



Figure 4. **Votive Object (Tunjo)**. Colombia (Muisca), 10th–16th century. Cast gold, h. $7\frac{3}{4}$ in. (19.7 cm). The Michael C. Rockefeller Memorial Collection, Bequest of Nelson A. Rockefeller, 1979 (1979.206.1050)

Tunjos, produced in a variety of forms, have rough and unpolished surfaces. They were usually buried in vessels or thrown into lakes, perhaps as offerings to thank the gods for their help in the past or to ask for future services.

For the peoples of ancient America gold was endowed with spiritual and symbolic meaning. The Inka of Peru thought of gold as the rain of the sun, a major deity; and the word for gold in Nahuatl, the language of the Aztecs of Mexico, is *teocuitlatl* (excrement of the gods). The Inka considered the mountains where the metal was found to be *huacas* (sacred places) and are said to have made offerings to the mines. The peoples of Costa Rica and Panama looked upon gold collecting as a sacred activity and purified their bodies by fasting for several days beforehand to ensure success. Gold was associated with worldly power, status, and wealth. In the vast Inka empire, which in the early sixteenth century stretched from Ecuador to central Chile and Bolivia, gold was the property of the Inka rulers; no commoner could own even the smallest bit. Similarly, the powerful rulers of the Aztecs, whose empire in the sixteenth century extended from the Pacific Ocean to the Gulf of Mexico, had sole control over mines and workshops. Only emperors were entitled to gift gold objects, usually to reward exceptionally brave soldiers, who wore the ornaments proudly as badges of honor.

During the late fifteenth century, when the first Europeans came to the Americas, gold was worked in an area that stretched south from present-day Mexico to central Chile, north Argentina, and Bolivia. A commonly accepted theory is that gold working began in the Peruvian highlands in the mid-second millennium B.C. and that knowledge of the technology spread north to Ecuador and Colombia (where the oldest pieces are presently dated to the mid-first millennium B.C.), reaching Panama/Costa Rica by about the second century A.D. and Mexico by the ninth or tenth century. However, ongoing research argues for several points of origin for American metallurgy.

Despite the religious and secular symbolism associated with gold in ancient American cultures, the precious metal acquired cultural value only when worked into images. The son of a Panamanian chief, for example, perplexed by the Spaniards' melting down of gold objects into ingots, is reported to have said that the raw metal had no more value than a lump of clay. The primary use of gold in Precolumbian America was for personal adornment. Many objects are clearly just jewelry, but most embody complex religious iconography. The second most important function of the metal was funerary, to honor powerful individuals and to acknowledge their status even in death. The offering of gold objects to the gods was also a common practice among some groups. The Inka placed small gold and silver figures of llamas and humans in caches near wells, caves, and rocks and on mountain peaks, and the Muisca of Colombia made votive figures, known as *tunjos*, for burial in sacred places (fig. 4). The use of the precious metal for vessels was generally rare, though in Peru after the tenth century an impressive number were made for the elite, perhaps as a result of better access to gold deposits or improved metal-processing skills. Early explorers found entire rooms of the royal palaces of the Aztecs and Inka sheathed in gold and silver.

Although gold is among the earth's rarest metals, it was, after copper, the earliest used by man. Unlike many other metals, it occurs in metallic form in nature and is easily worked. It can be obtained from rock by mining or from rivers and streams bearing rich alluvium drained from auriferous mountain ranges.







Figure 5. Panning Gold in the Early Colonial Period. Woodcut from *La historia general y natural de las Indias*, by Gonzalo Fernández de Oviedo y Valdés, Seville, 1535, p. 66. The New York Public Library, Rare Books Division, Astor, Lenox, and Tilden Foundations



Figure 6. Aztec Metalworker. Illustration from facsimile of *Codex Mendoza* (1541–42), fol. 70. University of California Press, 1992

The man is using a tripod vessel as a crucible and a blowpipe to increase the heat of the fire. The Aztec glyph for gold is shown in front of the rising flames.

Given the Spaniards' intensive search for gold, it is not surprising that colonial accounts include ample information about indigenous metal production. Descriptions of native mining at the time of the conquest state that the most common method of obtaining gold was by panning (placer mining), in which river gravel is washed in a pan, causing the flakes, nuggets, and grains (which have a high specific gravity) to settle at the bottom. Many rivers, especially those in the western and central Cordillera of Colombia and in Costa Rica and Panama, carried large amounts of the ore. In Peru deposits were particularly abundant in the rivers on the north coast, while in Mexico gold was found primarily in the modern states of Oaxaca, Guerrero, and Michoacan.

Ancient Americans used the power of running water to wash gold from rock. Near riverbanks they hoed the earth with sticks and sluiced it in flat wooden trays (fig. 5). They also laid stone riffles across streambeds during the dry season. The nuggets carried down the swollen rivers during the next rains were held back by the stone barricades and easily collected in the dry season. According to one account, nets were stretched across rivers, and nuggets as big as eggs were caught in them when the waters rose. Sometimes rivers were diverted and dammed, causing them to overflow their banks, where the gold was washed from the veins of rock and became separated from the gravel.

Underground mining evidently was practiced only in Peru and Colombia during the last few centuries before the conquest. Archaeological evidence of it is limited because many of the preconquest mines were exploited by the Spaniards, and most traces of them have disappeared. One sixteenth-century document relates that the Inka, following veins of ore, dug narrow pits and shafts, some no more than three feet wide, which was enough space for one man to work. The shallow shafts were vertical, while deep ones, allegedly up to 240 feet long, were at thirty- or forty-degree angles for easier access. Hafted stone hammers and scrapers of wood and deer antler were used to loosen lumps of ore, which were pried out with sticks. The ore was then carried out in baskets and in hide sacks. To separate the gold from the rock, the ore was smelted, a chemical process activated by heating the crushed rocks in small clay crucibles or bowl furnaces. Because the ancient Americans did not have bellows, high temperatures were generated by blowing through tubular clay or reed pipes (fig. 6). The Spanish chroniclers report that metalworkers in southern Peru used three-foot-tall ceramic wind furnaces called *huairas*, which were shaped like large flowerpots and had small vents in their walls to create a forceful draft. *Huairas* were usually placed on windy hillsides to take advantage of the natural updraft. The heavy molten gold sank to the bottom of the furnace, where it solidified and was removed for further processing.

In some areas mining and gold working were conducted together, while in others the metal was extracted and traded as a raw material to regions with no ore deposits. The Aztecs, for instance, obtained all their gold through tribute and trade, probably from what are today the Mexican states of Guerrero and Oaxaca. The raw gold found on the north coast of Peru, on the other hand, was used locally.

During their three thousand years of working gold, ancient Americans developed most of the techniques known today. The earliest method was to beat nuggets into sheets with stone hammers over stone anvils. Hammering requires great



Figure 7. Standing Figure Wearing a Nose Ornament. Ecuador or Colombia (Tolita-Tumaco), 1st–4th century. Hammered gold, h. 9 in. (22.9 cm). Jan Mitchell and Sons Collection, Gift of Jan Mitchell, 1995 (1995.427)

Statuary in gold is rare in ancient America. This figure, wearing a repoussé nose ornament, may have been clothed for ritual occasions. Its feet, once attached with gold wire, are now missing, as are the ear ornaments, adornments for the head, and objects originally held in the hands.



Figure 8. Eagle Pendant. Costa Rica (Chiriquí), 11th–16th century. Cast gold, h. $4\frac{3}{8}$ in. (11.1 cm). Bequest of Alice K. Bache, 1977 (1977.187.22)

The model for this bird pendant with all of its details, including the small fish and double-headed snake held in its beak and the bulbous eyes that contain clappers, was formed of wax before being embedded in a clay mold. The object was cast in a single process.

manual skill and knowledge of the metal's behavior throughout the process. Repeated hammering causes it to become brittle and eventually to break. To restore malleability, the sheet must be annealed—that is, heated to just the right temperature to make it soft without melting it.

Sheet-gold objects have smooth, highly polished, and reflective surfaces. Decorations can be applied by cutting, scoring, chasing, embossing (hammering the metal over a carved former, usually of wood), and repoussé (working the sheet freehand while it rests on a semisoft surface, such as pitch or wood). These techniques were performed with simple tools of stone and wood or of copper, such as chisels, awls, perforators, and punches. The finishing of the surface was accomplished by buffing and burnishing with stone or bone polishers and abrasive sands. In regions where working with sheet metal was preferred, as in Peru and Ecuador, extraordinary objects were made of many separate preshaped parts, which were joined by soldering or sweat welding or with staples, nails, straps, or tabs (fig. 7). The Peruvians, considered by many to have been the most innovative metalworkers in ancient America, also developed a number of gilding and plating techniques, including surface fusion and electrochemical plating.

Once the discovery was made that gold nuggets melt with the application of sufficient heat, the casting process was the next logical invention. Most common was the lost-wax method (*cire perdue*). The goldsmith modeled the object and its decorative details in wax and then encased the wax model in clay, leaving a channel. Heating the clay mold melted the wax, which was poured out; molten metal was poured in to replace it. The mold was then broken to free the casting. Ancient goldsmiths cast both solid pieces, often with remarkably complex details, and hollow objects. The latter required great skill because the wax model was formed over a core that had to be kept in place during the casting process.

While hammered pieces are often of high karat, with only some percentage of silver and/or copper, cast objects are made of intentional mixtures of metals, or alloys: gold with either copper or silver (binary alloy) or gold with both copper and silver (ternary alloy). The use of alloys, which may have begun in the last centuries of the first millennium B.C., is characteristic of Precolumbian work and was developed for practical as well as for symbolic and aesthetic reasons. Among the technical advantages is that the melting points of alloys are significantly lower than those of the constituent metals: 778°C for an alloy of 60 percent gold, 40 percent copper, versus 1063°C for pure gold, and 1083°C for pure copper. Moreover, an alloy is harder than the pure metal and allows for greater details in the casting. The most frequently employed alloy contained gold and copper. Often made with as much as 70 percent copper, it is known as *tumbaga*. The surfaces of *tumbaga* objects were usually enriched by the *mise en couleur* process (depletion gilding). The piece was heated, causing copper oxide to form on the surface; the copper was then removed by immersing the object in an acidic solution of plant juice, leaving a fine surface layer of purer gold. In the captions for the illustrations in this publication, the term “gold” is used although most of the works are made of gold alloys containing some silver and/or copper. “Gold alloy” is used only for objects that have been scientifically tested and when the exact percentages of the constituent metals have been established.

The special place that gold attained in Precolumbian cultures because of its symbolic power and its indication of status led to the development of a wide range of gold-working technologies and to the manufacture of objects of great beauty and often elusive meaning. The pieces range from simple abstract forms and realistic animal and human figures to complex composites of creatures that reflect a rich mythology. The selections on the following pages display the superb skills and amazing creativity of the peoples that inhabited the lands of Precolumbian America.

—HEIDI KING





Mask

Colombia (Ihama), 4th–2nd century B.C.
 Hammered gold, w. 9½ in. (24.1 cm)
*Jan Mitchell and Sons Collection,
 Gift of Jan Mitchell, 1991 (1991.419.39)*

Nose Ornament with Spiders

Peru (Salinar?), 1st century B.C.–1st century A.D.
 Hammered gold, w. 4⅜ in. (11.1 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.1172)*

Gold was first worked in the Americas about thirty-five hundred years ago, when small nuggets were hammered into thin, pale foil. Evidence for this type of foil was discovered by archaeologists in the Andean highlands of South America, near the town of Andahuaylas in south-central Peru. Nine pieces of foil had been placed in the burial of a young man together with seven blue stone beads. The largest piece of foil and the largest bead were in the man’s mouth; the other beads and bits of foil were in his hands. The foil, in small, smooth, asymmetric shapes, is the first documented placement of worked gold in an ancient tomb in the Americas and the earliest evidence in the Americas of the inclusion of valuable objects in graves. The custom continued for more than three thousand years until the Spaniards arrived in the early sixteenth century, when it came to an end with the total disruption of local traditions.

During the years of indigenous production of gold, grave offerings grew in quantity, quality, and sophistication throughout the Americas. It is from these graves that information is derived about the use of precious metals in this hemisphere, as the majority of Precolumbian peoples had no writing systems and little is known about them. What is known is often deduced by archaeologists and art historians from the material remains. The fervid search for gold that began over five hundred years ago with the first European encounters continues to this day. Until well into the twentieth century, objects looted from thousands of ancient tombs were routinely melted down for their gold content. Unfortunately, their extraordinary forms were considered of less value than the metal from which they were made.

By the late centuries of the first millennium B.C., when this mask was placed in the tomb of a high-ranking individual in the Calima Valley of southwest Colombia, gold was being worked with skill and virtuosity. Hammered from a single sheet of the metal, the mask is true to its type in representing only basic details of the face, but it has been individualized with puffy bags beneath the eyes, very round, large cheeks, and a big-lipped, open mouth. The eyes are pierced, and additional holes at the sides suggest that the mask might have been worn in life during a ceremony in which its golden surface would have been a commanding presence.

Two regions were particularly important for gold at this time: the north of Peru and southwest Colombia/northwest Ecuador. Some exchange of materials, forms, or metalsmiths may have taken place between the regions—they shared a sheet-metal technology that was practiced for generations—but each had distinct styles in worked gold. In Peru the technology appears to have had specific meaning, for long after casting techniques were employed for other metals, gold objects were still chiefly hammered into intricate and complex shapes.

The four spiders “caught” in the delicate web of the ornament shown above illustrate the firm command of technique that existed by the end of the millennium. An elegant, lightweight, airy object, it was made with great control of medium and design, with its delicate parts simply fused together in a balanced combination of open and opaque areas. The roundness of the spiders is echoed in the shapes of the web, and their compact bodies and four legs are clearly visible. Their tiny fangs appear, too, menacingly, in spite of the simplicity of the creatures’ forms. Spiders had long had a place in Peruvian mythology, and their association with fertility and sacrifice would have been understood by all ancient viewers of the ornament. —JJ



Headdress Frontal with Faces

Peru (Sihuas), 3rd century (?)
 Hammered gold, w. 15 in. (38.1 cm)
*Purchase, Discovery Communications Inc.
 Gift, 2001 (2001.32)*

opposite, top

Pectoral with Face

Colombia (Yotoco), 1st–7th century
 Hammered gold, w. 11 in. (28 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.507)*

opposite, bottom

Headdress Frontal with Face

Colombia (Yotoco), 1st–7th century
 Hammered gold, w. 9³/₈ in. (23.8 cm)
*Jan Mitchell and Sons Collection,
 Gift of Jan Mitchell, 1991 (1991.419.40)*

Until late in the Precolumbian era American gold primarily was made into objects that adorned head, neck, and upper torso. Large ornaments could virtually surround the face and sometimes obscure it. Headdresses, pectorals, pendants, multi-element necklaces, and decorations for ears and noses are the most common forms; those for arms, hands, waist, and feet exist in smaller numbers. Other precious materials were combined with gold, and the use of that metal with silver, copper, or brightly hued shells, stones, and feathers created eye-catching compositions of strong color and rich texture.

Chest-sized pectorals, such as those produced in the Calima Valley region of Colombia during the Yotoco period of the early centuries A.D., are among the largest torso embellishments. They were part of suites of objects, apparently worn together, that shared similar imagery based on an enigmatic human face with closed or squinty eyes. On the example at the top of the opposite page the face is worked in high relief and wears a helmetlike cap; great disks hang from the ears. In the nose is an H-shaped ornament that is so large it

hides all of the face but the eyes. Another, smaller face is worked on its surface. The meaning of such multiple images is unclear; the same face with its dangling ornaments appears on other Yotoco objects from Colombia. Certain wide headdress frontals bear the raised, squinty-eyed face (opposite, bottom) and are embellished with many more dangling parts. When the ornament was attached to the front of a turbanlike wrap, the freely moving parts would have swayed with the wearer's motion, making a stately movement that no doubt emulated that of the tall plumes on grand feathered headdresses.

From Peru, far to the south, comes a large crescent-shaped frontal that has many embossed faces worked on the surface (above). The faces seem to have beards or very large mustaches, an unusual feature in Precolumbian America, where facial hair was scant. Some of the "bearded" faces themselves have arms that sweep upward and five fingers pointing skyward, suggesting that the ornament relates to the protection of ancestors—a meaningful concept in the indigenous Americas. —JJ



Headdress Frontal with Feline Face

Peru (Moche), 3rd–6th century

Hammered gold, w. 10½ in. (26.7 cm)

*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.1151)*

The adornment of the head and face with objects of precious metal and other rich and colorful materials was especially meaningful to high-ranking members of ancient South American societies. Particularly flamboyant arrangements for the top of the head often included major gold elements, such as the wide headdress frontals of the Moche peoples of Peru (right) and the cylindrical crowns of later times (opposite, top). Worn on fabric bases wound turbanlike about the head, they were sometimes given feather crests or plumes, tassels, and other decorations such as animal skins. The Moche frontals of the early to middle centuries of the first millennium A.D. are impressive for the brilliant expanse of smooth, reflective surface on the topmost flair. The example illustrated here, in a form that may be a descendant of an older, more northern tradition, has a face in the center flanked by upside-down birds. The broad simplicity of the plain areas combined with the clear patterns make it a particularly compelling ornament. The central face is



that of a fanged feline of overtly hostile aspect. Snarling felines had significant supernatural connotations in Peru for many centuries—they might have been divinities—and headdress frontals with such faces are known from depictions on Moche painted pottery. The frontals may have indicated a group affiliation among those privileged to wear them. —JJ

Crown

Peru (Lambayeque), 10th–11th century
Hammered gold, h. 8¼ in. (21 cm)
Gift and Bequest of Alice K. Bache, 1966, 1977
(66.196.13)

Diadem with Caiman

Colombia (Middle Magdalena), 1st–7th century
Hammered gold, w. 21½ in. (54.6 cm)
Jan Mitchell and Sons Collection,
Gift of Jan Mitchell, 1996 (1996.354.3)

The tall, cylindrical crowns of Peru vary in profile and surface embellishment. Early forms of the chiefly headgear were straight-sided, but at the beginning of the second millennium A.D. those of hourglass shape, as illustrated here, appeared in the Lambayeque region of north Peru. The powerful ancient center, from which the crown is reputed to have come, is now known as Batán Grande. It had special religious and funerary functions and is the location of some of the richest graves in the Americas (see p. 36). Embossed patterns, such as those on this crown, include designs commonly found on contemporary Lambayeque textiles.

In the early European accounts of the gold worn by native American peoples, simple fillets or diadems, like the one shown below, were frequently mentioned. This example, cut from a single sheet of



gold (as is the crown above), circled the head and was laced shut with cords or wires through the holes at each end. It is decorated with a raised image of a broad-snouted caiman, a crocodilian that inhabited the tropical lowlands of South America. Caimans, as well as other American crocodilians, were respected and feared, and they had a prominent place in gold imagery in north Colombia and adjacent lower Central America. Those images, however, are seldom as straightforwardly realistic as this one.

Today, diadems are rarer than the early European reports might indicate, perhaps because their very simplicity caused them to be consigned to the melting pot before more elaborate pieces. —JJ





Beads (Insects?)

Colombia (Malagana), 3rd century b.c.–3rd century a.d.
 Cast gold, h. (each) $\frac{3}{4}$ in. (1.9 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.505)*

Necklace (detail)

Colombia (Yotoco), 1st–7th century
 Hammered gold and semiprecious stone (modern stringing), w. (beads) $\frac{1}{16}$ – $\frac{3}{8}$ in. (.2–.4 cm)
Bequest of Alice K. Bache, 1977 (1977.187.18)



Head-Form Beads

Peru (Moche), 3rd–6th century
 Hammered gold, h. (each) 1¼ in. (3.1 cm)
*Jan Mitchell and Sons Collection,
 Gift of Jan Mitchell, 1991 (1991.419.52–.57)*

Beads with Supernatural Figure

Peru (Moche), 3rd–6th century
 Hammered gold, diam. (each) 2½ in. (6.4 cm)
*Gift and Bequest of Alice K. Bache, 1974, 1977
 (1974.271.31)*

Beads are the most common of all ornaments and have the longest history of human use, going back to Paleolithic times in many places in the world. Strung mostly to be worn around the neck, they were made in a great variety of materials, from those that occur naturally (the first used)—such as seeds, shells, animal teeth, bird bones, and fish vertebrae—to those that were fabricated from valuable metals, as were the ones illustrated here. Beads

served a multitude of purposes: they were identifiers of family, clan, or tribe; they were talismanic protectors of the wearer; they were indicators of wealth and rank; and they were beautifying. Some were multipurpose, combining several of the above uses in one object.

By the late first millennium B.C. gold beads in South America took many forms. Those of southwest Colombia were small, worked in shapes resembling birds, animals, or insects and/or stylizations of them (opposite, top). Customarily they were strung many to a necklace. The later Yotoco necklaces had plainer gold beads (opposite, bottom) and included those of semiprecious stone and some emerald elements. In this necklace the variety of semiprecious beads (which are not in their original order, as they were restrung in modern times) includes malachite, amazonite, jadeite, serpentine, sodalite, green jasper, blue jasper, amethyst, chrysocolla,

and turquoise. Yotoco beads are works of great elegance and refinement and contrast markedly with the emphatic showmanship of objects made by the contemporary peoples of Moche-era Peru.

Large and symbolically complex, Moche beads are three-dimensional, hollow, and made of two pieces of sheet metal joined at the sides. Frequently they depict human heads (above, top) with a variety of facial expressions that range from fierce to bland. The expression here is severe and remote. Other Moche beads are round with embossed images (above, bottom). A supernatural figure related to one known by archaeologists as the Decapitator fills the fronts of these beads with a very assertive presence. The eyes and mouths were probably inlaid with shell or another more malleable material. —JJ



Pair of Earflares with Winged Runners

Peru (Moche), 2nd–5th century
 Hammered gold, turquoise, sodalite, and shell inlay,
 diam. 3⁷/₈ in. (9.8 cm)
Gift and Bequest of Alice K. Bache, 1966, 1977
 (66.196.40, .41)

On the north coast of Peru, where the Moche peoples were dominant during much of the first millennium A.D., the most fashionable ear ornaments were those with wide circular frontals, often with a border of hollow spheres, and long tubular shafts to counterbalance the weight of the frontals. A particularly impressive group is decorated with colorful mosaics of such materials as turquoise, sodalite, quartz, pyrite, and spondylus, or spiny oyster, shell. On this pair they depict winged, bird-headed (or masked) runners holding small white bags in their outstretched hands. Their eyes and beaks are sheathed in gold. They are thought to be mythological messengers. The runners face in opposite directions, an orientation followed on the north coast of Peru for well over a thousand years (see opposite page). —HK

Pair of Ear Ornaments

Colombia (Yotoco), 1st–7th century
 Hammered gold, diam. 2¹/₄ in. (5.7 cm)
Jan Mitchell and Sons Collection,
Gift of Jan Mitchell, 1991 (1991.419.41, .42)

Ornaments worn in the distended lobes of the ears were an important part of elite costume in Precolumbian America from the first millennium B.C. to the conquest. Made of the most precious materials available to the wearer and in a wide range of shapes and sizes, they expressed status and power. In the Calima region of southwest Colombia biconical or spool-shaped objects with decorated ends were part of elaborate multipiece assemblages, which included large concave disks suspended from the ear spools by gold rings. Such disks can be seen adorning faces on pectorals and on headdress frontals (see p. 11) made by the same culture.

Archaeologists distinguish among the works of three periods in the Calima River region: Ilama, Yotoco, and Sonso. The gold objects are currently dated to the fourth to second century B.C., first to seventh century A.D., and thirteenth to sixteenth century, respectively. —HK





Pair of Earflares with Multifigure Scene

Peru (Chimú), 12th–15th century

Hammered gold, diam. 5¼ in. (13.3 cm)

Jan Mitchell and Sons Collection,

Gift of Jan Mitchell, 1991 (1991.419.67, .68)

detail of shaft shown at left

By the time powerful Chimú kings had established their desert kingdom on Peru's north coast in the fourteenth century, precious-metal production in that region had reached unprecedented levels. Objects made for the elite had become ostentatious displays of wealth and technical virtuosity, as this pair of ear ornaments illustrates. Of thin, hammered sheet gold, they are remarkably light in spite of their size. They are decorated on the frontals with complex multifigured scenes. A distinguished Chimú lord, wearing a large headdress and ear ornaments, and holding a beaker and a fan, is shown standing on a litter supported by two men. Their huge, flared headdresses, decorated with cut-out and repoussé designs, echo the rhythm of the small spheres encircling the rims of the frontals. The shafts are embellished with a delicate chased repeat of crested birds in a diamond grid (detail). —HK



Pair of Earflares with Condors

Peru (Moche), 2nd–3rd century
 From the site of Loma Negra
 Hammered silver and gold, gilt copper, and shell inlay, diam. 3 in. (7.6 cm)
The Michael C. Rockefeller Memorial Collection, Bequest of Nelson A. Rockefeller, 1979 (1979.206.1245, .1246)

Nose Ornament

Ecuador (Tolita), 1st–5th century
 Hammered gold and silver, w. 3 in. (7.6 cm)
The Michael C. Rockefeller Memorial Collection, Bequest of Nelson A. Rockefeller, 1979 (1979.206.1136)

The combination of gold and silver was common in the metalwork of ancient Ecuador and Peru but rare in other parts of Precolumbian America. The delicate nose ornament (above, right) featuring gold spirals enclosing tiny silver spheres is currently attributed to the Tolita culture of northwest Ecuador but shares stylistic affinities with the Salinar and Virú (Gallinazo), two regional cultures that preceded the rise of the Moche civilization on Peru's north coast. Ecuadorean metalworking technology consisted primarily of beating, repoussé, and soldering. By contrast, Moche metalsmiths developed sophisticated mechanical and metallurgical techniques for joining metals. The front plates on the earflares are made of sheet gold to which silver repoussé condors are tabbed. The back plates and shafts of gilded copper are also joined in this manner.

The Andean condor, identified by the large caruncle at the base of its beak and the wattle around its neck, is the largest bird of prey alive today. A frequent theme in Moche art, condors may have been associated with predation, death, and sacrifice. The earflares reportedly were

found at Loma Negra, one of the many cemeteries near the hill of Cerro Vicús in the Piura Valley, where hundreds of tombs were discovered that contained numerous offerings, including works in gold, silver, and copper. Powerful Moche lords were buried there in the third century, when their control extended nearly to the Ecuadorean border. —HK

opposite, top

Nose Ornament in Form of a Human Head

Peru (Moche), 2nd–3rd century
 From the site of Loma Negra
 Hammered gold, partially silvered, and silver, w. 7½ in. (19.1 cm)
The Michael C. Rockefeller Memorial Collection, Bequest of Nelson A. Rockefeller, 1979 (1979.206.1223)

opposite, bottom

Nose Ornament with Intertwined Serpents

Peru (Moche), 2nd–3rd century
 From the site of Loma Negra
 Hammered gold and silver and shell inlay, w. 8¼ in. (21 cm)
The Michael C. Rockefeller Memorial Collection, Bequest of Nelson A. Rockefeller, 1979 (1979.206.1225)

Nose ornaments, worn mostly by high-status males, were among the earliest personal adornments in ancient Peru and remained in fashion for over a thousand years, from about 500 B.C. to about A.D. 800. They were suspended from holes in the nasal septum, as is shown on the face depicted on the example on the opposite page that also displays earflares. The nose crescent is of the same shape as the one illustrated below it. The upper ornament is made of gold with partially silvered sections across the forehead and



the outer edges of the plumes. The technique used to silver these areas has yet to be discovered. The small nose ornament on the face as well as the dangles (most are now missing) are of silver sheet. In addition to its aesthetic appeal, the combination of the two metals may have had symbolic meaning to ancient Peruvians, perhaps expressing ideas of duality and complementarity.

Snakes were common in Moche territory and depictions of them abound. The festive and ritual attire of rulers and gods alike often included serpent imagery. The meaning of the reptiles is unclear, but the annual shedding of their skins makes them symbols of renewal and regeneration. In some Precolumbian cultures snakes are metaphors for the cosmos and guardians of sacred spaces. In other cultures images of serpents with two heads have been interpreted as representing a sky band (an arch in the sky like a rainbow), which served as a passageway for the planets and stars. —HK





Nose Ornament with “Cat’s” Whiskers
 Colombia (Sonso), 13th–16th century
 Hammered gold, w. 10 in. (25.5 cm)
Jan Mitchell and Sons Collection,
Gift of Jan Mitchell, 1991 (1991.419.34)

Nose Ornament with Birds
 Peru or Ecuador, 2nd–3rd century
 From the site of Loma Negra
 Hammered gold, w. 3¼ in. (8.3 cm)
The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.1232)

Nose ornaments were of particular importance in many South American cultures. In Peru one excavated tomb of a distinguished ruler showed that he had been laid to rest sometime in the first century A.D. with five different types of nose ornaments on or near his face. Their various shapes and combinations of metals may have signified the function and/or rank of the individual. Some Moche examples are large and would have covered the lower half of the face, as illustrated by the examples on page 19, perhaps to conceal expressions and create a psychological distance between wearer and viewer. Many ornaments have plain, well polished surfaces, such as the example above with the long whiskers; others bear meaningful images, often of complex construction. Sometimes the dazzling effect of the gold is enhanced by numerous free-swinging dangles, such as those on the ornaments illustrated on page 19, which would catch

the light with the slightest movement of the wearer’s head.

At left, dangles also appear on the ornament with four small birds, with crests on their heads and long straight beaks, perched on a crescent. When the ornament was worn, the beaks pointed at the nose, as if pecking it. They are made of numerous separate, preshaped parts joined by soldering and crimping. The birds’ spread tails and wings are outlined by twisted elements. The species is difficult to identify. Perhaps they are seabirds, such as cormorants, which, because they dive deep below the water’s surface, had underworld associations for the Moche. They could also be hummingbirds, known for aggressive behavior and often shown in connection with Moche warriors.

Although most ancient American nose ornaments are of simple, elegant, inorganic design, some resemble natural forms. The graceful projections of the hammered example shown above recall cat’s whiskers. Perhaps the ancients viewed it as a simplified animal mask. —HK



Nose Ornament with Cats

Peru (Vicús), 3rd–5th century
 Hammered gold alloy, w. 4³/₈ in. (11.1 cm)
Jan Mitchell and Sons Collection,
Gift of Jan Mitchell, 1991 (1991.419.50)

Nose Ornament with Fantastic Face

Peru (Vicús), 3rd–5th century
 Hammered gold, w. 3⁵/₈ in. (9.2 cm)
Jan Mitchell and Sons Collection,
Gift of Jan Mitchell, 1991 (1991.419.49)

The Vicús culture was located along the middle reaches of the Piura River in the far north of Peru and lasted from about 200 B.C. to A.D. 600. Great numbers of shaft tombs, many dug as deep as fifteen feet into the desert ground, were discovered by local people in the 1960s near Cerro Vicús, the hill that gave the culture its name. The graves yielded huge quantities of ceramics and metal objects; many were in Moche style (see pp. 18, 19). It is not clear whether the two cultures coexisted or whether the Moche ruled over the Vicús. Vicús nose ornaments are distinctive in shape and iconography. The type shown above is semicircular with a small cut-out opening at the top for insertion into the nasal septum

and is decorated along the rim with rows of bosses. The main motif on the ornament on the right is a fantastic, seemingly grinning face with two tentacle-like extensions; the other bears two mirror-image cats in repoussé. While depictions of felines are also seen on Vicús ceramics, where they display menacing fangs and claws, the grinning image—perhaps an octopus—seems to occur only on gold nose ornaments. The different colors of the metal were intentionally created by controlling the amount of silver and copper in the alloys. The object on the right has almost three times as much silver in the alloy as does that on the left. —HK

Nose Ornament with Crocodiles or Lizards

Colombia (Sinú), 5th–10th century
 Cast gold, w. 6³/₄ in. (17.1 cm)
The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.1085)

The gold work of Colombia is the most diverse in style, technology, and iconography. Forms and sizes of nose ornaments are sometimes so extraordinary that they

seem unwearable to the modern viewer. Images of human figures in ceramic and metal show, however, that even very wide and thick ornaments were worn in the septum of the nose. Cast ornaments from the Sinú region in northwest Colombia sometimes feature animal forms such as lizards or crocodiles (below). They are further embellished with delicate cast filigree of braided and spiral elements.

Sinú gold pieces were distributed in a region described in sixteenth-century chronicles as Gran Zenú. Located in the tropical lowlands along the Caribbean coast of Colombia, it stretched from the Sinú River to the Nechí and Magdalena river areas. Recent research relates the gold works from this region to the Zenú, a culture that lasted until the conquest and the descendants of which still live east of the lower Sinú River. Some scholars call the style Zenú. —HK





Two Masked Figure Pendants

Colombia (Yotoco), 1st–7th century
 Cast gold, h. 2⁷/₈ in. (7.3 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.548)*

Colombia (Yotoco), 1st–7th century
 Cast gold alloy, h. 2³/₄ in. (7 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.549)*

Pendants, emblems or ornaments that hang from the neck, have been worn by humans almost as long as beads. Like beads, they were made from a great variety of materials, many of them natural elements that carried meanings associated with their sources. When displayed on the chest, for instance, the teeth or claws of a predatory animal imbued the wearer with its fierce characteristics. Those of foxes, bears, and the great cats were worn for millennia, either singly or in multiples on necklaces. Empowering and protective at the same time, such pendants remained important well into the era of the splendidly worked pieces illustrated on these pages.

The three small figure pendants shown on this page are less than three inches high. They are extraordinarily detailed, although they are among the earliest complex cast-gold objects yet identified from South America. Two of them wear spiky, abstract masks, behind which human faces are visible. A three-point, upright crown, partially obscured by the mask, tops the head, and a chest ornament stretches from waist to head, its jutting parts mixing with those of crown and mask. Staffs are held in the right hand; a small splayed animal or an animal-skin bag is in the left. The significance of this image with its accoutrements is debated among scholars. While undoubtedly associated with a ritual, perhaps one related to deer, the specific rite is still in question.

The color of the two pendants differs. The one below on the left is pinker, as there is a greater amount of copper in its makeup—roughly equal amounts of copper and gold with a small addition of silver. The yellower pendant is about 75 percent gold with silver and a small amount of copper. Such mixtures were common in finished gold products in the ancient Americas, where variety of surface color was much desired. —JJ



Two Animal-Headed Figure Pendants

Colombia (Yotoco or Quimbaya), 1st–7th century
 Cast gold, h. 2¹/₂ in. (6.4 cm)
*Gift and Bequest of Alice K. Bache, 1966, 1977
 (66.196.20)*

Colombia (Quimbaya?), 7th–10th century
 Cast gold, h. 3⁷/₈ in. (9.8 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.500)*

Other small, carefully cast Colombian figures of this early period integrate human and animal features. The upright stance, hands, and arms are human, but the face is that of an animal. The one shown above has a long, impressively pointed snout, leaf-shaped ears, two domes atop the cap, and a baton in each hand held up to the snout. The domes on the cap are particularly intriguing, and they have been described as everything from mushrooms to gourds to ceramic vessels. The image is complex, and it was meaningful for several centuries, during which time it became increasingly stylized. The pendants grew larger (right), the lower extremities became broader to balance the more florid top, numerous spirals decorated the ears, and vegetal elements sprouted from the domes. While the style changed, the significant details remained the same. As with the masked figure pendants, there is no current consensus regarding the meaning of the image. —JJ







opposite, top

Double Eagle Pendant

Colombia (Muisca), 10th–16th century

Cast gold, h. 4 5/8 in. (11.7 cm)

Purchase, *Alice K. Bache Bequest and Gifts in memory of Alice K. Bache, 1983 (1983.168)*

In Precolumbian times the Isthmian countries of Costa Rica and Panama formed a single metalworking region with neighboring northwest Colombia. Imagery and styles were closely related in the gold work of the area, as was technology, which favored lost-wax casting over hammering. With its spread tail, long, curved beaks, and highly polished surface, the double eagle pendant resembles well-known Isthmian forms. However, the wings folded like arms on the birds' sides and the anthropomorphized legs give the creatures a human aspect rarely seen on Isthmian eagle pendants (see pp. 44, 45).

The Muisca people, also known as the Chibcha, occupied the fertile basins in the high mountains of the eastern Andes in the area near the capital of Colombia, Santa Fe de Bogotá, and the town of Tunja. The Muisca and Lake Guatavita, north of Santa Fe de Bogotá, are associated with the famous legend of El Dorado (the Gilded Man). Sixteenth-century accounts state that before taking office each new Muisca ruler was covered from head to foot in gold dust and conveyed on a raft to the middle of the lake. There, he threw quantities of gold objects into the water as offerings to the gods. In the centuries since the conquest countless lives and great fortunes have been lost in attempts to recover the treasures. The most serious effort was undertaken

at the end of the sixteenth century by a wealthy merchant from Santa Fe de Bogotá who, with the help of eight thousand local workmen, cut a great notch—still prominent in the landscape—into the mountain on one side of the lake and lowered the water level by about sixty feet. Countless gold objects and other offerings, including an emerald the size of a hen's egg, were recovered from the edges of the lake bed. Several expeditions followed, but the central zone of the lake remains untouched. In 1965 the Colombian government placed it under legal protection as part of the nation's historical and cultural heritage. —HK

opposite, bottom

Pendant with Bird

Colombia (Muisca), 10th–16th century

Cast gold, h. 4 1/4 in. (10.8 cm)

The Michael C. Rockefeller Memorial Collection, Bequest of Nelson A. Rockefeller, 1979 (1979.206.526)

this page

Pendant with Bird

Colombia (Muisca), 10th–16th century

Cast gold, h. 2 3/8 in. (6 cm)

Purchase, Gifts in memory of Alice K. Bache and Rogers Fund, 1992 (1992.121)

Because the Muisca did not find sources of gold in their territory, they bartered emeralds, cotton cloth, and salt for the precious metal. Many Muisca pieces differ from other Precolumbian gold work in function and in manufacture, particularly the votive offerings called *tunjos* (see fig. 4), which were not wearable. They were

invariably lost-wax casts of *tumbaga*, an alloy containing as much as 70 percent copper. The surfaces on Muisca gold objects are rougher than those on objects from other areas; they were often left unpolished, as were the two pendants with birds. They feature cut-out patterns, delicate herringbone and twisted-rope moldings, scrollwork, and a multitude of dangles. The dangles were attached after the initial casting.

Birds are the most frequently depicted creatures in Colombian gold work. Although their exact species is often difficult to determine, a wide range of types is shown in a variety of ways. It has been suggested that birds were chosen for depiction in gold, a highly symbolic material in ancient American cultures, because of their association with shamanism. Birds fly and sing, as does the spirit of the shaman on his journey to the spirit world. —HK





Figure Pendant

Colombia (Tairona), 10th–16th century
 Cast gold, h. 5½ in. (14 cm)
 Gift of H. L. Bache Foundation, 1969 (69.7.10)

Works in gold made by the Tairona people of the Sierra Nevada de Santa Marta in north Colombia emphasize volume and three-dimensional form. The two figures shown here are part of a small group called *caciques*, meaning “chieftains,” because of their flamboyant, awe-inspiring appearance. *Caciques* range from about one to six inches in height and are among the most spectacular and detailed Precolumbian gold castings. They are hollow, having been cast by the lost-wax method in *tumbaga* to achieve remarkable detail. Loops in back indicate that they were worn as pendants.

There are two types of *cacique*: one is fully human (above, left); the other is similar but has the head of a bat or crocodilian (above, right). Both wear enormous head-dresses, sometimes as tall as they are, with two large birds on the front and elaborate sidepieces. The human-headed pendant also has a visor or diadem, a kidney-shaped nose ornament, a labret in the lower lip, disk-headed rods and crescent-shaped danglers through the earlobes, a necklace, a belt, and armbands. The tiny ornaments display minute details and are comparable to full-size examples found in Tairona tombs. Whether a portrait of a ruler, a rendering of a supernatural ancestor, or a depiction of a shaman in the state of symbolic and spiritual transformation (assuming the features of a helping animal spirit), such a powerful image could only have been worn by individuals who were themselves powerful in Tairona society. —HK



Masked Figure Pendant

Colombia (Tairona), 10th–16th century
 Cast gold, h. 5¼ in. (13.3 cm)
 Jan Mitchell and Sons Collection,
 Gift of Jan Mitchell, 1991 (1991.419.31)
 detail shown on opposite page

Caciques are usually shown in an aggressive, hands-on-hips stance holding spiral objects, as does the one on the right. The figure on the left is unusual because it grasps what might be rattles (one is now missing) in its raised hands, perhaps as part of a ritual dance. It is not clear whether animal-faced *caciques* depict composite beings from Tairona mythology or are masked humans engaged in a rite or ceremony. It has been suggested that the folds defining the animal face on the figure, as seen in the detail, may indicate the edges of a mask similar to wooden ones used today by the Kogi, descendants of the prehistoric Tairona people. The diamond-shaped element on the snout refers to the nose leaf of certain bat species, while the square jaw and bared teeth recall crocodilian features.

Many species of bat are found in the tropics of Central and South America. Some feed on blood, while others eat insects and fruit; still others feed on nectar and pollen. They are therefore seed dispersers or pollinators and may have symbolized fertility. In Kogi mythology the bat is said to have been the first animal in creation. Bats are also considered spirits of the forest and are often thought to be transformed birds and messengers of spirits or shamans. —HK



Costumed Figure Pendant

Colombia (Tolima), 1st–7th century
 Cast and hammered gold, h. 7 ³/₈ in. (18.1 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.497)*

Anthropomorphic Pendant

Colombia (Tolima), 1st–7th century
 Cast and hammered gold, h. 6 ³/₈ in. (16.2 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.557)*

Objects in the Tolima style come from Colombia’s Magdalena Valley, an area that is poorly understood archaeologically, as little professional excavation has been undertaken there. The Tolima gold objects known today are from undocumented finds primarily made by local people. In a limited range of shapes, they are almost flat and have strong, symmetrical outlines. Their distinct and identifiable forms verge on abstraction. However, human details are included in aspects of the face, notably the prominent, long, slender noses. The pendants with elaborate openwork mid-sections and “fringed” arms are puzzling, although it is possible that an imposing costume, perhaps a feathered one, is meant by these images.

Tolima pendants’ spread “wings” have been related to both bird and bat imagery, and the bifurcated tail to that of serpents. Some examples with large bifurcated tails are in the form of a splayed human figure with extended “arms” and “legs.” Common to both pendant types are the big, floppy ears, yet another animal characteristic incorporated into these complex compositions. Many of the beings are depicted, as in these two pendants, with bared teeth, a detail that has been identified with felines, foxes, and bats. Here, however, the teeth do not include the prominent fangs customarily present in predator images. —JJ

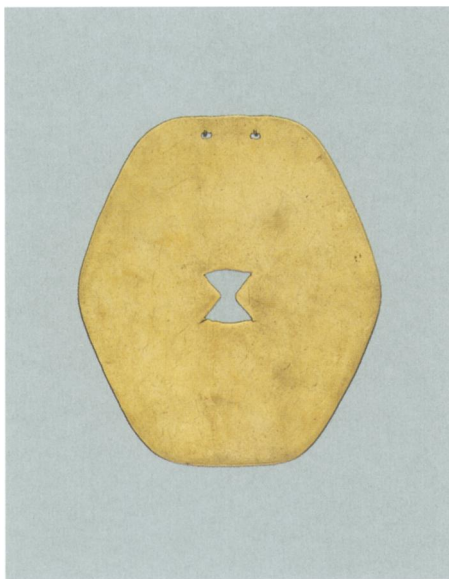
Pectoral

Colombia (Sonso), 13th–16th century
 Hammered gold, h. 14 ³/₈ in. (36.5 cm)
*Jan Mitchell and Sons Collection,
 Gift of Jan Mitchell, 1991 (1991.419.35)*

Few peoples of Precolumbian America were as successful as those of southwest Colombia at working gold into forms that are essentially pure shape, with not even minimal human or animal features or decorative patterns. The craftsmen of the Calima Valley region, where there was a long tradition of working the metal, display this ability in the tall pectoral. The slender T-shape has only the gold wire strung through the top as an ornament, and its overall simplicity underscores its distance from the ornate forms more frequent in Precolumbian gold.

Originating in the same region as the pectoral shown at the top of page 11, but many centuries later in date, this plain object amply illustrates the substantial change in aesthetic that occurred between the elaborate, early Yotoco and the minimal, late Sonso forms. As Sonso pieces exist in smaller numbers than Yotoco ones, it is possible that the people of the Calima region controlled fewer gold resources in the mid-second millennium A.D. than they did a thousand years earlier. —JJ





Pendant

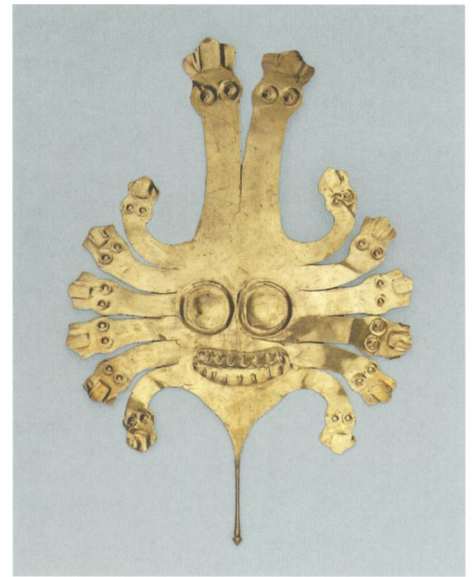
Colombia (Capulí), 4th–10th century
Hammered gold, h. 5¾ in. (14.6 cm)
Bequest of Alice K. Bache, 1977 (1977.187.21)

Oval Plaque

Argentina (Condorhuasi), 1st–7th century
Hammered gold, h. 4½ in. (11.4 cm)
*Jan Mitchell and Sons Collection,
Gift of Jan Mitchell, 1991 (1999.419.70)*

The tendency toward abstract form in gold objects is nowhere more apparent than in those of the Capulí era, in the south highlands of Colombia. Identified with the earliest gold work from Colombia's department of Nariño, the Capulí style is also found in adjacent Ecuador. While the basic outlines of many Capulí pendants are similar to those of other Colombian figural images, all vestiges of human and animal details have been eliminated. The pendant at the top, left, is thoroughly linear and so thoughtfully conceived that the suspension loop visible at the top has been integrated into the overall design. Most Precolumbian pendants have loops at the back where they cannot be seen. There is an ancient repair on the ornament's projection at the lower right. Such repairs are not uncommon.

The indigenous peoples of northwest Argentina had cultural ties to other south Andean groups and followed basic southern metalworking traditions—probably introduced from highland Peru/Bolivia—but Argentine objects have a distinct character all their own. The pendants, or *placas ovals* (oval plaques), as they are known in Argentina, are among the earliest gold pieces produced there and are closest in form to their antecedents. Named Condorhuasi, for a site in Catamarca Province where gold-bearing tombs were discovered, the style of the pendants is quite uniform and straightforward in its geometric simplicity. The ornaments differ from the pieces of more complex construction and iconography associated with the great highland city of Tiwanaku, in Bolivia, with which they are partially contemporary, and from later works in metal from northwest Argentina. —JJ



Dance Wand with Face

Peru (Nasca), 1st–2nd century
Hammered gold, h. 13¾ in. (34.9 cm)
*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.831)*

Compared to the lavish elite burials of the Peruvian north coast, south-coast tombs have yielded only modest finds of gold of simple design and technique. Among the few objects are those with thick, rigid stems, suggesting that they were held, perhaps during ritual dances. They also may have been fastened in the turbanlike headdresses of elite individuals.

The face on the wand above recalls a motif frequently seen on south-coast painted ceramics and textiles, where it appears on a full figure holding a knife and/or trophy head. The face has the round staring eyes, the toothy mouth, and the snakes projecting from the sides and top of a creature known in Nasca iconography as the Oculate Being. This mythological figure is associated with a trophy-head cult. —HK

Ornamented Plume or Pin

Peru (Pukara), 2nd century B.C.–2nd century A.D.
Hammered gold, h. 5½ in. (14 cm)
Purchase, Anonymous Gift, 1984 (1984.14)

A number of Precolumbian gold objects have such individual shapes that their function is conjectural. This elaborately incised, double-sided plume may have been worn as a headdress decoration or as a large straight pin. A tour de force of the goldsmith's art, it is incredibly even in thickness (from .3 to .4 millimeters, less than 1/50 in., in all but the "stem") and is chased on each side with a front-facing, masked figure whose body is in profile. The impressive mask is round, with big, ringed eyes, an open mouth showing fangs, and a snoutlike nose. Rays emanate from the mask. The figure appears to be striding forward, wears what may be an animal-skin cloak, and holds short staffs before it. Beneath the cut-out top of the plume is a "corral" containing four spotted animals, perhaps llamas. Flanking it are three complex, unmasked figures in profile; two hold standards, and one carries a small animal in a sack on its back. A ceremony involving animals or animal sacrifice seems to be depicted, and, if so, the narrative content of the scene is uncommon in the elaboration of ancient American gold objects.

Known as the Echenique Plume for a nineteenth-century owner, it is thought to be in the Pukara style, an elusive but significant early manifestation associated with a site of the same name not far from Lake Titicaca in the south Andean highlands. Technologically sophisticated, the Pukara peoples had close, perhaps ancestral, ties to the later highland city of Tiwanaku. —J



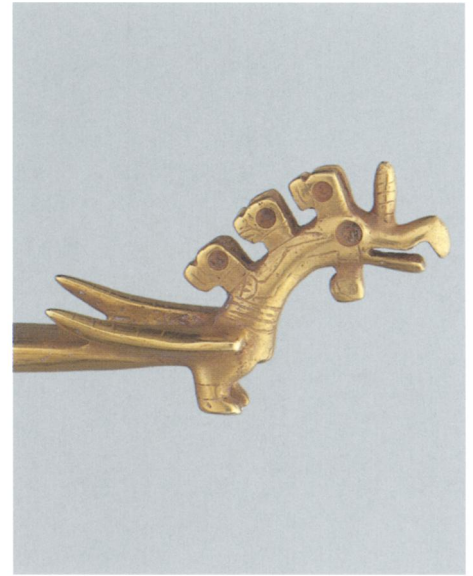


Lime Dipper or Pin

Colombia (Yotoco), 1st–7th century
 Cast gold, h. 22³/₄ in. (56.5 cm)
*Jan Mitchell and Sons Collection,
 Gift of Jan Mitchell, 1991 (1991.419.23)
 detail shown above*

In southwest Colombia grand dippers were cast in gold for use during the coca-chewing ritual, which was widespread in the highlands of South America in Precolumbian times. Standard coca paraphernalia included a small bag for leaves and a container (opposite, right), as well as a dipper or spoon for powdered lime. The utensils could be quite elaborate and precious. Some dippers are of such impressive size and extraordinary imagery that, when first discovered, they were thought to be scepters or staffs. The finial of this example depicts an engaging, puffed-up bird standing on a grinning creature that is all head, ears, legs, and arms (it can also be read as two back-to-back profile figures). The meaning of this double image, also known from other tall dippers, is unclear but may relate to shamanism and the spirit world.

The indigenous way of using coca was to place a quid of leaves in the cheek and then gradually to add lime, taken from the container with a dipper or spoon, in order to enhance the stimulating effect. In ancient times coca chewing was a male activity. While today coca maintains a role in religious ceremonies in the Andes, it is more widely used by men and women alike for other purposes, such as to relieve headaches, to suppress feelings of hunger and thirst, and to increase physical endurance. —HK



Lime Dipper or Pin (detail)

Bolivia (Tiwanaku), 5th–10th century
 Cast gold, h. 13³/₄ in. (34.9 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.753)*

The bird on this dipper is in a style found in the art of Tiwanaku, an influential city-state during the second half of the first millennium A.D. in the highland basin of Lake Titicaca, in modern Bolivia. At this time in the south Andes the use of plants as stimulants, as medicine, and to induce trances during curing, fertility, and other ceremonies seems to have increased in importance, since many objects related to those activities have been discovered; only a few are of gold. —HK



Staff Head with Owl

Colombia (Sinú), 5th–10th century

Cast gold, h. 4¾ in. (12.1 cm)

The Michael C. Rockefeller Memorial Collection,

Bequest of Nelson A. Rockefeller, 1979

(1979.206.920)

The staff heads from Caribbean Colombia are the most distinct type of object to come from a specific gold-working region in ancient America. Made for many hundreds of years, the very sculptural staff heads were unique to the lowlands of the Zenú area (see p. 21). Given the commonality of Precolumbian gold forms, this is a notable exception. Thought to be emblems of rank, they consist of a caplike base oriented at right angles to the three-dimensional images of birds, humans, and/or animals with which they are topped. The small sculptures have considerable appeal for the modern viewer, as does this alert owl with its wide face, beady eyes, and elaborate openwork chest. The heavy, slightly rough cast lends the bird an air of spontaneity, which is heightened by the obvious flaw on the owl's right cheek. (No effort was made to correct it.) Owls and waterbirds are among the most frequent avian images on Sinú staff heads. —JJ



Lime Container (Poporo)

Colombia (Quimbaya), 1st–7th century

Cast gold, h. 9 in. (22.9 cm)

Jan Mitchell and Sons Collection,

Gift of Jan Mitchell, 1991 (1991.419.22)

The broad-shouldered gold bottles made during Quimbaya times attest to the high level of technical sophistication and the artistic sense of form developed by ancient American metalworkers. The Quimbaya style was first identified in 1890, when the so-called Treasure of the Quimbayas was discovered near the village of Filandia, in the region of the middle Cauca River. The 122 works in gold represented the funerary offerings of six important individuals buried in two tombs. Among the objects were seventeen magnificent bottles, known as *poporos* in Colombia,

that contained powdered lime made from calcined seashells. While some of the bottles are in the shape of male and female nudes, others are decorated with standing unclothed humans in relief, as is this exceptionally elegant example displaying a boldly curved outline that creates pleasing positive and negative spaces. The meaning of the nude images, which usually wear necklaces and wrist, knee, and ankle ornaments, is not known. —HK



opposite

Ceremonial Knife (*Tumi*)

Peru (Lambayeque), 10th–11th century
Hammered gold with turquoise inlay, h. 13 in.
(33 cm). *Jan Mitchell and Sons Collection,*
Gift of Jan Mitchell, 1991 (1991.419.58)

The Lambayeque culture, also known as Sicán, developed on Peru's north coast after the decline of the Moche in the eighth century and flourished until it was conquered by the Chimú in the twelfth century. The royal Lambayeque tombs in the La Leche River valley contained the most impressive hoards of metal objects ever found in the Americas. One burial reportedly consisted of more than two hundred large precious-metal objects, including masks, beakers, and ceremonial knives of the kind shown here and on pages 36 and 37.

The knives, also called *tumis*, are among the most distinctive forms of ancient Peruvian gold work. They have a semicircular blade and a richly decorated handle, which is topped by a human head or a full figure wearing a large, fanned-out headdress that is often embellished with stone inlays, as seen on this example. Such crescent-bladed implements first appeared in Peru over one thousand years earlier, in the art of Paracas and Moche, where they are held by supernatural figures seemingly engaged in acts of sacrifice. Lambayeque knives in gold and silver are too delicate to have served as tools or weapons and may have been displayed in rituals as emblems of status and power.

The frontal face that appears in low relief on many Lambayeque gold objects is thought to be that of the Lord of Sicán (see also pp. 36 and 37). Some scholars believe it represents the supreme Sicán deity or, perhaps, Naymlap, the legendary founder of the dynasty. The image is distinguished by almond- or comma-shaped eyes. —HK



Two Beakers with Upside-Down Faces

Peru (Lambayeque), 10th–11th century
Hammered gold, h. (each) 7⁷/₈ in. (20 cm)
Jan Mitchell and Sons Collection,
Gift of Jan Mitchell, 1991 (1991.419.60, .61)

In full-figure depictions of the Lord of Sicán, as seen on the beaker at the left, his high status is underscored by fancy dress and emblems of rank, such as staffs held in each hand, large circular ear ornaments, and a wide, tiered headdress topped with feathers.

Common among Lambayeque beakers in precious metal (they were also made of silver) are those with faces that are upright when the vessel itself is upside down. The mouths of the faces on such beakers usually display teeth and fangs. Many of the beakers are very similar in size, weight, and decoration, leading some researchers to suggest that a common prototype or mold may have been used. The only difference between the two illustrated above, one pictured from the front and the other from the back, is in the design of the medallion hanging from the cap worn over the hair, which is in thick strands and decorated on the ends with disks or tassels. —HK



Beaker with Repoussé Figure

Peru (Lambayeque), 10th–11th century
Hammered gold, h. 5⁷/₈ in. (15 cm)
Jan Mitchell and Sons Collection,
Gift of Jan Mitchell, 1991 (1991.419.63)



Beaker with Figure Displaying a Shell
 Peru (Lambayeque), 10th–11th century
 Hammered gold, 10³/₈ in. (26.4 cm)
Jan Mitchell and Sons Collection,
Gift of Jan Mitchell, 1991 (1991.419.62)

Lambayeque face beakers give the impression of being sculptures in the round of broad human heads wearing wide caps. The faces depicted on rightside-up beakers usually appear above abbreviated torsos. While there are no legs and feet, there are hands that often hold a spondylus shell, as shown on this massive example. The shells were greatly treasured in Precolumbian times and were used for many ritual and ornamental purposes. The characteristic comma-shaped eyes do not appear on the faces on these beakers.

The tall Lambayeque beakers with flaring sides and flat bases are remarkable works, not only because of their astonishing size but also because of their numbers.

One royal tomb is said to have contained 176 such vessels. They were found in stacks of about ten of similar size, shape, and iconography. The large quantity of gold beakers in burials suggests that they served in ritual contexts in courts and temples during the lives of important individuals before being placed in their tombs.

Manufacturing the beakers required great skill to prevent cracking. They were raised from single, flat sheets of gold, usually with some copper and silver in the alloy. The faces and hair (see p. 35) were worked by hammering the metal over a former, which was probably carved of wood. Those with upside-down faces have the highest gold content, 81 to 84 percent (20 karat). —HK

Funerary Mask

Peru (Lambayeque), 10th–11th century
 Hammered gold, cinnabar, and copper overlays,
 w. 19¹/₂ in. (49.5 cm)
Gift and Bequest of Alice K. Bache, 1974, 1977
(1974.271.35)

Some of the largest Precolumbian gold objects came from the royal burials at Batán Grande, a site named for the modern hacienda in the La Leche River valley on which it is located. Presumably Batán Grande was the Lambayeque ceremonial and funerary center. This culture is sometimes called Sicán, meaning “house [or temple] of the moon,” the Muchik name (the language is now extinct) for Batán Grande.

As many as five gold masks, from 10 to 29 inches in width, are said to have been found with other precious offerings in these rich tombs. Recently, archaeologists discovered the burial of a mighty Lambayeque lord. His face was covered by a sheet-gold mask of the type shown here. It was painted with bright red cinnabar and embellished with nose and ear ornaments and dangles. In some South American countries today red is thought to have protective qualities. The mask’s red pigment may have been meant to protect the deceased in the after-life. Much of the original pigment shows impressions made by the burial wrappings. The U-shaped copper nose ornament and copper overlays with gold dangles are also preserved. Poorly understood features on Lambayeque burial masks are the skewer-like projections from the pupils of the eyes. Perhaps they symbolize the live ruler’s penetrating gaze.

It is possible that the masks were displayed on the bodies of important Lambayeque nobles in ceremonies before their interment. This example is made of an alloy of 74 percent gold, 20 percent silver, and 6 percent copper. —HK





Double Eagle Pendant

Panama (Initial style), 2nd–7th century

Cast gold, h. $4\frac{3}{8}$ in. (11.1 cm)

*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.538)*

The knowledge of the working of gold and other metals moved north from South America, traveling, as is currently believed, from Colombia's Gulf of Urabá to the lower Central American region that is now Panama. How the transfer took place is not known. One possibility is that itinerant goldsmiths led the way. The exact means may never be determined, as, unfortunately, no record of any form of ancient interchange between north Colombia and the Central American countries exists today except the objects themselves.

There is substantial similarity in the works of the two regions for the period in which the transfers are thought to have taken place, perhaps sometime during the second century A.D. Not only is the imagery similar but the objects share a technological style. This double eagle pendant illustrates both aspects. Cast by the lost-wax technique already common in Colombia, the twin birds with their basic features—unified head-beak, slightly domed bodies, and wide, straight tail—represent a type known from the Zenú region of Caribbean Colombia, a lowland area not far from the Gulf of Urabá. Comparable examples have been excavated in Panama's Azuero Peninsula on the Pacific coast. Although the specific find spot of this pendant is not known, Panama is its reported provenance.



Eagle pendants became a particular favorite of Central American gold workers and their patrons, and they continued to be produced in many styles, sizes, and with variations of detail for centuries. While opinions differ as to the kind of bird depicted, suggestions range from hummingbirds to raptors. At least one function associated with the eagle pendants appears to be the protection of the wearer.

After the introduction of the technology from Colombia and the discovery of local sources of the metal in Panama and Costa Rica, the gold-working regions of Central America, these countries developed their own imagery and uses. Although the cast pendant was a constant through the centuries, circular disks of hammered sheet gold were also made to wear as chest ornaments (right). Adornments for the nose and ears were much less popular than in South America, but a few examples remain (above). Embellishments for the head also are more limited in number than South American models. They often took the shape of skullcaps, some of which had elaborate raised decoration. —JJ



Nose Ornament

Panama (Venado Beach), 5th–8th century
 Cast gold, h. ½ in. (1.27 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.1352)*

Pair of Ear Rods

Panama (Macaracas), 8th–12th century
 Hammered gold and greenstone,
 l. (each) 5¾ in. (14.6 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.729, .730)*

Pectoral Disk

Panama (Veraguas?), 11th–16th century
 Hammered gold, diam. 8¼ in. (21 cm)
Bequest of Alice K. Bache, 1977 (1977.187.28)



Two Curly-Tailed Animal Pendants

Panama (Initial style), 2nd–7th century

Cast gold, w. 2¾ in. (7 cm)

Gift and Bequest of Alice K. Bache, 1966, 1977
(66.196.36)



Panama (Initial style), 2nd–7th century

Cast gold, h. 1¾ in. (4.5 cm)

Edward C. Moore Collection,
Bequest of Edward C. Moore, 1891 (91.1.1166)

Among the intriguing and much-favored Panamanian cast pendants is the curly-tailed animal, a form that is found in both Colombia and lower Central America. Believed to date to as early as the second century A.D., when gold working was introduced into Panama from Colombia, the Panamanian versions are said to belong to the “Initial” style. The curly-tailed animals, so called for the impressively large tails that extend up over their backs, vary considerably in detail and have been identified as everything from dogs to ducks, but the tail, at least, is thought to be simian in derivation. It is clearly the significant element of the composition, and, when the pendant was worn, the tail would have been the most visible part of the ornament.

Produced for centuries in lower Central America, the “curly tails” were rendered in both gold and semiprecious stone; they were one of the few ancient images to be made in both materials. Pendants of multiple animals—usually in even numbers, such as the four in a row illustrated above—are frequent. These “curly tails” have animal bodies, but their heads end in beaklike snouts, perhaps adding turtle or bird attributes to the complexity of the image.

The single-animal pendant shown here was one of the first Precolumbian gold objects to enter the Metropolitan collections. It came as part of a bequest in 1891. —JJ



Two Stylized Figure Pendants

Panama (International style), 5th–7th century
Cast gold, h. 2¾ in. (7 cm)

Gift and Bequest of Alice K. Bache, 1966, 1977
(66.196.35)

Panama (International style), 5th–7th century
Cast gold, h. 2¼ in. (5.7 cm)

*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979*
(1979.206.550)

Composite Pendant

Panama (International style), 5th–7th century
Cast gold, h. 3¼ in. (8.3 cm)

*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979*
(1979.206.779)



An especially impressive group of cast-gold ornaments from Panama and Costa Rica is known for the broad uniformity of its artistic and technological styles. Correspondences with similar qualities in works from Colombia, and in objects that were traded as far north as the Yucatán Peninsula, have led to their “International” designation. While their distribution in the Americas seems to have been widespread, their imagery, while easily identifiable, is not always decipherable. The two stylized figure pendants are a case in point. They have human faces beneath sweeping head-dresses, and they appear to be in an upright stance. However, their arms are more like elongated fins—in one instance the fins are serrated—and the figures terminate in notched, split tails. The example above, center, with a goateelike facial ornament, wears an additional face on its chest—a most unusual feature. Specific animal attributes, if present in these pendants, are well concealed. The fluid simplicity of their designs and the smooth, almost silken surfaces of International style objects distinguish them from much Central American gold work, which is more textured and direct in depiction.

Other International style ornaments include creatures with identifiable elements but in unexpected combinations, such as the fish-faced, human-torsoed, sea-horse-bodied pendant shown at the right. Human shoulders, arms, and hands are



integrated into the sea-horse body. The creature holds a bar, which is missing the original danglers, in front of its long fish face. While numerous Precolumbian gold images integrate elements from as many as three different creatures—and sometimes those of humans—few combinations are as rare as this one. Sea horses are extremely scarce in any medium in ancient America, and only a small number of such objects are known from Panama, where depictions have appeared on pieces from Sitio Conte, in Coclé Province; this pendant may have come from that site. —JJ



Double Bird Pendant

Panama (Macaracas), 8th–10th century
 Cast gold and quartz, h. 1³/₄ in. (4.5 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.485)*



Double Insect Pendant

Panama (Macaracas), 8th–10th century
 Cast gold and greenstone, h. 1 in. (2.5 cm)
Bequest of Alice K. Bache, 1977 (1977.187.20)

Double Crocodile Pendant

Panama (Macaracas), 8th–10th century
 Cast gold and quartz, h. 1¹/₂ in. (3.8 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.733)*



There are few instances in which cast pendants included elements other than gold. One of the most successful occurred in central Panama, where a group of objects considered Macaracas in style were produced in materials that varied in substance, color, and texture. (The style is named for the era's polychrome ceramics, which were deposited as grave offerings together with the gold objects.) In those pieces composite materials, quartz of translucent pinkish hues, stones of dense green tonalities, white shell, animal tooth, and even large Colombian emeralds were used. The gemstones point to the existence of interchange between Panama and Colombia and also to the importance assigned to these objects by their makers and wearers. Most frequently, the additions formed the tails of the gold images, as is seen in the fine pendants illustrated here. A pair of human torsos with birds' heads (top) and a pair of crested crocodiles (bottom) have quartz tails, while the tiniest ornament (center) is embellished with tails of brilliant greenstone. All are pleasing in the combination of colors and textures and in the appropriateness of material to image. —JJ



Double Crocodile Pendant

Panama (Macaracas), 8th–10th century
 Cast gold and shell, h. 3¾ in. (9.5 cm)

Jan Mitchell and Sons Collection, Gift of Jan Mitchell, 1991 (1991.419.17)

detail shown at right

The elegance of workmanship and mastery of representation realized in the so-called crested-crocodile pendants are indications of the great significance these ornaments had in central Panama at the end of the first millennium A.D. Grand depictions of the creatures were made in gold in both cast and hammered forms, and in excavations they have proved to belong to the wealthiest persons of their time and place.

Crested crocodiles are composite creatures made up of different human and animal elements, and while the details can be isolated and identified, the aggregate is puzzling. Salient among the meaningful characteristics are the long, toothy crocodilian snout with the extended, bifurcated tongue; the upwardly curled nose related to that of a bat; and the flowing crest thought to derive from the iguana's. Crocodilians, bats, and iguanas have numerous diverse associations among indigenous American peoples, which, at their simplest, might relate crocodiles to earth and water, bats to night, and iguanas to sky. But such simplification does not help in understanding the pendants' imagery. The combination of the various animal features, however, must have had a specific import that increased the wearer's status and the ability to control natural and/or supernatural forces.



Double figural elements are found in some of the earliest identified Central American gold objects, and they continued to be incorporated for most, if not all, of the centuries the metal was in native use. The doubling shown on this page places two figures in an identical, but reversed, image and probably served to increase the power of the individual representations. With time, however, slight variations between the figures developed, perhaps suggesting a difference in rank or in gender between them. —JJ



Double Eagle Pendant

Panama (Veraguas), 11th–16th century

Cast gold, h. 5½ in. (14 cm)

The Michael C. Rockefeller Memorial Collection,

Bequest of Nelson A. Rockefeller, 1979

(1979.206.907)

Few ancient American gold objects are as well known today as the so-called eagle pendants. Bird pendants of the type illustrated here were first named *aguilas* (eagles) by Columbus, who observed them being worn by local people hung from their necks, as “an Agnus Dei or other relic,” when he sailed along the Caribbean coast of Central America in the early 1500s. Bird imagery remained important to indigenous belief in the region into the twentieth century. In central Costa Rica the last native chief of the Talamanca, who died in 1910, had six gold eagle pendants among his official regalia.

Many varieties of birds abound in Central America, and there is much speculation about the species represented on the pendants, given the great variety in the shapes and sizes of the beaks. Some researchers believe that they are birds of prey because of the prominent beaks and claws and the various items often held in them. High-flying eagles and hawks were often linked to the sun. However, the

symbolic meaning of such images in gold in ancient times is not known, since their makers did not leave written records.

Today in the mythology of the Bribri of Costa Rica the principal deity, called Sibó or Sibú (Creator of All Things), takes the form of a kite or buzzard that wears a collar. Collars or necklaces are standard features on bird pendants throughout the Isthmian region (left and right).

Eagle pendants exist today in substantial numbers and come from a wide area, from Costa Rica to north and central Colombia. Metalworkers in this region favored lost-wax casting over hammering and for the most part used the gold-and-copper alloy known as *tumbaga*. The percentages of copper in the alloys varied, accounting for a wide range of reddish and yellowish gold tones. The surfaces of *tumbaga* objects were usually enriched by the *mise en couleur* process (see p. 7). The interior of the pendant at the left is 9-karat gold; the surface is 21-karat. —HK



Two Eagle Pendants

Panama or Costa Rica (Chiriquí), 11th–16th century
 Cast gold, h. 5⁵/₁₆ in. (14.3 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.906)*

Panama (Veraguas), 11th–16th century
 Cast gold, h. 3³/₄ in. (9.5 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.540)*

Isthmian depictions of birds emphasize the head, spread wings, and fanned-out tail; the heads vary most in detail. Despite the consistent basic morphology, a number of features allow for specific stylistic attributions. Eagles assigned to the Veraguas region of Panama (far left and far right) are sharp-edged and have cleaner outlines than those from Chiriquí (located on both sides of the Costa Rica/Panama border), which have more rounded contours (center and fig. 8). Wings and tails on Veraguas eagles are composed laterally, with wide, crescent-shaped wings balancing the long side extensions of the tails. Chiriquí birds, on the other hand, emphasize verticality. The heads of Veraguas eagles are often more elaborate than those of Chiriquí examples. The eyes of the double-headed bird are bulbous and contain clappers, and those of the bird at the right are funnel shaped. In addition, the latter eagle has a head crest, tufts in the form of crocodiles in profile, ear ornaments, and a choker-style necklace. On the head of the

Chiriquí bird illustrated in the center two tufts echo the shapes of the wings, creating a pleasing, ascending visual rhythm. The powerful beak holds a small four-legged creature. Veraguas-style birds are rarely shown holding small animals in their beaks or talons. —HK



Three Frog Pendants

Costa Rica (Chiriquí), 11th–16th century
 Cast gold, h. 4½ in. (10.5 cm)
*Jan Mitchell and Sons Collection,
 Gift of Jan Mitchell, 1991 (1991.419.1)*

Panama (Parita), 12th–16th century
 Cast gold and tooth inlay, h. 2½ in. (6.4 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.1072)*

Panama (Chiriquí?), 11th–16th century
 Cast gold, h. 2¾ in. (7 cm)
Gift of Meredith Howland, 1904 (04.34.6)



Frogs are frequently depicted in many sizes and styles in the gold work of Costa Rica and Panama, a tropical region where numerous species abound, from small terrestrial frogs to giant tree frogs. Many have poisonous skins and are vibrantly colored. A tree frog, with its long, thin hind legs, may be depicted at the top. Bifurcated tongues, a pervasive serpent symbol, emerge from the sides of its mouth as stylized split scrolls. The hind feet are oversized, flattened rectangles, perhaps to better reflect the sunlight. Gold frogs from the Azuero Peninsula of Panama, where the example in the middle was found—reportedly near the Parita River, which gave the style its name—are often ornate, with scrolls and spirals in cast filigree, as well as inlays of shell or stone. This frog is also a bell: its bulbous eyes contain clappers. The spirals around the mouth of the frog at the bottom may be symbols of water.

In many Precolumbian cultures frogs and toads were associated with water and vegetation. They also appear in myths about man's acquisition of fire, of which they are donors, carriers, or keepers. Most of them have "fire" in them, as they produce toxins. Some of the most poisonous frogs, notably *Dendrobates*, are gold colored. In South American lore the croaking of frogs foretells death and the journey to the underworld. The Bribri of south Costa Rica consider them burial helpers who sit on graves to prevent the deceased from arising to trouble the living. —HK



Three Turtle Pendants

Panama (Veraguas), 11th–16th century
Cast gold, h. 2¼ in. (5.7 cm)

*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.489)*



Panama (Veraguas), 11th–16th century
Cast gold, h. 4 in. (10.2 cm)

*Gift and Bequest of Alice K. Bache, 1974, 1977
(1974.271.50)*

Panama (Veraguas), 11th–16th century
Cast gold, h. 2¼ in. (5.7 cm)

*Gift and Bequest of Alice K. Bache, 1966, 1977
(66.196.4)*



Bells were produced in large numbers in many materials, shapes, and sizes throughout the Precolumbian era. Their functions were numerous and diverse: they were used as musical instruments, costume ornaments, funerary and sacrificial offerings, and even as a medium of exchange. Many gold pendants are bells. Those from Costa Rica and Panama are often in the shapes of turtles, crabs, birds, and spiders and range in height from under one inch to four inches. Turtle-pendant bells form a sizable group, as the domed, enclosing shape of the shell is well suited to hold a clapper. These three examples are hollow cast with clappers in their bellies. The clappers were contained in the core material and were released when that material was removed through slits on the undersides of the objects after casting. The turtles vary widely in detail, as, for example, in the elaboration of the heads and backs. The turtle at left, center, holds a double-ended serpent that forms a circle. A curious and still unexplained feature is the bifurcated tail.

Like frogs and toads, turtles are earth and water symbols and appear frequently in Precolumbian art from Mexico to Panama, but they are rare in images from Colombia and Peru. Earth gods are often shown emerging from turtle shells, and Mexican and Maya altars and thrones are sometimes in the form of turtles. Turtle shells were used as drums and have been found in Maya tombs and in Aztec offerings. —HK



Two Shark Pendants

Panama (Chiriquí), 11th–16th century
Cast gold, l. 3¾ in. (9.5 cm)
Gift of Meredith Howland, 1904 (04.34.7)

Panama (Chiriquí), 11th–16th century
Cast gold, l. 3¼ in. (8.2 cm)
*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.1054)*

The subject matter of Isthmian gold work is mainly figural. Animals and composite beings, part human and part animal, predominate; purely human figures are rare. That goldsmiths were selective in their images is an indication that the creatures they depicted were linked to myths and beliefs not understood today for lack of indigenous records or of European accounts at the time of the conquest. Those most commonly portrayed are ones that bite, sting, or kill: bats, crocodiles, jaguars, spiders, birds of prey, and sharks among them. Essential food animals mentioned in sixteenth-century documents, such as tapirs, peccaries, and deer, are rarely shown. Among the creatures that are always depicted naturalistically, without the incorporation of characteristics of other animals, are sharks. Sharks are inhabitants of the sea, thought by many ancient Americans to be the entrance to the underworld, and they are particularly ferocious predators. Since sharks constantly replace their teeth, they also may be symbols of regeneration and renewal. —HK



Deer-Head Bell

Costa Rica (Chiriquí), 11th–16th century
 Cast gold, h. 1¾ in. (4.5 cm)
*Jan Mitchell and Sons Collection,
 Gift of Jan Mitchell, 1991 (1991.419.2)*

Deer-Headed Figure Pendant

Costa Rica (Chiriquí), 11th–16th century
 Cast gold, h. 4¼ in. (10.8 cm)
*Jan Mitchell and Sons Collection,
 Gift of Jan Mitchell, 1991 (1991.419.3)*

Chiriquí style pendants are the most massively conceived of any preconquest Central American cast-gold type. Originating in the northwest Panama/southwest Costa Rica region, they excited antiquarian interest in the late 1850s, when an important burial area was brought to light in Panama’s Chiriquí Province. At the time Chiriquí objects were considered “grotesque” and “fantastic” by groups such as the American Ethnological Society when examples were presented at their New York meetings. They were the first Precolumbian gold objects to attract the attention of scholars, explorers, and travelers since the sixteenth century and the initial favorable European response. Nonetheless, few pieces from the 1850s find can be traced today, as the majority have not survived. A similar discovery of ancient burials was made in the early 1960s at Puerto Gonzalez Viquez on the Burica Peninsula of Costa Rica, not far from the Panamanian border. The deer-headed figure pendant is reported to have come from that find.

While deer imagery is frequent in lower Central America, particularly on ceramic vessels, it is not common in gold. The anthropomorphized pendant shown here, one of the few, exhibits the requisite deer attributes—curled, branched antlers and a long, squared-off nose. The protruding



tongue may indicate death—deer hunts were especially prevalent in certain areas of the ancient Americas—and depictions of the dying animals include extended tongues. In other regions deer enjoyed a special place as intermediaries between wild creatures and humans and were, in some instances, associated with ancestors.

The figure, arrayed in a belt and leg bands, lacks the collar and loincloth that frequently appear in depictions of humans in Central American gold work. Leg bands are worn to this day by tropical forest peoples in the Americas, where they are an important costume element. The figure’s feet are distinctive: the four long toes are neither human nor cervine, and may represent the webbed hind feet of a crocodilian.

The gold bell is topped by facing deer heads with antlers so curled they are twisted into one horn, giving the animals the appearance of unicorns. (However, that beast was not part of ancient American

mythology.) The deer are rendered with such engaging spontaneity that they seem to be conversing. Small bells cast in animal forms are often appealing to the modern eye. The animals could be made as hollow, three-dimensional images with clappers inside their bodies or as decorations for the top of a bell, as here. —JJ



Bat-Nosed Figure Pendant

Costa Rica (Diquís), 13th–16th century

Cast gold, h. 3 in. (7.6 cm)

Gift and Bequest of Alice K. Bache, 1966, 1977
(66.196.17)

Two Double Bat-Nosed Figure Pendants

Panama (Chiriquí), 11th–16th century

Cast gold, h. 3 in. (7.6 cm)

Gift of Meredith Howland, 1904 (04.34.8)

Panama (Parita), 12th–16th century

Cast gold, h. 3 $\frac{3}{8}$ in. (7.9 cm)

Gift and Bequest of Alice K. Bache, 1966, 1977
(66.196.34)

detail shown at right



The identification of certain facial features on Central American figure pendants with those of bats led earlier researchers to propose that “bat gods” were depicted. While today students of Precolumbian imagery do not support the divinity theory, the upswept, leaflike nose is still believed to be related to bats. Leaf-nosed bats hunt food as small and mobile as insects, primarily by emitting sounds reflected back to them by their prey. The nose leaf is part of the sensing device, a fact perhaps understood by ancient American peoples and, if so, probably revered by them, as the feature is the defining characteristic of human-bat representations. In Central America the nose leaf could be stylized as a large loop or multiple loops. In Colombia it could be an elongated diamond (see p. 26). Protruding eyes are associated with the nose leaf in Panama and Costa Rica, and many eyes are actually depicted on small stalks—possibly in reference to what was believed to be the bat’s acute sight. The carefully executed, bat-nosed single male figure sits upon a framework that looks almost architectural,

although a lack of precedent for architectural details in gold pendants may indicate another meaning. The figure is adorned with ornamented leg bands, a wide collar, and what may be a short crown of feathers.

Double figures with bat attributes frequently hold standards or paddle-like objects in their outside hands, as do the two pendants illustrated here. Different in elaborative detail, the figures are nonetheless the same image: they are dressed in loincloths and wide collars and hold short staffs in the inside hand and standards in the outside hand. The figures on the more ornate pendant are missing the upper section of the standard. Undoubtedly, it was made of shell cut in the flaring shape seen on the pendant above, and the shell has disintegrated with time and burial. Organic materials do not survive well in the wet soils of tropical environments, such as those of lowland Panama.

The simpler double pendant with the less stylized nose leaves was acquired in 1904, relatively early in the Metropolitan’s collecting history. It was said to have come from gold finds made in 1858–59, in the

Chiriquí area of Panama/Costa Rica, which were reported in the August 6, 1859, issue of *Harper’s Weekly*:

... not the least interesting, of the great gold discoveries of this gold-discovering age, just occurred on the Isthmus of Panama. On a day in the latter part of June last a native of Bugalita—a small town in the district of Boqueron, in the province of Chiriqui (New Granada)—while wandering through the forest in the vicinity of his cabin, encountered a tree which had been prostrated by a recent tempest, and underneath its upturned roots he espied a small earthen jar. Upon examination it proved to contain, wrapped in swathing of half-decayed cloth, divers images of curious and fantastic shape, of so yellow and shining a metal that he at once suspected them to be gold . . . in a very short time (three or four days) he succeeded in exhuming no less than seventy-five pounds’ weight of these images. —]]



Crocodile-Masked Figure Pendant

Panama (Veraguas), 11th–16th century
Cast gold, w. 4³/₄ in. (12.1 cm)

*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.777)*

Double Crocodile-Headed Figure Pendant

Panama (Veraguas), 11th–16th century
Cast gold, w. 5¹/₈ in. (13 cm)

*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.885)*

Crocodilians, the group of reptiles that includes crocodiles and caimans, both of which are native to tropical regions in the Americas, are prominent in the iconography of Isthmian gold work. Although reptile motifs have traditionally been interpreted as crocodilian, recent studies suggest that saurians, such as lizards and iguanas, may be represented. While naturalistic renditions of full-figure reptiles exist, crocodilians usually appear as masks worn by humans, as seen here. In some instances the bodies are fully human with arms, legs, and the many-fingered hands and feet often found on human images of this period. In more complex compositions features are included that are not immediately identifiable, as in the pendant above, at the top. In lieu of arms it has flat, constricted crescent shapes, perhaps depicting stylized bird's wings. The crescents create a strong visual

contrast to the horizontal plaques above and below the figure.

The distinguishing element of the crocodilian face is the long, square-ended snout, often open and displaying teeth. Other features, such as eyes, ears, and noses, vary but are always prominent. Nostrils are sometimes shown as delicate curls (bottom), or as a wide tubular element (top), or are emphasized by small, stylized crocodilians in profile (opposite). The figures are usually nude males wearing braided belts, chest ornaments, and leg bands. Unusual on the double-figure pendant is that they are not identical; one is shown wearing a loincloth. Frequently, such figures are anchored between two flat, horizontal elements, the meaning of which is not well understood. Ethnographic analogy suggests that they may refer to the celestial realm and the underworld and that the figures symbolize powerful beings able to mediate between the forces of these worlds.

Crocodilians are among the world's most ancient inhabitants and have many symbolic meanings in the lore of indigenous American peoples. How they were viewed in Precolumbian times is not clear today, but one Pan-American belief associated them with the earth. In the worldview of the ancients the earth was a giant reptile—sometimes a crocodile, sometimes a turtle—floating on the sea, the creature's back being uneven and roughly textured like the earth's surface.

Suggestions for the meaning of animal-headed or masked figures include deities, mythical warriors, man-animal heroes, clan markers, and shamans in a state of trance imbued with an animal spirit. —HK



Crocodile-Headed Figure Pendant

Costa Rica (Chiriquí), 11th–16th century
 Cast gold with pyrite inlay, h. 6 in. (15.2 cm)
*The Michael C. Rockefeller Memorial Collection,
 Bequest of Nelson A. Rockefeller, 1979
 (1979.206.1064)
 detail shown above*

Figure pendants with articulated parts are rare among Precolumbian gold finds. They are said to have come from the Diquís Delta area of Costa Rica and from the Chiriquí region. Cast in two parts by the lost-wax technique, this impressive broad-shouldered figure is hinged at the neck (detail). It has a male body and a movable crocodilian head with a large, fearsome mouth displaying several sharp teeth. Stylized crocodile heads in profile with open mouths, teeth, and curled noses appear on the tips of the ears and on top of the nose. The compilation of these small, toothed animal heads increases the ferocious aspect of the image. The figure wears a patterned, cast-filigree belt, spiral ear ornaments, and a very unusual head-dress with spikes, possibly representing feathers. Particularly striking are the mirrorlike pyrite inlays in the eyes and chest cavity, which, together with the highly polished gold surface, would have reflected bright sunlight, dazzling the onlooker. Inside the head is a small clapper, visible under the lower jaw. Perhaps the rattling sound was meant to keep evil forces away or to summon good spirits to protect the wearer from harm. —HK





Frog Ornaments

Mexico (Mixtec/Aztec), 15th–early 16th century
 Cast gold, h. (each) $\frac{7}{8}$ in. (2.22 cm)
*Gift of Jan Mitchell and Sons, in memory of
 Ellin Mitchell, 1998 (1998.39.1–20)*

opposite, left

Pair of Earflare Ornaments

Mexico (Mixtec/Aztec), 15th–early 16th century
 Cast gold, h. $2\frac{3}{8}$ in. (6 cm)
*The Michael C. Rockefeller Memorial Collection,
 Purchase, Nelson A. Rockefeller Gift, 1967
 (1978.412.200a, b)*

Mexico was the last region in Precolumbian America to work precious metals. Some two thousand years after gold nuggets were first fashioned into valued objects in South America, gold works began to be traded north to the Maya area (upper Central America and south Mexico). Coming from lower Central America/ Colombia, the items were precious to the Maya people and were placed in burials, caches, and sacred places for hundreds of years.

When, and by what means (again, itinerant goldsmiths?), workshops for the local fabrication of gold pieces were established north of the Maya area is presently unclear. In modern times south Mexico,

notably the state of Oaxaca, has yielded important burials of elegant and sophisticated gold objects, the technologies for which must have existed there among the dominant Mixtecs by the fourteenth century, if not earlier. Although the Mixtec style in gold is pervasive throughout much of Mexico during the late pre-conquest centuries, Aztec Tenochtitlán, Motecuhzoma's powerful capital city in the central highlands, must have had its own goldsmiths, if not its own style. Sixteenth-century Spanish accounts testify to the uses and significance of the precious metal to Motecuhzoma. Bernal Díaz del Castillo, a foot soldier for Cortés, wrote



in *The True History of the Conquest of New Spain* (first published in 1632) of an encounter in which “the Great Montezuma . . . had at hand a very rich necklace made of golden crabs, a marvelous piece of work, and Montezuma himself placed it around the neck of our Captain Cortés.”

The frog ornaments shown at left—the Aztecs associated frogs with water and fertility—are reputed to have been discovered in the south Mexican state of Chiapas. They were undoubtedly strung as a necklace like one presented to Cortés. Multiples of intimately scaled, cast-gold images of humans and animals—shrimp, ducks, and doglike creatures, for example—made up the collars and neckpieces described in sixteenth-century reports. The grandest comprised many additional elements, including pendant bells and red and green beads.

Richly decorated earflares, such as those to which this pair of birds’ heads (above) would have been attached, were also worn by the Aztec nobility. The heads, with their impressive beaks and three-pronged topknots, are often identified with Xochipilli, the god of flowers, music, and dance. Although not as well finished as the frogs, the birds’ heads and their cascade of small bells well illustrate the Mexican penchant for repeated, suspended elements in precious-metal adornments. When worn, the ornaments’ movement and sound would have added to their presence and appeal. —JJ



Two Feathered-Serpent Ornaments

Mexico (Toltec?/Chanal), 13th–15th century
Hammered gold, h. 2 $\frac{7}{8}$ in. (7.3 cm)
*The Michael C. Rockefeller Memorial Collection,
Bequest of Nelson A. Rockefeller, 1979
(1979.206.1152, .1153)*

The story of metalworking in the west of Mexico differs from that of the rest of the country. A region somewhat isolated from the important cultural events of central and south Mexico, its metallurgical history began in the seventh century, when a copper-based technology was established. Believed to have come by sea from Ecuador, where rings (for hair, nose, or ear), needles, tweezers, awls, and fish-hooks were made for centuries before their introduction into west Mexico, the technique was one of cold hammering. Lost-wax casting was eventually added to the techniques and used primarily for small bells, which became a specialty of the region and continued to be made until European intrusion and the disruption of the native industry.

A major center on the banks of the Colima River, El Chanal, now in the state of Colima, grew to prominence in the thirteenth century when it had ties to the larger Mexican world. Luxury goods increased in sophistication, as illustrated by these delicate gold plaques that apparently came from an El Chanal burial. Perhaps part of ear-ornament assemblages, the plaques depict feathered serpents,

images associated with the central highland site of Tula, capital of the Toltecs, which collapsed in the late twelfth century. Its people were dispersed widely throughout Mexico and probably as far west as Colima. Feathered serpents are ancient, complex creatures; while generally regarded as benevolent, interpretations of them differed over time. They range from extraordinary representations of deities to less awesome protective images. —JJ