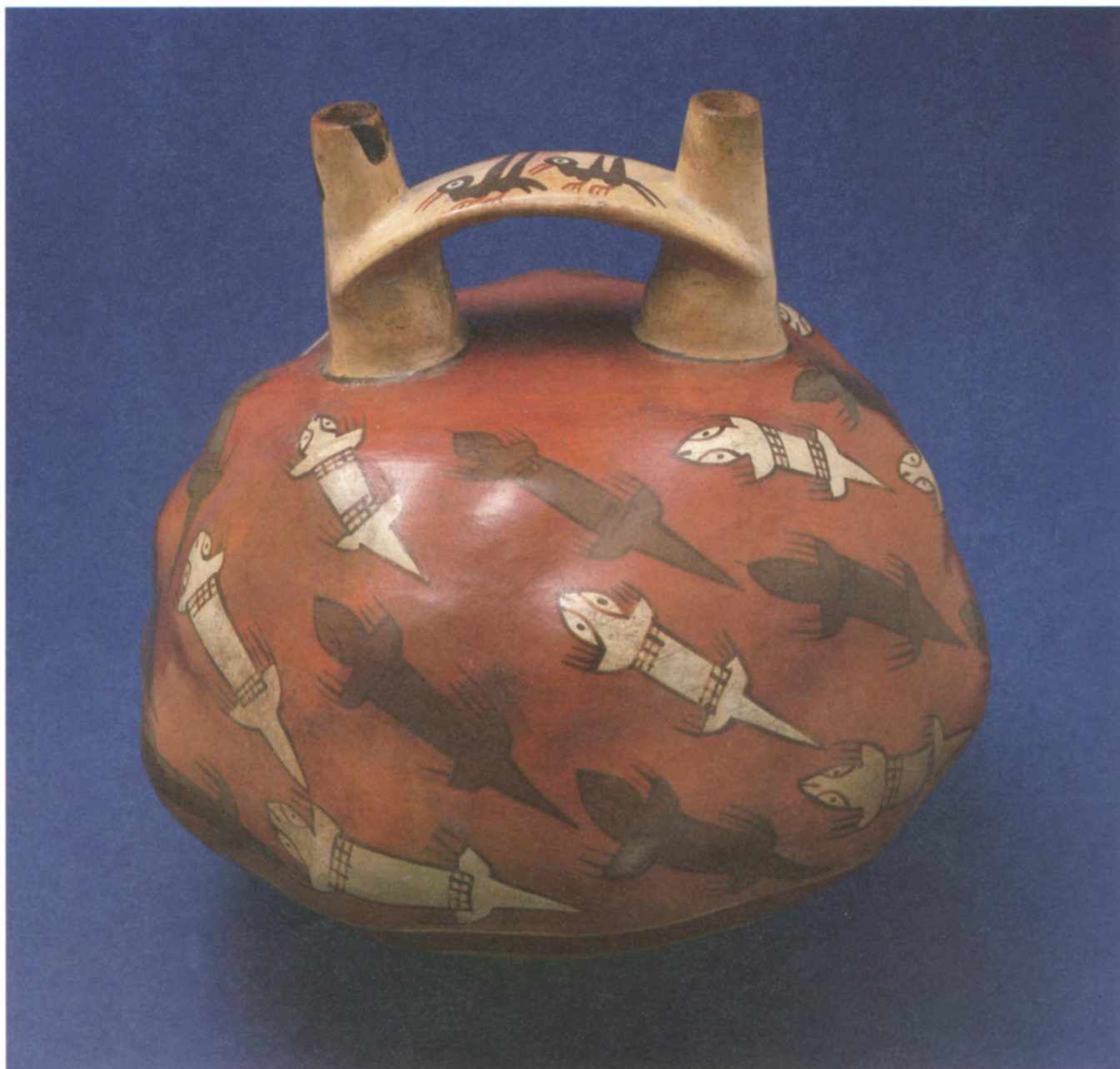




PLATE 3 *Dome-shaped jar with ritual performers, c. 25 B.C./A.D. 65. H. 14.12 cm. (1955.2128).*



PLATE 4 *Warrior effigy with dart thrower and trophy heads, c. 25 B.C./A.D. 65. H. 17.93 cm. (1955.2162).*

FIGURE 1 Map of western South America from Colombia to Chile.



subjects portrayed by Nazca artists does not explain the way in which the different subjects may be interconnected or the order of thought they represent. How was the relationship between plants, animals, and human activity reflected in the imagery of ritual? What outlook on the world surrounded the creation of these figures? What are their underlying messages and meanings? In attempting to answer these questions, we shall see that the ceramics form a code, a cohesive “text” of signs and symbols; when deciphered, the “text” of this pictorial language reveals that the Nazca, like other Indian peoples of the Americas, believed that there was an active, sacred relationship between man and nature. According to this mode of thought, the divine order of the universe was reflected in the organization of society and in all important activities of human life. Thus, the control of water, planting of fields, harvesting of crops, preparations and celebrations of war, inauguration of rulers, and similar communal events had symbolic meaning and were bound, in a ramifying network of connections, to the forces and phenomena of the surrounding land and sky. This connection of cosmological ideas and social processes is a central point of inquiry in approaching the Nazca world.

Landscape and Symbol

Since a large body of the subjects represented on the vessels portrays things seen in the natural setting, an important step in understanding that world is to look at the physical features of the Nazca region and its outstanding archeological monuments. The landscapes of Peru lead inward from the sea in a dramatic sequence of natural environments, from barren coastal deserts to rockbound foothills and the awesome Andean escarpments (see fig. 1). The Continental Divide runs the length of the great cordillera (chain of mountains): the greater part of the water generated by the mountains drains eastward into the vast aquatic network of the Amazon while the Pacific strip west of the Andes receives practically no rainfall. The South Coast inhabited by the Nazca is one of the world’s most forbidding deserts, but two features of this seemingly inhospitable land made urbanism possible. The first is the sea, where vast schools of sardines and other fish thrive in the cold, plankton-rich waters of the Peru current. This abundant source of protein permitted the establishment of settlements and towns well before the appearance of agriculture about 7,000 B.C. The second natural feature is the series of small rivers threading down from distant Andean sources to join the main course of the Rio Grande de Nazca, and, some thirty to fifty kilometers to the north, the Rio Ica. Even though these rivers do not flow for several months of the year and have been known to remain dry for several years in a row, towns have long been established along their banks. In order to supplement the surface supply, systems of underground canals were tunneled to capture and channel existing ground water for irrigation. Even so, then, as now, farming remained ultimately dependent upon seasonal rains generated on the distant Andean peaks. The water supplied by these rains, filtering down through the Nazca valleys, was critical to human survival.

The border between the desert and the sown land in the South Coast river valleys is as sharply defined as in Egypt or Mesopotamia. The sere terrain beyond the green area of cultivation is the place of ancient cemeteries, where well-preserved tombs have yielded huge quantities of pottery and textiles. But little supervised scientific archeology has been done, and the majority of these objects has been recovered by pot hunters (*buaqueros*) from nearby villages who mine

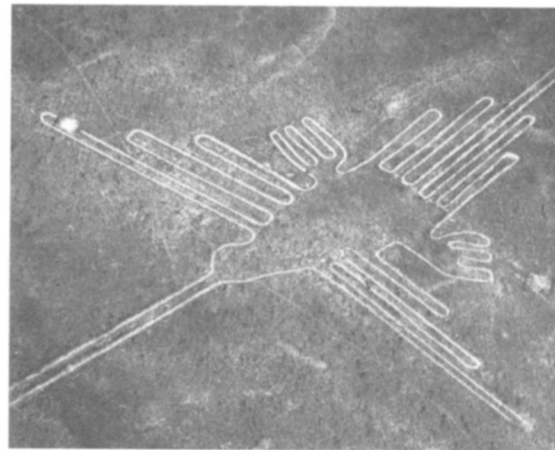
the old burial grounds. The earliest forms of Nazca ceramics spread rapidly around 200 B.C., supplanting local native forms at a succession of places in the Nazca drainage and, soon thereafter, in the neighboring Rio Ica valley. This has been interpreted as evidence of a military, religious, and economic domination that branched out from such major sites as Cahuachi, on the Rio Grande de Nazca, long regarded as the largest ancient civic and religious center. Since September 1984, a new program of archeological excavation has been underway at this major site.⁴

In addition to such urban remains, the region contains one of the most unique and mysterious archeological features of South America, the famous Nazca lines (see figs. 2, 3). These form immense networks of lines, spirals, radial patterns, stripes, and representational figures drawn upon the arid plateaus above the river valleys, especially between the Rio Grande de Nazca and the smaller Ingenio and Palpa rivers, as well as in scattered places along the Andean foothills. The lines were made by removing the darkly weathered surface stones to expose the underlying lighter sand and gravel. Dated to the period corresponding to the manufacture of Nazca ceramics, their meaning has been much debated.⁵ It has been speculated that they functioned as lines for astronomical sightings and as processional ways; and, on a more imaginary level, they have even been interpreted as landing-strips for prehistoric astronauts from outer space and as evidence that the Nazca invented large hot-air balloons from which to look down upon the designs from the sky! Writing twenty years ago, art-historian George Kubler remarked that the lines might be called a kind of architecture:

They are clearly monumental, serving as an immobile reminder that an important activity once occurred. They inscribe human activity upon the hostile wastes of nature, in a graphic record of what was once an important ritual. They are an architecture of two-dimensional space, consecrated to human actions rather than to shelter, and record a correspondence between the earth and the universe, as at Teotihuacan and Moche, but without their corresponding masses. They are an architecture of diagram and relation, but with the substance reduced to a minimum.⁶

Underlying all serious investigation of their function is the notion that the lines represent a correspondence between society and nature. Archaeoastronomers have reported that environmental cycles along the Peruvian coast, such as the local periods of abundant water, the best fishing, or the brief appearance of vegetation in mist-bound foothills of the Andes, formed part of more elaborate regional calendars; and that these calendars were keyed to celestial phenomena that rose, set, or stood at zenith during critical "boundary" times in the seasonal cycles. It is beginning to appear that ceremonial structures such as pyramids and plazas were oriented to such celestial events along the Peruvian coast, and studies are now being conducted to show that certain Nazca lines obeyed such astronomical alignments.⁷

In addition to these inquiries, another recent and convincing study by Johan Reinhardt has shown that many, perhaps the majority, of the Nazca lines are primarily linked to the worship of mountains, water, and fertility.⁸ Mountain worship was, and still is, fundamental to native Andean religions, and must have been so in ancient Nazca times as well. Mountains today are regarded as the lords of extensive domains and guardian deities of wildlife, with special powers governing fertility and regeneration. In this respect, mountains are also worshipped as the home of rain gods, from whom different peoples trace descent. Rain clouds form upon mountains; therefore, in terms of ecology, mountains are indeed sources of life in the Andean world. Reinhardt has presented evidence that certain hills in the Nazca area continue to be worshipped, although they



Top

FIGURE 2 Aerial view of Nazca lines on the desert plateau above the Palpa and Ingenio rivers. Photo: George Kubler, *The Art and Architecture of Ancient America* (Baltimore, 1962), pl. 143.

Bottom

FIGURE 3 Aerial view of Nazca lines showing a hummingbird figure. Photo: Dr. Robert Feldman, Field Museum of Natural History, Chicago.



FIGURE 4 Achira root vessel,
c. 175/25 B.C. H. 17.48 cm.
(1955.2083).



FIGURE 5 Flared bowl with beans,
geometric motifs, and fine-line basketry
pattern, c. 55/25 B.C. H. 7.62
cm. (1955.1886).

may be dry and covered with sand and rock. Although such knolls and outcroppings are far from the cloud-shrouded Andean heights, they are local, topographic icons of those distant mother-mountains. For Reinhardt, a majority of the lines and figures on the desert establish connections with mountains, as direct pathways, as links between related heights, or as identifying signs associated with real or symbolic sources of water.

This interpretation of the Nazca lines is consistent with recent findings at a series of major archeological ruins in the mountainous regions of central Mexico. At the fifteenth-century religious and civic centers of Tenochtitlan and Tetzcotzingo, at sixth-century Teotihuacan, and at Chalcatzingo, which dates from about 500 B.C., there is conclusive evidence that pyramids, temples, and related sculptures were physically and symbolically bound to the local topographic setting.⁹ These major ritual centers functioned as symbolic landscapes where architectural shapes and effigies of nature-gods mirrored the mountains, clouds, caves, rivers, and agricultural products of the surrounding region. Such findings point to an underlying level of ancient Amerindian religion that has not been systematically reported or explained before. The evidence reveals an animistic perception of the world that was tied to the familiar features of local landscapes; an archaic vision that maintained that certain forms and forces were sacred, part of processes in nature that had important correspondences with the sphere of man. In this system of correspondences, earth and water, animals and plants, and the changing cycles of the seasons were part of a cosmic pattern that included the organization of society and all important individual and community activities. Humankind was not passive or dependent, and by carrying out the appropriate religious activity and conducting life in accordance with the order of the natural cycle, man played an active, helpful, and necessary role in the cosmic system. This manner of perceiving the sphere of man as embedded and participating in the processes of nature is profoundly different from the pattern of western, Judeo-Christian thought, which places humankind in a dominant position, closer to a transcendent God than other forms of life in the hierarchy of creation.

Although Peru had no direct historical link with Mexico in antiquity, and ethnographic information concerning mountain worship among modern Andean Indians describes beliefs and practices some 2,000 years after the time of Nazca culture, there is reason to suppose that the design and functions of the Nazca lines were informed by a matrix of related, deeply-rooted notions concerning sacred geography; and that this way of affirming the connections between man and nature also forms the basis for approaching Nazca ceramic art. Contained within an isolated geographic region, the Nazca communities appear to have required an art of restricted themes, principally reflecting their agricultural economy and internal military competition. We do not find portrayals of individuals, no scenes that we might interpret as specific historical events, no subjects of a domestic nature. There is no ready explanation for the restricted range of human subjects in this ceramic tradition, which contrasts with the diversity of activities seen in the art of the powerful Moche empire located in Peru's North Coast. There, ceramics include extraordinarily naturalistic portrayals of individuals, various economic activities and types of occupations, as well as domestic scenes (including a range of erotic activities) and historical or religious events with well-established episodes. The art of the North Coast, often highly sculptural, is one of a cosmopolitan society. Yet, the art of the South Coast river valleys also summons a lively world, and it would be erroneous to think of it in terms of simple economic or utilitarian themes. As we shall see, this was also a highly structured tradition with a rich interplay of meanings, illustrating processes and the relationships of things in time and space.

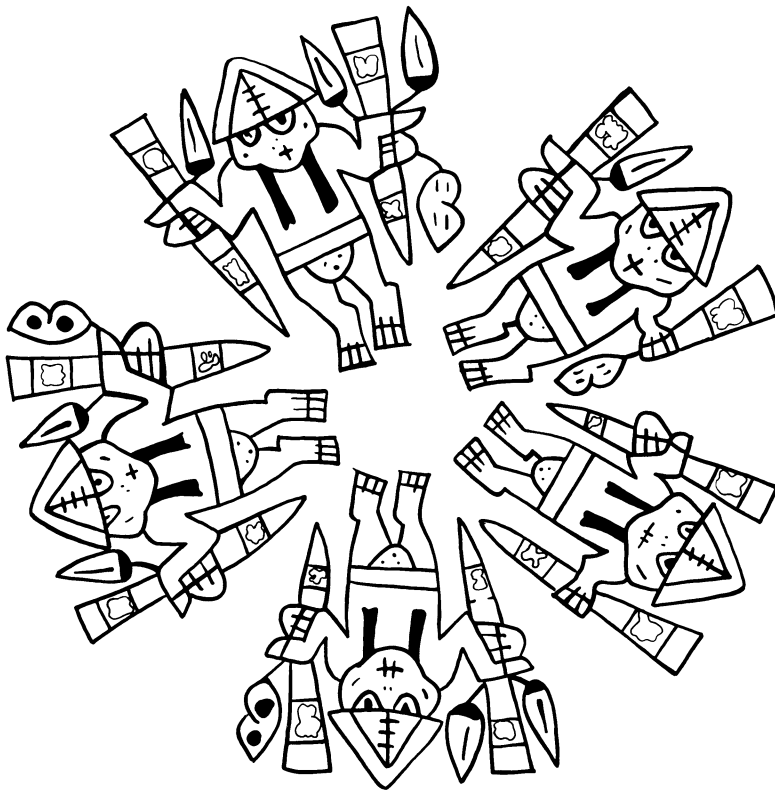


FIGURE 6 *Shallow flared bowl with farmers, c. 25 B.C./A.D. 65. H. 6.2 cm. (1955.1940).*



Fruits of the Earth

By the time the Nazca inhabited the South Coast river valleys, agriculture had become the primary economic base, supplemented by the rich fisheries of coastal waters. The population raised a variety of staple plants, and these fruits of the earth were an important part of the Nazca pictorial vocabulary. An especially appealing vessel in the Art Institute collection represents an *achira* root, one of several starchy cultigens that are still among the basic items of the regional diet (see fig. 4). The modeled shape combines bulbous, swelling forms with a strong surface design of black-and-white serrated lines, while the strap handle and twin spouts are colored a deep Indian red. Another exceptionally fine bowl (fig. 5) shows a highly stylized row of beans painted around the outer rim, while the inside presents coiled basketry drawn with unusually fine lines.

The representation of cultivated plants is often closely tied to depictions of agricultural ceremonies in Nazca art. In the South Coast river valleys, farmers were protagonists in these activities, as shown by the design on a charming bowl in the collection (fig. 6). The composition features five persons engaged in a dance celebrating the first-fruits or the later harvest season. As was customary, human figures are rendered with an almost caricaturelike brevity, and little attention is given to accurate anatomical proportion or detail. Articles of clothing and the objects they hold are meticulously drawn, for they are attributes indicating the position and function of each person in society. A farmer, for example, is always represented wearing a conical hat sewn up the front, a short tunic, and a breechcloth. He also carries agricultural implements, principally a digging stick. In celebration of the harvest, the figures on the bowl also brandish vegetables—beans, peppers, and the cucumberlike fruit known locally as *lúcuma*.

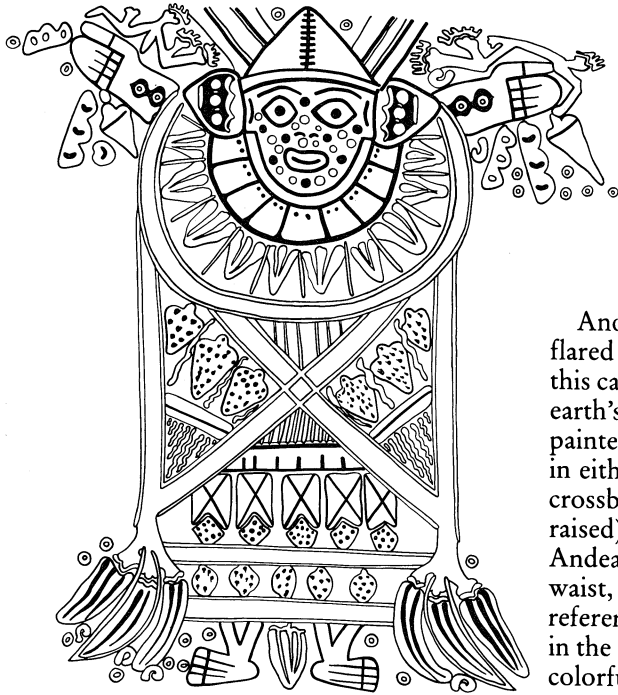


FIGURE 7 *Shallow flared bowl with first-fruits or harvest ritual performer, c. 25 B.C./A.D. 65. H. 10.8 cm. (1955.1929).*

Another, more elaborate representation of agricultural ceremony is seen on a flared cup (fig. 7). The subject again wears the emblematic farmer's hat, but in this case the rest of his complex attire has been especially designed to display the earth's abundance. His face is brightly daubed with red and black dots, he wears painted gourds as ear ornaments, and holds peppers, *lúcuma*, and beanpods high in either hand. His great semicircular collar is bedecked with peppers, and his crossbelt is hung about with *jíquima* (an edible cultivated root now no longer raised) and another root staple, the starchy *yuca* still widely consumed in all Andean countries. Ears of multicolored corn are bound around the performer's waist, and below, between his lower legs and feet, is a great pepper, a humorous reference to a penis and fertility. Seeds are depicted scattered on the ground and in the air. There can be little doubt that the artist who ingeniously wrapped this colorful figure around the simple shape of the flared cup intended to represent a costumed figure such as those who appeared in the public plazas, and perhaps also in agricultural fields, to celebrate the great annual feasts of the Nazca region.



Animals

Nazca ceramic imagery reveals that animals, like plants, formed an important component of the Nazca world view. A broad range of zoological forms were modeled and painted in an equally broad range of styles at different times and places. Each creature depicted had an important property or associational value. Some animals, such as fish, had a practical, utilitarian importance as a source of food; others, especially certain birds, reptiles, and insects, may have had practical use, but they were also symbolically important as reminders of seasonal events. The work of the Russian-émigré naturalist Eugenio Yacovleff was fundamental in deciphering this realm of Nazca art, for he was the first to systematically pursue the identification of the natural species represented on the vessels.¹⁰

The swallowlike *vencejo*, a bird with black feathers, white collar markings, and hairlike whiskers around the beak, frequently appears in the Nazca cast of characters (see fig. 8). Yacovleff observed that these birds are most visible in times of high humidity, when the rivers flow in response to the onset of the rainy season in higher mountain elevations. The increase of moisture also coincides with the resurgence of insects, upon which the *vencejo* feeds. This bird thus heralded the beginning of the agricultural season, and Yacovleff speculated that its appearance may also have been interpreted by the villagers as an augury of good crops.

Hummingbirds, too, are often represented on Nazca vessels (see fig. 9), sometimes in the act of feeding on flowers, probably an indication of their relationship to agriculture. These birds were also highly prized for their irides-



cent feathers, which were woven by skilled women into shimmering garments worn by members of the Nazca aristocracy. Similarly, the appearance of parrots on Nazca ceramics may be explained by their brilliant feathers, as well as by their ability to imitate speech (see fig. 10). Parrots were not indigenous to the region but were imported over the sierras from the Amazon basin. Sea birds of various kinds form yet another major category of Nazca avian imagery (see fig. 11): they aided the fisherman, for the pattern of their flights and sudden dives into the sea revealed the location of schools of fish beneath the surface.

Foxes are among the most widely distributed animals of the Peruvian desert coast, and Nazca painters from all periods commonly represented them on their vessels. On one of the most visually poetic jars in the known body of Nazca ceramics, foxes are depicted among desert cacti, reptiles, and sinuous, mythic creatures (see pl. 5). We shall return to this remarkable pot at a later point, but we may pause here to note how the foxes were represented in profile, with their most distinctive features—long, whiskered snouts; bared teeth; pointed ears; white fur along the belly; and full, bushy tails—caricatured by deliberate exaggeration as in so many other instances in Nazca art.

Above left
FIGURE 8 *Shallow bowl with vengejo*, c. 115/55 B.C. H. 6.99 cm. (1955.1870).

Above right
FIGURE 9 *Shallow bowl with hummingbirds and beans*, c. 115/55 B.C. H. 5.23 cm. (1955.1860).

FIGURE 11 *Sea bird and fish* (drawing), after a dual-spout globular jar, c. 145/115 B.C. (1955.2090).



FIGURE 10 *Shallow bowl with parrots*, 145/115 B.C. H. 5.56 cm. On loan to The Art Institute of Chicago from the Hans and Mercedes Gaffron Collection, Chicago.

PLATE 5 *Irregular globular jar with
desert scene and foxes, c. 25 B.C./65
A.D. H. 19.84 cm. (1955.2137).*



Another frequently depicted land predator exhibits feline characteristics, with spotted and banded gray, white, and black fur, short round ears, whiskers, and a round face with a small nose and large eyes. An example in the Art Institute collection represents this engaging beast (fig. 12). The vessel comes from the early period of Nazca ceramics, when lines were still engraved into the surface rather than painted. There has been some controversy concerning the identification of these animals, and it has been said that they really represent stylized foxes or otters,¹¹ but our example can hardly be taken for a member of the canine species. It is surely *Felis (Lynchailurus) colocolo*,¹² whose range in antiquity certainly included the Nazca drainage. Throughout the Andean world and elsewhere in the Americas, felines were—and still are—highly esteemed not only for their handsome pelts but also for their abilities as hunters. *Felis colocolo*, not much bigger than a house cat, commonly patrols fields in search of rodents and related pests that endanger crops: in this respect, they were important in controlling these damaging populations.

That mice were indeed feared in ancient Peru is a matter of record. Writing before 1630, the Spanish historian Father Bernabé Cobo observed that swarms of mice would periodically descend from the sierra to invade the fields. On yet another vessel (fig. 13), on loan to the Art Institute, such a swarm is depicted using the design convention of repetition employed by the Nazca in order to represent species that occur in aggregations. This pictorial formula can be seen on a number of vessels depicting rookeries of sea birds, clusters of crayfish, or herds of guanacos (a wild relative of the domestic llama).

Like serpents and frogs, lizards undoubtedly had associations with the earth or seasonal moisture that they often had in other Indian cultures. On one of the most beautiful vessels in the collection, groups of lizards are shown in diagonal alignments of alternating white and brown (pl. 2). This spiraling pattern of repeated forms covers the surface of the globular jar whose protuberances suggest the swelling of dunes and hillocks of the lizard's desert habitat. The impression of a natural setting is humorously emphasized by a pair of birds painted on the handle, representing the hovering flight of predators above the land. The marvelous geometry of the vessel's shape, rhythmic pattern of the lizards, and warm, burnished orange color of the background make this one of the masterpieces of the Art Institute's Peruvian collection.

Warriors

In addition to the rites and activities associated with cultivation, Nazca art is strongly concerned with the imagery of war. There is little to suggest outside intervention or conquest in these representations; no foreign prisoners appear, nor scenes of homage or tribute-paying rites that might be linked to dynastic conquests beyond the South Coast region. One can suppose then that war for the Nazca people was internal, a result of competition for control over local resources among highly organized communities within the South Coast river valleys—a speculation that must necessarily await archeological proof. One of the finest examples in the Art Institute represents an elegant warrior bearing implements and trophies of his occupation and achievements (pl. 4). The head is exceptionally well modeled, showing considerable detail. Although the face exhibits a certain individuality, it cannot be called a portrait; nowhere in Nazca art is there anything approaching the strong emphasis on portraiture seen in the contemporary Moche ceramic tradition of the North Coast. The torso of the warrior has been abstracted to a cylindrical form conforming to the shape of the



FIGURE 12 *Felis colocolo* effigy, 370/180 B.C. H. 20.96 cm. (1955.1848).



FIGURE 13 *Flared cup or bowl with mice*, c. 55/25 B.C. H. 6.99 cm. On loan to The Art Institute of Chicago from the Hans and Mercedes Gaffron Collection, Chicago.



FIGURE 14 *Trophy-head effigy*, c. 25 B.C./A.D. 65(?). H. 15.24 cm. (1955.2154).

pot, with only slight protrusions to emphasize the shoulders and the position of the legs folded under the body. All items of costume, as well as the arms and hands, are meticulously painted on the pot's curved surface. The warrior holds a dart thrower in his right hand, with its stone counterweight tied at one end, and a chipped stone to support a tilted dart tied at the other.¹³

The Nazca warrior also holds a severed human head in his left hand, and another trophy head is painted upon his back. Among many Indian groups, the collecting of trophy heads was a variant of scalp taking. The practice was observed not only to prove a warrior's personal victory, but also to obtain for himself and his community a magic talisman in which the power of a defeated enemy was thought to reside. A remarkable example of the trophy-head motif is seen in another Art Institute vessel in which all the features are modeled in realistic detail (fig. 14). The lips are sewn together with two spines, the broken vertebra is visible, and the bloodstained neck and severed flaps of skin are rendered with horrifying accuracy.

Representations of violent sacrificial themes have an ancient history in Peru, occurring as early as on the monumental ensemble at Cerro Sechín, dated to about 900 B.C. (see fig. 15). A wall of sculptural reliefs forms the façade of a temple precinct abutting an imposing hill that overlooks the Casma and Moxeke valleys, far to the north of the Nazca drainage.¹⁴ Engraved figures of standing triumphant warriors alternate with grisly rows of trophy heads, spinal columns, and bisected torsos. It is virtually certain that the ensemble records the theme of sacrifice to the sacred mountain and the idea of nourishing the earth with captives taken on the battlefield in a recycling of life forces. In Andean Indian religions today, the ritual sacrifices of llamas as offerings to mountains remain a fundamental practice.¹⁵

Action on the battlefield itself was commemorated on painted, cylindrical beakers during the late period of Nazca ceramics. One such vessel, finished in the form of a double beaker, is painted with a scene of warriors dressed in short tunics and breechcloths racing across the debris-covered desert (fig. 16). The desert is represented by a dotted mound between each of the running warrior's

FIGURE 15 *Wall reliefs* (detail), Peru, Cerro Sechín, Casma Valley, North Coast, c. 900 B.C. H. c. 250 cm. Photo: Dr. Robert Feldman, Field Museum of Natural History, Chicago.



legs, one of the few motifs borrowed by Nazca artists from the ceramic vocabulary of their distant neighbors, the Moche. Above and around the figures, projectiles fly through the air; and garments, darts, and bloodstained cloths are strewn about in violent disarray. Each warrior carries a baton to which feathers are attached. The caricaturelike quality of the drawing and lively sense of motion convey the exertion, danger, and excitement of action on the battlefield.

Pictogram and Costume: The Language of Ritual Attire

The imagery of war found upon Nazca vessels—battlefields, warriors, and barbaric trophies of triumphant raids—stands in contrast to the implements of farmers, the animals, and the bounty of the land that they also display. Yet, the two spheres of action were strangely interwoven, and it was in the art of ritual costume that these links were visibly expressed. In this category of Nazca representation, as well as in that of pictographic figures, the most colorful and imaginative visual statements were created to proclaim the religious bonds of man and land.

The costumed figures in the Nazca ceramic repertory represent ritual performers. They are characteristically depicted wearing whiskered feline masks, complex headdresses, garments, and jewelry of many kinds. Although figures of this type have been referred to in the literature as mythical beings, imaginary beasts, fantastic personages, or demons, there can be no doubt that they represented actual performers—living, moving cult images on religious festival occasions. Elements of the costumes such as wigs, gold mouth masks, diadems, and related objects have actually been recovered (see pl. 6).

Constituting one of the fundamental, widespread categories of Indian religious imagery throughout the Americas, masked figures appear in cultures much older than the Nazca. The sculpture and goldwork of Chavin and the figured textiles of Paracas, for example, show a wealth of costumed forms. A rare cloth now in The Cleveland Museum of Art and believed to have been recovered

FIGURE 16 *Double cylindrical beakers with warriors, c. 315/430(?)*. H. 17.78 cm. (1955.2008).



PLATE 6 *Mouth mask with feline motif, c. 175/25 B.C.* Gold; w. 12.7 cm. (1955.2609).

FIGURE 17 *Mantle* (detail), from a burial ground in the vicinity of the Paracas Peninsula, c. 25 B.C./A.D. 65. Cotton cloth, paint; 68.6 × 254.2 cm. The Cleveland Museum of Art, The Norweb Collection (40.530).



from the Paracas Peninsula burial grounds, to the north of the Nazca heartland, depicts a procession of these figures, painted in a relatively naturalistic style (fig. 17). Unlike representations of the gods of Mediterranean antiquity that emphasize the human figure, in the New World the human form as such was usually of secondary interest.¹⁶ Extraordinary attention tended to be paid to the masks, garments, and accessories with which the figures were identified, while comparatively cursory treatment was given to bodies, arms, hands, and legs, except as supports for these emblems and items of apparel. The Nazca were no exception to this general rule. A figure in another fine vessel illustrates this point (pl. 3): the body and legs are reduced to abstract appendages below the enlarged mask and headdress, and the arms and hands are similarly conventionalized, holding a pair of trophy heads and a club or baton. The mask is the dominant motif, with its feline-whisker mouthpiece, multicolored necklace, circular side disks, and forehead diadem. Other masklike forms, probably representing trophy heads, comprise part of the headdress down the performer's back. It was clearly the artist's intention to spell out the meaningful elements of costume, making the figure a veritable alphabet of ritual attire.

There is considerable variety in the bizarre, often fearsome costumes of Nazca cult performers, and they have been grouped in related clusters according to elements of dress. Many items of attire are interchangeable, and charting the different combinations is itself a field of study. What did these extraordinary figures represent? What aspects of the Nazca world were they designed to illustrate? Answers to these questions can be found in decoding the pictographic language of this ritual attire.

A pictogram, unlike the image of a plant, animal, or human being, does not represent a physical entity in nature; rather, it abstracts multiple traits and synthesizes them to focus attention on concepts. It is a figural character or symbol representing an idea or perception and its corresponding word or figure of speech. Throughout history, there has been a great range of pictographic forms, including aspects of the hieroglyphic systems of the ancient Maya and Egyptians, which exist as fully developed writing independent of the figural art they accompanied. In other traditions, such as that of Teotihuacan in Mexico, pictographic elements only begin to emerge from the surrounding matrix of

representational art without attaining the articulation and independence of fully developed hieroglyphic writing. Simultaneously, representational imagery has an abstract character that suggests a pictographic function. In these broad respects, Nazca art has closer affinities with Teotihuacan than with the Egyptian or Maya systems. While we do not know what words were used by the Nazca in connection with their visual images, the general ideas and associations to which they refer are within our grasp.

Two vessels from our collection illustrate well how pictographic images are formed. The first represents a fishlike figure (fig. 18), which is not of any identifiable species but a composite creature with shark and killer-whale (orca) elements: a powerful body, spiky dorsal and ventral fins, and a large mouth with aggressive, serrated teeth. The creature also has a human arm and hand, which clutches an abbreviated trophy head. This was not simply an imaginary beast, a fairytale monster of the Nazca imagination, for its elements have been brought together because of specific meanings: the shark and orca are both major sea predators; and the trophy head is a sign of the warrior, chief predator (to the Nazca, at least) on land. Thus, this image carried messages about power and hierarchies, the control of territory, and the ability or function of taking life; it may also have conveyed notions of protection or warning to invaders who might trespass on the Nazca domain. It has been speculated that such images may also reflect an ancient South American Indian belief known as the “Master of Fishes,”¹⁷ which maintained that chief predators such as sharks or orcas assume guardianship over other beasts in their watery domains, threatening anyone who dares displease them but offering protection and a rich bounty to those they favor. On the second vessel, the pictogram is more complex (pl. 1). Again, we find a fishlike body, human hand, trophy head, and club or baton. But, instead of open jaws, the face is masklike, with feline whiskers, forehead diadem, and dangling disks. The energetic, curving body; violent signs of war; and fixed, hieratic mask create a forceful, complex pictogram of chief predators in the animal and human kingdoms.

Other vessels show how the imagery of war was linked to agriculture in the Nazca world. In the first example, an extraordinary design, the artist wrapped a ritual figure around the curving surface of a small flared cup (see fig. 19). Here again is the familiar feline mask and all its accouterments, as well as a trophy head and baton held in stylized hands. The torso is indicated by a striped rectangular garment bordered by a fringe, and a breechcloth appears below, from which the lower legs protrude. The mask is provided with a long train, to which three trophy heads are attached, and which ends in a stylized lizard surrounded by seeds and pods. As the actual performer danced in a ceremony, this lizard—an animal associated with the earth—would have appeared to crawl upon the seed-

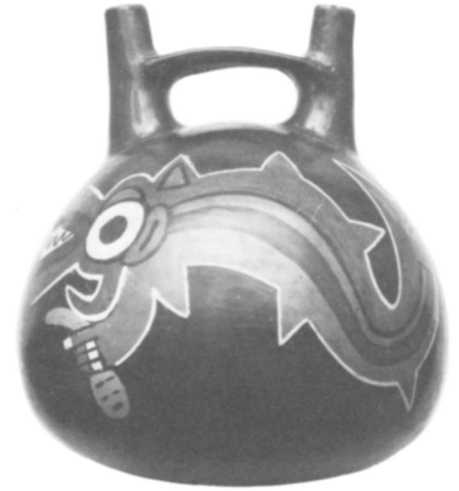


FIGURE 18 *Globular jar with pictogram*, c. 115/55 B.C. H. 17.93 cm. (1955.2097).



FIGURE 19 *Flared cup with ritual performer*, c. 25 B.C./A.D. 65. H. 8.26 cm. (1955.1928).



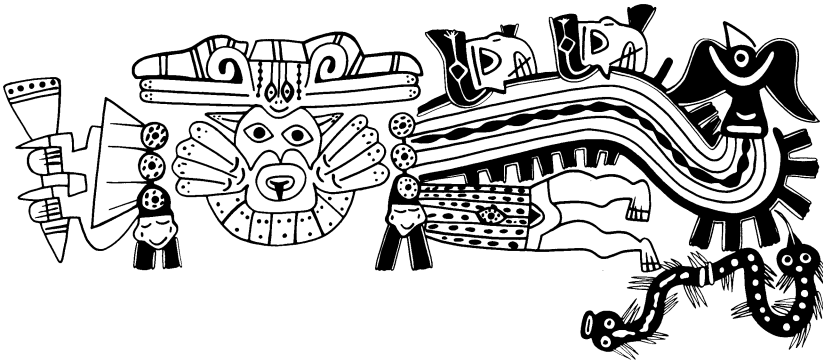


FIGURE 20 *Ritual performer with vencejo headdress* (drawing), after a globular jar, c. 25 B.C./A.D. 65. (1955.2041).

strewn ground. The second example is the decoration of a globe-shaped jar (see fig. 20) in which the figure combines feline and warrior attributes, and all the other customary elements of costume including trophy heads. But, in this case, the mask train ends in a *vencejo*. On the bottom of the vessel, in a position corresponding to the earth, the symbol of the swallow's prey is drawn as a double-headed centipede. We may imagine that, as the performer danced, the swinging train with the *vencejo* suggested the swooping flight of the bird across the fields and areas of cultivation. In both of these examples, animals, agriculture, and the rites of war are linked to life and death.

In an especially strong statement of military and agricultural relationships, the design on a deep, flared-edge bowl (fig. 21) depicts paired performers wearing feline masks, below which abstracted bodies and lower limbs appear. The headdresses are unusually complex: a row of cactus fruit is aligned upon the forehead diadem, appearing again on the flowing train of the headdress. Trophy heads are also featured, with pepper plants and cactus fruits protruding from their mouths. A bizarre touch is included below, where a row of mice is suspended from appendages or tabs. Could these be trophy mice, the prey of felines and symbolic counterparts to the heads of human enemies displayed in an agricultural context above? The association is plausible if not certain, for just as a plague of mice is consumed by the guardian feline, so too are enemies destroyed by the Nazca warrior. A final note of savage ceremony is struck by the warrior's outstretched hands: instead of the usual baton and trophy head, they hold the dismembered halves of a human being. The parallel between this figure and the



FIGURE 21 *Flared cup or bowl with ritual performers*, c. 25 B.C./A.D. 65. H. 9.23 cm. (1955.1934).





PLATE 7 *Matched bowls with ritual performers, c. 25 B.C./A.D. 65. H. of each, 8.59 cm. (1955.1937-38).*

older imagery of Cerro Sechín is especially striking, underscoring the ancient theme of sacrificial covenants that bound man and land.

The earth-cult theme is the subject of an especially elegant and colorful pair of superbly matched bowls in the Art Institute (pl. 7). It is not often that Nazca vessels have a known archeological site provenance, but on one of the vessels a penciled note made in the original collector's hand indicates that it was recovered from Cahuachi. The bowls are identically designed, with ritual performers symmetrically disposed around the outside rims, while the circular bottoms are colored in disks of deep Indian red. As in other examples we have seen, the costumes include feline masks, batons or clubs, and headdresses set with trophy heads. In this case, the heads alternate with spiky elements that may derive from stylized representations of fins on the shark/orca pictograms. The central strip of the train is further elaborated with aligned symbols of *yuca*. The rhythmic design, unusually rich color scheme, and technical virtuosity of these vessels indicate not only the high aesthetic level of Nazca art, but also a sense of ceremonial discipline and the formations of ritual dance.

The last vessel from the Art Institute collection to be discussed has already been mentioned. It is the lyrical jar (pl. 5) whose shape is related to that of the lizard-landscape vessel (pl. 2). As in that earlier example, the walls of the container form protuberances, conventionally associated with the idea of landscape. The surface is painted as a hilly desert, populated by foxes, cacti, and serpents. Other star-shaped motifs are scattered randomly about, probably in reference to sections of the stem of the hallucinogenic San Pedro cactus, and the shadowy, brown background evokes a mysterious nocturnal mood. These motifs pertain to visible, tangible phenomena, but underlying them is another realm of mythic forces, manifested by the two large, centipedelike creatures that traverse the setting. The meaning of these outsized creatures, who resemble waving trains of ritual masks more than they do desert inhabitants, is presently unknown. Might they be visual puns or metaphors, representing the winding irrigation canals with small ditches branching out into the fields?¹⁸ Or could they refer to the huge animals and lines drawn upon the desert? There is no ready explanation now, but at a fundamental level it is possible to see that the figures on this dreamlike vessel speak of a sacred geography, and once again of metaphors and rites through which the Nazca joined themselves to nature and the landscape in which they lived.

Conclusion

Our first response to Nazca ceramics in an exhibition gallery is to the purely visual, aesthetic appeal of the objects. But a more detailed examination soon leads us to new thoughts and visual experiences, as individual vessels show themselves to be components of a larger figural and pictographic system. We cannot decipher this art in all its original complexity or with the certainty that might have come with the availability of written texts. But, by considering the categories of form in the light of available archeological data, local ecology, and known religious beliefs and practices of Andean peoples in the present and past, it is possible to outline the structure of this system of visual communication. The basic categories of Nazca imagery appear to persist throughout the 600-year tradition, despite changes of specific subjects, shifts of local style, and other regional differences. These larger categories of imagery describe the order of the Nazca world.

As we have seen, each vessel may be understood within a larger context of forms, its meaning deriving from the vision of the universe as it was perceived by the Nazca population. However, learning of this structure does not yet answer all the questions, for we are pulled deeper into still unsolved issues. What were the specific uses of these vessels? Why was there seemingly no concern to represent historical events? Why, in contrast to the North Coast, was there no emphasis on portraiture, architecture, domestic life, or episodic scenes of ritual and myth? What is the relationship between this ceramic art and that of Nazca textiles? Such questions may be answered by current excavations at Cahuachi and related sites and burial grounds, by future investigations, and by reflecting on the contours of a world view that the ceramics portray.

Although the unique forms of Nazca art reflect a world that seems isolated in its own time, it can nevertheless be understood in terms of larger patterns of Andean thought and symbolism. Preeminently chthonic (relating to powers of the earth), rooted in an empirical understanding of mountains and waters, the Nazca symbolic system reveals the ancient and enduring way in which Andean Indians have considered themselves in relation to their land. Just as the precarious life of these austere valleys is periodically reborn with the downward flow of waters from Andean slopes, to eventually wither, perish, and be renewed again, so, too, a social and cultural life took shape that participated in and ensured through ritual covenants this eternal return to the beginnings. While our view of Nazca art is still incomplete, it is possible to see that its complex ritual imagery and sacred geography is not entirely that of a fossilized way of life or of an extinct civilization. It represents instead an early chapter of a widespread and still vital cultural tradition with important messages for us today.

A series of pictures rises in the mind's eye upon regarding these powerful ceramic images. In the luminous expanse of the desert, long lines lead toward ridges and heights on the horizon, or converge on vantage points above the cultivated valleys. Shadows reveal the fissures, ravines, and stony outcrops of barren rock formations. In the distance, beyond these bare bones of the earth, pinnacles of the distant Andes rise in pale blue ranges. It is a country of wide horizons, where one is conscious of the huge spaces of land and sky. There is a sense of brooding, primeval quietness in this solitude, and a feeling of the aloofness of the landscape. Below, over the rim of the arid plateau, a valley shows its green patchwork of fields and gardens, a broad meandering riverbed, and blue-green threads of irrigation ditches. There is protection there, sanctuary from the impersonal, alien surface of the surrounding desert. But, the great lines and drawn effigies have made whole sections of that desert vast ritual arenas. On festival days, long formations of barbaric figures move to the cadence of drums and the eerie sound of pan pipes and high-pitched, wailing flutes. The processions of brilliant costumes glitter with metallic masks; headdresses and waving tails move in rhythmic cadence; and sacrificial instruments and bloodstained trophies are displayed in the dancers' hands. These processions, gestures, and costumes call to the mountains and spirits, to the water that flows underground, and to all the organic forms with which human life is bound. The dancers bring the viewer across the border of profane time, beyond the ordinary boundaries of temporal duration, into a mythical time at once enchanted and frightening—a time recalling not the transitory events of daily life, but an order of things that had been established *in illo tempore*, the time of first creation.

NOTES

Special thanks must go to Joanne Berens for her assistance with this article and for preparing the drawings that appear herein. Thanks also to the students who participated in the undergraduate art seminar given by Northwestern University in the spring of 1984: they completed valuable research in the first stages of this project.

1. The Wassermann-San Blas Collection was formed in Peru in the early decades of this century, and was purchased in the 1950s by Nathan Cummings of Chicago. See especially Walter Lehmann and Dr. Heinrich Ubbelohde-Doering, *Kunstgeschichte des Alten Peru* (Berlin, 1924); J. B. Wassermann-San Blas, *Cerámicas del Antiguo Peru* (Buenos Aires, 1938); H. Ubbelohde-Doering, *Kunst im Reiche der Inca* (Tübingen, 1952); and Alan Sawyer, *Ancient Peruvian Ceramics* (New York, 1966).

2. Sawyer (note 1), pp. 123–33; Donald A. Proulx, *Local Differences and Time Differences in Nasca Pottery* (Berkeley, 1968), pp. 92–100. Two earlier and especially valuable studies are: Alfred L. Kroeber, *Toward a Definition of Nasca Style*, *University of California Publications in American Archaeology and Ethnology* 43, 4 (Berkeley, 1927), pp. 327–432; and Anna H. Gayton and Alfred L. Kroeber, *The Uhle Pottery Collections from Nazca*, *University of California Publications in American Archaeology and Ethnology* 24 (1927), pp. 1–46.

3. Four articles by Eugenio Yacovleff are especially important in these identifications: “Las falcónidas en el arte y en las creencias de los antiguos peruanos,” *Revista del Museo Nacional* (Lima) 1, 1 (1932), pp. 35–111; “El vencejo (Cypselus) en el arte decorativo de Nasca,” *Wira Kocha* 1 (1931), pp. 25–35; “La deidad primitiva de los Nasca,” *Revista del Museo Nacional* (Lima) 1, 2 (1932), pp. 103–60; and “La jíquima, raíz comestible extinguida en el Peru,” *Revista del Museo Nacional* (Lima) 2, 1 (1933), pp. 51–66.

See also Luis Valcárcel, “El Gato de Agua, sus Representaciones en Pucará y Nazca,” *Revista del Museo Nacional* (Lima) 1 (1932), n. p.; Eduard Seler, “Die buntbemalten Gefässe von Nazca,” *Gesammelte Abhandlungen zur amerikanischen Sprach- und Altertumskunde* (Berlin, 1923), vol. 4, pp. 160–438; and A. Sawyer, “Paracas and Nazca Iconography,” *Essays in Pre-Columbian Art and Archaeology* (Cambridge, Mass., 1961), pp. 269–98.

Much of this information has been effectively summarized in a recent catalogue of Nazca ceramics in the Museo de Américas, Madrid. This useful publication presents the pottery in chronological order, with commentary on stylistic development and the identification of iconographic motifs and themes. See also Concepción Bosqued Blasco and Luis Javier Ramos Gomez, *Cerámica Nazca* (Valladolid, 1980).

4. This program is being conducted by Helaine Silverman of the University of Texas, Austin, and Miguel Pazos and Enrique Bragayrac of the Museo Nacional de Arqueología y Antropología, Lima. A sketch plan of Cahuachi was published by William D. Strong in “Paracas, Nazca, and Tiahuanacoid Cultural Relationships in South Coastal Peru,” *Memoirs of the Society for American Archaeology* 13 (1957), pl. 4.

5. A summary review of the literature on this subject will be included in Johan Reinhardt, “The Nazca Lines, Mountain Worship, and Economic Production,” *Boletín de Lima* (forthcoming).

6. George Kubler, *The Art and Architecture of Ancient America* (Baltimore, 1962), p. 286.

7. See Gary Urton, “Astronomy and Calendrics on the South Coast of Peru,” *Ethnoastronomy and Archaeoastronomy in the American Tropics* 385 (1982), pp. 231–47; Phyllis Pitluga, “The Ancient Nazca Markings,” lecture presented to the Chicago Archeological Society, February 24, 1985.

8. Reinhardt (note 5). See also idem, “Las Montañas Sagradas: Un Estudio Etnoarqueológico de Ruinas en las Altas Cumbres Andinas,” *Cuadernos de Historia* 3 (July 1983), pp. 27–61. For an especially valuable explanation of mountain worship in a modern

Aymará community, see Joseph W. Bastien, *Mountain of the Condor: Metaphor and Ritual in an Andean Ayllu* (St. Paul, Minn., 1978).

9. Richard F. Townsend, "Pyramid and Sacred Mountain," *Ethnoastronomy and Archaeoastronomy in the American Tropics* 385 (1982), pp. 37–62.

10. See Yacovleff citations (note 3).

11. Blasco and Gomez (note 3), pp. 96–97.

12. See C.A.W. Guggisberg, *Wild Cats of the World* (New York, 1975), pp. 101–02. Special thanks for assisting in this identification go to Dr. Bruce Patterson and Dr. Philip Hershkovits, Department of Mammals, Field Museum of Natural History, Chicago. Several specimens of *Felis colocolo* in that museum's collection display the distinctive banded legs and spotted backs seen on the Art Institute vessel and on other felines in Nazca ceramic imagery.

13. When the projectile is fitted into position and the thrower held as an extension to the arm, considerable velocity and distance are added to the throw. Such implements have a long history, greatly antedating bows and arrows in the Americas. Dart throwers are still found in use among such peoples as the Australian Aborigines, whose basic technology has been handed down since Paleolithic times.

14. Kubler (note 6), pp. 238–39.

15. In the high mountains of Peru and Bolivia, the slopes and fields of many communities are dotted with *apachetas*, small stone or earthen shrines where such offerings are regularly made. See Bastien (note 8), pp. 51–83.

16. For a discussion of ritual costume imagery in Aztec art, see R. F. Townsend, *State and Cosmos in the Art of Tenochtitlan* (Washington, D.C., 1979), pp. 23–36.

17. An excellent discussion of the "Master of Fishes" theme appears in Patricia J. Lyon, "Female Supernaturals in Ancient Peru," *Nawpa Pacha* 16 (1978), p. 126.

18. Personal communication with Dr. Alan Kolata, Department of Anthropology, University of Illinois, Chicago. Dr. Kolata has conducted excavations at Chan Chan on the North Coast of Peru, and in the vicinity of Tiahuanaco, Bolivia. The pattern of ancient irrigated fields in relation to main water channels is similar to that of the feet and body of our painted Nazca creature.