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BATS IN SOUTH AMERICAN ICONOGRAPHY¹

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For some years, I have been compiling information for a compendium of animals that are outstanding in Pre-Columbian iconography, to be presented with an attempt to understand the reasons for their significance to Pre-Columbian peoples through examination of iconographic and archaeological contexts, ethnohistoric and ethnographic information, and the natural history of the genera. Animals vary in importance and meaning from region to region, but, in both past and present, they have been significant as creatures who share the environment with man and embody qualities meaningful to man. Gerardo Reichel-Dolmatoff (1949-1950: 261) has written: "*Para los Kógi no hay línea divisoria estricta entre hombre y animal.*" This is evidently true throughout the indigenous New World. In recent folk literature, a man or a woman may be married to an animal, or have a relative who is an animal; the hero of a tale may start out as an animal and later be described as human, or vice versa; some tales specifically describe transformation. Animals can be lovers or demons, helpers or killers, creators or destroyers; they can own trees and streams, and be associated with sky, earth, agriculture, life, death, and shamanic power. That a similar situation existed in ancient times is indicated by the quantity and quality of animal forms in art, the equivalence of human and animal figures who take the same poses and wear the same garments, and the quantity of anthropomorphic animals that are shown. Man depicted animals with emphasis on their dominant traits and projected onto these animals associations of identification, need, emulation, and fear.

One widely significant creature is the bat, which is shown in various forms and media in many styles of Pre-Columbian art. While some Pre-Columbian representations of bats are realistic (Lapiner 1976: figures 264, 265; Lehmann 1924: plate 60), more often they are stylized or anthropomorphized; certain bat attributes may be added to human figures but are rarely combined directly with nonhuman creatures. Nonnaturalistic forms can usually be identified as part-bat by: large ears; a squarish, gaping mouth; prominent dentition; wings; and/or a nose leaf. Most bats in PreColumbian art have a nose leaf.

The Common Vampire Bat, *Desmodus rotundus*, surely one of the most important bats iconographically, belongs to a subfamily of the Phyllostomidae (Hill and Smith 1984: 3), New World "leaf-nosed" bats who emit their echolocation pulses nasally. Other notable genera of the Phyllostomidae are *Vampyrum*, the False Vampire Bat, a carnivore and the largest New World bat; *Glossophaga*, nectar- and pollen-eating bats; and *Carollia* and *Artibeus*, fruit-eating bats. Bats are most profuse in tropical lowlands, where, in the New World, they constitute the main mammalian biomass (Howell 1983: 473). In the forests of South America, there are more bats, both in individual numbers and numbers of species, than in any other part of the world (Rodríguez 1978: 94). These are also bats that are particularly interesting and various in behavior--feeding patterns, for example.² The range of the bats listed above overlies, in rough outline, the range of the high Pre-Columbian cultures.

Pre-Columbian bat imagery is concentrated in certain areas, however, while it appears to be scarce or lacking in others. In the Central Andes, it is most frequent in Mochica art, on the north coast of Peru. In the northern Andes, it is common in cultures of coastal Ecuador and in the art of two regions of Colombia--the Department of Tolima, in the southwestern part of the country, and the Santa Marta Peninsula, in the northeast. Somewhat farther afield to the east, it is found on the upper Xingu, where bat-head *adornos* were common ca. A.D. 770 (Lathrap 1970: figure 25), and in Venezuela and the Antilles and Lower Central America, where there is a plenitude of bat imagery.

While there is not necessarily a strict correlation between indigenoussness and importance in iconography, there does seem to be some correlation between importance in iconography and the altitudes and climates at which populations of particularly significant bats can survive. Along the west coast of South America, bats are prominent in iconography from about the Nepeña Valley to the Bay of Caraquez, that is, the coasts of northern Peru and of Ecuador. In Colombia, bats figure particularly in the imagery of the Tairona, who lived on the slopes of the isolated Sierra Nevada de Santa Marta, at altitudes of about 1000 m. above sea level (Reichel-Dolmatoff 1965: 142); bats appear also in quantity in the Tolima style of the Middle Magdalena Valley.³ This wide valley, although channeled by the cordilleras and not far from snow-capped peaks, is only about 200-500 m. high along the river bed, with upward slopes at about 500-1000 m., and some archaeological sites perhaps as high as about 1500 meters. A number of sites in the Department of Tolima are not far from the Lower Magdalena Valley (Pérez 1958b: figure 4), which is approximately at sea level, a long green finger on the map, reaching inland through the mountains from the north. These archaeological regions are generally under 2000 m. high, and their lower territories would be considerably below that.

There is a rough correspondence between altitude range and latitude range of bat species. In general, temperate-climate bats and bats of higher altitudes are insectivores. Near the Equator, tropical bats might be found at slightly higher altitudes than the same species in Mexico and Central America, although this does not always seem to be true in the available information.

The data presented below are the maximum altitudes that I have been able to find reported for presence of the species.

One of the more valuable and interesting insect-eating bats, *Tadarida brasiliensis*, the Guano Bat, of the family Molossidae, has been found in Mexico at about 2700 meters (Villa-R. 1966: 442-444); thus far, it seems not to have been reported above about 1800 m. in the Andes (Tuttle 1970: 79; see also Graham 1983: 571). The Common Vampire Bat, "probably the most diverse, ecologically, of all Peruvian bats" (Tuttle 1970: 54) has been found in the Andes above 3000 m. (ibid.: 56, 76; McNab 1973: 141; 1982: 192); it has been reported in Mexico at 2300 meters (Villa-R. 1966: 325). These findings at high altitudes seem to be exceptional, however, for, although there is prey at higher altitudes, it has been demonstrated in the laboratory that *Desmodus* cannot take in sufficient food to maintain its body temperature in cooler environments (McNab 1982: 191). In a temperate climate, *Desmodus* would have to eat twice as much as it consumes in the tropics, and the increase in weight would inhibit flight (McNab 1973). Bats seen above about 3000 m. are thought to be usually visitors

from lower altitudes; timberline is a barrier to bats, although a few species have been found at about 5000 meters (Hill and Smith 1984: 128). *Vampyrum spectrum*, the False Vampire Bat, an impressive carnivore, with a wing-span of about 80 cm., has been reported only as high as 1000 m. in Peru (Graham 1983: 570); specimens are rare in that country (Tuttle 1970: 67).

Fruit- and nectar-eating bats are, in general, relatively low-altitude animals. The widely distributed frugivore *Artibeus jamaicensis* has been found in the Andes as high as 1400 meters (Graham 1983: 563) and in Mexico at about 2000 meters (Villa-R. 1966: 296); the rarer *Artibeus harti* has been reported in Peru at 3,500 meters (Graham 1983: 570). *Carollia perspicillata* ranges to only 1000 m. in Costa Rica (Fleming 1983) but has been found in Peru at 1700 meters (Graham 1983: 570). The nectar-and-pollen-eating *Glossophaga soricina* (which is, in fact, omnivorous) is found in Peru as high as about 1900 m. (Tuttle 1970: 67).

It seems significant that the cultures in whose art bats were featured were those of peoples who lived below 2000 meters. The South American regions where bats are important iconographically are regions where these bats might range. Bat imagery is not prominent in all the geographically possible places, but the regions where it does appear are places where interesting (that is, in general, non-insectivorous) bats might be found in some quantity. Bats take somewhat different roles in these cultures, or different aspects are emphasized.

Desmodus rotundus, the Common Vampire Bat, is found on the north-coast desert of Peru, where it can feed on sea birds in places that are completely devoid of water or vegetation (Tuttle 1970: 54). In northern Peru, there are two trans-Andean passes in the Central Andes at about 2000 meters, through which some species of bats that exist on both sides of the mountains are thought to have crossed. It would be possible for a bat to cross the mountains in a single night. *Desmodus* and several other species that are found both east and west of the Andes could cross as far south as Cajamarca; beyond this, the passes are too high to be crossed by bats (ibid.: 54-57). *Artibeus jamaicensis*, which is also found on both sides of the mountains, is thought to have come to the west coast from the north (ibid.: 60-61). Specimens of *A. jamaicensis* have been taken in the Department of Lambayeque.

The north coast of Peru is one of the regions where bat iconography is particularly prominent. On Mochica pottery (as well as on contemporaneous Maya vases and in later Central Mexican codices), an anthropomorphic bat is an agent of human sacrifice, with a knife in one hand and a human head in the other (Figure 1).⁴ The proportionate sizes of the large bat and the small human head indicate supernatural status for the bat, and the throne on which he sits symbolizes his power. Sometimes a Mochica anthropomorphic bat carries a warclub and a small human captive, who is about the size of the club, or smaller (Figure 2; Lumbreras and Rosas 1975: F/188). By far the most common in my sample of Mochica anthropomorphic bat effigies are those holding pottery (Figure 3; Donnan 1978: figure 238), which I believe to have funerary connotations (Benson 1975). The pots shown with these images are usually stirrup-spout vessels--the ceramic form of the highest status--and dippers. Two Presentation Theme depictions bridge the sacrifice-pottery gap: on a vessel, an anthropomorphic bat is shown as a sacrificer (Donnan 1978: figure 241); in the Pañamarca mural, a similar bat holds a goblet, which, presumably, contained sacrificial

blood (ibid.: figure 243). Anthropomorphic bats often have priestly or warrior's costumes or attributes. The tied headdress, shift, and scarf of Figure 3 are worn elsewhere by human figures with pottery who apparently assist in burial preparations and perhaps escort the dead to the other world (Benson 1975). Figure 2 wears a warrior's helmet--indeed, a helmet sometimes worn by supernatural warriors. These attributes are surely related to the sacrificial role. In scenes of the coca ritual, which took place at night and involved human sacrifice, a supernatural figure may be accompanied by a plate-metal bat effigy (Donnan 1978: figure 183).

The figures in the Presentation Theme, including the bat, probably have astronomical identity, but it is very difficult to pin these down (Benson 1985a, 1985b). In Loma Negra metalwork, a bat appears with a crescent, presumably the Moon (Lapiner 1976: 454). In the iconography of Loma Negra and Vicús, at least some of the so-called Moon Monster gold objects and vessels may be part-bat, as noted by Alan Sawyer (1968: nos. 87, 105, 292).⁵ Some effigies have large, batlike ears, what seems to be a stylized nose leaf, and bat dentition (see Donnan 1978: no.149; Katz 1983: no. 20; Lapiner 1976: figure 252). It is unlikely that the bat is the Moon itself, however; the relationship may be largely one of nocturnalness.

The sacrificial character of the bat is found also in knife-shaped objects of batlike form found in Colombia. These come from scattered proveniences (Bray 1978: nos. 334, 392, 393; Pérez 1965: plates 246-253; Plazas and Falchetti 1983: 26), but those of the Tolima style are the most common and obvious in form (Figure 4; Bray 1978: nos. 444-447; Pérez 1958a: plates 1, 2, 18, 34-36, 62, 70, 73, 82, 83). Pérez also calls "*quiropteriformes*" the more complex Tolima pieces that have wings, openwork bodies, and forked tails (ibid.: plates 8, 22-24, 61, 87-89; Pérez 1958b: plate IV, figures 11, 17).

Erika Wagner (1967: 53-57; 1971: 23-25) reports bat images associated with death rites and burials in archaeological contexts in Caribbean South America and the Antilles. A Taino ballcourt in Cuba is described as bat-shaped (Alegria 1983: 27); the ballgame was a sacrificial ritual.

Recent lore from the lowlands to the east of the Andes involves bats and chiropterean themes that seem to be related to ancient beliefs. A killer bat is found in Venezuela in Warao folk literature (Wilbert 1970: 108-109); for Arawak-speaking Indians in northern Guiana, Bat Mountain is the home of killer bats (Roth 1915: 221, 259). Recent Gê folklore tells of "Indians" who had wings and bat noses, lived in a big cave near a river, and went out only at night, flying like bats; they killed with "anchor axes" or "moon hatchets". Decapitating bat demons are found in Apinaye, Cayapo, Sherente, and Aguaruna myth in the Amazonian region (Lévi-Strauss 1969: 122-123; Lévi-Strauss 1973: 381-382; Wilbert 1978: 325-331), and in Mataco myth in the Gran Chaco (Wilbert and Simoneau 1982a: 303). In the Apinaye tale, man acquired anchor-shaped ceremonial axes from the bats, who had used them for decapitation. The shape of these axes is that of sacrificial knives depicted in ancient Mochica art.

The widespread sacrificial association surely derives in large part from the habits of the Common Vampire Bat, *Desmodus rotundus*, who feeds exclusively on the blood of vertebrates. The Vampire Bat is very small, weighing only about

an ounce; it sometimes feeds on prey 10,000 times its size--nowadays mostly cattle and horses, but before the importation of these animals, probably deer, peccary, tapir, and *Homo sapiens*. Girolamo Benzoni (1857: 142) and other early sources describe vividly having been bitten by a vampire. The bite did not disturb Benzoni, but he awakened later to find his bedclothes so blood-soaked that he thought he had suffered a terrible accident. The vampire may bite different parts of the body, but it is apt to nip its victim's neck. Other bat species enhance the decapitation association. Carnivorous bats often bite into the neck or kill their prey with a powerful, skull-crushing bite. An insectivorous bat, taking a large insect, first bites off the head (see Tuttle 1984).

Bats, in general, have many qualifications for sacrificial, death-associated, chthonic symbolism. They are nocturnal creatures who hang upside-down, facing the Underworld; they often live in caves, which are usually considered entrances to the earth or Underworld. Naturalists describe bats emerging from a cave in the evening like a great cloud of smoke coming out of the cave (Goodwin 1954: 135; Novick and Leen 1969: 96). Sometimes there really is smoke; bat guano can ignite (Hill and Smith 1984: 141).

In the Guiana-Venezuela region and to the south, in Amazonia, lore associates killer bats with fire. The Warao bat burns his victims and is, in turn, thrown into the fire (Wilbert 1970: 108-109). The Arawak bat is done away with by an old woman with a fire brand (Roth 1915: 259). Bats are choked with fire or fire is used against them in Apinaye and Cayapo myth (Lévi-Strauss 1973: 382). Such tales may derive in part from the natural history of bats for whom heat and light are destructive. Most species do not fly in daylight because of the dessicating sun. Some species--Vampire Bats, for example--do not even fly in moonlight (because they are then visible to predators). The depictions on Pre-Columbian artifacts do not hint at fire or smoke connections, but the combination of ethnographic affiliation of bats with fire, the nature of bats, and the volcanic earth of the western New World would make it appear that the bat must have had similar connotations in ancient times. Even though bat iconography normally appears at a distance from active volcanos, there must have been some awareness of the nature of the mountains.

The Underworld, to which the dead go, and earth, from which plants come, have equivalent or overlapping import, and most PreColumbian death imagery probably has regeneration significance. It is known that, in many places, blood sacrifice was thought to benefit agriculture; this was probably generally true. Bats had agricultural, as well as death, associations for Pre-Columbian peoples.⁶ A Mochica III vessel can depict a naturalistic bat with a squash; the bat is posed as if it were presenting the food (Lehmann 1924: plate 60).⁷ Another version of this motif depicts a creature with a deity head (a fanged mouth, large eyes, and a semicircular headdress), human arms and legs, and a bat body, resting on the squash (Purin 1978: plate LVIII). A Moche IV vessel represents a more simply rendered squash (of a different species) with the head of a bat (Katz 1983: no. 55).

In nature, bats have various affiliations with vegetation. Caves where fruit-eating bats roost may produce ghostly pale vegetation of stunted plants from the seeds dropped by the bats (Novick and Leen 1969: 107). Caves, which may house many bat species, often contain springs or pools. Some bats not only live

in trees, but in trees above streams, which they use as flyways--the Common Vampire Bat is one species that uses streams as flyways. (Streams have both fertility and Underworld significance). Moreover, fruit-eating bats are important seed-dispersers, and nectar- and pollen-eating bats are important pollinators. Bats are seen hanging in trees and feeding on blossoms and fruit; this surely would have given them fertility connotations for ancient peoples, whether or not pollination was understood. The pollination association may be recognized in myths that show honey, bees, and bats as related or substitutable (Lévi-Strauss 1973: 381-382). In both Maya and South American lore, there is some parallelism between the vampire-bat/blood association and the nectar-eating-bat/honey association (Benson 1986; Lévi-Strauss 1973: 381). The *Ceiba* tree, sacred in many regions (Lathrap 1977: 730), is dependent on Glossophaginae, nectar- and pollen-eating bats (Heithaus 1982: 331; Villa-R. 1966: 21), as are the calabash and some fruit trees (Janzen 1983; see also Allen 1939: 112-119). The nose leaf of the fruit-eating bats is well-named; it is leaf-shaped--the bat actually "wears" a vegetation symbol. Bat guano would provide another reason for the fertility association, for this was surely an important fertilizer. *Tadarida brasiliensis* not only produces quantities of guano, it goes out from caves in great concentrations in the evening, making a sound like rushing water; it is also the bat whose formations have been noted as looking like smoke. It has been timed flying at 60 mph (Rodríguez 1978: 86); such speed would certainly have added to its mystique.

In lowland folklore, bats often have sexual connotations. This may relate to fertility and agriculture, but there are other bases in nature--and perhaps in myth--for this notion. Female bats gorged on nectar have been mistakenly thought to be gravid. The hanging position of the bat has been compared by scientists to the position of the embryo in the uterus. In the northwest Amazon region, the Desana relate the bat to the vagina (Reichel-Dolmatoff 1971: 101). The blood-drawing habits of the Vampire Bat evoke connotations of menstruation and the bleeding of initial intercourse. A Kógi girl in her first menstrual period is described as having been "bitten by a bat" (Reichel-Dolmatoff 1949-1950: 270). One wonders if the many bat-shaped Chorrera bowls reflect a vaginal symbolism for early Ecuadorians (Figures 5, 6; Lathrap et al. 1975: nos. 319, 327-333; *Pre-Columbian Art of Ecuador* 1982: no. 14).⁸

In some folklore, female bats are sexually attractive. The Yupa tell of a man, returning from the hunt in the evening, who was summoned by bats in a tree (Wilbert 1974b: 122-123). He went to have a drink with the bats, and was attracted by a female. (In relatively recent North American slang, a seductress was a "vampire" who "vamped" a man.) Night after night, the man stopped off to drink and flirt with the female bat, and slowly he began to develop a bat's head and claws and "little nose patches". He began to look very much like Pre-Columbian depictions of anthropomorphic bats. Finally, his wife, aware of what was happening, set fire to the tree (another fire association) and killed her husband and the bats.

Sometimes bats are husbands. In Mataco lore, a bat was the husband of a woman who, when she saw that he had a round tail, dropped the vessel of water she was bringing to him. He then cut off her head and those of other Indians and put the heads in the hollow tree in which he lived (Lévi-Strauss 1973: 382; Wilbert and Simoneau 1982a: 303). In Bolivia, a Tacana woman is said

to have killed a bat, not recognizing it as her husband (Lévi-Strauss 1969: 122; Lévi-Strauss 1973: 382). In Ecuador, a batlike creature seems to be a seducer (M. Wagner 1982). Although Pre-Columbian depictions of bats with clear sexual implications are rare, a Mochica vessel shows a large anthropomorphic bat carrying a small human female (Wassermann-San Blas 1938: no. 455).

The "human" aspects of bats have been noted not only by narrators of folktales but also by naturalists--Linnaeus, for example (Allen 1939: 14). Bats have "hands," with thumbs. The order name, Chiroptera, means "hand-wing". Bats can hold food between their forearms. Some bats can walk almost like a man; some can run, hop, leap, and tiptoe. The bat has long gestation and lactation periods and is one of the few mammals that suckles its young from two breast nipples. The Guano Bat produces particularly large quantities of milk. Bats normally bear their young one at a time, and care for them in quite human ways--some species set up a kind of night-care center. As far as is known, bats tend to have a relatively long life-span.

The frequency of bat depictions in some Pre-Columbian cultures--but not in others--suggests that some groups were the "people of the bat". Perhaps an ancestor was thought to have mated with a bat. Although origin myths do not seem to involve bats as ancestors, and I know of no representations of bats in Pre-Columbian erotic scenes, a Toba story tells of the leader of the very first people, a bat or bat-man, who, although called an "evil spirit", was a culture hero who taught the people all they needed to know as human beings "until there were no animals left" (Wilbert and Simoneau 1982b: 139). There is a Gê story of a tribe moving through the night, led by a bat who flew ahead, looking for light to which to guide them (Wilbert 1978: 94-95). An inversion of this theme is the Arawak tale of men who set out on a journey to seek stone axes (Roth 1915: 221)--a frequent motif in bat tales. The men had to pass through the country of the Bat People, who sucked dry the rash young member of the group who stayed outside at night. While bats now have negative connotations for the Arawak, to the neighboring Carib, bats are guardian spirits. There are, however, many likely Taíno bat depictions (Easby and Scott 1970: no. 241; Scott 1985: nos. 3, 33, 37, 43), and there may have been a shift through time and Carib interaction. In the past, Arawak-speakers might have identified with the bat.

In Colombia, where the northern coastal lowlands are rich in bats, the Tairona people produced, in the period just before the Spanish Conquest, bat depictions in various kinds of artifacts. Tairona ceramic urns display batlike figures on the side (*Museo Arqueológico* 1983: 36; Lapiner 1976: figure 836). A ceremonial baton of stone has two possible bat heads on the top (Reichel-Dolmatoff 1965: figure 60). The "winged pendant" is a form known from northern South America through Costa Rica into southern Mesoamerica. In the latter two regions, the pendant was often carved from precious jade; it could be designed as a simple abstract form, as an obvious bat, or as a polymorph with a central bat form and shark heads or other forms on the wings. These pendants occur in greatest quantity on the north coast of Colombia (E. Wagner 1967: 54) and are one of the most characteristic types of Tairona archaeological object. The Tairona examples were worked from stone or shell, sometimes plain and abstract, and sometimes with a bat in the center; the bat is not combined with other creatures. The pendants are believed to have been used in ancient

ceremonies, for they have been found in great quantity with ritual objects (Mason 1936: 179). They are still used by the Kógi, who live in the old Tairona region (Bray 1978: nos. 323, 324; see also *Museo Arqueológico* 1983: 38; Docksta-der 1973: no. 177; E. Wagner 1967: 55).

The Tairona made gold pendant bells with bat heads on top (Figure 7; *El Dorado* 1975: no. 16007); moreover, the elaborately accoutered figures that are most typical of the finest Tairona metallurgy often seem to have a chiropteran nose leaf (Figure 8; Legart 1982; Bray 1978: nos. 121, 261, 263; Dickey et al. 1982: 165-169; *El Dorado* 1975: no. 16005; Lapiner 1976: 830, 834). A number of these gold pendants have a pair of bats incorporated in the headdress (Figure 8; *Museo Arqueológico* 1983: 38; Bray 1978: no. 262; Dickey et al. 1982: 167); on some examples, the bats hang upside-down. It seems likely that the major figures depicted on these pendants might be rulers who had a touch of the bat in their ancestry. The ancestor of a Maya ruler of Copán, in Honduras, is depicted with a bat head; Olmec rulers, in Mexico, appear to have had a touch of the jaguar. The recent people who have been most studied in the Tairona region are the Kógi, who believe themselves to be the People of the Jaguar, who live in the Land of the Jaguar, and whose ancestors were Jaguar-Men (Reichel-Dolmatoff 1949-1950: 266). The sense of identification with an important creature in nature has endured here, although it is not the animal most prominent in the imagery of the people whose objects the Kógi still use.

Other bat motifs found in quantity in Colombia are those on the Tolima gold ornaments of knife-shaped form, mentioned above. At the time of the Conquest, the Indians of the modern Department of Tolima had a reputation as fierce warriors and cannibals; the Tolima goldwork is presumably somewhat earlier (Bray 1978: 53-54). Here the motif seems to be associated more with sacrifice than with ancestry, but this southeastern Colombian region may also have been a "place of the bat."

Bat depictions are common in the art of western Ecuador. Less is known about the bats of this region than of areas to the north and south, but its climatic variation would make it a logical place for bats today, and, when, in the past, it had lush vegetation and more moisture, it would surely have had larger bat populations. In addition to numerous Chorrera bowls, there are later Guangala spindle whorls (Wilbert 1974a), sellos from Manabí (Lapiner 1976: figure 751), and Tolita pectorals (Wardwell 1968: nos. 35, 36). Bats are found occasionally on still later Manteño molds (Figure 9), sellos (Figure 10), pendants (*Pre-Columbian Art of Ecuador* 1982: no. 178), and whistles. Bats also sometimes appear on the highly significant U-shaped Manabí monumental thrones and on stela-like shaft sculpture (Saville 1907-1910, I: plates XXVII, no. 3, XXXVIII; Saville 1907-1910, II: plate XXXVIII, no. 2; M. Wagner 1982). These sculptures are important power statements; the bats may be ancestral references.

Bat imagery is concentrated in regions that seem to be "places of the bat or of the bat people"; in other regions--or at other times--other creatures substitute. While bats seem to have maintained importance on the coast of Ecuador, they disappear from north-coast Peruvian iconography in post-Moche-IV times, except for a few Santa-style (Larco Hoyle 1966: figure 107) and Chimú-Inca examples (Bushnell 1965: 217).

Bats are rare or nonexistent in the art of the southern Peruvian coast-- unless they are so stylized as to be unrecognizable. I have not found bats on Nasca ceramics--where the *vencejo* or the hummingbird may play a similar role⁹--but bats possibly appear in other media. The central figure on a Nasca bag has some resemblance to a bat (Lehmann 1924: plate I), and some of the gold "dance wands" may show bats (see Moseley 1978: plate 1). The fact that they are not a major motif there is of interest because there are fewer bats on the south coast than in the far north of Peru, where species can travel more easily from the tropical lowlands. The seemingly total absence of bats in Tiahuanaco-Huari and Inca art is probably simply a factor of an altitude of more than 3000 meters. The animals that share the environment with man are usually the important ones.

A Chavín sculpture that has been called a bat is described by Karen Bruhns (1977)--properly, I believe--as a butterfly. Luís Lumbreras (1977: figure 53) has published another Chavín butterfly. I know of no bats in Chavín iconography. Chavín de Huantar is nearly 3200 m. high, and, while bats do roost in the galleries of the ruins there (Johan Reinhard, personal communication), they are more likely to be insect-eating rather than frugivorous, as has been suggested in the past (see Bruhns 1977). The altitude of Chavín precludes its being a serious bat range, and bats are not telling elements of the iconography. The confusion of identities is broader than the simple misreading of a drawing, however, for, in folklore, bats are often grouped with other flying creatures. In many regions, bats are classed with butterflies, whose flight theirs sometimes resembles.¹⁰

Peter Roe (1982: 79) tells us that the name "Cashibo" is a Shipibo word meaning "Vampire Bat People," a pejorative referring to that group's cannibalism and low social position. While the bat association is sometimes a matter of pride, it can also be a slur. This dualism is true also for most other animals with whom ancient peoples were associated.

Bernabé Cobo (1979[1653]: 245) wrote that the Inca Atahualpa wore a softer-than-silk shirt and cape. Asked what his clothes were made of, "the Inca responded that they were made from some birds [sic] that fly about at night in Puerto Viejo and Tumbes and bite people". Asked "where so many bats could be gathered", the Inca replied, "What else would those [northern] dogs...have to do but catch these birds to make clothing for my father, Huayna Capac?"

Atahualpa's statement reveals many things. For one, it indicates that bat-skin garments were royal. In Inca Peru, bat fiber was sometimes added to vicuña fiber for royal garments (Rowe 1946: 240-241); although bat wool is very soft, it is too short-stapled to be woven alone. In Cobo's story, it is not clear whether Atahualpa was wearing bat fur or fabric. Although Atahualpa had the highlander's ignorance of the nature of bats, he, with southern-highland arrogance toward the coastal northerners, clearly identified the bat skins as coming from the northernmost Peruvian coast, near earlier Mochica territory, and just south of the Ecuadorian coast. The Tumbes-Puerto Viejo region is, of course, near the northern passes that might have been used by bats and near the more verdant vegetation of southern Ecuador and probably did have more bats than any other region west of the eastern slopes of the Andes. The valleys

of the far north coast undoubtedly sustained a great number of bats and may well have been a "place of bats".

Atahualpa's arrogance may have been misplaced, for Juan de Santacruz Pachacuti Yamqui recounts a legend that Atahualpa's father, Huayna Capac, on the evening of the celebration of Capac Raymi in Quito, was visited by a black-cloaked messenger, who persuaded the Inca to open a chest. From it emerged pestilence in the form of flying creatures--moths and butterflies--which killed Huayna Capac (Bierhorst 1976: 45-46). The description of the messenger has some affinity with a bat image. Perhaps it was unwise to have underestimated the power of the northern bat ancestors, even though this encounter took place at an altitude of nearly 3000 meters.

Bats are associated with shamans and witches, although apparently not as strongly as are certain other creatures. José de Arriaga (1968[1620]: 38-39) wrote of witches in Peruvian coastal towns in the early 17th century who, at night, pierced the body of someone they wanted to kill and then sucked the blood of that person. This custom seems to reflect ancient beliefs depicted in Mochica art in imitating the activity of the vampire bat--although vampires do not suck blood; they lap it. The vampire bat has the advantage of an anticoagulant in its saliva, which keeps its nourishment flowing; the *brujo* would have to work a great deal harder.

More recently, vampire bats have been invoked in curing to carry away the blood of patients suffering from diarrhea or hemorrhages (Reichel-Dolmatoff 1971: 179-180).

In addition to the vampire associations, bats seem to have certain anomalies; for one thing, the heads of various species resemble those of other mammals. Many bats look like small, fierce dogs with large ears, a situation reflected in taxonomic terminology--the Mexican Dog-faced Bat, the Mastiff Bat, Greater and Lesser Doglike Bats, and the Bulldog Bat (whose Latin name derives from "rabbit," *leporinus*). The Australian Flying Fox suggests another resemblance. Bats have been described as looking like rodents (to which they are not kin), spiders, cockroaches, toads, butterflies, moths, hummingbirds and other birds, and human beings. The only mammal that flies, the furry, nocturnal bat is as aerial as a bird. In folklore, bats are frequently grouped with birds as volatiles (see Reichel-Dolmatoff 1971: 213).

In part because of such anomalies, bats are transformation creatures. Because of its strange talents and multiplicity of species with different behavior, the bat has been called by Johannes Wilbert "a misfit par excellence" (1974a: 56).

It is a powerful misfit. It is a creature of life and death, fecundity and destruction. In the Mato Grosso, there is a belief that the mythical bat will devour the Sun (Wilbert 1974a): the bat will not vanish at daybreak; the Sun will not appear. The bat is the symbol of darkness. Human sacrifice, in which bats participate symbolically, nourishes the Sun and keeps it moving across the sky. The bat dies by fire; the Sun will die by the bat. The sequence of Sun--fire--food--blood-sacrifice--bat--darkness puts the bat in the vital chain, and some groups, whose environment it shares, identify with its symbolic power.

The bat not only fits into man's environment in many ways, it has a remarkable variety of potential for symbolism. The jaguar is a larger, more fearsome predator, a more regal status symbol, and a more prominent shamanic animal, but the bat is of almost equal importance in Pre-Columbian iconography.¹¹ The bat seems more chthonic, more fertility-related, more sinister, eerie, and mysterious, and more multifaceted in symbolic potential.

Endnotes

1. The original version of this article was a paper given at the Fourth Northeast Conference on Andean Archaeology and Ethnohistory at the State University of New York at Albany, 1985. I am grateful to Jacqueline J. Belwood, University of Florida, for her interest and her invaluable help with sources on the natural history of bats; to Olaf Holm, Museo Arqueológico del Banco Central del Ecuador, Guayaquil, for his assistance with Ecuadorian source material; to Alan Grinnell, University of California, Los Angeles, for helpful conversations about bats; to Christopher B. Donnan for use of the UCLA Moche Archive; to Elizabeth Hill Boone, for use of the Dumbarton Oaks library resources; and to Daniel Sandweiss, for his encouragement and patience.
2. For the natural history of bats, see: Allen 1939; Alvarez del Toro 1977; Bourlière 1964; Goodwin 1954; Hill and Smith 1984; Janzen 1983; Kunz 1982; Novick and Leen 1969; Rodríguez de la Fuente 1978; Turner 1975; Tuttle 1970, 1984; Villa-R. 1966.
3. The article by Anne Legast and Alberto Cadena (1987), as well as Legast (1987), came to my attention as I was about to send in the final version of this manuscript. They have found additional instances of bat iconography in Colombia.
4. An anthropomorphic owl also appears in this role. Bats and owls are nocturnal, and both can be predators. In folklore from the lowlands at both ends of the continent, they are often brothers-in-law (Roth 1915: 276; Wilbert 1970: 101-102; Wilbert 1975: 29; see also Lothrop 1928: 101ff.).
5. The Loma Negra and Vicús representations are virtually the only ones in which bat features are possibly combined with those of other nonhuman beings. Costa Rican jade pendants may have sharks or other creatures accompanying the bat, but they are usually removed from it.
6. In Oaxaca, a bat deity is associated with maize.
7. Mochica squash depictions may also have an owl head, another indication of the interaction of bat and owl, for vegetables seem to have distinct associations--a fanged deity with maize, a diseased face with potatoes, etc.
8. There are about thirty of these bowls in the Museo del Banco Central, Guayaquil.
9. The *vencejo* would be an interesting substitution for the bat, because it belongs to the order Caprimulgiformes and is related to the owl order.

10. The naturalist François Bourlière (1964: 30) describes the similarity between bat and butterfly, and George Goodwin (1954: 122) mentions the Butterfly Bat. I have been struck by the fact that bats are important in Classic Maya art, whereas butterflies do not appear, although, in nature, butterflies abound in the Maya region, along with bats. On the other hand, for the coeval people of Teotihuacan, butterflies are important, and bats nonexistent--which may be simply a factor of altitude. I conclude that the two creatures play a comparable role in the two cultures (Benson 1986). A similar pattern may well hold elsewhere.

11. Lévi-Strauss (1973) has found jaguar-bat pairing in lowland myth.

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Figure 1. Mochica vessel. Anthropomorphic bat with knife and trophy head. Museo Nacional de Antropología, Lima. Photo by Abraham Guillén M.



Figure 2. Mochica vessel. Anthropomorphic bat with warrior's helmet, holding warclub and captive figure. Photo courtesy Museum für Völkerkunde Berlin, Staatliche Museen Preussischer Kulturbesitz (VA 18083).



Figure 3. Mochica vessel. Anthropomorphic bat holding a stirrup-spout vessel and a dipper. Photo courtesy Museum für Völkerkunde Berlin, Staatliche Museen Preussischer Kulturbesitz (VA 4623).

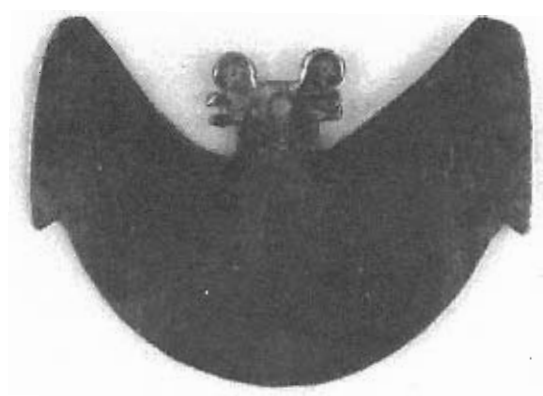


Figure 4. Tolima bat-shaped pendant. Museo del Oro, Bogotá (5931). Photo by Jorge Mario Múnera.



Figure 5. Chorrera bowl in form of a stylized bat with outspread wings. Central Manabí Province. Herbert F. Johnson Museum of Art, Cornell University, Ithaca (75.53.85). Photo by Monica Barnes.

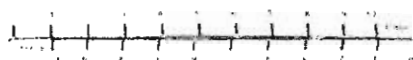


Figure 6. Chorrera bowl in form of a stylized bat. Museo del Banco Central del Ecuador, Guayaquil (GA-2-2172-82).



Figure 7. Tairona pendant bell with bat head. Museo del Oro, Bogotá (14.855).
Photo by Jorge Mario Múnera.



Figure 8. Tairona pendant with chiropteran nose and two bats suspended upside-down at the sides of the head. Museo del Oro, Bogotá (12.564). Photo by Jorge Mario Múnera.



Figure 9. Manteño positive mold. Museo del Banco Central del Ecuador, Guayaquil (GA-11-598-78).



Figure 10. Manteño sello. Museo del Banco Central del Ecuador, Guayaquil (GA-2-125-76).