

ART HISTORY RESEARCH PAPER

Pre-Columbian Ear Spools and Their
Relationship to the Sun

Submitted by

Loraine Lundquist-Anderson

Department of Art

Spring 1982

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Tales and fables have recorded the Imperial Inca Empire's wealth in gold. Known to the Peruvian Indian as the "sweat of the sun," the brilliance of the sacred city of Cuzco was unsurpassed even when compared to the court of Montezuma and his Aztec kingdom in Mexico. Symbolic of the sun and the beauty of its light, the golden metal was used in personal adornment, ceremonial objects and included in architecture.

State conventions dictated the Indian artisans create objects to promote religious premise and the state organization. The metalsmiths were not allowed the freedom to develop an individual expression of religious-socio-political ideology which revolved around the evolutionary cycles of solar light. Nor did they have the privilege of creating personal interpretations of the natural phenomena that was a basis of their society. Instead, they borrowed a number of techniques from early Chavin and Moche cultures handed down through the ages to produce objects. After subjugating the Chimu, their craftsmen were transferred to Cuzco to assist in expanding the skill of the Inca metalsmith. Famous for their diverse techniques, the Chimu metalworker was a product of a sophisticated society which had similarities to the Inca Empire.

The most coveted object among the gold treasures of the Empire were the gold ear spools. Made by state appointed artisans, the ear spools were symbolic of rank in a caste system comprised of a ruling class, priests, Chosen Women and commoners. In this hierarchical society, characterized by totalitarian ideals, the ear ornaments were worn by men of mobility as visible manifestation that they were the

"children of the sun." The ear spools were not passed from father to son nor were they received automatically at a certain stage in life. They were awarded to young men of noble birth upon completion of the knighthood ceremony held in the month of November. Circular in shape, the three to four inch ear spools dominated the facial features of the noble indian.

Throughout history, the lure of gold fascinated both nobility and common indian in this diverse Peruvian land that had its legendary beginnings in the 12th century. It was during this time, in the vicinity of Cuzco, the mythic Manco Capac and his sister-wife, Mamma Ocllo, following the orders of the father, the Sun, succeeded in sinking the golden wand into the ground, an indication of where they should set up court.¹ Here the Inca dynastic foundation began and several other legendary rulers followed Manco Capac while realistically an Inca ruling caste probably grew out of the hardy and self-restrained Quechuas who farmed the Cuzco area.

Geographically, the land varies from a hot desert coast to a steep mountainous terrain that parallels the western border of South America. River valleys penetrate the soaring highlands and high plateaus frequent the landscape.

The Empire, which historically began with the reign of the ninth Inca, Pachacuti in 1438, expanded from the highland valley of Cuzco to an area 2,700 miles in length. The dynasty subdued people by diplomatic pressure and military campaign and eventually controlled land from the Ecuadorian border on the north to present day Chile on the south.

Organizer and administrator, Pachacuti, designated Cuzco as the sacred center of the Empire and began rebuilding the city fallen to ruin

into a display of Inca power and glory. His nobility and power materialized in gold objects deeply rooted in the religion of his society. Under Pachacuti, the theology of the Solar Cult based on the legend of Manco Capac, expanded and flourished.

The Sun and the metal representing its beauty, were related to all aspects of indian life . . . religion-social-political. Unlike the European to whom gold meant wealth and power, the Peruvians valued gold as a symbol of the sun. The significance of solar light assumed physicality in gold. Having the ability to reflect the purity and beauty of sunlight, no greater offering to the gods could be made, not even human or animal sacrifice. The abundance of metal objects and their reflections created a magical spectacle enhanced by music, dance and feasting that the whole Inca kingdom enjoyed on festival days. This segment of indian life reinforced the political and social framework of the Inca Empire.

In many other cultures it has meant perfection, purity and morality. Its lustre has attracted various societies for different reasons and enchanted people of all cultures. Yet, gold is universal, permanent and ageless. It has survived deterioration in palaces, temples, tombs and burial grounds to convey cultural philosophies to the people of the 20th century.

Readily found in alluvial deposits in the rivers of the Andes, gold was extracted by placer method. Using a controlled water supply, gravel from the streams was sluiced and stirred. The gold-bearing residue was then hand washed to extract the metal from the fine silt. Due to its availability above the surface of the earth, the yellow metal was

rarely mined underground. The lack of light and proper tools did not lend itself to mining underground vein deposits.

Acquired from the earth, the golden metal was hammered, soldered and cast into body ornament, icons and sheet repoussé representative of the hierarchical Peruvian society (the ruling class, nobility, priests and Chosen Women). Catching the rays of the sun, this concentration of gold during ritualistic celebration, created splendor that alluded description. For the elite ruling class, the metal images were an expression of the spirit of the Sun, the source of life and beauty. To the commoner, the grandeur of the gold communicated theosophic ideals; and nobility was well aware of the means to attract the attention of their subjects. The luxury of their habits served as visualization of the cult's propaganda and power of the state. State metalworkers responded to nobility's need for imposing a public image by creating ceremonial objects following guidelines set by the conventions of the government.

Celebration and giving thanks for the natural benefits conferred by the sun's light and heat was a major part of the Peruvian indian's life. Singing, dancing and feasting took place in and near the Coricancha² when the Imperial society celebrated four major festivals and monthly rituals. The festivals were contrived as solemn reminders of a heavenly order to which the Inca world was linked. Inti Raymi, "the solemn feast of the sun" and the most prestigious festival, occurred after winter solstice in the month of June. The other three festivals celebrated the installation of knight, the planting and harvesting of maize and the purging of evils from the city of Cuzco. In each ceremony, the Sun received due reverence.

It was important the males of noble rank wear gold ear spools during the festivals symbolizing them as direct descendents and children of the sun. To obtain the right to wear the ear pieces, young men of noble birth had to complete the prescribed ritual for knighthood before the ears were pierced in preparation for the ear spools. In the month of November, this ritual took place during the Festival of Capac Raymi.³ The candidates for knight, wearing clothing dictated by tradition, assembled in Cuzco for sacrifice, fasting, a foot race and a mock battle. Participation in worshipping the sun and paying respect to the Inca⁴ was a requisite.

In essence, the ritual was a test of survival. After completing various commissions, the young men were awarded special clothing, weapons for war, and the coveted gold ear spools. After the ears were pierced, a bit of fine cotton was placed in the hole. Each day more cotton was added to eventually stretch the lobe to a size that would accommodate ear pieces up to three inches or more in diameter. Symbolic of the elite power of the ruling class as well as visible evidence these men were "the children of the sun," the ear spools conveyed the virility and courage of the man.

During ceremonial events, gold was of paramount importance. Even though the ear spools dominated the facial features, necklaces, collars and breastplates with dangles further enhanced the person's status. The Inca's apparel woven of fine vicuna wool and gold thread glistened as the sun's rays bounced off the yellow metal. Gold and silver ceremonial dishes and containers used during festival events further transmitted the mythic concepts of the Inca's theology.

In a culture seemingly obsessed with gold, one would think it had monetary value. This was not the case. In addition to creating objects for personal and ceremonial reasons, the precious metal was used to adorn the Temple of the Sun and palaces of the Inca kings. Walls sheathed in gold repousse caught early rays of the rising sun and reflected back symbolic purity of its light. The golden icon of the Sun that hung on the wall of the Coricancha facing the east was flanked by silver images of the moon, stars and earth representing the Indian panoply of gods. Nearby, life-size human figures in gold stood next to equally large llamas. Gardens of gold and silver plants contrasted with the stark austerity of cyclopean stone walls of the Temple of the Sun. The dramatic effect of the concentration of gold in the massive walled compound of the Coricancha functioned on various levels.

In many structures, gold foil as a symbolic offering was placed between the finely-cut andesite (Figure 1). Palaces and temple buildings

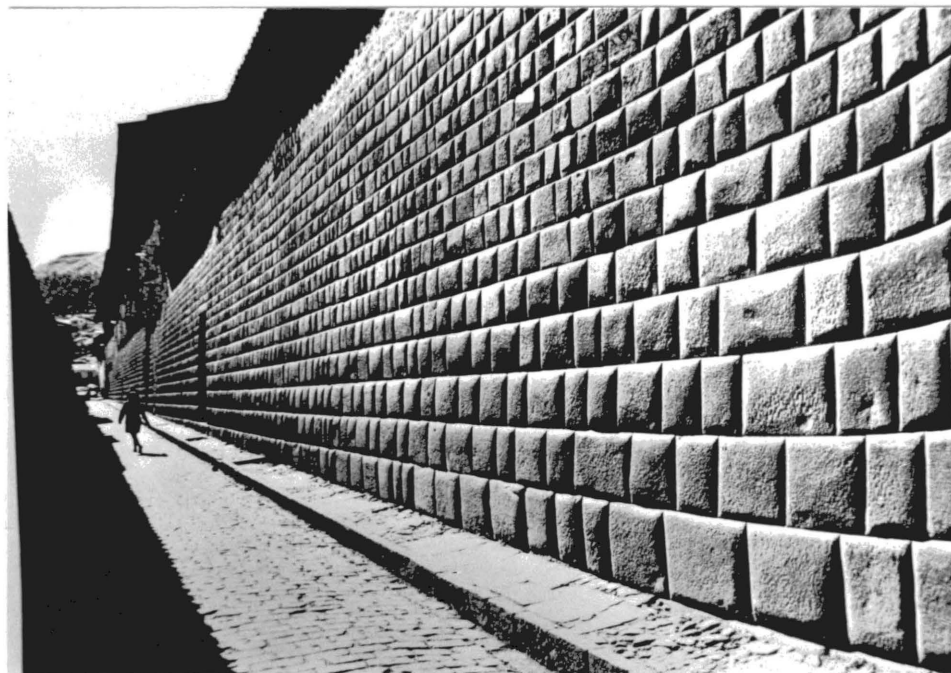


Figure 1. Ancient Aqllawasi Compound Wall, Andesite, 15th century A.D.

commanded the expertise of the stonemasons while buildings of lesser stature were constructed with stone of less quality and fit. The qualitative hierarchy of building construction was linked to the meaning and use of the structure, representing the organization of state and its caste system.

Inca gold work of a personal nature that has been found in burial grounds, as well as architecture, reveals geometric severity related to the environment of the Andean highland (Figure 2). In the circular shape of the ear spool the indian artisan communicated the cyclical evolutions of light and time. Serving as a link between deity and man, the ear

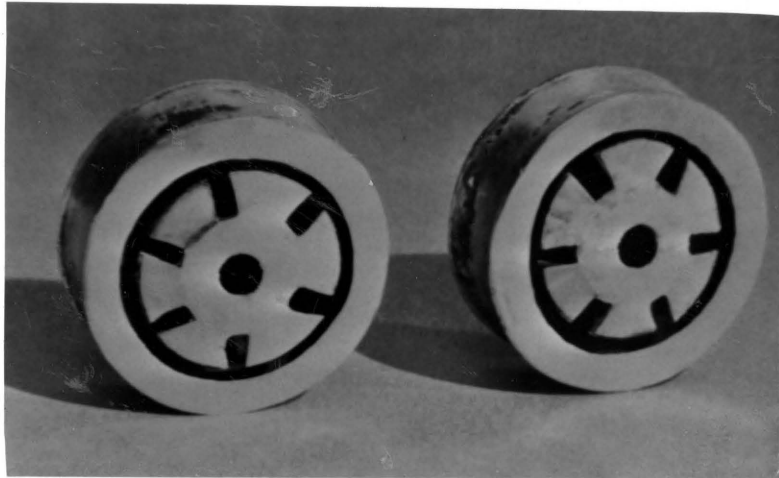


Figure 2. Ear Spools, Inca Culture, 15th-16th Century A.D.

ornament repeated the commonly used round image of the sun. In the example shown, the extensions radiating from the center could be interpreted as rays of the sun. The flesh of the ear lobe was stretched over the metal indentation that connected the two discs. Although the ear pieces look heavy, they are hollow and very light weight and could have been worn for an extended length of time.

The Inca being syncretic in nature borrowed technology from all cultures, including the Pre-Inca Chavin and Moche. Due to the devastation of the Spanish Conquest, few gold pieces of any kind have been found in the Inca Empire. This makes it difficult to comment on the Inca style after outside influence was channeled back to Cuzco via military campaign. It is only conjecture to say that the design became more intricate and complex after the Chimu metalsmiths became residents of the imperial city of Cuzco and exerted their influence.

Typical in other Pre-Columbian cultures, the ear pieces ranged in size from three quarters of an inch to very large spoons of four inches or more. A survey across cultures shows various materials used to create the ear pieces included clay, wood, jade, shell, lapis lazuli, silver and gold. Although gold work in South America had been known from the second millenium B.C., the earliest gold objects in Peru were found near Chavin de Huantar around 800 B.C. Indicative of an advanced society, where art progresses from realism to the abstract, Chavin artifacts were characterized by stylized feline images with long crossed incisor teeth (Figure 3). John H. Rowe in Form and Meaning in Chavin Art, states this feline-serpent image served as a cult object and is known today as the Great Image or Lanzon.⁵ Variations of the image were found in stone



Figure 3. Hammered gold pendant disk, Chavin Culture, 800-500 B.C.

sculpture, incised on ceramics, hammered in gold, as well as in architecture. Emphasis of the feline-serpent design in profile on the ear spoons shown below (Figure 4) draws attention to abstract patterns yet transmits meaning related to the societal cult. Even though artists in this era supposedly were not concerned with the formal considerations in art, the repetition, balance and placement of shapes in the ear spoons show an aesthetic appreciation.

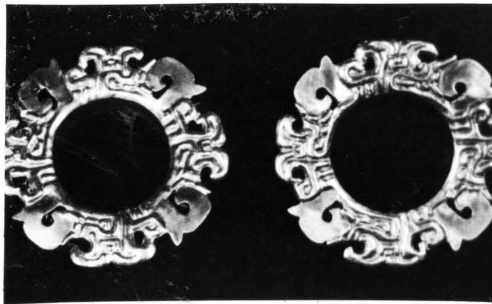


Figure 4. Ear spoons, cutwork and repoussé, Chavin Culture, 800-500 B.C.

In contrast to the highly stylized, abstract concept of Chavin art, the Moche craftsmen excelled in realism. Flourishing on the north coast of Peru, the spiritual bond linking its people and other coastal cultures was the worship of the moon. Realistic three dimensional icons of the nocturnal fox and owl were found in the pyramid of the Moon (Figure 5). The danglers attached to the ears and mouth also appeared on necklaces, pendants and small figures. Since the Moche worshiped the moon, it is doubtful the danglers were created to catch light but were used as aesthetic considerations or shapes to enhance the work.

Expressionists at heart, the Moche images are diverse. Talented draftsmen drew warrior dieties in military campaign on ceramic vessels giving us clues of the Moche philosophy. After surveying Moche drawing,



Figure 5. Head of fox or coyote, gold, copper, silver alloy assembled with teeth of mussel shell, Moche Culture, 200-700 A.D.

it seems these people were preoccupied with war in a different manner than the Inca. Even though the Inca participated in vast military campaigns, ceremony opposed to war was preeminent subject matter in artifacts. Perhaps the austere attitude of the Inca was the reason military campaigns were not included in their artwork.

Moche virtuosity extended to ceramic portrait vessels where masculine heads with a headdress were modeled in clay, many with ear spools (Figure 6). Style varied within the circular shape of the Moche ear spool. Using warrior dieties as subject matter, some were inlaid with shell, lapis lazuli and other precious stones (Figure 7). Warrior-hunter dieties appeared with weapons in hand. In other examples, representational lizards were placed on a geometric background. Some researchers



Figure 6. Clay portrait jar, Moche Culture, 200-700 A.D.

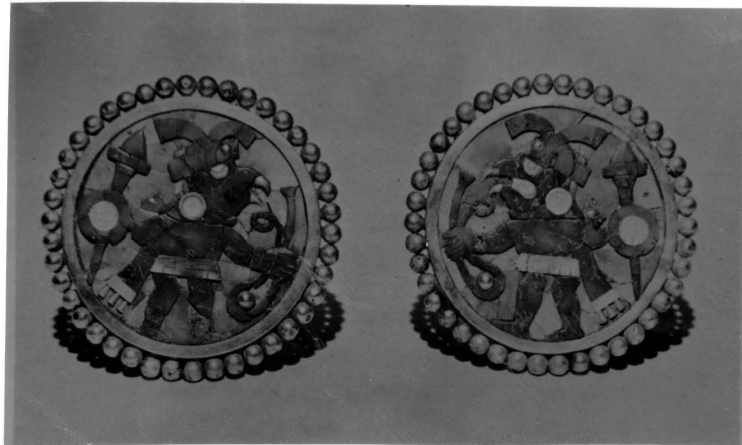


Figure 7. Ear ornaments, sheet gold inlaid with shell and stone, Moche Culture, 200-700 A.D.

feel the geometric design used a ground for anthropomorphic and zoomorphic images was a transfer of nature into the abstract.⁶ However, geometric design alone in a variety of materials and colors was also used in the circular framework of the ear spools found in Moche culture. In both contexts, abstract line-shape can be as subtle or as powerful as needed to transmit idea. It is difficult to speculate on what the thought behind the hand was attempting to say, if anything. Perhaps the Mochica were interested in the beauty of materials and their combinations.

Of the three cultures discussed thus far, the Moche was the only one to combine various shells and precious stones to convey ideas. Rather than represent their overall religious-socio-political structure, the Mochica artists selected parts of a lifestyle to transfer to art form. Similar to the Inca ear spools, the Moche ear pieces represented social position and status.

Closely tied with the natural world, Chimu artisans that followed the Moche on the north coast, pushed metalsmithing beyond past technology and expression into unsurpassed levels. Although metal in their hands was under complete control, quantity opposed to quality had importance. In a society under the absolutist theocracy of Kon,⁷ Chimu ear ornaments were indicators of social class but had no religious connotations associated with Kon. Ear pieces, like the example in Figure 8, portray abstracted zoomorphic images combined with dieties. The monkeys probably represented the Chimu's affinity with their natural environment.

God-like images found in Moche artifacts become more complex in Chimu goldwork. In addition, motif tends to be smaller and repeated

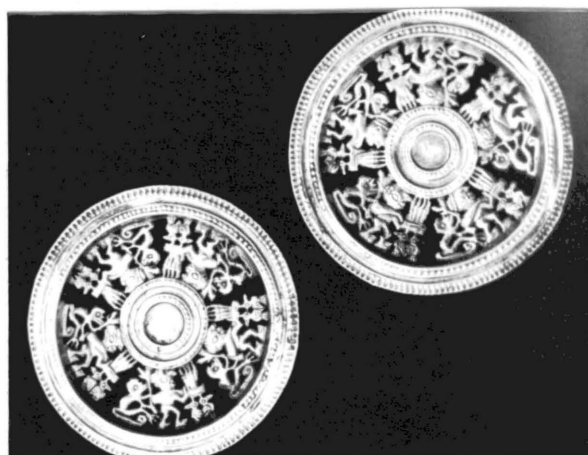


Figure 8. Gold ear spools, cutwork and repoussé, Chimú Culture, 1100-1450 A.D.

more often in the repoussé ear plugs. Line became important with the use of filigree to create an openness in form that had not been utilized before. Integrated with circular turquoise stones, geometric shape was connected with beading. Rather than serve as a ground for anthropomorphic or zoomorphic figures as in the Moche ear spools, geometric elements were combined to form the Chimú ear plug.

Chimú cutwork dazzles the eye with its effect while the quality of sculptural form is poor in the pieces shown (Figures 9a and 9b).



Figure 9a. Gold ear spool, Chimú Culture, 1100-1450 A.D.

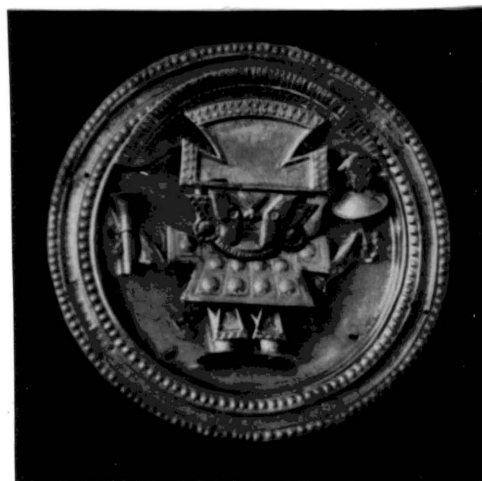


Figure 9b. Gold ear spool, Chimú Culture, 1100-1450 A.D.

The bird and the diety images look as if they were cut, hammered and stuck in the center of the ear plug as an afterthought rather than integrated with form. Even though the Chimu metalsmiths lacked quality in artistic concerns, they were not afraid to experiment.

Influence and similar techniques can be traced from the Chavinoid period through Moche to the Chimu style. In some cases, feline-serpent images that characterized the Chavinoid period during the height of its style in 800-500 B.C. were found as late as 1200 A.D. in Chimu gold work. Beginning around 1200 B.C., the Chavin era came to an end around 300 B.C. However, its tradition carried on in the Moche period (200-700 A.D.) on the northern coast and continued as far south as Paracas. Chavin ear spools made of sheet gold in the repoussé technique showed a quality that only a gifted craftsman could achieve. Before such elaborate work as the Chavin could be produced, the annealing process must be discovered.⁸ Metal can accept only so much hammering and then it becomes hardened and brittle. To alleviate this problem and to restore the ductile quality of the metal, heat must be applied.

Chavin goldsmiths also strap-joined individual pieces of gold with other gold to form large pectorals. This technical advancement was later used by the Inca to create movable parts on crowns and other body adornment to catch the sun's rays and sparkle with reflections of light.

Another technique borrowed from the Chavin period by the Inca was soldering together hammered parts to construct a hollow figure or animal (Figure 10). The Chavin attempt is the first bi-metallic technique accomplished in Pre-Columbian times. The Inca later developed further this process resulting in bi-metallic inlay (Figure 11). It was the indian artisans only contribution to South American metallurgy. Although

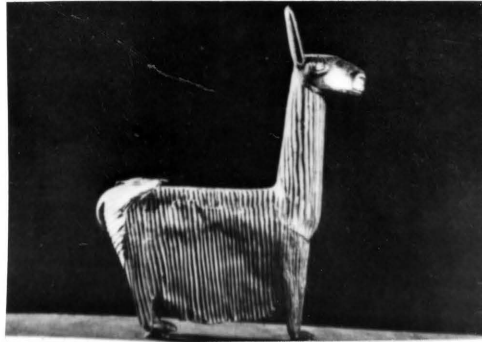


Figure 10. Silver llama, cut, hammered, and soldered, Inca Culture, 1438-1532 A.D.

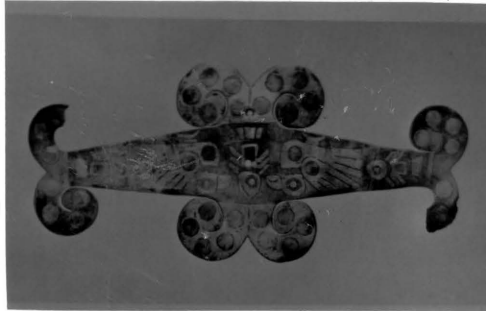


Figure 11. Gold and silver bi-metallic inlay, Inca Culture, 1438-1532 A.D.

theocratic ideologies were not shared by the Chavin who worshiped a feline-serpent deity, the technical developments of the Chavinoid period allowed the Inca's metal works to transform the gold into the spirit of the sun.

Flat sheet gold masks (Figure 12) and segments of plaques (Figure 13) show Chavinoid influence in Moche gold work more so than in ear spools. In masks, human faces are often flanked by jaguars or the facial features contain serpent-like teeth.



Figure 12. Gold mask, Moche Culture, 200-700 A.D.



Figure 13. Gold plaque, Moche Culture, 200-700 A.D.

In terms of metallurgy the Mochica made several advances giving them alternatives the Chavin did not have. Smelting and cire perdue⁹ first appeared in Peru during this period.¹⁰ The Moche artisan also experimented with alloys. Tumbaga¹¹ permitted the indian gold workers

economy of metal, a technique assimilated into the practices of the Inca's goldsmiths. Considering each Inca emperor did not inherit the wealth of the previous ruler and had to gather his own treasures, this technique had merit.

At the same time, the Moche flourished on the north coast, in the southern highland near Lake Titicaca, the Tiahuanaco culture was exerting strength. However, the only addition to South American metallurgy was made in utilization of base metals and alloys with little innovation in creativity, and had no great impact on the Inca style.

Appearing on the north coast, after the Moche culture died out¹² Chimu metal workers investigated veneering, soldering, filigree, beading and embossing, in addition to repousse and cire perdue. Even though the surface of these technically sophisticated pieces has intrigue, the metal is thin and subject to damage. The images are repetitive and lack individualism. There is little variation in the diadems on the crown, ear spools and collar shown in Figure 14. The flashy effect of the Chimu



Figure 14. Gold body ornaments, Chimu Culture, 1100-1450 A.D.

goldsmith attracted the eye of the Inca and undoubtedly contributed to the theatrical display of the festivals in Imperial Cuzco after the Chimu metalworkers were integrated into the Inca Empire. Most likely, the intricate design of the Chimu metalwork added dimension and sumptuousness to reinforce the ideology of the Solar Cult.

Rather than using the Chavin, Moche and Chimu technology to develop their own artistic concerns, the Inca artisans assimilated technology and creative ideas in the manner which corresponds to the characteristics of the corporate style described by Moseley in Peru's Golden Treasures:

1. The objects were created by borrowing.
2. They were spread only as far as the state implemented its philosophical ideals.
3. The stylistic unit at corporate level had no relation to ethnic homogeneity and cohesion at the folk level. (Research reveals subjugated people had religious practices imposed but were allowed to retain indigenous ideals as well.)
4. The style could collapse as readily as underlying politics.¹³

The indian metalsmiths were obligated by state conventions to mechanically reproduce objects in the manner of the craftsman instead of the artist to promote the overall socio-political-religious ideology of the Imperial Inca Empire rather than to express individual artistic concerns related to ideology. They were not allowed the privilege of considering the material and what they could do with it. And the style did indeed collapse when the political framework of the Empire fell into Spanish hands.

In other cultures we can usually recognize styles in which technology develops and artistic expression gains as a result. Not so in the Inca goldwork. The only technical advancement was bi-metallic inlay and the example (Figure 11) is a dismal display of art if we can call it that. It is austere and can be related to the severe environment of the highlands and the state imposed lifestyle but beyond that the work has no visible expression linked to the Solar Cult and the Inca culture.

The ear spools could have been an excellent opportunity to represent a concept of natural phenomena relative to the wearer's relationship to the sun. But the ear ornaments of similar size and design have appeared in other cultures where meaning was only associated with rank in social caste. How could one know the Inca ear spools set apart nobility as a direct descendant of the sun and ordained by celestial will without knowledge of the Inca's religion and the Festival Capac Raymi? The ear spools taken out of the overall context do not reveal nobility's relationship to his universe and the divine in nature. Nor do they express a personal search for ultimate values through art.

Instead, the Inca ear spools must be viewed as a part of the whole structure of the Empire. Surveying goldwork in this manner, the transfer of thought and feeling to convey the meaning of the Solar Cult and its theology is evident. Gold in concentration, reflecting the purity and beauty of sunlight created an indescribable aura bringing to full awareness the benefits for survival the sun provided for the Indian of the Imperial Inca Empire.

ENDNOTES

¹According to the chronicler Garcilaso de la Vega, his uncle related the following account of the beginning of the Inca Empire:

"The Inca said: Our father, the Sun, seeing men in the state I have mentioned, took pity and was sorry for them, and sent from heaven to earth a son and a daughter of his to indoctrinate them in the knowledge of our father the Sun that they might worship him and adopt him as their god, and to give them precepts and laws by which they would live as reasonable and civilized men, and dwell in houses and settled towns, and learn to till the earth like rational beings and not like beasts. With this order and mandate our father the Sun set these two children of his in Lake Titicaca, eighty leagues from here, and bade them go where they would and wherever they stopped to eat or sleep or try to thrust into the ground a golden wand half a yard long and two fingers in thickness which he gave them as a sign and token: when this wand should sink into the ground at a single thrust, there our father the sun wished them to stop and set up their court." Garcilaso de la Vega, Royal Commentaries of the Incas, 2 vols. (Austin and London, University of Texas Press, 1966), p. 42.

²The Coricancha is also known as the Temple of the Sun.

³Capac Raymi means the Festival of the Lord Inca.

⁴The Inca was the emperor or king, rather than the name of the tribe or society.

⁵Alana Cordy-Collins and Jean Stern, Pre-Columbian Art History, Selected Readings, (Palo Alto: Peek Publications, 1977), p. 310.

⁶Walter Lehmann, The Art of Old Peru, (New York: Hacker Art Books, 1975), p. 12.

⁷Kon was the voice of the sea who acted as mediator between man and their gods.

⁸Andre Emmerich, Sweat of the Sun and Tears of the Moon, (Seattle: University of Washington Press, 1965), p. 25.

⁹Cire perdue is casting metal by lost wax method.

¹⁰The Moche period lasted from 200-700 A.D.

¹¹Tumbaga is a red-gold alloy of copper and gold where the copper is depleted in the work with the aid of acid and then gilded with gold.

¹²The Chimu culture was active 1100-1450 A.D.

¹³Michael Moseley, Peru's Golden Treasures, (Chicago, Field Museum of Natural History, 1978), p. 18.

SELECTED BIBLIOGRAPHY

Books

- Anton, Ferdinand and Dockstader, Frederick J., Pre-Columbian Art and Later Indian Tribal Arts, New York: Harry N. Abrams, Inc., 1978.
- Bankes, George, Peru before Pizarro, Oxford: Phaidon Press Limited, 1977.
- Baudin, Louis, Daily Life in Peru, New York: The Macmillan Company, 1962.
- Bennett, Wendell C. and Bird, Junius B., Andean Culture History, Garden City: New York: The Natural History Press, 1949.
- Benson, Elizabeth P., The Mochica, New York and Washington, D.C.: Praeger Publishers, 1972.
- Burland, C. A., Peru Under the Incas, New York: G. P. Putnam's Sons, 1967.
- Cordy-Collins, Alana and Stern, Jean, ed., Pre-Columbian Art History, Selected Readings, Palo Alto: Peek Publications, 1977.
- de la Vega, Garcilaso, Royal Commentaries of the Incas, Vol. 1, Austin and London: University of Texas Press, 1966.
- Emmerich, Andre, Sweat of the Sun and Tears of the Moon, Seattle: University of Washington Press, 1965.
- Gasparini, Graziano and Margolies, Luise, Inca Architecture, Bloomington and London: Indiana University Press, 1980.
- Karen, Ruth, Kingdom of the Sun, New York: Four Winds Press, 1975.
- Lehmann, Walter, The Art of Old Peru, New York: Hacker Art Books, 1975.
- Markham, Clements R., The Rites and Laws of the Incas, No. 48, New York: Burt Franklin, 1873.
- McIntyre, Loren, The Incredible Incas and their Timeless Land, Washington, D.C.: The National Geographic Society, 1975.

Exhibition Catalogs

Donnan, Christopher B., Moche Art of Peru, Los Angeles: University of California, Museum of Cultural History, 1978.

Moseley, Michael E., Peru's Golden Treasures, Chicago: Field Museum of Natural History, 1978.

Museum of Modern Art, American Sources of Modern Art, May 10-June 30, 1933, New York, Arno Press, Reprint 1969.

Walker, John, Treasures of Peruvian Gold, Washington, D.C.: National Gallery of Art, 1965.