

American Indian Art Traditions and Contributions

by
Chris R. Landon



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Biographical Sketch of the Author

Chris Landon served in the Portland Public Schools as American Indian Resource Specialist from 1989 to 1993. Educated at the University of Washington (B.A. in General and Interdisciplinary Studies, M.Ed. in Curriculum and Instruction), Chris is a doctoral candidate in Educational Administration there. Chris has taught a variety of subjects as well as serving as an administrator in public and tribal schools in Washington state.

AMERICAN INDIAN ART TRADITIONS AND CONTRIBUTIONS

CONTENTS	PAGE
INTRODUCTION.....	1
The Cultural Context of American Indian Art	1
American Indian Art Media	5
THE FORMS OF AMERICAN INDIAN ART	8
Basketry	8
Painting.....	16
Pottery	22
Revival and Contemporary Southwestern Pottery.....	33
American Indian Housing	38
American Indian Public and Monumental Architecture	48
Jewelry and Metalwork	70
Jewelry	71
Metalwork	72
Skins, Furs and Feathers.....	91
Masks and Dolls	99
Carving	102
Stone, Shell, and Bone.....	102
Print Making.....	111
AMERICAN INDIAN ART INSTITUTIONS	112
Craft Societies	112
The Indian Arts and Crafts Board	117
The Institute of American Indian Art and Other Schools.....	118
AMERICAN INDIAN ARTS AND TRADE	120
APPENDIX A CHRONOLOGY	124
REFERENCES.....	138
Art Chronology.....	138
Footnotes.....	138
Index	143

INTRODUCTION

The Cultural Context of American Indian Art

Like the arts practiced by all geocultural groups, American Indian art is 'about' the spirit of things. The term 'spirit' is commonly used by American Indians to refer to the ultimately mysterious qualities of being and awareness. It is fundamentally amazing that our universe of mutually transforming energy and matter produces conscious experiences and feelings about itself. It does this by creating myriad forms of individual beings, of which humans are one type. One of our characteristics as humans is a compulsion to communicate the contents of our awareness to each other. However, reality challenges our ability to give concrete expression to its endlessly new experiences.

In our efforts to meet this challenge, humans have developed something called 'understanding'. This is an interactive system of representative symbols and logical processes for the relating of these symbols in ways which have 'meaning' to us. The meanings provide us with one way of 'knowing' what we are all about in our lives and relationships to the rest of the reality with which we are in contact.

All social groups have found that no one system of symbols and logic seems able to give meaning to all that we experience and try to communicate to one another. So, we have invented (or, according to many traditions, have been taught by other beings) multiple systems of understandings. Some of the major systems are language, music, and the visual arts. As the limits of one system of understandings is reached, for instance those of language, we often try to shift our effort to communicate an awareness that cannot be (completely or perhaps at all) expressed in that medium to some other system, say perhaps music, dance, or painting.

Each of these media of expression presents its unique form of symbols and logic to our awareness. Each gives us a distinctive way to think about and express what we have experienced. Each medium has its strengths and limitations; each is shaped by what we share between one another in our social groups, and each is an element of what we call our 'cultures'. The distinctive experiences of any particular group of humans in a particular place or region, interacting with the distinctive content and styles of their shared understandings, are a major part of what has made 'humans' into 'peoples'.

What is distinctive about the understandings of the peoples that make up the 'American Indian geocultural group'? This is not easy to characterize because of the tremendous diversity of American Indian cultures, which, after all, developed in many particular places across two huge continents. The difficulty of characterizing these cultures is compounded by other factors of cultural evolution as well. The contingent nature of history, changes in the land itself, migrations to new homelands and contact with other peoples have all interacted to motivate and shape hundreds of generations of American Indian cultural adaptations. The combination of cultural diversity and adaptation often stimulates development of new forms of understanding and expression.

Any characterization of what is distinctive about American Indian cultures and art must thus acknowledge from the first that American Indian peoples vary among ourselves. Yet we are related, having many experiences and understandings common to some (occasionally most, infrequently all) of the hundreds of native American cultures. Next, also keep in mind that almost anything that can be said about the distinctiveness of American Indians may have been true, and/or may be true, and/or may be becoming true, and/or may be inaccurate when applied to any particular Indian

culture. Overgeneralization is a constant hazard when describing so many cultures with such a range of diversity; the single label “American Indian” can mislead the uninformed into thinking we are all members of a single culture.

Caveats in mind, many Indians probably can agree that Indian symbols and their associative logics are fairly distinct from those of other peoples in most cases, occasional superficial resemblance’s notwithstanding. American Indian dances, music, artistic styles, and languages are readily recognizable as such by most culturally literate peoples around the world. If culture and its expressive symbols arise out of experience, what are some of the experiences that different American Indian peoples have expressed in their distinctive symbols and logics? Are these experiences themselves distinctive, or is it just the form of expression that is distinctive? What does American Indian art express that is ‘Indian’?

Barry Lopez, an Oregon writer with extensive contacts in Indian Country and among the Inuit (‘Eskimo’) of the Arctic, has suggested that there are at least three distinctive sets of awareness held by all American Indian cultures as compared to European cultures (he went no further in comparing American Indians to other geocultural groups). These are: awareness and concepts of time (cyclical rather than linear and ‘progressive’), awareness and concepts of spatial relationships (including humans as an integral part of a place, rather than conceiving ‘me here and the world out there’ as separate things) , and “a unified awareness of what we call the spiritual and physical realms.”¹ Each of these understandings has a bearing on the cultural contexts and content of American Indian art, and can help non-Indians to share the understandings that Indians express through art.

Dr. N. Scott Momaday, renowned Kiowa author, once wrote an essay that

elaborates in a couple of helpful ways on these ideas about the spatial aspect and what Lopez calls the “unified spiritual and physical” aspect of American Indian awareness.² In Momaday’s view, a people’s relationship to the land on which they live is intricate and of primary importance. Momaday suggests that Indians relate to the land through a process of reciprocal exchanges. These exchanges shape a people’s self-image. For American Indians, that image of self is fundamentally moral and kind, since in reciprocal relations with the land, people give back care, energy, and life itself to the earth that sustains them.³

Momaday emphasizes that the process of self-identification in the Indian imagination developed over countless generations of cultural interaction with the lands of America. Out of that process came visionary experiences and an orientation to the idea of having a vision that has become an essential part of the Indian world view.

This commitment to vision has enabled many Indian people to learn how to witness both the physical aspect and the imaginative aspect of their relation to the land simultaneously, and to “align” the two visions.⁴ Momaday says:

If I can try to find an analogy, it’s rather like looking through the viewfinder of a camera, the viewfinder which is based upon the principle of the split image. And it is a matter of trying to align the two planes of that particular view. This can be used as an example of how we look at the world around us. We see it with the physical eye. We see it as it appears to us, in one dimension of reality. But we also see it with the eye of the mind. It seems to me that the Indian has achieved a particularly effective alignment of those two planes of vision. He perceives the landscape in both ways. He realizes a whole image from the possibilities within his reach. The moral implications of this are very far-reaching.⁵

He elaborates this last statement by emphasizing the idea of ‘appropriateness’, saying that “[y]ou cannot understand how the Indian thinks of himself in relation to the world around him unless you understand his conception of what is appropriate; particularly what is morally appropriate within the context of that relationship.”⁶

The ideas expressed by these two writers are frequently expressed through the various media of art, since language alone is sometimes inadequate. Circularity of the dynamic process we call 'time', the reciprocal nature of human relationships to the land on which we live, the fundamental unity of all existence and a unique self-image as a type of humanity are concepts not exclusive to American Indians. However, the prominence of these ideas in American Indian philosophy and with the culturally unique symbols used to denote these ideas, do differentiate Indian expressions through language, art, and religion as recognizably distinctive. The teacher of art can help her or his students to grasp the meaning of American Indian art by showing how these ideas find expression in the symbols and forms often used by Indian artists.

American Indian Art Media

Materials for making works of American Indian art have traditionally been mostly drawn from what the artist found around her in nature. Less frequently, Indian artists worked with materials that came in trade from neighboring or distant peoples. Tribal or regional styles, the personal visions and talents of individual artists, when combined with this preponderant use of local materials, resulted in a legacy of native artistic traditions and products that is astonishingly rich and diverse. This artistic heritage of American Indians is one of the great achievements of the human spirit.

New media and techniques from other cultures around the world have been added to this inheritance during the past century. Among the new media are acrylic paints, crayons, pencils, computer art, photographic films, and non-native stone and metals. These are sometimes used by American Indian artists in combination with traditional media or in new, yet distinctively Indian styles; sometimes they are used in accordance with the styles and techniques of the cultures from which the new media come.

Whether employed within native, foreign or very personal stylistic traditions, the

additions of non-traditional media and techniques have enriched the potentials of American Indian art in ways matched by few other aspects of the cultural exchange that has taken place over the past half millennium.

The sources and types of traditional media fall into broad categories which can be described in terms of the old concept of the division of the natural world into animal, vegetable, and mineral 'kingdoms'. Among plant-derived media are most dyestuffs; many paint pigments; the bulk of the materials used in basketry, mat making, weaving and other textile arts; wood for carving and architectural uses as well as for fuel in several kinds of processes, such as pottery making and metal casting.

Minerals in many forms provide media in the form of stone for carving, drilling, splitting, chipping, pecking, and grinding into an astonishing variety of productions. These range from tiny beads and delicate bird hunting arrow points to massive architectural achievements that continue to astonish modern builders with their forms, size, and precision. Minerals form the basis of many paint pigments and some dyes; jewelry and metalwork are naturally dependent on minerals. Pottery is preeminently an art based on the transformation of mineral media.

The animal world provides the native artist with riches, too; skins and furs of many species of land and marine animals, even the skins and especially the feathers of the birds. Think of the Hollywood stereotype of what an 'Indian' looks like; the image can hardly be called to mind without skins, furs, and feathers to signify 'Indian'. The dress and ornamentation styles of the Great Plains are hardly typical of all North American Indians, even less so of the Inuit in the Arctic or Indians in the Amazon rainforest. However, the association of the media of skins, furs and feathers with American Indian cultures and decorative arts throughout the hemisphere is valid. Even more, this identification is profound at the level of spiritual relationship to the animals that provide

us with these gifts, given with their lives.

The animal kingdom also provides weavers with wool and hair; from the animals the artist is given shell and bone, antler and ivory to carve, engrave, drill, etch and polish. The larger animals make available sinew and rawhide with which to sew beautiful clothing and tipi covers. Sinew (tendon and connective tissues) can also be used to lash together and strengthen hundreds of useful things from boats to bows and snowshoes. Blood or boiled fish skins provide the artist with glues. Other bodily fluids, such as gall, provide media for paints and dyes.

Modern media of all kinds have been adopted and adapted for use by native artists working in all the art forms. Not all Indian artists choose to use them and those who do employ them have several options in their use. The media may be used as a substitute for traditional media in work of traditional form or style. They may be used in forms associated with non-Indian traditions, as happens in film making or the graphic arts. The contemporary Indian artist may choose to mix forms, styles and media in an eclectic, very personal way; much well-respected modern Indian art is a development of this kind. Lois Jacka named her 1988 book on contemporary Indian art **Beyond Tradition**; this may be as good a descriptive term as any for some of the art made by modern artists who are American Indians.⁷

THE FORMS OF AMERICAN INDIAN ART

Basketry

In the Americas as elsewhere in the world, one of the earliest of arts was the weaving of an enormous variety of stiff plant fibers into useful and decorative items. Whether the product takes the form of containers, mats and panels, traps, clothing and sandals, masks or even boats, basketry has long been an important art from the Subarctic to the tip of South America, wherever suitable plants exist.

Among the oldest known archaeological basketry remains found anywhere in the world are nearly 50 pairs of woven sagebrush sandals that were buried by volcanic ash about 9,000 years ago in Fort Rock Cave in southern Oregon. Of about the same age are fragments of coiled fiber cords found in Danger Cave in western Utah; coiling is one of the chief techniques of basketry. Jamake Highwater states in his book **Many Smokes, Many Moons** that some archaeologists believe the Danger Cave find is the earliest-known evidence of basketry skills in human history.⁸

These scientists think that basketry developed in this region as a part of the paleo-Indians' adaptation from a big-game hunting culture to a nomadic foraging economy. This adaptation is thought to have occurred during the post-glacial era of animal extinctions in North America some 10-12,000 years ago. Light weight, durable basketry containers that were made from readily available local plants best met these Indians' needs for gathering, storage and transport of plant foods.

Basketry became widespread, nearly universal, on both continents in the Archaic period from about 6,000 B.C. to 1,000 B.C. Baskets served principally as containers for food storage throughout the Americas in this period.

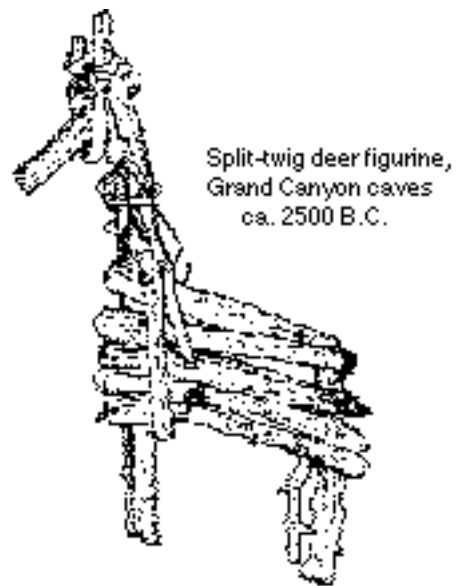
It is believed that baskets were a chief tool used in the collection and transport of the immense quantities of earth that the Adena culture of the Ohio River Valley formed into the effigy and burial mounds that characterized their culture at the close of the Archaic era and the beginning of the Formative period, when they also acquired the techniques of agriculture.⁹



Soft-woven Wasco basket showing skeletal decorative design typically used by this tribe's artists. North central Oregon.

after photograph in Dockstader, *Indian Art of the Americas*.

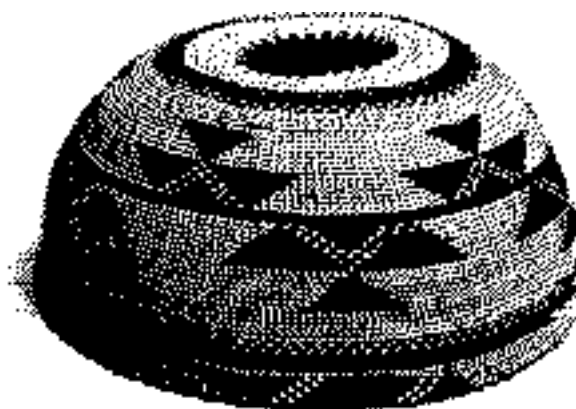
Basketry techniques also were employed in some areas to form figurines thought to have been used as hunting talismans, as instanced by the Desert Culture peoples in the Grand Canyon area.¹⁰ An example is shown on the following page.



Split-twig deer figurine,
Grand Canyon caves
ca. 2500 B.C.

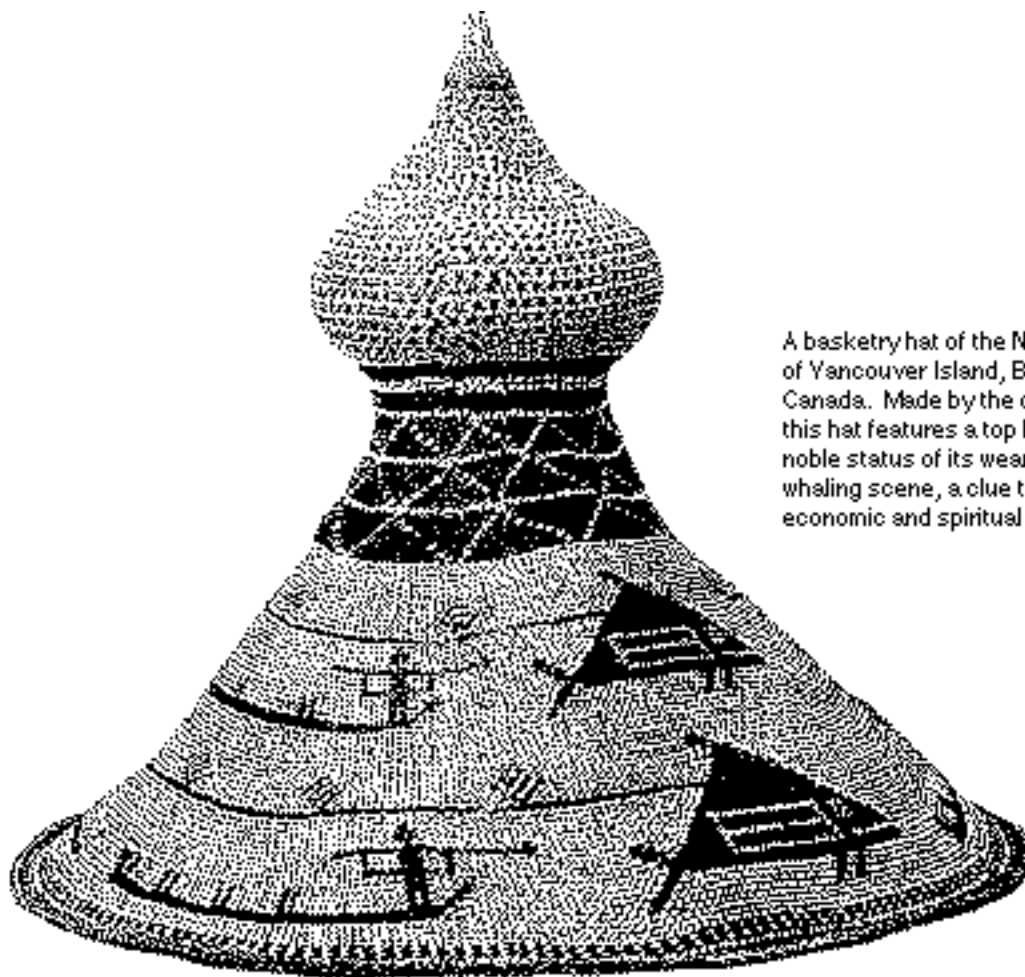
after Molly Braun in Waldman, **Atlas of the North American Indian.**

Basketry techniques have also been used in many American Indian cultures to produce clothing and other apparel items, as mentioned above in connection with sandals and as shown below in illustrations of hats.



Woman's basketry hat.
Karok tribe,
Northern California.

after photograph in Dockstader, **Indian Art of the Americas.**



A basketry hat of the Nootka people of Vancouver Island, British Columbia, Canada. Made by the coiling technique, this hat features a top bulb denoting the noble status of its wearer and shows a whaling scene, a clue to the owner's economic and spiritual specialty.

after a photograph in Feder, **American Indian Art**.

Matting is basketry formed into flat panels for use as screens, wall coverings, bedding and a myriad of other uses. Matting was in widespread production from very early times. Twilled mats, such as are still used by Indians in rural Mexico for sleeping, are known from rockshelters in Tamaulipas, Mexico from as early as 6,500 B.C.¹¹ Cedar mats have been found buried in houses covered by a series of massive mudslides in the remains of the Ozette (a Makah people) village site of Usahal, dating back to approximately 500 – 1300 A.D. The Hohokam in the area of modern Arizona

used mats as control valves in the extensive irrigation systems that supported their agriculture and town settlements.¹² In the coastal lowlands of Central America and in the rainforest of South America, leaves of the broad-leaved plants which grow in moist, tropical conditions were plaited into large panels that served as the walls of houses. This technique continues to this day among some farming and forest-dwelling Indians in these regions.

In more recent and historic times, basketry was developed to a high level of artistic refinement in the western portion of North America. Stylistic variations in the weaving and decoration of baskets, along with differences in the local materials employed by the Indian artists (chiefly women in most cultures of the west), resulted in distinctive products. With such distinctions, the tribal origins of a basket can often be traced by experts, even if the basket was diffused a long ways in the networks of trade or was later collected and sent to a museum without adequate records of its provenance.



Pomo feathered basket
in "canoe" shape.

The artist wove tiny
quail feathers into
the coiling of this
basket.

North coastal California.

after photograph in Dockstader, **Indian Art of the Americas**.

The weaving of baskets and related objects is based on three principal techniques, each of which may have dozens of variations. Plaiting is done by crossing sets of vertical warp and horizontal woof fibers over and under each other in various patterns, such as simple over-one-under one, over-two-under-one, over-two-under-two, and so

forth. Plaiting produces baskets in a range of stiffnesses depending on the materials and patterns used.

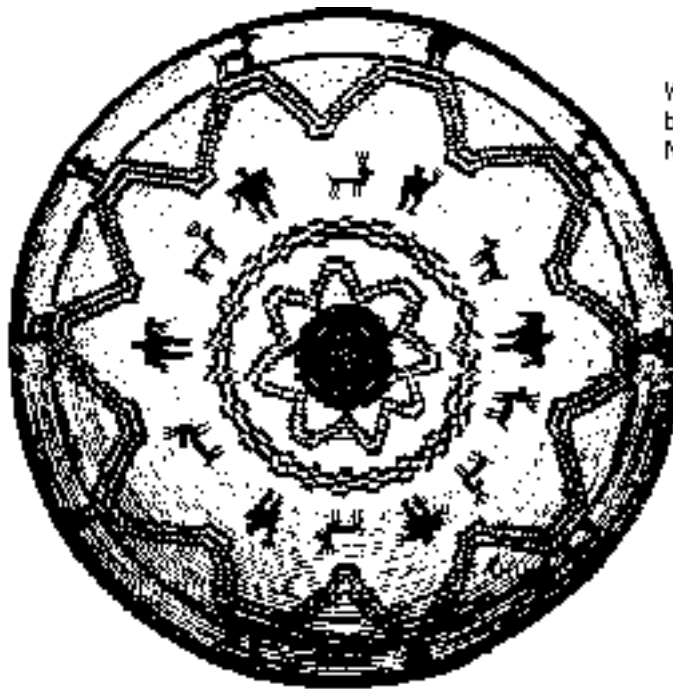
Twining involves a set of warps that are joined by two or more sets of weft fibers that are wrapped around each other in different patterns as they are also woven between the warp elements. Twining produces a soft basket.

The third major technique is that of coiling, where the bundles of warp fibers are first twisted into a cord form. These corded bundles then are laid into loops held together by sewing or wrapping the adjacent loops of the coil as they are laid down. This technique can be used to produce both flat, radial trays and very sophisticated container shapes as is shown in the following illustrations. Coiling is particularly suited to decoration with radially symmetric designs and results in very stiff containers.



A basket made by the coiling technique and decorated with quail topknot feathers. The human designs on the side are made by dyeing the grasses used to wrap and bind the main coils and then introducing the dyed materials into the wrapping sequence to create the pattern. Tulare band of Yokuts people, southern California.

from a photograph in Feder, **American Indian Art.**



White Mountain Apache
basketry tray made by coiling.
New Mexico, early 20th century.

after photograph in Dockstader, **Indian Art of the Americas**.

Painting

American Indian painting has a history of considerable antiquity, as do most of the arts practiced by Indians. However, until recent decades, it is a history that comes down to us without many names of the artists involved. This is due to both indigenous cultural practices and more recent failures of the historical record.

In this section, painting as a decorative element of other forms of art will be little discussed, since examples are offered elsewhere. Pictorial art *per se* is the subject of this part of the essay.

One of the earliest surviving examples of American Indian pictorial art is the series of paintings on the walls of Pedra Furada rock shelter in Brazil. Created around 10,000 B.C., the many scenes depict Paleolithic hunting activities, social scenes and the animal life of the area.

Some time around 1,000 B.C., a set of paintings was done on the walls of Panther

Cave in the Pecos River valley of west Texas. Thought to have been the work of a single artist, they show the conduct of a hunt and illustrate shamanic hunting magic practices. The shaman figures are relatively large and dominate the work, which is done in reds, browns and black. Photographs of this piece of cave art appear in Jamake Highwater's **Many Smokes, Many Moons**.

Pictorial art became an element of the architecture of Mexico during the Classic era of urban civilization there, after about 150 A.D. Frescos abounded in most of the large buildings of the cities, for example at the 'White Patio' palace at Teotihuacan (illustrated in the section on architecture). From these we have learned that the Teotihuacanos possessed a logographic form of writing, even though no books have survived from this great city. From one fresco we also can see something of this Nahuatl-speaking people's belief in the hereafter. This large fresco (at a palace in the Tepantitla neighborhood) shows the Tlalocan, or 'Paradise of the Rain God ' Tlaloc. Dr. Michael Coe describes it as painted in red, blue, yellow and brown, showing the god with water flowing from his hands and human figures at play amidst trees and butterflies.¹³

Interestingly, the Maya created relatively few works of pictorial art in the form of frescos. Several temples at Tikal, an important early Maya city in Guatemala, had a group of exterior frescos painted sometime around the birth of Christ. Some tombs in the same area had interior frescos. The Tikal exterior frescos show Mayan nobles and mythic scenes.¹⁴ The only other known major Mayan frescos were painted much later on three interior walls in a temple at Bonampak, a small ceremonial center in Chiapas, Mexico. These scenes show many details of courtly life and preparations for a war raid, followed by the capture and sacrifice of the defeated warriors by the Bonampak lords.

This series of dated frescos was painted near the end of the Classic era of Mayan culture, around 800 A.D.¹⁵

The evolution of American Indian art in the Contact Era (roughly 1492 to the beginning of the 20th century) can be described in one sense as adaptive. One aspect of this adaptation involved the adoption of new media. Provided by the immigrants, new types of paint, steel tools, glass beads, metallurgy techniques and the like enabled Indian artists to modify the appearance of traditional art styles in ways that appealed to the aesthetic sensibilities of Indian people. Such modifications, even where they constituted major innovations, are nowadays termed 'authentic' (as distinguished from the 'traditional' styles and media that are part of the indigenous heritage). Continued long enough, authentic innovations can become accepted by the people as new traditions, a part of the evolution of living American Indian cultures.

Beyond the accretion of new media and techniques, other Contact Era cultural adaptations had impacts on Indian painting as well. Consider as one example the evolution of the Great Plains painted tipi. Prior to the reintroduction of the horse onto the Plains in the 1700s, the tipi-type shelter was relatively small, limited by the capacity of pack dogs to haul the weight of the skin cover. During the 150 years of the horse culture on the Plains, the tipi grew considerably in size, since horses can carry or drag more weight than can dogs. This development made the tipi an impressive 'canvas' upon which family members sometimes painted symbols of personal power or pleasing designs that gave distinction to the lodges. This new tradition continues today.

Another aspect of the adaptation of American Indian art over the past few centuries involved Indians in the mastery of immigrant techniques and styles and in the production of art primarily intended to meet the tastes of non-Indians. Discussed also in the section below on Indian arts and trade, examples which can illustrate this type of

adaptation include much of the painting, sculptural and other ornamental work in many of Mexico's colonial-era Christian churches. The great majority of these were executed by Indian artists.

Indian painters and scribes in the first generations after the conquest of Mexico were sometimes recruited by Spanish friars to assist in compiling bilingual versions of traditional Indian texts. [Some of these translations are discussed in the Language Arts essay.] The glyphs and illustrations in these early Contact era works largely followed pre-contact traditions. Similarly, the indigenous historians of post-conquest Peru often illustrated their works on Inca history with drawings based on the native style, but including a few tell-tale European elements.

Other examples of this type of artistic adaptation include the pottery miniatures sold by Indian artists in the early 20th century tourist traps of the American Southwest, some of the scrimshaw work sold by Inuit carvers to generations of Arctic whaling crews, and the more recent argillite (a soft black stone) carvings of Northwest coastal artists which have found favor among buyers.

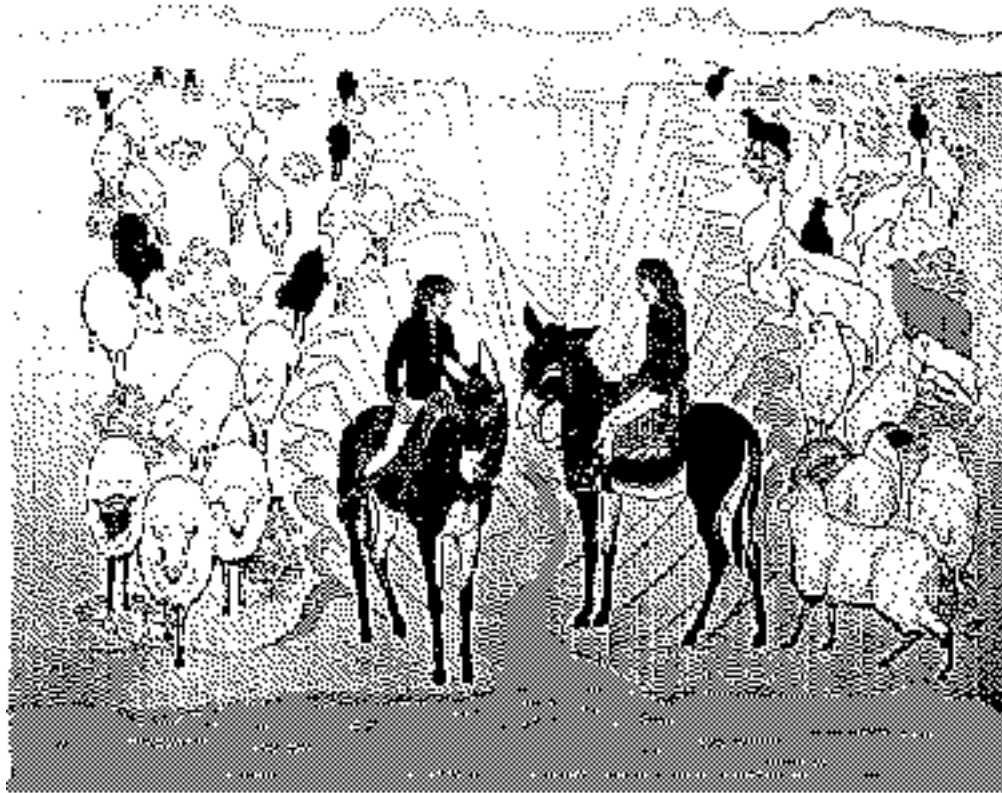
Modern American Indian painting in the United States can be said to have grown out of a merging of the training received by many Indian students at federal boarding schools over a half-century (roughly from 1880 to the 1930s) with their preexisting Indian sense of aesthetics. The experiences of these generations were often hard to endure, let alone reconcile, but some artists began the difficult synthesis of new techniques and perspectives with the old. American Indian painters began moving beyond the two-dimensionality of most traditional pictorial styles, such as that of American Horse, a Hunkpapa reservation-era chief who drew accounts of the Custer battle in crayon on paper, but still used a flat style recognizable on older wintercount

historical documents.

One of the strongest of the younger generation of Indian painters who achieved a synthesis of the traditions with the new techniques in the 1920s was Fred Kabotie, a Hopi. He worked in bright pigments yet maintained a delicate traditional Southwestern sense of detail in lighting and shading. Kabotie had many successes with his paintings using elements of Hopi public ceremonials, preferring to depict active scenes such as dancers in motion. His subjects had a very palpable sense of three dimensions, almost as though they were photographic yet boldly idealized miniaturizations of real living beings.

Spencer Asah was a Kiowa contemporary of Kabotie who preferred to render his subjects in a dimensionally flat style, but one that combined realistic proportions with slightly abstract, strong treatments of colors in hair, faces and costumes. He suppressed highlights and shadows in his surface treatments and also simplified and stylized many details, getting a rather posterish effect. Like Kabotie, Asah liked to use dancers as subjects.

After World War II, another new generation of Indian artists emerged. Harrison Begay, Navajo, created much acclaimed work using a tonal palette reminiscent of sandpaintings, achieving a look that immediately spoke of Southwestern light and colors on the land. He favored ordinary Navajo people going about their daily business as subjects, as in the illustration on the following page of one of his sheep herding paintings, this one with two mounted boys bringing their flocks to a waterhole. Begay's work was very influential among other Navajo artists of his generation.



"Navajo Shepherds at a Waterhole" by Navajo painter Harrison Begay. This internationally known artist of the mid-20th century has been a leading influence on other modern Navajo painters. The original emphasizes warm sand tones; the shepherd on the left wears an orange shirt while the young man on the right is in blue.

from color reproduction in Feder, **American Indian Art.**

The Osage painter Carl Woodring drew attention in the late 1950s for his watercolors. One of these, the award-winning "Osage Straight Dancer", seems to walk a middle ground between the bright realism of Kabetie and the flatter, poster-like abstraction of Asah.

The general social evolution which began to accelerate in the United States during the 1960s found reflection in the work of many currently active American Indian painters. One noticeable aspect of Indian artistic evolution has been the increasingly diverse personal vision and voice of many contemporary Indian painters.

Some artists, for example Emmi Whitehorse (Navajo), work in modernist abstracts that do not always say 'Indian' to the viewer. (Sometimes it's not there to see, sometimes it is, but the ethnic identity of the artist is no longer put forward only via the

conventional 'Indian' subjects and images.) Others, like Henry Fonseca, the Maidu perhaps best known for his many depictions of a very Indian but thoroughly contemporary Coyote (he of the biker jacket, blue jeans and high-tops, hanging out on the street or hustling the ladies, etc.) work in a variety of media from pencil to oils and handle a broad range of subjects and styles. The very successful and well-known Fritz Scholder (California Mission Indian) uses many conventional elements (Indians in regalia) but posterizes his color palette and often puts forward a very strong emotional or cultural message about what it is to face the world as an Indian. Then there are those whose work blends conventional subjects (Indian dancer) with contemporary scenes (standing next to a pickup truck at an outdoor powwow) in a multimedia presentation, like that in "Powwow Pickup" by Peña Bonita, an Apache artist.¹⁶

In short, ours is a very exciting time in painting. The once confining box of others' expectations which Indian painters had to meet (or not be thought of as "real Indian") is open at last, if not entirely gone.

Pottery

American Indian cultures throughout North, Central and South America developed earthenware pottery independently of any known influences from the Eastern Hemisphere. Pottery remnants are known from archaeological discoveries in most of the geographic/ecological regions of the Americas, including the Arctic.

Cultures in certain regions, like the Northwest Coast and California, appear to have made little use of pottery, since materials such as wood or basketry made serviceable substitutes.¹⁷ The northern reach of the Desert culture area of the Great Basin and the Plateau of eastern Oregon and Washington, or the nomadic Great Plains areas away from the permanent settlements of the agricultural peoples of the river valleys, also saw only a little development of pottery according to the archaeological

record. This is believed to have been due to these cultures' mobile adaptations to those environments. Heavy and relatively fragile items such as pots and figurines were inappropriate to the lifestyles of peoples who ranged far and moved often to exploit the food resources of those regions.

Pottery was not commonly made in the Amazon rainforest region of South America. The needs of villagers there were usually supplied through trade with the pottery centers on the west coast, in the Andean regions, and in what is now northern Argentina. Notable exceptions in historic times are the Waurá tribes of the Xingu River and the Tapajó of the lower Amazon. Women of both of these rainforest cultures are known for the technical and artistic excellence of their pottery.

Major pottery traditions in the Americas tend to be associated with centers of agriculture. In North America, there are distinctive pottery traditions among the farming cultures of the Southwest, the Mississippi-Missouri-Ohio drainage, and the Southeast. To a lesser extent, pottery was also made among the Iroquoian and Algonkin farming peoples of the Great Lakes-St. Lawrence River-New England regions.¹⁸ The agriculturists of Central America and the circum-Caribbean culture areas were superb potters with long, diverse traditions and enormous production. The same can be said of the cultures of the Andes and the coastal regions of modern Colombia, Ecuador, Peru and Chile.

The earliest known American Indian pottery was made around 4500 B.C. on the Hondo River at Chalco, in the Valley of Mexico, which was also one of the early centers of agriculture in the Western Hemisphere.¹⁹ Five hundred to one thousand years later, the coastal cultures of the circum-Caribbean area and their trading partners in modern Panama and Ecuador produced an early tradition of pottery vessels. The products of Valdiva in Ecuador and Monagrillo in Panama, in particular, were decorated using

incision and rocker stamping of designs into the wet clay of the jars and plates that have been thought by some to resemble the contemporaneous Jomon style of decoration that was practiced in Japan, although no connection has been established.²⁰ This Valdivia-Monagrillo style diffused widely along the western coast of Mexico and appears to have been influential in shaping pottery traditions of the late Archaic and early Formative cultures of Mexico.

By the second millennium B.C., potters in Central and South America had developed, and probably shared through trade, a number of vessel forms and production techniques. The most common way of forming clay into vessels throughout the Americas was the coiling technique, but the early southern potters also developed molds to form standardized wares that could be produced in high volume. They shared a distinctive stirrup-shaped spout-handle for some styles of water jars. Mexican and South American potters also used a decorative technique similar to batik dyeing, applying wax to the surface of pots and scraping it away in patterns, then applying paints or slips to the exposed surfaces before firing the pots.

Around the transition between the Archaic Period and the Formative Period, marked by the spread of settled village life from about 2,500–1,500 B.C., a tremendous diversification of local and regional pottery styles occurred in Central and South America.

During this period, the beginnings of pottery production got underway in the Southeast of North America as well. Undecorated ceramics from this era were found at Ocmulgee Mounds outside of present-day Macon, Georgia in the 1930s, suggesting to scholars that the Indians of Florida and Georgia may have received trade influences from the wide-ranging Taino Arawak merchants of the Caribbean.²¹ We know from archaeological finds that a vigorous trade in pottery existed among the Indians of the Caribbean and northeastern coast of South America as far back as about 2000 B.C.²²

In Mexico and western South America, the period of transition into the Formative era is marked by the appearance of figurines and other forms of clay sculptures. The oldest known Mesoamerican clay figurine, that of a woman, dates from about 2300 B.C., and was made at the village of Tlapacoya in the Valley of Mexico. Notable Mexican examples from the early Formative (ca. 1500 B.C.) include figurine heads from Chiapas in the southeast of Mexico, and male and female dancer figures along with a polished fish effigy from Tlatilco in the Valley of Mexico.²³

In the Peruvian Andes, a temple mound at the village of Kotosh was built in the early Formative era with a niche for the display of a fine clay sculpture of a pair of crossed hands. The sculpting of clay effigy figurines of puma or jaguar gods also became common in the Formative era in both Central and South America.

About 1000 B.C. in the Ohio River valley, a people now called the Adena established a remarkable civilization. Among its products, preserved in burial and effigy mounds, were pottery vessels decorated by stamping with the textures of cords or fabrics, and very stylish figurines, often formed as pipes or human and animal effigy figures.²⁴

Also after about 1000 B.C., first the lowlands and then the highlands of Mesoamerica (Mexico and Central America) developed a brilliant succession of truly 'civic' civilizations – the Olmec, Maya, Zapotec, Teotihuacano, Mixtec, Toltec, Totonac, Aztec and others – with an incredible variety of artistic styles and techniques. Earthenware pottery was very highly developed in these cultures, forming a major commodity of production and trade for many of the cities from this time through to the era of the Conquest some two and a half millennia later. Numerous scholarly and popular works have been written which provide detail about the developments and specialties of the potters of the various cultures of the Late Formative, Classic, and Post-Classic eras of Mesoamerican history. The detailed story is far too long to relate

here. The art teacher who would like more information and access to illustrations should consult the books mentioned in the footnotes and bibliography.

Each of these Mesoamerican cultures developed one or more distinctive decorative styles for its pottery wares. Many are also distinguished by characteristic forms for both wares and figurines. Most of these civilizations made polychrome wares emphasizing mostly geometric designs. Glazes were rarely employed but were known, slips of red, brown, yellow, white and black being the most common way of finishing a surface. Polishing of wares was very common, this usually being done before firing. The artisans carved, incised and stamped their works to add detail and texture to surfaces. Both oxidizing firings (giving reds and browns) and reducing firings (giving blacks) were understood and used. Preferences among these methods often became a distinctive feature of the work of whole groups of artists associated with particular cities and towns.



A Mixtec bowl from the period just before the Conquest of Mexico. The polychrome painted bowl features the figure of a blue hummingbird perched on the rim.

from an illustration in Coe, **Mexico**.

In South America, the Mochica of the north coast and the Andes of Peru flourished from about 200 B.C. until about 900 A.D. Their pottery was noted for its striking naturalism, often featuring human heads that are believed to be portraits of actual people. [Portraiture traditionally was uncommon among American Indian artists.] They also continued the older tradition of forming water vessels with stirrup spout-handles.



Detail from a Mochica pot showing the defeat of an enemy warrior. Northern coast of Peru.

after illustration in Jennings and Norbeck, **Prehistoric Man in the New World**.

Further south at about the same time, the Nazca people emphasized painted decoration of their pottery, featuring a wide variety of colors and animal and human figures with geometric designs as well. Some surface relief also appears in Nazca pottery.

A later Peruvian people, the Chimú, succeeded the Mochica in the north and were themselves incorporated into the still later Inca Empire. The Chimú failed to match the quality of their predecessors' pottery, but did make a ware that gradated from gray to black and often followed the Mochica convention of the stirrup spout for water jars. The Chimú also made water jars that had double spouts connected by a solid bridge handle. The Inca favored a polished redware that was often painted in geometric designs.

Some of the older artistic traditions of the peoples incorporated into their empire also persisted in the Incan era.

In North America, a succession of cultures throughout the Mississippi River drainage produced a number of distinctive styles of pottery wares and effigy figurines. The Adena peoples have already been mentioned above; their successors, the people known to archaeologists as the Hopewell culture, created very finely crafted human and animal representations in clay in the form of figurines, pipes, and vessels, most often with a ceremonial significance. These were somewhat more ornate and showed a higher level of refinement than the earlier Adena figures, and used both realistic and abstract styles. The Hopewell peoples spread their artistic works through trade and settlement westward into the river basins of the Great Plains as far as the Rocky Mountains, and their influence also spread eastward from their cultural center in Ohio and Illinois.

The Hopewell (we do not know what they called themselves) flourished between 300 B.C. and 700 A.D. and were succeeded by yet another 'mound-builder' culture, known as the Mississippian. From the major Mississippian centers in the heart of the Midwest, a new, distinctive artistic influence spread throughout the region and into the Southeast, again with trade connections out into the Great Plains. In this and in much of their artistic and religious style, they followed the Hopewell tradition. The Mississippian cultural tradition lasted until the beginnings of Contact with European explorers.

The Mississippian culture was profoundly religious with a special focus on images of death; some scholars suspect that many of the Mississippian cultural traditions were influenced substantially by traders and migrants from Mexico after the downfall of the Classic-era city of Teotihuacan and the later Toltec capital of Tula. There are some

resemblances in many of the artistic motifs of this era, which spanned the centuries between 700 A.D. and about 1600 A.D. Human sacrifice became part of the ceremonial ritual and artistic representation of these people, appearing in pottery as well as in artistic representations created in other media. Among the Mississippians, the last and best known were the Natchez people of what is now Mississippi, Arkansas and Louisiana. Their culture endured into the 1700s before succumbing to the intrusions of the French.²⁵

Frederick Dockstader has provided quite a number of pieces to illustrate the diversity of form and style in this Adena-Hopewell-Mississippian pottery tradition in his book **Indian Art of the Americas**. This volume is also a good source of illustrations of a wide range of pottery types from cultures throughout the Americas, although he includes very few contemporary examples.

The other major pottery tradition of North America flourishes yet in the Southwest among the Pueblo descendants of a group of earlier cultures. The earliest of these Southwestern Desert cultures to use pottery are known to archaeologists as the Cochise peoples of Arizona and New Mexico. They are believed to have learned maize agriculture and pottery making beginning around 3500 B.C., acquiring this knowledge from traders out of the rising cultures of Mexico. Later Cochise pottery work included rudimentary figurines.²⁶

The descendants of the Cochise people, known as the Mogollon from the name of a prominent geological highland in Arizona and New Mexico where they also made their home, flourished from about 300 B.C. until about 1300 A.D. Their outstanding achievement in pottery occurred around 900 A.D., when a Mogollon sub-group, called the Mimbrenos, developed a spectacular black-on-white painted style known as Mimbres, probably influenced by contact with their Anasazi neighbors. Their earlier

pottery, like that of other Mogollon peoples, had been a brownware often painted red. The Mimbres style is characterized by a white painted field on which stylized black (occasionally red) animal figures and/or geometric designs were painted, often with one or more concentric black rings near the edges of the piece as a border. Many of these Mimbres pieces have been found as grave offerings; when encountered in this context, they always have a small hole knocked out of the center of the piece. This served to 'kill' the spiritual power of the design before it was interred.²⁷ Today's Zuni are believed to be descended from the Cochise-Mogollon cultures.

The western neighbors of the Mogollon were ancestors of today's Pima and Tohono O'odham ('Papago') Indians in Arizona. Archaeologists call these ancestors by the Pima name Hohokam – 'the Vanished Ones'. They are thought by some scholars to have been migrants from northwestern Mexico. Their pottery was a red-painted buffware. They also created many figurines at their large cultural center [now called Snaketown] near modern Phoenix, which they occupied for 1,500 years from about the first century A.D. They were a remarkable people whose many other artistic and technical accomplishments are noted elsewhere in these essays.

North of the Mogollon, centered on the modern 'Four Corners' area of Utah, Colorado, New Mexico and Arizona, lived a people now called by the Navajo name Anasazi – 'the Ancient Ones'. The Anasazi developed out of an earlier group of cultures that scholars refer to as 'Basket Maker', beginning to distinguish themselves about 100 A.D. By 750 A.D., they had developed the spectacular form of adobe (baked earth and clay brick) architecture known as the pueblo village.

Anasazi wares often were decorated in a painted red or black on white style with much use of geometric figures that influenced the Mimbrenño to the south. The Anasazi made much use of a single side-handled, mug-like form for many of their pitchers.²⁸

Revival and Contemporary Southwestern Pottery

In the American Southwest during the final quarter of the 19th century, Nampeyo, a Hopi/Tewa woman of Hano Pueblo on the Hopi First Mesa, began a revival of a earlier Pueblo pottery style. She learned to reproduce the pottery style characteristic 200 and more years earlier at the long-abandoned Sikyatki Pueblo near First Mesa.

Nampeyo, born in 1860, had learned her pottery technique under the guidance of her Hopi grandmother in the traditional way. She was unusual even as a young girl for the amount of time she spent collecting and studying the remnant potsherds she found buried in and near old village sites that had been vacant since before her Tewa ancestors arrived at First Mesa to live with the Hopi.²⁹

Nampeyo found that the style of the old pottery differed in its decorative design from that then typical in the Hopi communities. The contemporary Hopi style had received predominating influences from her Tewa ancestors as well as from the Keres and Zuni peoples and even the Spanish. The Sikyatki potters had emphasized large, curvilinear design elements as a basic motif and also frequently employed a stylized feather motif, both characteristics that rarely appeared any longer in Hopi pottery.

When a U.S. Geological Survey team, including the well-known photographer William Henry Jackson, visited First Mesa in 1875, he photographed Nampeyo.³⁰ By 1891, when Jesse Fewkes arrived to take over an archaeological project near First Mesa, Nampeyo was already recognized as the leading potter among the Hopi pueblos. She spent time over the next five years in the Fewkes camp, studying and sketching the designs on the Sikyatki pottery that was being uncovered.

By 1896, her work had become difficult for non-experts to distinguish from the originals that inspired it. Nampeyo was finding a market for her finely-crafted wares through the Keams Canyon Trading Post, the Fred Harvey chain of hotels in the Southwest, and her brother's store in Polacca at the base of First Mesa. She also was

influencing other Hopi potters in a movement that became known as the Sikyatki Revival.

The Sikyatki Revival was guided in large part by the knowledge of the elders, particularly Nampeyo's mother and father, who helped the younger people to understand the meanings of the old designs as they began to incorporate them into modern works that extended the traditions. Ronald McCoy states that "Nampeyo took from the past, went beyond imitation, and provided fruition for a new style which may well have been in an embryonic stage around the time of her birth."³¹ Other Hopi potters created works in the Revival style, but Nampeyo's stood forth for her rediscovery and use of four types of clays that had been used by the Sikyatki potters to give the surface textures characteristic of their work, while most Hopi potters used only two clays.³² Working with her husband Lesou, she most commonly made wide, shallow water jars covered with white or yellow slips and painted with yellow and brown paints made from ground earths, stone, and plants. The quality of her work brought her consistently higher prices than those commanded by contemporaries who also supplied the trading posts. She was known as a skilled, rapid producer.

By 1898, Nampeyo's talent resulted in an invitation by George Dorsey, the Field Museum of Natural History's anthropology curator, to exhibit her work at the Chicago Coliseum. She and Lesou went, and they later would demonstrate the creation of Nampeyo's art at Fred Harvey's Grand Canyon Lodge in 1904 and 1907, and again in Chicago in 1910. These exhibitions made her name well-known in American art circles.

Members of the Nampeyo family have carried on her work, incorporating many of the recovered stylistic traditions and extending them into their own contemporary styles, which often incorporate incised relief in the painted surface designs. Several examples of Nampeyo family creations can be seen in Lois and Jerry Jacka's recent book **Beyond Tradition**.³³ Other examples of this family's work appear in **Generations in**

Clay: Pueblo Pottery of the American Southwest by Alfred Dittert, Jr. and Fred Plog.³⁴ An article written about the contributions of Nampeyo and Lesou can also be found in a 1976 issue of *American Indian Art* magazine.³⁵

The late 19th and early 20th century period saw a resurgence and evolution of pottery traditions throughout other Pueblos similar to that at the Tewa/Hopi villages. At San Ildefonso Pueblo in New Mexico, Maria Martinez became a central figure in the revival.

She first produced works in a popular San Ildefonso style known as Tunyo Polychrome, featuring thin walls and curved necks that are almost the height of the bodies of her jars. She and her husband Julian, like Nampeyo and Lesou, went on to study excavated pottery taken from sites near their village. They developed a matte black on polished black style for bowls and jars, occasionally with surface relief for the animal or feather designs they used as decorative motifs. This style was also extended into a cream on red ware.

Maria and Julian Martinez also reproduced an old style of smudged black pottery using a resist technique after being shown excavated examples. Illustrations of their work and influence on other San Ildefonso potters can be found in Dittert and Plog.³⁶ Other San Ildefonso potters of note are Maria's son and grandson, Popovi Da and Tony Da.³⁷

At Santa Clara Pueblo in New Mexico, a striking, highly polished blackware came into production near the end of the 19th century which continues today among the many accomplished potters of this pueblo. A common form is a double-spouted water jar with a stirrup or bridge between the spouts serving as a handle. These vessels, and also many Santa Clara bowls and vases, are further formed with scalloped or fluted

bodies. Decorative motifs include a very popular, characteristic ‘bear paw’ design incised into the body of the piece, and some potters, notably the Naranjo family, carve deep reliefs of stylized animal forms and geometric designs into their works.

Another well-known family of Santa Clara potters is descended from Sarafina Tafoya and includes the acclaimed Margaret Tafoya, Joseph Lonewolf, and Grace Medicine Flower in our own day. They emphasize traditionally-styled and colored wares. Lonewolf and Medicine Flower employ a wide variety of decorative elements, including polychromes in a wide range of traditional pictorial and geometric styles, often using incised and carved relief patterns. Sometimes they employ inlays of precious stones, metals or appliquéd surface elements.³⁸

Other Contemporary Potters

The Southwest is not unique in being the home of strikingly beautiful contemporary American Indian pottery. Artists of consummate skill can be found today in many of the tribal communities throughout the Americas. Among them are Richard Zane Smith (Wyandot), Peter Jones (Onondaga-Seneca), Karita Coffey (Comanche), Tex Wounded Face (Mandan-Hidatsa), and Jacquie Stevens (Winnebago). Examples of their work can be found in **Beyond Tradition** by Jacka and Jacka.

Kenneth Chapman, a well-known collector of American Indian pottery in the 1930s, once wrote a catalogue essay for an exhibition of traditional and modern Indian arts in which he noted that pottery had become “practically extinct” east of the Mississippi in his time.³⁹ Artists like Smith, Jones, and their contemporaries thus represent a renewal or revival of the skills of the potter among their peoples.

Architecture

American Indian Housing

American Indian house architecture spans an enormous range of styles. Generally, these show a high degree of adaptation in the structural use of local materials suited to both the characteristics of the local environment and sites and to the economic basis of the cultures.

As a consequence, there tends to be much more diversity in traditional native architecture than we see currently among the European-American cultures now in the Western Hemisphere. The immigrant builders tend to reproduce a limited range of building forms without particular regard for local conditions. Being more tied to a large-scale commercial economy, non-Indians have also tended to use a great deal of non-local materials, as instanced by the adoption of the wooden frame house to the northern Great Plains or the spread of the steel-and-glass architecture of the ubiquitous modern office building throughout North American and South American cities. The modular, industrial housing used by oil workers at Prudhoe Bay in Alaska is a notable example of the imposition of alien design and materials on an environment to which the local natives long ago adapted.

The illustration by Molly Braun on the next page, reproduced from the **Atlas of the North American Indian** by Carl Waldman, shows thirteen types of house construction created by various Indian and Inuit cultures to make use of local materials in dealing with local environments. Waldman notes that many tribes used several different types of shelter construction, depending upon the site or season.⁴⁰ Thus, the remarks below should be considered as applying to the most common type(s) used by American Indians in a general region.

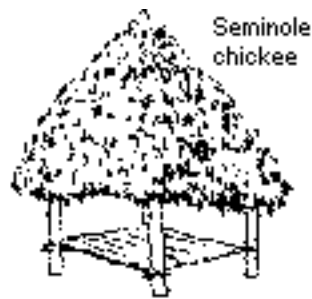
The builders of the plank house of the Pacific Northwest coastal region and the longhouse of the Northeastern Woodlands took advantage of the forest resources in their areas and came up with similar architectural solutions to their clan-based societies'

housing needs that sheltered several extended families of a given clan in each structure. These were often twenty to sixty feet wide and as much as one hundred or more feet in length, heated by several fires along the midline of the floor and sometimes partitioned off with mat or plank screens.

The Pacific riparian cultures that built this style used gabled roofs of beams and rafters covered with planks and plank walls. Many families in the Northwest also had the practice of owning two or more houses, one a large house of the type described above, used as their permanent winter residence, and one or more smaller, 'summer cabin' homes located in favorite fishing, gathering or trading sites. These summer homes were sometimes created as just a house frame, with planks and mats brought in from the winter house to enclose the roof and walls while the family was in residence.

The eastern Woodlands tribes often used bark slabs or brush and sticks for walls, topping their longhouses with a slightly pitched, barrel-shaped roof that inspired the form of the famous 'Quonset huts' used by the American military in World War II. The resemblance can be seen in Braun's illustration on the following page.

In the interior river basins of the Plateau and throughout parts of the Great Basin, eastern California and Nevada, mat-covered lean-tos provided a sensible form of shelter for the migratory family groups. Frames could be constructed at frequently used fishing or gathering sites and the covering mats moved with the families or work groups as the seasonal round of economic activities directed their travels. These structures could be quite large, as for instance the council lodges in the winter camps of the Yakima and other tribes of the Columbia River basin. Some tribes in this area



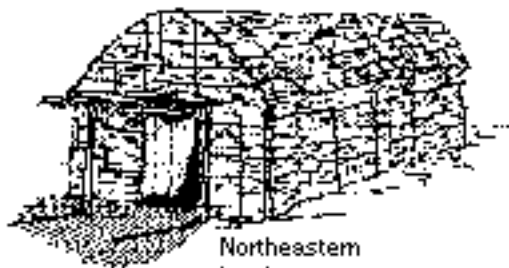
Seminole
chickee



Lean-to



Northwest Plankhouse



Northeastern
longhouse



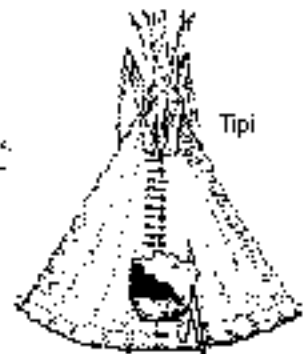
Pueblo



Southeastern
Wattle and daub



Woodlands
wigwam



Tipi



Hogan



Inuit
Igloo



Plains
Earthlodge



Pithouse



Wickiup

after Molly Braun in Waldman, **Atlas of the North American Indian**

also used pithouses or combined lean-to and pithouse construction. Double-walled and

insulated lean-tos were used by some Athabaskan groups in western Alaska and the Yukon.⁴¹

In the Southeast and the southern Mississippi River valley, as well as in the Atlantic lowlands of Mexico, wattle and daub construction was common, with rectangularly-arranged, upright frame poles being woven around with willows or other flexible materials, the walls thus formed then plastered with mud. Roofs for such houses were usually gabled and thatched. Whole villages constructed this way often surrounded a temple mound, with the whole community being enclosed by a protective palisade of logs. Such towns were frequently encountered by Hernando de Soto during his explorations of the Southeast in the 1540s. Various tribes in Florida and the Caribbean also built thatched roofs over open frames with raised wooden floors; called chickees by the Seminole who used them, these partly open houses served as comfortable, breezy shelters in the usually warm, humid climate of the region.

For most tribes in the Great Lakes region and the northern Mississippi River valley Woodlands at the time of Contact, the most common form of house construction was a dome-shaped, lashed frame covered with bark, hides, woven mats or thatching. This style of house is commonly called a wigwam. A somewhat more conical abode, often called a wickiup, was built by some peoples in the Great Basin, the Apache of Texas, and by groups in parts of California.⁴² Both of these types of houses had openings at the top to vent smoke from the central fire which served for heating and cooking.

The architecture of the Great Plains region was dominated by two very different styles of construction. Missouri River farmers built villages with semi-subterranean houses known as earthlodges. An earthlodge was built by excavating a large, rectangular or circular pit which was lined with logs and topped with a conical or dome-

shaped timber roof that was then thickly covered with soil. The earthlodge was an excellent example of the use of the principle of thermal mass to control the building's interior temperature in a continental climate with seasonal extremes of temperature. The principle was also applied to the similar pithouses and the subsequent Pueblo-type structures built by the cultures of the American Southwest and those in much of highland Mexico.

After to the reintroduction of the horse to the Americas, those tribes of the Great Plains which lived more by hunting than by agriculture were enabled to transform their economies and ways of life. Hunting buffalo from horseback rather than on foot gave a strong impetus to these cultures to increase their community mobility. As a consequence, many abandoned the use of earthlodges. They developed an earlier form of hide-covered hunting shelter into a much larger form of movable house, that icon to European-American transcontinental migrants and Hollywood, the tipi.

The tipi consists of a frame erected of poles about 20 to 30 feet in length that are leaned against a lashed tripod of similar poles and set with their bases arranged into a circle. This conical frame traditionally was fitted with an outer cover of scraped, stitched buffalo [or, more seldom, elk] hides that had been waterproofed by smoking. During cold weather, an inner cover was lashed to the poles inside, usually extending up to above head height. This helped to insulate the tipi by trapping air between it and the outer cover. The outer cover usually had flaps at the apex of the tipi, tied to light poles that could be moved to orient the flaps to the wind. This acted as a chimney flue to control the draft and smoke from the tipi's central fire.

Since the near-extinction of the buffalo herds in the late 19th century, most tipis have been made with an outer cover of heavy canvas. These, like their predecessors, are often decorated with painted symbols and designs that are associated with the family that owns the lodge. This style of house also became widely used in the late

18th and 19th centuries by tribes from the Plateau region, which became familiar with the tipi on their horse-borne buffalo hunting trips to the country east of the Rocky Mountains.

A similar but smaller tipi form was used in parts of the Great Basin and in parts of California. Another similar form is used in much of the Canadian Sub-Arctic by Athabaskan and Algonkin hunters. Depending on the available local materials, the frame was covered with matting or brush; these tipis seldom reached the height or diameter of the Great Plains hide-covered lodges of the horse era.

In much of western Alaska, Athabaskan bands, the Aleut, and the Inuit built log-framed, earth-covered houses of a type the Aleut call a barabara. As it did elsewhere, the earth covering served as water- and- windproofing as well as for providing insulation through thermal mass.

In the High Arctic, the Inuit built another well-known style of house, the dome-shaped igloo made of snow blocks. The snow blocks, containing a great proportion of insulating air, provide a material that is easy to work, readily available, and long-lasting in the conditions of the High Arctic environment. This style of house was constructed with interior platforms around the perimeter, raised above the level of the low-arched entryway. This allowed the main parts of the living area to be above the level of any cold drafts that came in. People sat, slept and worked in the higher levels of the house. Air warmed by bodies and oil lamps naturally rose to this level; ventilation was controlled with a few holes poked through the igloo dome. Along the coasts of Greenland and northern Labrador, the Inuit built similarly domed houses out of whales' rib bones, stone, and a covering of earth.

In the American Southwest and in parts of Mexico, Indians in ancient times built a

style of semi-subterranean pithouse. This differed from an earthlodge only in that the roof was usually not heavily covered with soil. The Mogollon people, for example, built a conical roof frame supported by a central post and lighter circumferential posts, then covered it with sticks and light poles with a light topping of stones and earth. Relatively recent immigrants to the region, the Athabaskan Navajo later would build their hogans of timbers arranged as low, rounded cones or octagons and often covered with a light layer of stones and soil. Hogans are not ordinarily built in semi-subterranean style as is the case with pithouses, however.

Beginning about 1000 A.D., the descendants of earlier peoples in the Southwest built another well-known style of American Indian architecture, the pueblo apartment-style block of stone or adobe construction. These had flat-roofs built with wooden beams supported by the walls of the structure. Pueblo blocks were often multi-storied complexes that shared walls between adjacent structures. They could be built free-standing or nestled into caves and niches in cliff walls for easier defense.

The pueblo complexes usually include round, subterranean chambers called kivas. A kiva could serve as a gathering center for the religious and social activities of the men of the village or as a storage warehouse for corn and other foods. Some kivas were built with concealed passageways from other structures in the pueblo. The kiva echoes the earlier pithouse and also represents the place of emergence that is spoken of in a great many of the creation stories handed down among the tribes in this region.

A similar style of pueblo architecture but without the kivas is traditional in many parts of western and highland Mexico. The pueblo style of architecture, with its emphasis on local materials that blend with the landscape and its sophisticated use of thermal engineering principles, has become a significant influence on modern architecture in the Southwest.

It is not clear how the idea for this style of architecture spread throughout the

region. Many archaeologists think that the pueblo style originated in Mexico and spread north, but it is also known that the style came south from the Anasazi in the Four Corners area to the older Mogollon peoples of southern Arizona and New Mexico. An excellent survey of archaeological sites of both the pithouse and early Pueblo cultures is David Grant Noble's **Ancient Ruins of the Southwest**.⁴³ Of course, the contemporary Pueblo tradition is still very much alive in Arizona and New Mexico, with several dozen living villages about which many books and films are available to teachers. One of these books, by Susanne and Jake Page and entitled **Hopi**, is recommended for its excellent photography and the care with which the authors accepted guidance from the tribe in telling their story.⁴⁴

In much of Central America and parts of western Mexico, the common housing for the Maya, Miskito, Guetar, Mixtec, and Tarahumara peoples, among many others, was a type of rectangular house made of thatch, wood or adobe. These had thatched wooden beam roofs sloping in from both sides, joined in a design called a hip-roof. This is still a very common style for the houses of the farming villages of the region.

Further south, in the Darien region of Panama, the Cuna Indians still build a cylindrical-shaped pole-and-stick-framed house with a conical, palm-thatched roof, a style which Arawak and Carib Indians often shared prior to their decimation in the Caribbean Islands and Cuba. There was considerable variability in house shape in the northwestern regions of South America, and groups such as the Cenú, Chocó, Caquetío and Jirajira most commonly employed adobe or thatching for the walls of houses, depending on the availability of materials in their locales.

Indians of the southern part of South America adapted their housing to several kinds of environments. In the Gran Chaco and the islands off the Chilean coast, people

avored dome-shaped houses with a permanent frame covered with hides, brush or bark, or similarly-covered tipis or lean-tos. Tribes in the grasslands of Patagonia built yurt-like huts covered with skins on light frames. Recent archaeological finds by Tom Dillehay of the University of Kentucky have shown that scraping and burning techniques for log house construction were used by Indians to build a 12-house village at the Monte Verde site in southern Chile as long ago as 11,000 - 12,000 B.C.⁴⁵

In the Andes, the most common Indian house style was and remains rectangular, mud-plastered stone walls topped by a gently sloped or domed roof, usually thatched. Near Lake Titicaca, huts made of bound and lashed bundles of reeds were sometimes preferred to take advantage of the abundant local materials which also offer good insulation. In the cities of the Chimú, great blocks of mud-plastered stone houses and shops were the norm, while later Incan cities made extensive use of dressed stone for residences and large public structures alike.

American Indian Public and Monumental Architecture

Large-scale public architecture, constructed especially for community functions, generally reached its greatest development in those Precontact American Indian cultures whose social and political organization was in the form of kingdoms or state systems and whose economies were largely based on agriculture. Durable structures for public purposes are most evident among the Mesoamerican cultures of the southern half of Mexico and Central America, in the Andean cultures, and in the American Southeast and Mississippi drainage. To a lesser extent, public architecture in the form of the council lodges was practiced among the peoples of the Northeast, notably by the Iroquoian and Algonkin confederacies in historic times. Public architecture was also known in the region much earlier in the form of burial mounds. Public architecture in the

form of the circular, subterranean kiva is a frequent feature of the pueblo structures of the Southwest.

With a few exceptions, public architecture was seldom created by Precontact cultures in the form of really large community buildings or earthworks in other areas of the Americas. Many tribes of the Amazon region erected a relatively large common house as a center for some forms of work and for social and religious ceremonies, and some of them still do. In form and construction, these common houses are similar to ordinary houses, only being larger to accommodate their functions. Similarly in the coastal Pacific Northwest, where extended family homes were already very large, some even larger feasting and ceremonial halls were occasionally erected by a few important men. One example was a cedar hall built in the early 19th century by the brother of Chief Sealth of the Duwamish tribe. It measured 540 feet in length.⁴⁶

The Kalapuya bands of the Willamette River valley in Oregon sometimes built small mounds. Some of these served to raise plank houses above the flood plain of the river. Other Kalapuyan mounds have been found to contain burials.⁴⁷ With this exception, mound-building seems to have been little practiced in what is now the western part of the U.S. and Canada. The scale of these western mounds never reached the size of those built in the eastern U.S. or in Mesoamerica, and they do not appear to have had community functions.

Our current archaeological knowledge suggests that American Indian construction of public buildings in dressed stone or of stone plastered with adobe mud began about 4,500 years ago in the northern coastal valleys of Peru. There, at sites now called Las Holdas and Chuquitana, the prospering villagers constructed stone temples and pyramids. Later, by approximately 1500 B.C., numerous other village centers had spread into the highlands where their peoples created temple mounds topped by stone

temples, as at Kotosh. It was mentioned above that one of the group of temples built there prominently featured a niche for the display of a clay sculpture of a pair of crossed hands. Religious and ceremonial purposes have dominated American Indian public architecture ever since. These remain important uses today, even for modern tribal buildings that ostensibly are only administrative or educational in nature.

The Andean highlands of Peru, Bolivia and Ecuador were home to a series of cultures, the Chavín, Tiahuanaco, and Inca. The neighboring coastal regions also nurtured three major cultures, the Mochica, Chimú and Nazca. Each of these cultures developed stone and adobe masonry skills to a high degree. On the north coast of Peru about 2,000 years ago, for example, the Mochica created adobe-faced earth and stone platforms on which to build circular temples; some sites show ramps encircling the mounds.⁴⁸ Some Mochica temple walls show friezes of the daily life and military activities of this people.

By about 400 A.D., the highland culture at the south end of Lake Titicaca developed a great ceremonial and residential center called Tiahuanaco. The main temple is now known as the Akapana. It is an enormous mound built up of earth and faced with cut stone. Other buildings include the Kalasasaya, which is built of stone columns interconnected with walls of stone blocks. This building features a doorway cut through a monolith, decorated with carvings of a prominent god and smaller winged figures.

The Chimú culture developed in the northern coastal region of Peru after the eclipse of the Mochica culture, as noted earlier. From about 1000 A.D. until its eventual incorporation into the Inca state, its capital city of Chanchan grew to a population of 50,000 and covered some six square miles. The Chimú kingdom's major public buildings and temples were adobe-plastered with relief carvings of geometric designs highlighted with paint.⁴⁹

The Inca were the last of the great South American cultures to arise in the period just before Contact. Their leaders were master statesmen and militarists, organizing a huge territory by conquest and political consolidation into one of the few American Indian examples of a true imperial state. A part of the Inca strategy for success in their adventures was a reliance on public construction – they built an ‘infrastructure’, to use a modern term.

This infrastructure was comprised of thousands of miles of paved roads and hundreds of bridges. Along these they built postal houses, garrison barracks, storage warehouses and granaries. These supported the activities of public functionaries, royal messengers and the army. The infrastructure also included extensive public buildings in the major cities and the capital of Cuzco. These were residences for the highest ranking allyus (social classes), as well as temples and shrines, libraries, plazas and administrative buildings. Cities built in the highlands were generally terraced to provide level grounds. The terrace walls usually were built of quarried and fitted stone.

Above Cuzco itself, the Inca spent 75 years prior to the Conquest constructing the Intihuasi, a giant version of a traditional Peruvian pucara or fortress of refuge. Perched above the city on the hill of Sacsahuaman, the three concentric walls of Intihuasi arose on foundations cut into the rock of the mountain. These walls were built with the largest stone blocks ever used in a military fortification. The blocks were quarried and dragged to the site, then cut to shape, hoisted into place and finally ground to a mortarless fit with a precision that holds the respect of modern architects and masons worldwide.

Within the walls, the Inca built three towers, one round and for the use of the royal family as refuge and treasurehouse. This tower was supplied with piped, pressurized water to its apartments. The two higher, square towers were for a permanent garrison. All were connected by subterranean tunnels. The entire Intihuasi complex, according to

Spanish estimates, could hold about 10,000 people. Its materials were pulled down by the Spaniards over a period of eight years and used to build their colonial center at Cuzco.⁵⁰

Inca palace architecture was an expanded variant of the rural Peruvian farming compound called a cancha. Palace complexes contained several apartment blocks, some of two stories and built with common walls and thatched roofs. Each block was usually provided with a small courtyard or garden patio which was a center of social activity. The whole compound was provided with a single entrance backed by an armory and attended by knights from one of the four Inca military orders.

Each palace had its storehouses and treasuries, and each featured as one of its largest structures the *cuyos manco*, a council chamber open along one side, covered by a thatched, gabled roof.⁵¹ An illustration appears on the following page of a portion of one such palace, showing the entry to a *cuyos manco* on the left, an apartment block used as concubine quarters to the right of center, and at the rear, a row of *churacona huasi*, or treasury buildings. The original drawing was done in the early colonial period by the bilingual Inca historian Guamán Poma de Ayala; a copy appears in Burr Brundage's book **Lords of Cuzco**, where it is described in detail.⁵²



An illustration of the layout of an Inca royal palace compound, as drawn by Guaman Poma.

After an illustration in Brundage, **Lords of Cuzco**.

To the north, the lands of central and southern Mexico along with the Yucatán Peninsula and what are now the nations of Belize, Honduras, El Salvador and Guatemala were another major center of advanced American Indian civilizations. This region is commonly referred to as Mesoamerica.

The surviving remains of Indian public architecture in this area are increasingly well known to archaeologists and tourists alike. Modern awareness of the ancient cities of the Mayan culture area developed after the well-illustrated reports of Frederick

Catherwood and John Stevens' expeditions to Honduras in 1839-40. There are too many individual structures, cultures and states in Mesoamerican history to be reviewed comprehensively in the space available here. Examples of the architecture of this region will be limited to a survey of the chief sites of the Olmec, Teotihuacano, Maya and Aztec peoples. Interested readers are advised to consult Dr. Michael Coe's introductory volumes **Mexico** and **Maya** for further details and a discussion of the many other important cultures of Mesoamerica.

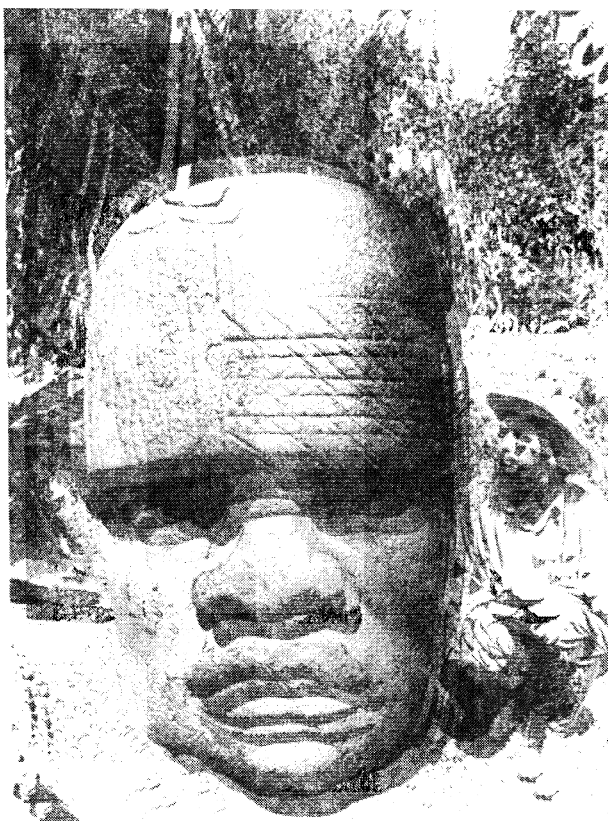
The earliest known of the Mesoamerican high cultures is that of the Olmec. They built a series of three cultural core cities, now called San Lorenzo, La Venta and Tres Zapotes in the lowlands of the modern Mexican states of Tabasco and Veracruz.

San Lorenzo arose about 1,200 B.C. on the Coatzacoalcos River. The Olmec raised their city there on an artificial platform of earth and clay about three-quarters of a mile long. This platform was constructed symmetrically about its major axis. One public architectural feature is a packed earth ball court for the paying of the ritual game of pok-ta-pok or tlachli that spread throughout Mesoamerica and beyond into the American Southwest. Due to the destruction of the site around 900 B.C., little remains of the public buildings.

However, a great many basalt statues and altars have been recovered from Olmec sites where they were ritually buried by the destroyers. The most spectacular of the statues are huge Colossal Heads weighing up to 20 tons and carved in a distinctive style. An illustration of one of these appears on the next page. The San Lorenzo Olmec also equipped their city with an extensive network of basalt drains to deal with runoff during the heavy rains at the site.⁵³

A century after the fall of San Lorenzo, the Olmec established La Venta on an swamp-surrounded island near the Tonalá River in Tabasco. There, they created a

ceremonial complex featuring a volcano-shaped clay pyramid 111.5 feet in height on a raised platform. The pyramid faced a plaza and two smaller mounds in line with it; between the two smaller, dome-shaped mounds was a ceremonial platform. Professor Michael Coe reports that the platform sides were painted in red, yellow and purple. The plaza was covered with numerous basalt monuments, including stelae (monolithic pylons carved with bas-relief figures and script).⁵⁴



An Olmec "Colossal Head" of carved basalt. The figure wears a helmet like those worn in the ritual ball game of pok-ta-pok.

From a photograph in Coe, **Mexico**.

At La Venta, the Olmec also created three mosaic pavements of hundreds of serpentine blocks representing abstract forms of Olmec were-jaguar masks. Tombs for the nobility were created of stacked pillars of shaped but otherwise smooth basalt. These basalt tombs were closed and then sealed under earthen mounds. Like San

Lorenzo, La Venta was also intentionally destroyed, probably around 400 – 300 B.C.⁵⁵

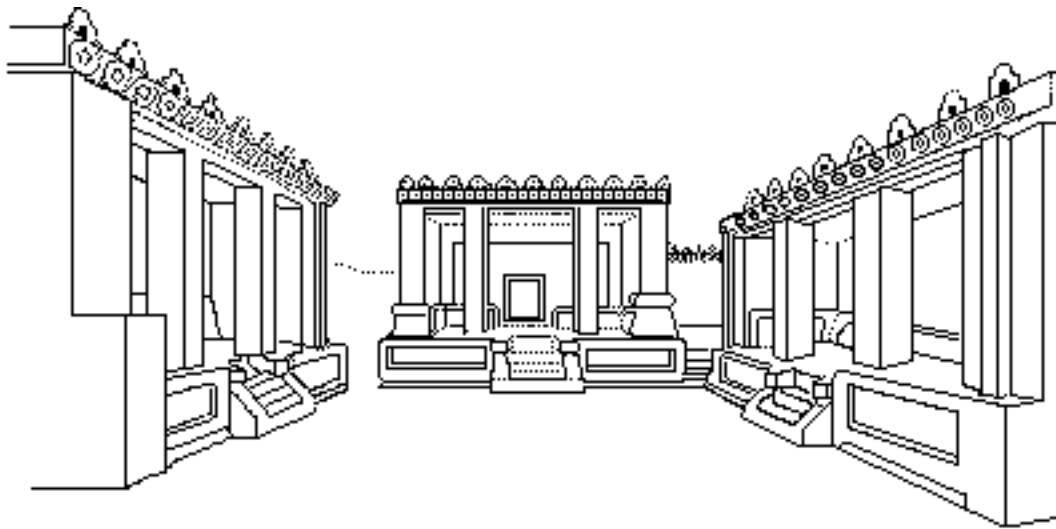
The last major Olmec core city arose sometime around 100 B.C. Called Tres Zapotes, it was built on an earlier small village site. Its buildings were set on a series of 50 earth mounds raised above the nearby San Juan River. One of the monuments found there, the so-called Stela C, bears an inscribed date that translates to September 3, 32 B.C. This makes it one of the oldest dated monuments in the Americas, according to Professor Coe and most other scholars.⁵⁶

The Olmec had an extensive trade network throughout Central America. Evidence of their influence appears in many places in architectural motifs and other works of art. It can be found as far north as the Valley of Mexico at Tlatilco, and as far south as Las Victorias in El Salvador and Los Naranjos in modern Honduras.⁵⁷ They also spread their calendric system and writing via glyphs, along with their religious concepts, throughout Mesoamerica.

Not long after the founding of the Olmec center of San Lorenzo, an agricultural village culture in a northern arm of the Valley of Mexico began raising a ceremonial pyramid of earth. This later became the core of one of the most famous pyramids of Mexican culture when a multicultural community built one of the greatest American Indian cities around the site. Known as Teotihuacan, the 'Place of the Gods', this ceremonial center was expanded in 300 B.C. to include a second pyramid called the Atetelco or 'Pyramid of the Moon.' The original mound, by this time much enlarged, is known as the 'Pyramid of the Sun.'

The city of Teotihuacan itself was developed by about 50 A.D., laid out according to a grid plan that used precise surveying, dividing the city into four functional and ethnic neighborhoods. Development of the two ceremonial pyramids continued until the downfall of the city around 700 A.D. From the Pyramid of the Moon, a broad 'Avenue of

the Dead' ran past the Pyramid of the Sun for four miles as the central axis of the city. A large ceremonial plaza now called the Ciudadela ('Citadel') was sited beyond the Pyramid of the Sun. The whole city occupied some 9 square miles and held a population estimated at between 125,000 and 200,000 by 600 A.D.⁵⁸ Some details on the urban design of the city are presented in the Sciences essay in the section on urban planning; two examples of the architecture of Teotihuacan are illustrated below and on the following page.



The White Patio, a palace courtyard near the Atetelco (Pyramid of the Moon) at Teotihuacan, Mexico, ca. 300 A.D.
from a drawing in Coe, **Mexico**.

The Maya are even today a widespread and numerous people in the southern reaches of Mesoamerica. The Classic and Post-Classic eras of their culture were periods in which some of the finest American Indian architecture was created in some 40 major Maya cities and ceremonial centers and at least 76 other known sites. The Mayan Classic period lasted some 700 years, from about 200 – 900 A.D., and Mayan sites and small buildings from the Preclassic era are known from as much as 2,000 years before the Classic era. The lowland cities of the Classic period were largely



A portion of the West Façade of the Temple of Quetzalcoatl in Teotihuacan. The structure on the left is a stairway flank surmounted by heads of the Feathered Serpent. The wall on the right is built using talud-tablero construction. The sloping, vertical talud faces show alternate heads of the Fire Serpent on the left and the Feathered Serpent, identified with Quetzalcoatl, on the right. The talud faces on this pyramid are broken into six steps by the horizontal tableros.

from a photograph in Coe, **Mexico**.

abandoned after 900 A.D. for reasons that are as yet poorly understood, but the culture survived in the highlands and revived in the Yucatán under Toltec influence after about 1000 A.D.

The architectural achievements of the Maya are impressive by anyone's standards. In one major center alone, at Tikal in modern Guatemala, the Maya built some 3,000 major structures including six temple pyramids, ball courts, palaces, observatories, public baths, and numerous plazas.⁵⁹ An illustration below shows the famed Temple of the Inscriptions in the city of Palenque. The vertical faces or taluds of its structure flanking the central staircase are covered with inscriptions.



The Mayan Temple of the Inscriptions at Palenque in the modern Mexican state of Chiapas.

after a photograph in Gallenkamp, **Maya**.

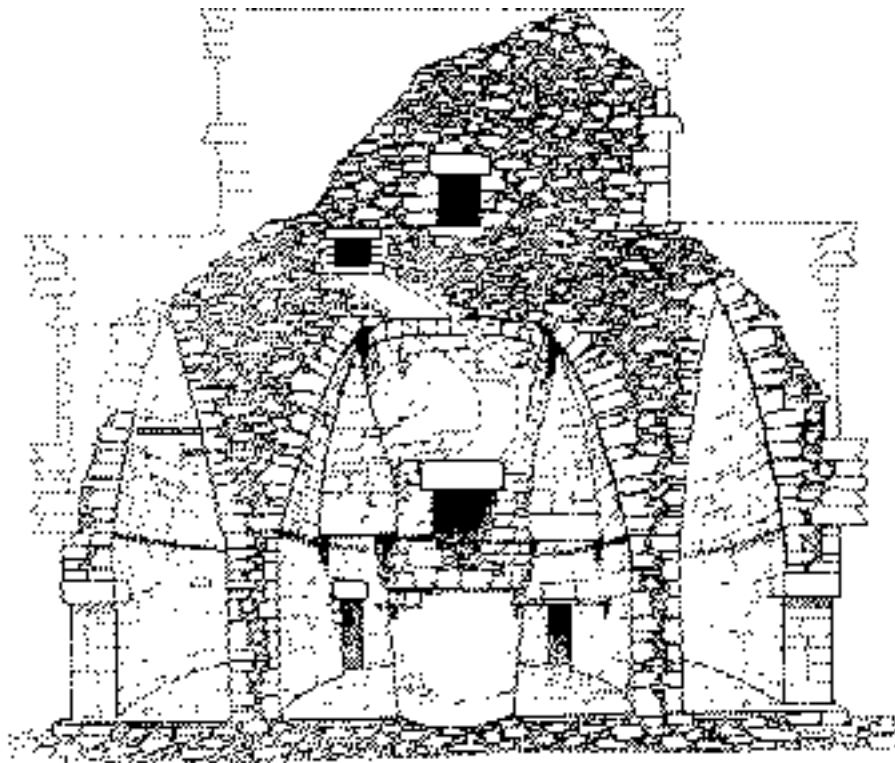
The Maya emphasized building form and external decoration; interiors were done in clean, white paint or stucco relatively uncluttered by ornamental detail with the

exception of painted friezes at some sites. A typical decorative element for exteriors was the 'roof comb', an openwork wall in the form of a crest which was frequently painted or covered with carved stone or adobe stucco. Building façades in some cities were elaborately geometric; some featured false crest pyramids, false columns, huge carvings, mosaics, or masonry designed in the form of enormous Mayan masks.⁶⁰

Walls in older large Mayan buildings were heavily built up of rubble and faced with limestone or, occasionally, rhyolite and sandstone masonry. Eventually, Mayan engineers created concrete using the abundant limestone in the lowland regions. They used it either to set light stones in thin masonry walls or in pure concrete construction. Mayan engineers also independently invented the corbelled arch and occasionally used it in vaulting the interior ceilings of their heavy-walled structures. In such a construction, the loads would be supported by the walls and perhaps a central column rather than by the arch itself, which was weak compared to the circular arch.⁶¹ Most Mayan doorways were of simple post-and-lintel design.

The Maya may have reached their peak as innovative builders in the Classic era city of Palenque on the edge of the highlands in northern Chiapas, Mexico. The main palace was built with a square, four-story tower and interior courtyards. Temples there were decorated inside and out with bas-reliefs. The engineers there also created a bridge in the form of a vaulted arch. The Mayan architects even used running water from the city's aqueducts to operate toilets, a rarity anywhere in the world at that time.⁶²

The Aztec [or Mexica as they called themselves] were the last emergent culture of Mesoamerica to rise to greatness. Their major urban centers and conquest empire were built in the century and a half immediately preceding Contact with the European world. Recent northern immigrants to the Valley of Mexico, the seat of many older



Remains of the "Caracol",
a Mayan temple at the city
of Chichén Itzá on the
Yucatán Peninsula, Mexico.

Drawing shows Mayan use of
corbelled arch, lintel-and-post
doorways and ventilation shafts
set in rubble-filled masonry walls.

after drawing in Kopper, **The Smithsonian Book of North American Indians**

advanced cultures, the Aztec mastered large-scale architecture from the example of the other major cities around Lake Texcoco. Since the Aztec were the last major Mexican culture to arise before the Spanish Conquest, their building program thus represents a culmination of traditional Mesoamerican public architecture.

Theirs was preeminently a state based on conquest. Most cities under Aztec dominance were actually built by other peoples. The notable exceptions were the twin cities of Tenochtitlan and Tlatelolco on Lake Texcoco, the former the political center of the Mexica state and the later, losing its political independence to Tenochtitlan in 1473, the commercial heart of the Aztec society.⁶³

The Aztec founded these two cities on marshy islands only about a mile apart in 1345. The engineering of a land base for the Aztec cities was a remarkable early feat, with the site being built up with earth dredged from the shallow lake bottom and mixed

with reeds or rock fill brought in canoes from the mainland. Canals were constructed as the islands grew, permitting waterborne transport into and from the cities.

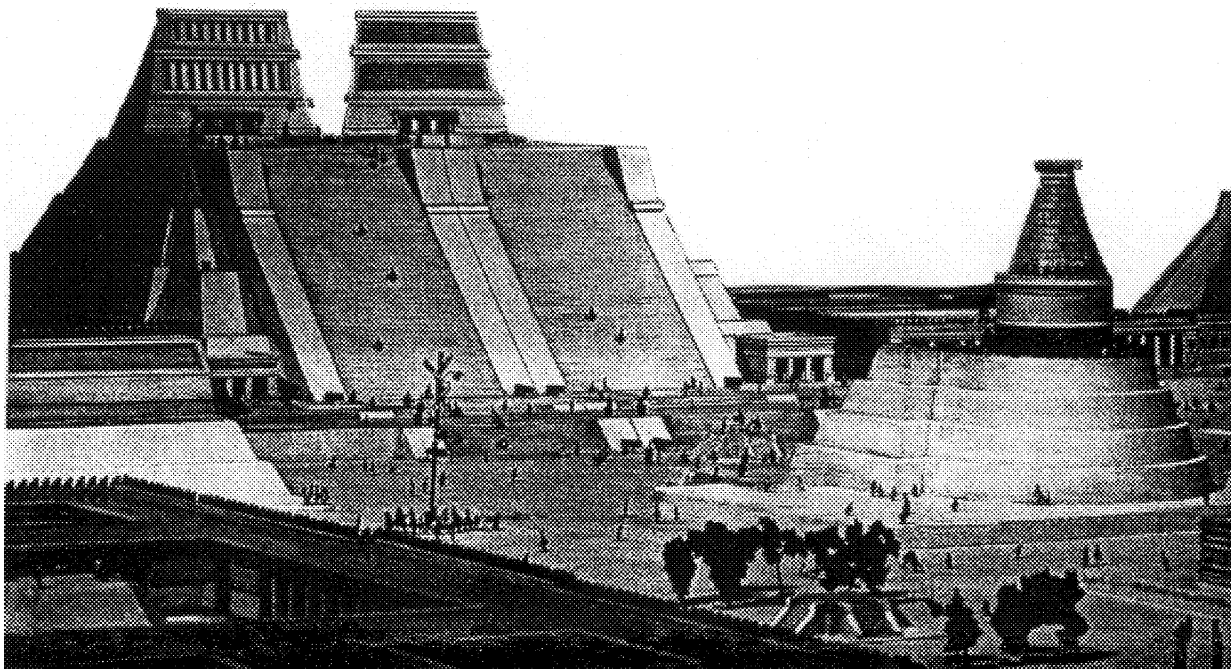
Causeways protected by drawbridges eventually connected Tenochtitlan and Tlatelolco to the mainland in three directions. Nezahualcoyotl of the kingdom of Texcoco, the ally and friend of the Aztec huey tlatoani ('Great Speaker') Moctezuma Ilhuicamina, favored the Aztec in 1449 with the construction of a ten-mile long dike. This major public project protected the two Mexican cities from flooding and brackish contamination of the lake waters around them.⁶⁴

In this lacustrine setting, the aggressive, acquisitive Aztec rapidly developed their twin cities after winning the right as mercenaries serving the Tepanec kingdom to receive tribute from conquered enemies. The pace of Aztec construction increased dramatically after 1428, when Itzcoátl led the Mexica against Maxtlatzin, leader of the Tepanec and laid waste the latter's capital of Atzacapotzalco. Moctezuma Ilhuicamina, successor to Itzcoátl, greatly expanded the emerging Aztec state and increased the tribute of stone, wood, labor and other materials from conquered cities and towns. These he used to begin the first Coatepec or 'Great Temple' of Huitzilopochtli, the principal god of the Aztec.

This temple and its counterpart in Tlatelolco were stepped pyramids surmounted by stone edifices. They are said by the Spanish conquistadors to have been used by the Aztec priesthood for ceremonies and rites of sacrifice, as Huitzilopochtli depended upon the food of human hearts for the energy he needed to fulfill his role as the Sun. The first Moctezuma also commenced construction of many of the Aztec palaces and smaller temples, as well as the fabulous gardens which amazed the Spaniards upon their arrival in 1519 A.D.⁶⁵

His successors repeatedly enlarged and remodeled all of these, continually adding new buildings as well. A temple to the ancient rain god Tlaloc was added to that of

Huitzilopochtli in the final remodeling of the Coatepec by the Aztec huey tlatoani Ahuitzotl in 1487. Another pyramid and temple dedicated to the Toltec warrior-sorcerer god Tezcatlipoca was later added next to that of Huitzilopochtli.⁶⁶ The pyramid of the great temple in Tlatelolco, archaeologists have learned, was enlarged no less than eleven times before the Conquest. The most recent outer layer was largely removed by the Spanish, who also leveled most of Tenochtitlan down to the foundations to provide material for their colonial buildings in what became Mexico City.⁶⁷ A sense of what the Aztec accomplished in the century of their ascendance can be gained from the illustration below of an archaeologists' model of the civic center of Tenochtitlan on the eve of Contact.⁶⁸



In the American Southeast and Mississippi River valley, several agricultural cultures created public architecture based on large-scale earthworks. These earthworks were of four major kinds. Burial mounds were extremely widespread throughout the eastern Woodlands, even beyond these two areas. One example from pre-agricultural times is a site in the outlying northeastern coastal region of North America at L'Anse-Amour on Belle Isle, Newfoundland, dating to 5000 B.C.⁶⁹

These burial mounds often included large quantities of grave offerings along with the body of the notable person interred within. Pottery, pipes, masks, jewelry, weapons, wood carvings, stone sculptures and many varieties of personal effects have all been found in excavations of burial mounds.

A second important type of earthwork was associated with town construction at some sites in what is now the central U.S. Raised mounds, platforms or artificial ridges were often created on which to build houses and other community structures. An outstanding example is the large trading center in northeast Louisiana that archaeologists call Poverty Point. Poverty Point was the center of an influential pre-agricultural civilization that spread up the Mississippi to the mouth of the Arkansas River from 2000 B.C. to about 700 B.C. Its people created six concentric, semicircular ridges that were six feet high and 75 feet in width, spaced about 100-150 feet apart and topped with residences. The whole complex covered about one square mile. A number of mounds were also raised in the settlement and its outlying 'suburbs'; the largest is about 70 feet high.⁷⁰ Since this center was situated at the confluence of two flood-prone rivers, there was good sense in raising the foundations of the town's buildings. The concentric layout by which this was done perhaps expressed this peoples' sense of aesthetics as well. The urban plan of the Poverty Point community is illustrated in the

Science essay.

A third major type of earthwork was the effigy mound, which recreates a symbolic image on a huge scale. Among the earliest and most famous of these are those created by the Adena culture. This people established themselves as village-dwelling farmers by about 1000 B.C. and built burial mounds at first. Eventually, they created a number of strikingly beautiful effigy mounds before their culture was superseded around 200 A.D.

The best known of these Adena effigies is the 'Serpent Mound' near Peebles, Ohio. This effigy mound is an undulating image of a snake with its open mouth around an egg-shaped symbol. It is 1,330 feet in length, about 15 to 20 feet in width, and about four feet high.⁷¹

The Hopewell culture that succeeded the Adena civilization eventually spread throughout the Ohio, Tennessee and Mississippi drainage from about 300 A.D. to 700 A.D. They continued and elaborated many of the Adena skills, including mound building. They created mounds for multiple burials; their effigy mounds included many geometric forms and enclosures of huge size. It is believed that many of these served ceremonial purposes. At a site that can be seen near Newark, Ohio, the Hopewell erected a fantastic enclosure that covered four square miles and was filled with mounds up to 50 feet high shaped in the form of parallel lines, squares, octagons and circles.⁷²

In their turn, the Hopewell were succeeded by the many peoples of the so-called Mississippian Culture. This arose about 700 A.D. and lasted in many parts of the central and southeastern parts of the U.S. until the early era of contact with Europeans, about 800 years later. The people in this extensive region, centered on the middle

reaches of the Mississippi, the lower Ohio and Tennessee Rivers, added the last remaining type of mound works built in the eastern part of what is now the United States.

The Mississippian culture, as exemplified at the large towns of Moundville, Alabama; Cahokia, Illinois; Spiro, Oklahoma; or Etowah, Georgia, built very large earth mounds in the form of rectangular, truncated pyramids as the architectural and ceremonial center of the community. Atop these were raised either pole and thatched temples or the residences of town nobles, for these were societies based on well-defined class systems.

The largest of these Mississippian towns, Cahokia, across the river from modern St. Louis, was also the site of the largest of the temple mounds, the so-called 'Monk's Mound'. It was built in 14 stages between 900 A.D. and 1150 A.D. It covered 16 acres and stood 100 feet high when its construction was completed. Such mounds were sometimes terraced, and most had stairways built of logs. The community at Cahokia was home to as many as 75,000 people at its height of development and possessed total of 120 temple and burial mounds. Its core was surrounded by a huge log palisade, but the town as a whole stretched for some six miles along a bluff above the river.⁷³

Taken as a whole, the earthworks of the many cultures of the eastern and central parts of North America represent a huge, sustained effort of construction involving immense amounts of material. The Poverty Point earthworks alone consisted of more than 466,000 cubic yards (350,000 cubic meters) of fill.⁷⁴ Philip Kopper, author of **The Smithsonian Book of North American Indians Before the Coming of the Europeans**, states that there are about 10,000 mounds of various kinds just in the Ohio River valley.⁷⁵ An excellent source of information on the achievements of these cultures is Robert Silverberg's study **The Moundbuilders of Ancient America: The**

Archaeology of a Myth (Athens: Ohio University Press, 1986).

Today, the great majority of Indian nations which have a land base also have public architecture in the form of tribal administrative centers, schools and other social services buildings. Many tribes have also built gymnasias and recreation facilities, community meeting and ceremonial centers, tribal enterprise facilities, cultural centers and even museums in some cases. These run a gamut of architectural styles from contemporary modern steel-and-glass office structures to wood 'balloon-frame' buildings to those which are largely based on or recreate traditional forms. Numerous examples appear in photographs in Sharon O'Brien's work **American Indian Tribal Governments** (Norman: University of Oklahoma Press, 1989).

A significant number of the 200 or so landless Indian communities in the United States also possess public architecture in the form of office buildings or leased office spaces. These serve as a focus for their communities in their efforts to remain cohesive and identifiable while they pursue federal recognition.

Jewelry and Metalwork

The creation of jewelry as a form of personal ornamentation seems to be a universal cultural phenomenon and American Indian cultures are no exception. The first part of this section will discuss several significant contributions of traditional and modern Indian jewelers to this art. The second looks at the four regions of the Americas where traditions of metalworking developed prior to Contact, some post-Contact developments, and also introduces a few of the modern Indian artists who sculpt in metals.

Jewelry

Pre-Contact American Indian jewelry was made in a very diverse range of forms

from an equally diverse range of materials. Hair, nose, ear and lip ornaments provided decoration for the head. Necklaces, collars, pendants and chokers graced the throat and upper thorax; rings and bracelets added interest to fingers, arms and legs. Belts and breastplates in many styles were components of many cultures' decorative ensemble. Materials included carved and polished stone, bone and antler, pearls, many precious and semiprecious minerals and crystals, shell, and soft metals such as gold, platinum, silver and copper. Among the Andean cultures, bronze alloys were created and used in ornamentation as well as for other purposes. The metals will be discussed in the following portion of this section, while examples of jewelry in shell, bone and stone appear in later sections devoted to those materials.

American Indian jewelers have worked many varieties of precious and semi-precious stones in their art over the generations, but they are perhaps best known today for the distinctive work done with turquoise, a copper-aluminum-phosphate mineral. The most important source of this mineral in the Americas is New Mexico, where Pueblo villagers began mining the stone about 1,500 years ago. Great quantities went into trade, particularly southward to the northern Mexican trade outposts of the Teotihuacan and subsequent Toltec cultures.

One trade center along the route between the Pueblos and Mesoamerica was the huge town of Paquimé in Chihuahua. Known today as Casas Grandes, Mexican merchants eventually built Paquimé into the largest city in the Southwest, some 27 times the size of the large Pueblo settlement at Chaco Canyon in New Mexico. Dr. Charles Di Peso, the archaeologist who excavated Casas Grandes in the early 1960s, found extensive warehouses for turquoise and for the parrot feathers the Mexican Indians traded to those of New Mexico to get the gemstones.⁷⁶

Further south along the trade route, at Zacatecan centers now called Alta Vista and La Quemada, the turquoise was worked into mosaic panels and inlays in such

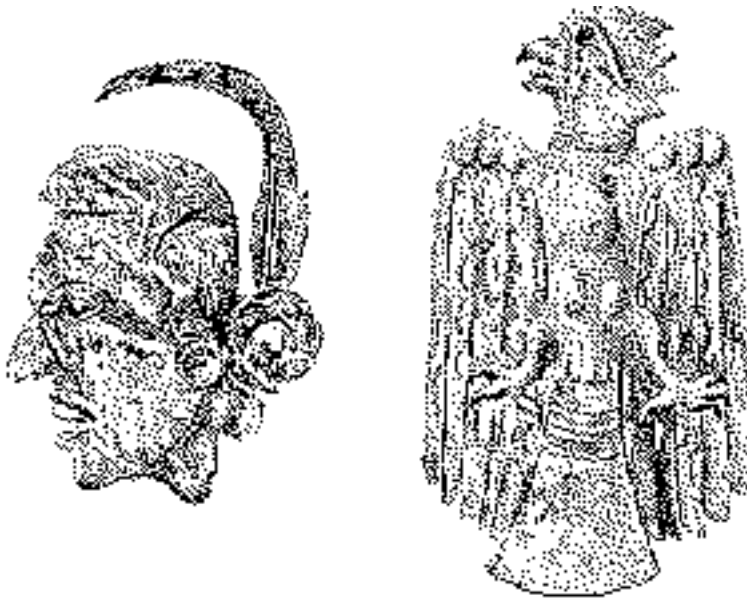
objects as knife handles, mirror frames and many styles of jewelry before being sent on to the urban centers of southern Mexico.⁷⁷ More on modern turquoise jewelry will be found in the discussion of silverwork in the following section.

Metalwork

Before the arrival of Europeans in the Americas, metal art work in gold and silver was almost exclusively practiced among the American Indian cultures of Mesoamerica and South America. Copper was worked from nuggets in the Great Lakes region at a very early date and later in parts of Alaska and the Northwest Coast. It was plated and alloyed with gold or with tin in South America. Platinum and platinum alloy work was done in what is now Ecuador.

During the second half of the Archaic period (from about 4000 to 1000 B.C.), American Indians in the Great Lakes region mined copper nuggets and veins of the pure metal and formed it into tools and decorative ornaments. They shaped the metal by use of stone chipping techniques early on. Later, they learned the process of annealing copper by heating and hammering it to give better control over the metal's properties. They made large and small lance points and knives, sewing tools, adzes, axes and other types of tools based on stone and bone models. These copper implements were highly valued and dispersed in trade networks throughout the Northeast and Mississippi River valley.⁷⁸

The successor cultures in the region, the so-called Glacial Kame culture, followed by the Adena, Hopewell and later the Mississippian groups, continued the use of copper in creating beads, gorgets (throat armor), tools, jewelry, headdresses and breastplates, as well as sheet copper for trade.⁷⁹ Sheet copper was also worked by these cultures with the *répoussé* technique to form various human and animal figures, as illustrated by the Mississippian culture examples below.⁸⁰



Two Mississippian Culture sheet copper figures formed by the *répoussé* (hammering on the reverse side) technique. Central U.S.

after illustrations in Sears, "The Southeastern United States," in Jennings and Norbeck, **Prehistoric Man in the New World**.

Copper in nugget form (so-called 'native copper') was also gathered and used by American Indians and the Inuit in several other places in North America. In the Northwest Territories of Canada, the villagers living in the region around Bathurst Inlet known as the Copper Inuit formed tools of the metal. Ahtna (sometimes spelled Ahtena) Indians of Alaska's Copper River basin also worked copper into weapons and tools. They were the major supplier of copper metal in sheet form to the neighboring Tlingit, who subsequently traded it to the Haida and thus in turn to villages further south.⁸¹

These latter tribes formed the sheets into keystone-shaped 'coppers'. These coppers were rare, highly valuable status items, ordinarily carved in reliefs of Northwest coastal designs, often of a family's totem figure. They were considered a significant gift among the noble families of the whole Northwest coast region. Coppers were often exchanged in the famous potlatch ceremonies, held when a noble person gave away

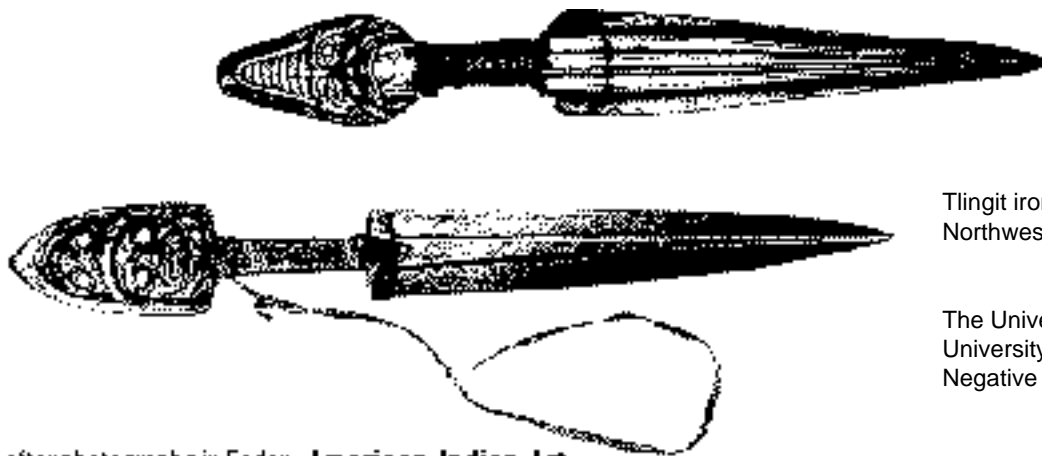
much wealth for diplomatic reasons or to validate a right to a prominent position in the hierarchy of their family relationships.

Copper was also formed into wire for earrings and bracelets by Tlingit artists on Prince of Wales Island in southeastern Alaska, according to early explorer reports. It is known to have been used for rings and other jewelry elsewhere on the coast.⁸²

The use of iron did not generally occur until after Contact, but it was then rapidly and widely adopted for use in the form of European-style tools and utensils as well as adapted as a replacement for local materials in native-style artifacts. An interesting precursor to this happened in some places on the west coast of North America where small amounts of iron became available in two ways during the era just before Contact.

According to some scholars, trade between the Aleut and their Siberian neighbors the Chukchi is thought to have accounted for the source of iron used to make a few long iron knives seen in the Aleutian Islands by early explorers. The Chukchi obtained this iron in trade with Russian fur merchants in their turn. Another way that some iron entered early use on the west coast was through arrival in the form of spikes, nails and other ship fittings carried as debris or hulks from Asia and Siberia on the Japan Current and washed up on shores as far south as California.⁸³

Some tribes elsewhere obtained iron for a few tools from iron meteorites.⁸⁴ However come by, iron's properties were principally utilized by Indians in the making of tools and knives. A pair of 19th century Tlingit examples are illustrated on the following page. One final use of iron was in its sulfide form as soft pyrite crystals. These were pressed into a large, flat mass and polished to a smooth surface used as mirrors in parts of Mesoamerica.⁸⁵



Tlingit iron knives,
Northwest Coast region.

The University Museum,
University of Pennsylvania
Negative # S4-46553

after photographs in Feder, **American Indian Art.**

In South America, the northern coasts and Andean highland regions were the sites of the major technical innovations in American Indian metalworking, even if they were not the earliest centers of that art. The Chavín culture in central Peru created an early (ca. 500 B.C.) style of gold jewelry that was decorated using the *répoussé* technique in which the design was created in relief by hammering from the reverse side.⁸⁶ Silverwork was developed in Ecuador and northern Peru by about 200 A.D.⁸⁷

Gold jewelry techniques underwent considerable development after 500 A.D. on the Ecuadorian coast, with extremely fine hammered, drawn and carved work being done in the form of earrings, nose ornaments, shirt bangles and beads. Silver and copper were also frequently used for the same articles by these craftsmen. Platinum and gold-platinum work in the form of tiny, sintered beads was also developed for the first time in the world by these pre-Incan artists of the modern Esmeraldas Province in Ecuador.⁸⁸

Along the north coast and in the highlands of present-day Colombia, native artisans, particularly the Quimbaya, mastered to a high degree the casting of gold and gold-copper alloys in about the same era.⁸⁹ These skills were soon spread to the Andean cultures to the south as well as northward into Mesoamerica.

The highland peoples of South America were the only precontact Indians to create

bronze, a copper-tin alloy. They did so late in the aboriginal period, taking advantage of the local availability of the two base metals and their acquired knowledge of smelting and casting techniques, obtained from the artists in Colombia and Ecuador. The Inca culture was the center of Andean bronze production. They spread the technique throughout the highlands and to their conquered territories in northern Chile and Argentina. In these areas, bronze was cast and carved into ornamental jewelry and tools.⁹⁰

Mesoamerica, that region comprising Central America and the southern half of Mexico, was the second of the two major centers where the art of metalworking reached a high level of technique in precontact times. Artisans in the many cultures there benefited both from a wealth of ores and knowledge of others' methods brought into the region by peripatetic or seaborne merchants and fellow artisans from the centers of innovation in South America. Traditional metalwork flourished in Mexico during the late Classic and Post-Classic eras, from about 700-800 A.D. up until the early colonial era. After that time, the raw materials and skilled craftsmen were usurped by the conquistadors.

Copper was the earliest metal used in Mesoamerica. The Zapotec and Mixtec peoples of Oaxaca on Mexico's west coast seem to have been the first Mesoamerican recipients of the technique of lost-wax casting from coastal contacts with Ecuador. They cast copper bells that became very widespread as ornaments. Their metalsmiths also formed large, thin, crescent-bladed axes that were used as money in much of Mexico during Aztec times. The Aztec later used copper for making carpenters' tools. Copper was also in use in the form of beads, earrings and other jewelry throughout the Mexican and Mayan culture areas during the Post-Classic period.⁹¹

Lost-wax casting, hammering, and drawing were techniques used by the Mexican cultures of the Post-Classic era (after about 900 A.D.) for the production of an

enormous range of gold and silver jewelry, plateware and temple decorations. The Tarascan people of Michoacan were masters in both metals, even producing pieces that combined them. The Mayan cultures of Post-Classic Guatemala and the Yucatán had learned the techniques of casting gold and copper or their alloys with zinc, tin, and silver. They sacrificed gold plateware and cast gold discs in ceremonies at the famous Chichén Itzá Sacred Cenote pool.⁹²

The Spanish conquistador Bernal Díaz described the Great Market in the Aztec city of Tlatelolco as a place with vendors of gold and silver adornments (as well as many other luxuries and necessities) on a scale surpassing the markets of contemporary Rome or Constantinople, both of which he had also visited. A great deal of the best goldwork sold in this market was created by the Huexotzingo craftsmen of the city of Cholula southeast of the Valley of Mexico.⁹³ Sadly, the vast majority of Aztec-era artworks in gold and silver were stolen and melted down by the conquistadors. However, examples of this heritage survive in the collections of Mexico's National Museum of Anthropology and in many royal, state, private and Catholic Church museum collections in Europe. Surviving pieces are frequently illustrated in various books dealing with Mesoamerican cultures and their arts.

Silverwork developed among tribes of the Northeast of North America around 1800 as artists obtained materials and techniques for working so-called 'German silver' from traders in the region. The craft spread westward and soon became popular among some southern Great Plains tribes such as the Comanche. Silversmithing was enthusiastically adopted by the 1850s among several groups in the Southwest, notable among them the Navajo and Zuni. Artists in these tribes adapted several forms of ornaments and objects from the Spanish and Mexicans into distinctive Indian styles. Among these are decorative conchos, belt buckles and horse bridles.⁹⁴

Both of these tribes, along with those Pueblos in the region which had long

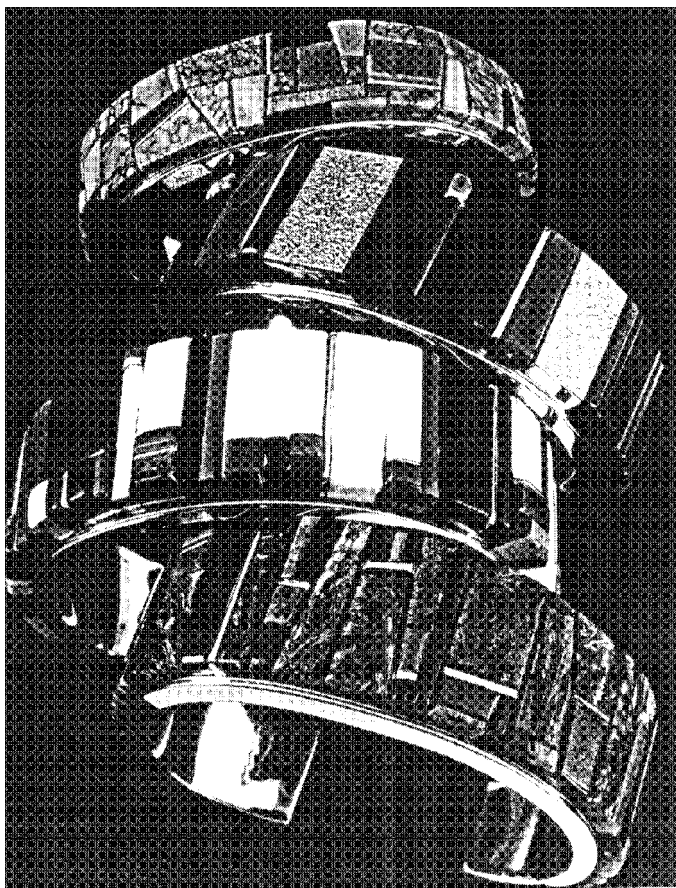
participated in the ancient Mesoamerican turquoise trade, became internationally renowned in the latter part of the 19th and the early 20th centuries for their silversmiths' distinctive, high-quality jewelry. Initially, the artists incorporated turquoise into silver settings in the form of necklaces (especially well-known is the squash blossom style), rings, belt buckles, bracelets and bola tie slides.

Later, especially in the second half of the 20th century, as high-quality turquoise became scarce, Indian artists in this and other regions began to set a wide variety of precious and semi-precious stones in very bold designs. Silver was joined by gold and other metals for settings. Numerous recent examples can be seen in the excellent photographs in Lois Jacka and Jerry Jacka's **Beyond Tradition**, along with much information on the contemporary American Indian jewelers who are creating these works of distinctive beauty and great technical sophistication. (This volume is in the Portland Public Schools Professional Library and is highly recommended as a real 'eye-opener'.)

The late Kenneth Begay (Navajo), established a tendency in the 1940s and '50s among Navajo jewelers toward evolved interpretations of some older design themes. His work became bolder and began featuring larger, less broken surfaces of silver or stones than had been common before. Kenneth's son, Harvey Begay, studied jewelry design and now carries some of his father's ideas even further with work that is at once very bold and modern but also recognizably 'Indian'. Several other members of the Begay family have earned reputations in this art form as well. Members of the Nez family of the Navajo Nation are also renowned contemporary jewelers. Another leading modern American Indian jeweler is Charles Loloma (Hopi), who taught at the Institute of American Indian Arts and was one of its founding faculty.

Ben Nighthorse Campbell (Cheyenne), a world-class judo champion, former Congressman and member of the United States Senate since 1993, is also an

internationally acclaimed jeweler noted for his techniques in sintering various precious metals. Dennis Edaakie (Zuni) and his nephew Jake Livingston (Zuni/Navajo) are exemplary masters of Zuni-style jeweled inlay work. Another modern Zuni jeweler is Edith Tsaybetsaye, whose work includes freshened variants of older designs like the classic squash blossom necklace. Jesse Monongye (Hopi/Navajo) is a particularly bold designer of inlay jewelry. An illustration of work by Charles Loloma is offered below as a hint of the talents of these and many other fine American Indian contemporary jewelers.



Four rings created by Hopi painter, potter and jeweler Charles Loloma.

Illustration after a photograph in Jack and Jacka, **Beyond Tradition**.

Textiles

In the Americas, woven fabrics were traditionally created using two major techniques, those being loom weaving and finger weaving. Finger weaving techniques included the use of plaiting, knotting, crochet and knitting, network, twining and braiding skills, many of which are common to making basketry and cordage.

Feathers and fur were frequently worked into these finger-woven fabrics to produce showy capes, mantles and blankets that seldom failed to provoke admiring comments among the European explorers on first encounter. Feathered mantles were a major status item in the trade of Mesoamerica and are frequently mentioned in the Aztec and Mixtec codices and tribute lists from conquered towns. Similar garments continue to be popular among tribes in Amazonia.

Archaeological evidence of the beginnings of weaving have been found in North America from about 7000 B.C. in the form of finger woven mats and sandals using basketry techniques. We know of twined fabric bags made by the Anasazi culture in the American Southwest from about 100 A.D., with cotton being introduced from Mexico sometime around 500 A.D.⁹⁵ Remnants of woven fabrics have been found at late Adena cultural sites in what is now the U.S., dating back to about the beginning of the Christian era.⁹⁶

The cultivation of cotton in Mexico is very ancient, beginning in the period from 7000 to 5000 B.C. in the Tehuacan Valley. Domesticated cotton recovered from a cave site there is the earliest known example in the world. The people of this region made finger-woven blankets with which they wrapped their dead. The loom was in use for weaving throughout Mexico by about 1000 B.C. By about the same period, the Maya were cultivating cotton. The great Classic era city of Teotihuacan had a major, trade-oriented weaving industry. Remnants of cotton cloth have been recovered there dating from almost 1,500 years ago.⁹⁷

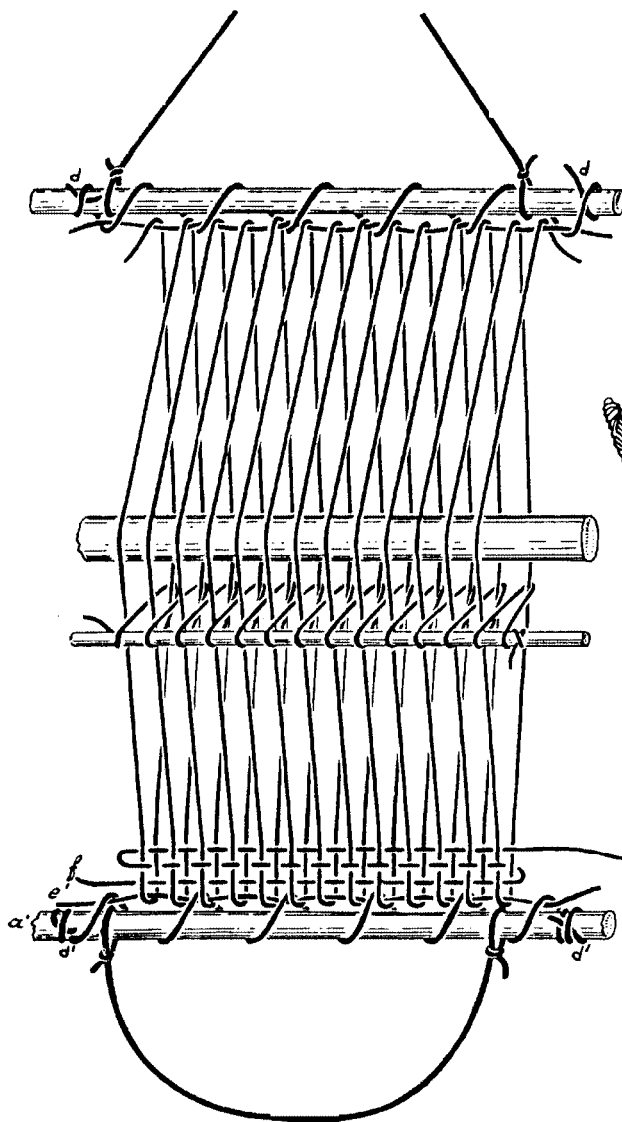
Twined fabrics in the form of small textile coverings are known from about 2000

B.C. in Peruvian coastal villages, where true ‘over and under’ weaving was also occasionally practiced. True weaving became more common after about 700 B.C. in the Chavín culture.⁹⁸ By the 6th century A.D., Peruvian weavers were creating tapestries as integral decorative elements for woven clothing, wall hangings and burial wrappings. These were very finely woven of cotton warp threads and alpaca or vicuña wool wefts with thread counts of up to 250 threads per inch. Some of the best of this Peruvian tapestry work was unequaled by contemporary weavers anywhere else in the world.

The Peruvians also practiced ikat weaving, a form in which the fabric’s color pattern is planned and the individual threads are dyed accordingly prior to weaving. Slight offsets due to differences in thread placement and tension during the weaving of an ikat piece produce a visually interesting ‘jagged’ effect to the woven patterns. By the period of the Chimú and Inca states, after about 1000 A.D., the Peruvians had created veritable weaving industries engaged in the mass production of a wide range of textiles by the women artisans.⁹⁹

Looms were of the horizontal, backstrap type in most parts of the Americas where looms were used. Exceptions included the vertical frame-type looms used in the Pacific Northwest. Also, some Peruvian weavers staked out their looms or attached them to a frame, but these remained of the backstrap type in their basic configuration.¹⁰⁰

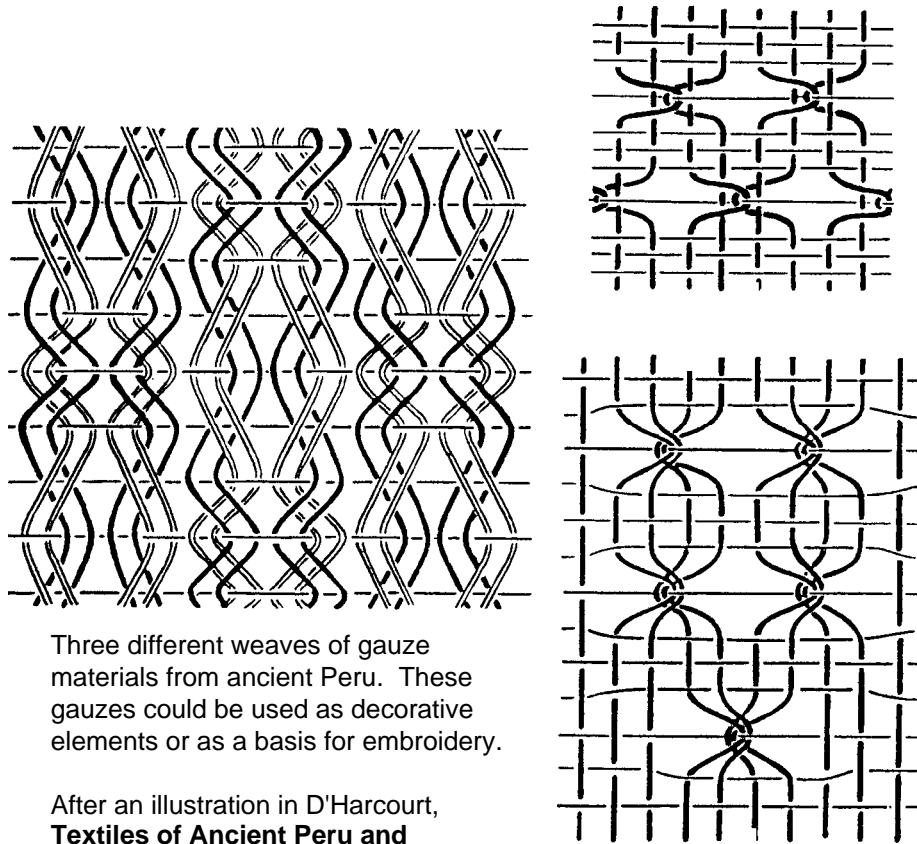
The illustration on the following page, from Raoul D’Harcourt’s **Textiles of Ancient Peru and Their Techniques**, shows in detail the Peruvian form of the backstrap loom.



A drawing of a Peruvian backstrap loom. The heddle is formed by the small diameter horizontal rod and the yarn loops around it and the warp yarns. The loom is operated by lifting and lowering the heddle to alternately lift the odd and even warps.

After an illustration in D'Harcourt, **Textiles of Ancient Peru and Their Techniques** .

Some of the finger-woven fabrics of the Peruvian Indians deserve the attention of modern textile artists for their technical complexity and interesting textures. The Indians of the Andes and coastal plains also extensively embroidered to decorate their textiles. Illustrations of two types of these finger-woven textiles is provided below. Readers with an interest may find the extensive treatment in D'Harcourt's book well worth study.



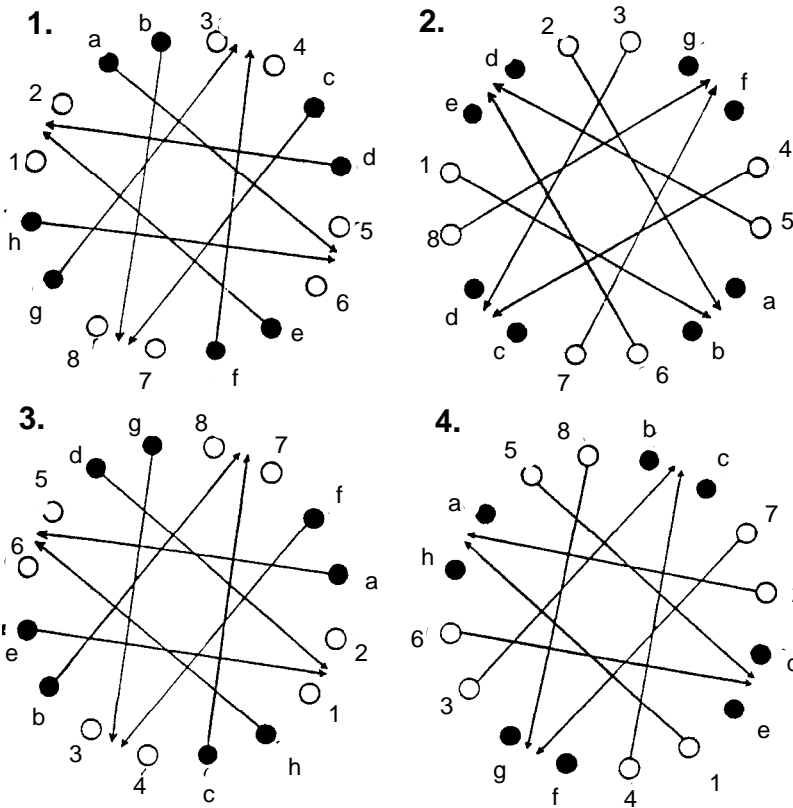
Three different weaves of gauze materials from ancient Peru. These gauzes could be used as decorative elements or as a basis for embroidery.

After an illustration in D'Harcourt, **Textiles of Ancient Peru and Their Techniques.**

Spanish missionaries and colonial administrators made efforts soon after establishing control to introduce European sheep and frame-type looms to American Indians. Some tribes, notably the Navajo in the 16th century, became famous for their acquired weaving skills in wool. However, Indians in Peru and the Pacific Northwest created wool fabrics of extremely high quality using indigenous techniques and materials long before Contact.

Wool work in the Andean cultures used wool from domesticated and wild camelids - the alpaca, vicuña, llama and guanaco. The art of wool weaving was practiced before the founding of the Inca state. Raoul D'Harcourt writes that the Peruvian Indians spun two-ply twisted wool yarns as fine as a modern Number 300 in size, equivalent to 168,000 yards per pound. They wove all-wool or wool-cotton blend fabrics with cotton

warps and wool wefts to take advantage of the qualities of each type of fiber.¹⁰¹



Peruvian finger plaiting using 16 strands in two colors. The first four movements in the pattern are shown. 32 movements are needed to produce the zig-zag pattern shown above.

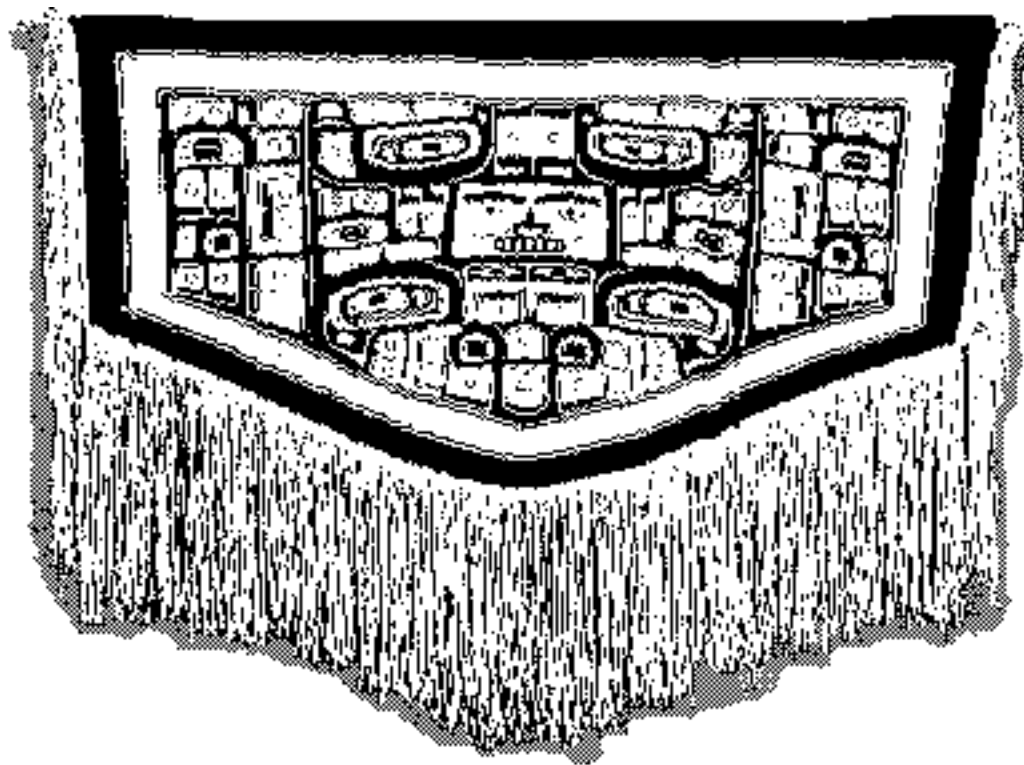
Drawn after an illustration in D'Harcourt, **Textiles of Ancient Peru and Their Techniques**.

In the Pacific Northwest, the Salish-speaking tribes of Washington state and British Columbia were well-known as weavers. They were among the few Indian groups north of the cotton-growing tribes of the Southwest and Mesoamerica to master loom weaving. Their looms were of the vertical frame type, unusual among traditional American Indian weavers, most of whom used the backstrap loom.

The Salish were known as weavers of white, sometimes plaid rugs and blankets using wool from specially-bred dogs or mountain goat wool collected from sites frequented by the goats or taken from animals slain by hunters. Sometimes goose down and plant fibers were added to the goat or dog wool to add to the bulk of the wool. Salish rugs were usually all wool; sometimes warp threads of nettle fiber or cedar twine were used.¹⁰²

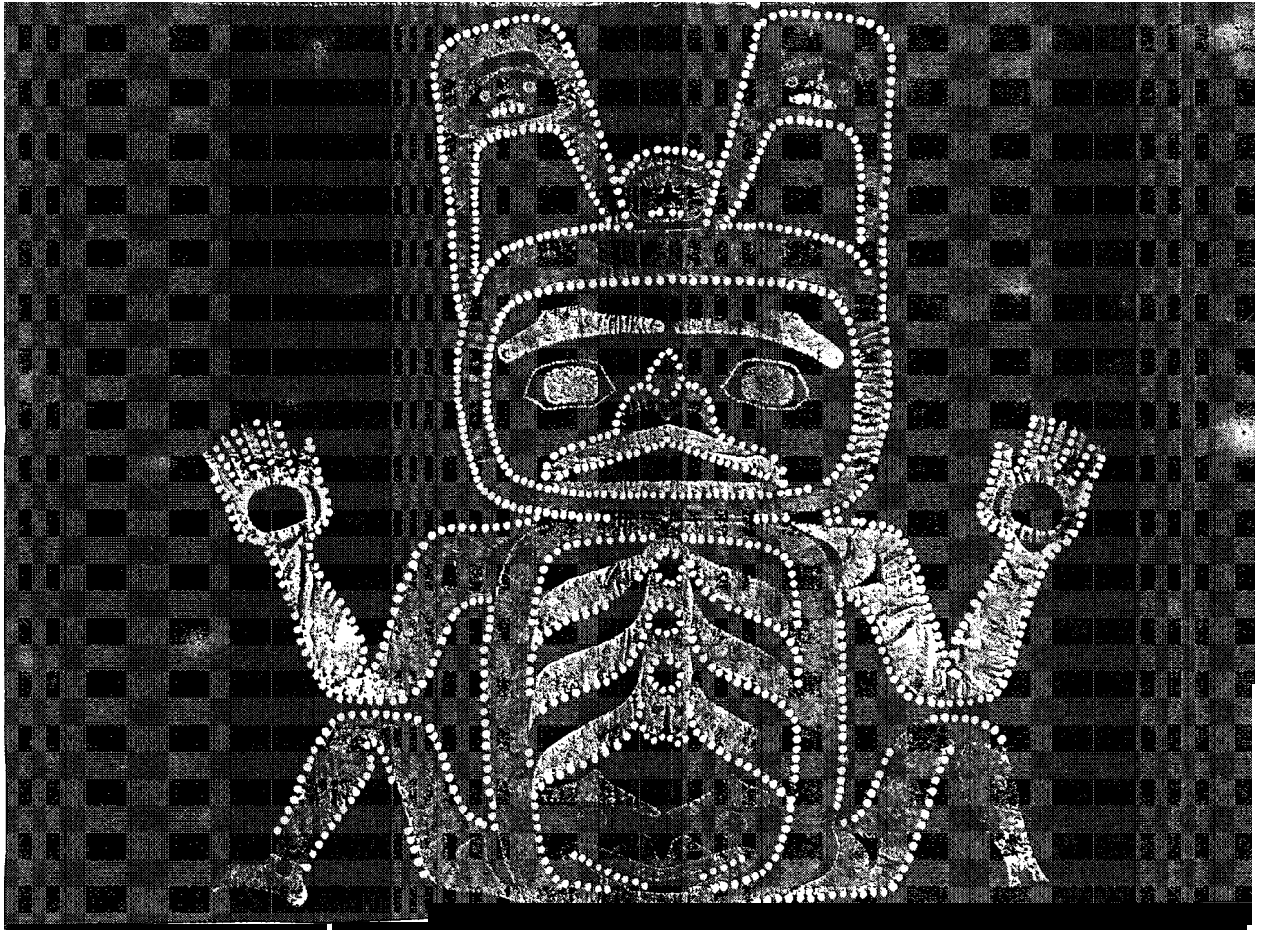
Salish blankets were a major item traded in the extensive economic networks that connected the Northwest with peoples of the Rocky Mountains and Great Plains. Tribes in the coastal Northwest also finger-wove and stitched together blankets and garments out of the shredded inner bark of cedar trees. This material could be made into surprisingly soft, rain-resistant capes and skirts that were more practical in the damp climate than were most leather clothes.

Today the Cowichan of Vancouver Island, British Columbia, are particularly well known for their sweaters, which incorporate bold geometric, animal and floral designs.¹⁰³ To the north, the Chilkat Tlingit created the renowned Chilkat robes, featuring strong, classical Coastal design elements woven in yellow, white, blue and black dyed wools.



An example of one of the famous Chilkat robes, woven of mountain goat wool. Chilkat Tlingit, southeastern Alaska.

from a photograph in Feder, **American Indian Art**.



A Tsimshian Button blanket from one of the Nass River villages in British Columbia. This example, from the early 20th century, shows the use of buttons to mark the outline of the figure. Paints were used to complete the design.

After a photograph in Feder, **American Indian Art.**

A distinctive form of textile decoration developed on the Northwest Coast after trade with Europeans was well established. Sometime in the 19th century, artists in this region combined trade blankets and buttons to produce the 'button blanket'. These blankets show the totems or heraldic crest(s) of the family of the wearer. They are often worn as robes in ceremonies or by dancers. Typically, the blanket is a rich, heavy

black felt, edged with red felt or satin. The buttons are sewn to outline the totem figure, which may then be detailed with paints or appliquéd felt in traditionally popular colors of red, white, or green. The illustration on the previous page shows a masked human figure.

Tribes in much of the rest of North America created small textiles using various finger-weaving techniques, principally twining, plaiting, braiding and netting. Twined bags were a very widespread textile art form in much of eastern Canada and the U.S. Sashes or bands of fabric were made in the East and Southeast using the technique of double or multiple braiding. These were often worked into bags, leggings and straps for various uses. Netted fringe was also a very common decorative element applied to clothing or pipe bags. Netting techniques were combined with wrapped porcupine quills (and later with European glass trade beads) to make a wide range of decorative appliqués, collars, fringes and straps.¹⁰⁴

Skins, Furs and Feathers

Traditional American Indian clothing in many parts of the Western Hemisphere was based on the use of animal skins. This was particularly true in very ancient times. Skin clothing remained common until well into the Contact era; it is still favored by many Indians for traditional and ceremonial occasions. The major exceptions were in those regions of the Southeast, South America, Mesoamerica, the Caribbean and the Northwest Coast where woven fabrics predominated.

The form of most of the skin clothing was fairly basic. Loincloths were fairly commonly used by men, generally consisting of a long flap of hide passed between the legs and bound around the waist with a cord or strap of hide, with the ends of the flap looped and sometimes sewn over the waist strap in front and back. There were a number of variations on this basic pubic covering. Decoration of the loincloth was

common and could become quite elaborate.

Shirts, dresses and skirts were also common and were made in essentially their modern shapes. The shirts and dresses were usually formed of front and back pieces sewn together along the sides and shoulders with sinew taken from the bigger game animals. Sleeves might be cut as part of the front and back pieces, or they might be made separately and sewn to the arm openings at the shoulder of the garment in the manner called a 'set-in' sleeve.

The suitable and available skins employed in making clothing varied throughout the Americas, depending on which animals were adapted to local environments and available foods. In the Arctic and Subarctic coastal areas, seal and walrus skins and gut tissues were used for boots and parkas. These could be waterproofed as necessary by applying grease or fish oil. Polar bears provided heavily-furred robes for use in the home. In the inland parts of these regions, the caribou provided the most commonly used hides for clothing. Black and brown bears gave of their hides for the heavier robes. Where they ranged, so too did the moose, whose heavier hide also made better moccasin and boot soles than did the hide of the lighter caribou.

In most of temperate North America, well down into Mexico, the big animal whose hide was most commonly used for clothing was the deer in its various species. This animal had the widest distribution of any large, hoofed mammal after the Ice Age. Its hide, like that of its larger but less common relative the elk, has the distinct advantage of being washable without the hardening and cracking that affects most leathers. Other ungulates that provided hides for clothing, such as the pronghorn (often called an antelope but not really a member of that Eastern Hemisphere family) and the bighorn sheep, were less commonly used because they lived in relatively restricted ranges.

After the deer, the most important big animal whose hides were used for clothing was the buffalo or American bison. Buffalo hide is quite heavy and so its use in clothing

was mostly for sleeping and winter robes as well as for moccasin soles.

In South America, especially outside of the areas where textiles predominated, skin clothing was likewise made from hides of the locally predominant animals. These included the vicuña, the ostrich-like rhea, howler monkeys and the jaguar. Jaguar skins were particularly popular for clothing and ornamental sashes among the military order of the Jaguar Knights in Mesoamerica. They were favored in the northern parts of South America as well. Hides of all of these animals were actively traded outside of their ranges.

Many smaller animals' skins and fur were used in making clothing or ornaments for clothing, particularly the so-called fur bearers such as beavers, martens, wolverines, otters, muskrats, woodchucks, rabbits and the like. Furs and sometimes the longer hairs of coyote and wolf, bear, porcupine, musk ox, buffalo, and, in historic times the horse, also served for decorations when sewed in tassels, strips and bands on clothing. The fur-bearing skins of many of these animals were also used by some tribes as wrappings for human braids or as elements of headdresses, as well as for insulating the linings of clothes used for winter wear.

All of these clothing and ornamental uses of animal skins and furs persist today in the traditional clothing worn by many tribal people for Indian social gatherings, public displays of Indian culture, or sacred ceremonies. In the Indian view, the presence of the animals' spirits is brought into these human activities through the use of the gifts of their fur and hides. This is seen as indispensable to completing the circle of relationships in which Indian people participate along with the animal people.

Skins find extensive use in making a whole range of utilitarian and ceremonial objects. Several examples will have to serve here to illustrate the diversity of the

products that are made from animal hide or furs, since the variety of skin products is truly staggering.

Among the largest and best known of these skin objects was the Great Plains tipi, the form of house that best complimented the nomadic lifestyle that developed on the Plains after the reintroduction of the horse to the Americas. Tipi covers were usually made of buffalo hides that were scraped to remove the hair and thin the hides, then tanned using various techniques involving mixtures of animal brains and other organs or various leaves. A good cover was made of two or three hides stitched together. If good whole hides were scarce, a serviceable (if not as durable or elegant) cover could be sewn together out of whatever pieces were available.

The covers were often decorated with painted symbols and designs and could last for several years. The upper part of the cover, after being in use for a time, would become heavily smoked and thus made waterproof. This part of an old cover was frequently recycled into capes for rainwear or for the coverings of the Great Plains bullboat, a craft something like a coracle. Since the decimation of the buffalo herds in the last quarter of the 19th century, the tipi cover has been most commonly made of white canvas.

Rawhide (untanned or 'green' skins with the hair removed) from the buffalo had many uses. Rawhide from the necks and shoulders of prime bulls was best for the tough inner surface of shields, as this skin resisted penetration well yet was still lightweight. In parts of Canada outside the range of buffalo, moosehide was often used for the same purpose of shield-making.

Shields were made of wet rawhide stretched and laced onto a circular wooden frame. The hide tightened and toughened as it dried on the frame to a firm and secure fit. Such shields were usually given an outer cover of deer or elk hide that was painted with the spiritual symbols appropriate to the powers that helped the user.

Rawhide was also formed into foldable boxes first called parfleche by the French trappers. Parfleche were used to store food, clothing and household items, particularly during camp movements.

Rawhide from many kinds of animals made serviceable ropes and cords (referred to as 'babiche' by anthropologists). Rawhide was at once a versatile and troublesome material, since it would stretch when wetted and then shrink and tighten up when it dried out. Rawhide cords were used for binding together a variety of constructed objects, among them sleds, travois, traps, house frames, tools and toys. Some kinds of sports equipment were also built using rawhide cords, such as the rackets used in the very widespread Indian ball game of lacrosse and its variants. Similar use of babiche was made for the construction of the American Indian snowshoe, common to much of Canada and the Northeast Woodlands.

Drum heads for hand drums and some larger drums were made from a variety of carefully prepared animal hides. The hand drum typically is built in much the same way as the shields described above.

Some kinds of boats also made use of hides stretched over a frame of wood or bone. The bullboat used on the rivers of the Great Plains has been mentioned already. Other well-known types of skin-covered boats are the enclosed kayaks and the open umiaks of the Inuit peoples of the Arctic and the similar bidarki and baidar boats of their Alaskan relatives, the Aleut.¹⁰⁵

Finally, a very important use of skins and furs was made by the Indian doctors and shamans. It was mentioned above in connection with social gatherings that the spirit powers of the animal owners of the skins are present when the skins are used. An Indian doctor uses them as part of his regalia and equipment; the animal spirits are often the doctor's close medicine allies and teachers from whom he or she draws much

of the healing power used in American Indian medical ceremonies.

Illness, in the Indian way of understanding, often results from a person becoming isolated or out of harmony with the rest of the world, or from acting inappropriately and violating some other being's spiritual or living energy. Thus, healing requires that the spiritual cause of the illness be identified and the patient brought back into harmony and appropriate relationship with the rest of the world. The animal spirits that have agreed to help an Indian doctor can provide great assistance in this complex process.¹⁰⁶

The use of feathers in the clothing of some American Indian cultures has already been briefly mentioned. The making of feathered capes or robes was once very common in the southern parts of the U.S. and throughout Mesoamerica. This kind of work persists today in parts of Central and South America, notably in the Amazon basin. In most cases, this is finger-woven work with the quill ends of the feathers wrapped or sewn into the vegetable fiber twining of the cape.

Mississippian culture tribes in the Southeast also made feather capes. They represented one of their chief deities, the 'Long-Nosed God' as wearing such clothing.¹⁰⁷ The Anasazi made capes from domesticated turkey feathers. Also in the Southwest, macaw and parrot feathers (sometimes even live birds) were formerly traded up from Mexico and were woven into brilliant feather capes.¹⁰⁸

In the deserts of the Great Basin, feathered robes dating as far back as 2000 B.C. have been found by archaeologists.¹⁰⁹ The Maidu of California made twined feathered capes featuring bordering bands of one color of feathers set off against a central ground of a different color of feathers. The Pomo, in addition to their famed feather basketry, also created feathered capes displaying geometric, polychrome designs.¹¹⁰

In Mexico, the records of pre-Conquest tax collectors constantly record the number of feathered capes and headdresses each town was expected to provide to the Aztec

capital as tribute. The supply of these tribute items was substantial and continuous, for they were prized as rewards by the hundreds of thousands of warriors of the Aztec and Aztec-allied armies.¹¹¹

We know from murals and sculptures that the Maya also made and wore elaborate feathered capes and other accessories.¹¹² Ecuadorian painted pottery from about 500 B.C. shows warriors there fighting in feathered costumes.¹¹³

Feathers were used in many ways for ornamentation and in ceremonies. The fundamental meaning of feathers throughout Indian America comes from their association with flight. To Indian people, feathers are a symbolic medium with the ability to send human thoughts, prayers and spirits on the journey to the places of the mysteries. Feathered fans are common tools of the shamans, as they can draw out and blow away unhealthy spiritual influences.

Feathers in a headdress denote a person of accomplishment, one worthy of respect. The regalia of the royal Inca, the high-ranked nobles of the Capac Inca class, and the royal mummies as well, included feathered canopies, umbrellas, staffs of office, and for some, distinctive feathered headbands denoting caste. Inca coronation ceremonies involved a ceremony of feathers as one component of the ritual.¹¹⁴

Still today, the gift of a feather, often with beaded quill, marks many ceremonies of passage for American Indian people. One frequent example is at graduation ceremonies when the young people are honored by the community for their accomplishments and success in education. The feather reminds the Indian graduate of where to turn when difficulty presents itself on the path ahead. Besides all these symbolic meanings and the physical and spiritual utility of feathers is their simple beauty, for which Indians have a high aesthetic sensibility.

Masks and Dolls

Like feathers, Indian masks are a nearly ubiquitous feature of Indian cultures and

art. The reason for this ubiquity is similar to that for the use of feathers. The appearance of something is understood as an embodiment of its spirit. The transformation of human appearance, in this case by putting on a mask, really does invoke a transformation of the human spirit into something else. This power of transformation bestowed by masks is at the heart of Indian mask use, thus masks are an important aspect of American Indian religion, ceremony and medicine.



Kwakiutl 'Wild Man' mask.
The figure is a legendary dweller of the woods on the Northwest Coast.

After a photograph in Feder,
American Indian Art .

The range of Indian mask styles and their meanings is immense and cannot be adequately covered here. Sources for further illustrations and explanations of masks in various Indian cultures include Frederick Dockstader's **Indian Art of the Americas**, Norman Feder's **American Indian Art**, the section on Northwest Coast cedar masks in Hilary Stewart's **Cedar**, the useful survey article "Indian Masks" by Charles Willoughby in Oliver LaFarge's **Introduction to American Indian Art**, and the interesting collection

of human-featured masks in J.H.C. King's **Portrait Masks from the Northwest Coast of America**. Dorothy Jean Ray also contributed a valuable volume on Inuit masks and their role in Inuit culture, **Eskimo Masks: Art and Ceremony**. The various volumes in the three Smithsonian **Handbook** series on the native cultures of North America, Central America and South America also offer a good deal of information on styles and uses of masks throughout the hemisphere.



A fur mask of woodchuck hide.
Cherokee.
Southeastern/central U.S.

after a photograph in Feder, **American Indian Art**.

In addition to masks, American Indians crafted a wide variety of figurines and dolls. Traditionally, most children would be provided with hand-made dolls in human and animal form as soon as they showed an interest in toy play. They also had the opportunity to watch dolls being fashioned from an early age, so most children soon became adept at finding materials and shaping their own dolls as the need or mood

arose.

Materials used had a very wide range and often were chosen to suit the purpose of the figurine or doll. Hunting talismans might be made of parts of the desired game animal or of its favored foods. Dolls were often made of fairly perishable stuff and were replaced as needed.



A Seneca corn husk doll of a seated drummer. The corn husk body is dressed in miniature versions of traditional clothing and accessories. The Seneca make corn husk dolls without faces as a remembrance of what once happened to one doll who became too vain over her appearance.

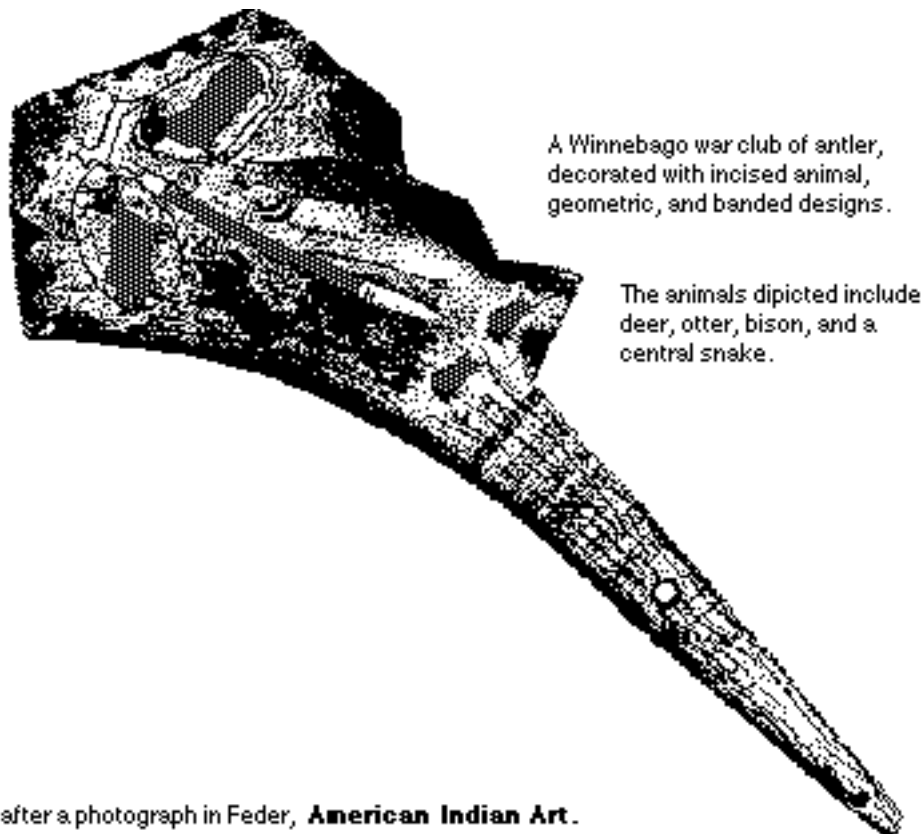
From an illustration in Ross, Robertson, Larsen and Fernandes, Teaching About Thanksgiving. Olympia: Office of the Superintendent of Public Instruction, 1986. Original artwork by Roger Fernandes used with permission of OSPI.

Sometimes a stone in the proper form might be found or a suitable one shaped, then possibly painted or otherwise manipulated into a doll form. Clay, stone, wood, corn husks, metal, mud, fur or hair – almost anything might be fashioned into figurines for sacred or decorative purposes or into dolls for play.

Carving

Stone, Shell, and Bone

Sculpting and carving of small pieces in stone, shell, and bone is the focus of this section; large-scale architectural sculpture and carving in stone has been touched on in the section on architecture.



American Indians have a long and highly developed tradition of carving, incising, pecking, drilling, grinding and polishing durable materials for utilitarian and aesthetic purposes. The earliest known remains of Indians include tools fashioned of antler and bone. These were used by our ancestors even before they acquired the gift of knowledge about how to shape stone.

Antler and bone are relatively easy to work; since they are soft relative to most stones, they can be sharpened, flattened and grooved readily by grinding and incising with stones to yield chisels, adze blades and a host of other tools. They also fracture with moderate effort, yielding splinters of material suitable for making awls and needles. However, bone and antler implements are tough enough to withstand significant work with many softer materials like wood and hide.

Shell is also a reasonably easy material to work with stone tools. Many shells make admirable scrapers and similar tools with only minimal grinding needed to sharpen an edge. Grinding and drilling (with fine, sharp stone tips glued or lashed to the ends of short rods that can be twirled back and forth between the palms) of shells was one of the most common ways American Indians manufactured beads prior to the introduction of glass beads by the Europeans.

Most tribes with access to either freshwater or saltwater shells are known to have used them to make beads. These beads were used in a variety of ways for adornment, as a form of money, or, as below, in wampum belts that recorded historical events. These latter two uses were particularly common among tribes in the Northeastern Woodlands.



Wampum belt, probably 18th century, Great Lakes area. From an illustration in Norman Feder, American Indian Art. Catalog No. 165103, Department of Anthropology, Smithsonian Institution.

In addition to the techniques mentioned above for working shell, the Hohokam people of Arizona are known to have developed the sophisticated technique of acid etching of shell surfaces to produce artistic designs on their shell jewelry. [This technique is discussed further in the Sciences essay.]

American Indians are perhaps best known for work in stone in connection with the fashioning of weapons and tools. Indeed, while the dating of many early Indian living and hunting sites may depend primarily on modern radiocarbon dating and other scientific tests, archaeological characterization of the cultural development of a site is often done largely in terms of the style, size and craftsmanship of stone hunting points, knives, scrapers and other stone tools.

There is a vast literature on American Indian stone technology, most of it rather technical. One of the more accessible volumes, one which provides contextual information on how the tools were formed and used, is Hilary Stewart's **Artifacts of the Northwest Coast Indians**.

Since the age of iron and steel was transplanted to the Americas, much day-to-day utilitarian production (and its decorative tradition) in stone, bone and antler has dwindled except for that carried on in relatively remote Indian communities. However, skills for working in stone, shell and bone are maintained in many communities and homes. This knowledge is still put to use by modern Indian artists. Much of this work is done for commercial purposes, as discussed below in the section on American Indian art and trade. However, much of the best work is for personal use and the enjoyment of families, friends, or community.

Inuit carvers and scrimshanders earn significant portions of their families' and communities' cash incomes by producing soapstone carvings and the meticulous drilling, etching and dyeing of scrimshaw designs on ivory. A recent development on the Northwest Coast has been carving in the soft black stone argillite, which polishes up to a rich glow. In art schools and workshops across the continent, Canadian and American Indian artists are working in the entire range of contemporary stone carving, sculpture, and jewelry making, all the while studying their heritage and continuing the

tradition of creating new, authentic expressions of the distinctive American Indian sense of aesthetics. In much of Latin America, traditional American Indian artistic and utilitarian production continues as objects of commerce and for everyday use. There, too, Indian artists are incorporating new materials and techniques, extending tradition and exploring new modes of production and expression through art.

There is a vast literature which explores the artistic qualities of American Indian artifacts. Persons with a general interest in the varieties of stone, bone and shell art objects and artifacts beyond the realm of tools and weapons might wish to examine the plates of Norman Feder's **American Indian Art**, Frederick Dockstad's **Indian Art of the Americas**, Christian Feest's **Native Arts of North America** and many other volumes dedicated to general surveys of traditional Indian cultures. The book **Beyond Tradition** by Lois and Jerry Jacka deserves mention again for its wide ranging coverage of contemporary American Indian artists and their work, much of it in stone. All of these present a much wider range of well-reproduced illustrations than is possible to offer here.

In closing this section, it is well to recall that many American Indian languages have no word for art as such. Instead, there is traditionally an aesthetic orientation to life and work, to tools and everyday objects, that seeks to make beauty a part of everything we do and all that we create. To illustrate this point, consider the pair of stone spindle whorls (a flywheel weight pressed over a spindle to keep it spinning while wool is spun into thread on the spindle) depicted on the next page.



A pair of carved spindle whorls (flywheels used on the shafts of spinning staffs). The one on the left is wooden; the other is stone. Cowichan tribe, Vancouver Island, British Columbia, Canada. From a photograph in Feder, **American Indian Art**.

Wood

Relatively less is known about the ancient achievements of American Indians in the art of wood carving than is the case with the less perishable media discussed earlier. From what has been observed in historic times, wood carving seems to have been a universal craft among Indian tribes, and there is little reason why this should not have been true all along, given the utility of wood and the ease with which it can be worked.

We have knowledge of some of the technical and artistic achievements of Indian wood carvers from a number of cultures to serve as examples. In the southwestern part of Florida, the Calusa people carved animal and half-animal/half human figurines of great refinement and delicacy. Some of these became buried and preserved in swamp mud about 800 - 1,000 A.D. at a place known to archaeologists as the Key Marcos site. Famed Calusa artifacts from the Marcos site include a crouching cat-man figure as well as the deer head illustrated on the following page.¹¹⁵



Sculpted wooden deer head figurine.
Key Marcos, Florida,
Calusa people
ca. 800-1000 A.D.

after Molly Braun in Waldman, **Atlas of the North American Indian.**

Similarly, a great many delicate wood carvings have been recovered from the archaeological excavation in recent decades of the Ozette village of Usahal, a site on the coast of Washington state which was repeatedly buried and preserved by mudslides until its final destruction about 700 years ago.

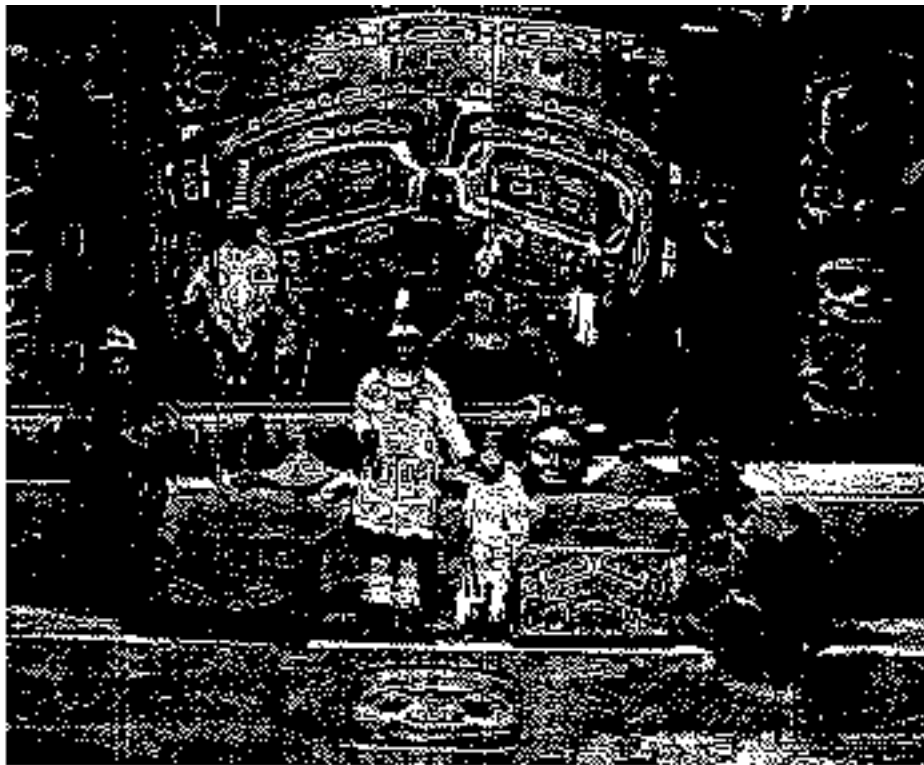
Claude Lévi-Strauss, an influential French anthropologist, once remarked that the arts of the Northwest Coast Indians of Canada and the western United States rank with those of China and ancient Egypt.¹¹⁶ Foremost among these Northwest arts are the spectacular woodcarvings created for nearly two millennia by artists of the region. Wood carvings formed and decorated everything from entire houses to mundane household items such as spoons and hair combs. The Ozette site has yielded a magnificent assortment of such wood items, many of which are now on display at the Makah tribal museum.

The best known expressions of Northwest Coastal carving are the family and clan totem poles which traditionally serve as heraldic devices for the Indians' homes and villages. Northwest totems are remarkable for their size and symbolic complexities; these characteristics are facilitated by the availability of the huge red and yellow cedars that grow in the coastal rainforests. Cedar wood has extraordinary working and

structural qualities, making it a carver's delight. In the illustration below, showing part of the interior of a southeastern Alaskan Chilkat Tlingit house of the late 19th century, the reader can see several kinds of architectural, ceremonial and household items made of cedar to which the Chilkat carvers applied their formidable talents.

Contemporary Forms

Near the end of the 19th century, American Indian children and youths were increasingly put through European-American education experiences in off-reservation



Interior of the Whale House. A detail from a late 19th century Northwest Coast plankhouse. Among the carved items are bentwood boxes (to the right of the boy in the foreground), masks, a feasting trough (behind the man) and the carved architectural features of the large screen and housepost in the background and the platform face in the foreground. The screen and posts are still kept by the Chilkat Tlingit in their village of Klukwan, Alaska.

from a photograph in Feder, **American Indian Art**.

boarding schools. The arts had a small place in the curricula of some of these schools, and Indian students were introduced to nontraditional media and techniques by some of the teachers. Pencils, crayons and paper opened up new possibilities for Indian artists

who went to schools like Carlisle, the first federal boarding school.

This introduction continued into the 20th century as increasing numbers of Indians began attending college, particularly after World War II when the G.I. Bill made higher education more accessible. In boarding schools, college art departments and, after the early 1960s, at the federally-supported Institute of American Indian Art (see below in the section on Indian art institutions) some Indian art students had the opportunity to learn contemporary techniques of print making and commercial graphic design.

Similar developments also occurred during the same period in much of Canada; Indian and Inuit artists working in contemporary media have become well established there as well.

Print Making

Print making is a new art form for American Indian artists. The major techniques being mastered by American Indian printmakers are those developed elsewhere and introduced to Indians for the most part in the 20th century. The major print making techniques are relief printing (ink, dye or paint medium on the positive or raised surface of a design carved onto a face of a wood block, or a metal or linoleum plate), intaglio printing (medium in the negative or subsurface design carved/engraved into a block or plate, with the surface of the block or plate wiped clean), surface printing (lithography, stencil and silk-screen), process printing (photographic or screen techniques such as halftoning and rotogravure, offset lithography) and computer graphics (which may be 'printed' to screen, videotape or videodisk, or transferred to paper through process printing of separations of the primary colors).

Prints are relatively affordable to patrons and thus offer an artist the chance for much broader sales than do singular works in most media. An increasing number of American Indian artists have worked in print media successfully, particularly in recent

decades. Two of them are introduced below.

Marvin Oliver (Quinault) is an art and American Indian Studies instructor at the University of Washington in Seattle. Among his two- and three-dimensional work in other media, he has produced silk-screened prints in contemporary and traditional Northwest styles, with masks, totemic figures and animals as favorite subjects. These are typically printed in bold but traditional colors common in Northwest Coastal art: blue, red, black, white and green in bright, saturated tones. His work is fairly representative of the level of compositional and technical skill achieved by the better modern Indian printer makers.

An example of the work of one popular Canadian Inuit print maker, Pitseolak Ashoona (West Baffin Inuit) appears on page 97 in the section on native craft guilds and cooperatives. She, like many other Inuit printmakers, primarily produces woodcuts and lithographs in black inks. A prominent member of one of the successful Inuit artists' cooperatives, Pitseolak has achieved critical acclaim and is regarded as one of Canada's prominent artists.

AMERICAN INDIAN ART INSTITUTIONS

Craft Societies

During the years of Franklin Roosevelt's presidency, the Bureau of Indian Affairs under Commissioner John Collier made several efforts to re-establish and promote American Indian arts for their cultural and economic value to reservation communities. A national organization, the Indian Arts and Crafts Board, was set up in the mid-1930s for this purpose; it is briefly discussed below. Other organizations were set up on a few of the larger reservations, particularly in areas where railroads and hotel owners like Fred Harvey had already been promoting tourism by using Indian culture as a drawing point.

One example of these more localized efforts was the Navajo Arts and Crafts Guild. Along with some of the trading posts that survived from early in the reservation period in the Southwest, the Guild encouraged Navajo artists to study the forms and techniques of their predecessors. The Guild helped the artists to produce rugs and blankets, silver jewelry, leather goods and other traditional-style objects for sale in galleries, trading posts and at stands in popular tourist locations.

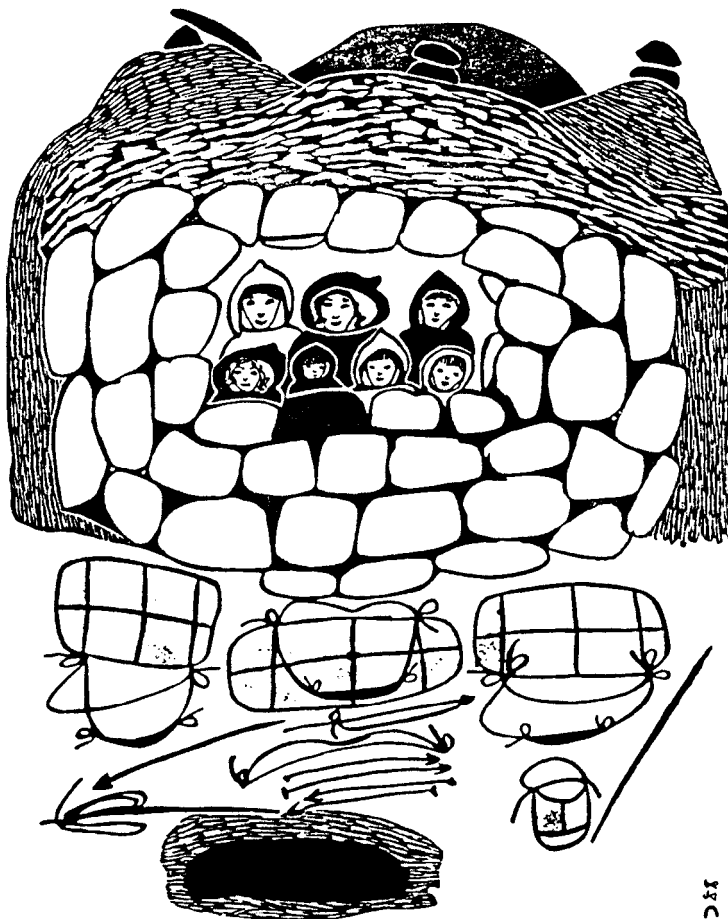
The Guild brought together knowledgeable non-Indians with the master artists and crafts people of the Navajo communities to guide the training of new native artists, promote high standards of quality in finished works, and assure that prices paid for Navajo art would begin to reflect the high standard of the better pieces. These efforts, along with those of the better traders, have had a significant part in helping Navajo arts to gain a high reputation among collectors and connoisseurs of Indian art and in assisting Navajo artists to make a living at artistic work.

Similarly, Canada began formal efforts to encourage Native artists in the late 1950s. The Canadian Handicrafts Guild began assisting Inuit and Indian artists to produce art works and craft objects by supplying materials, providing training in new techniques, and helping to display and distribute artists' products in national, provincial and territorial venues.

One important and continuing result of this effort was the establishment of Native artist cooperatives where traditional and contemporary skills are developed and marketing assistance is provided. The West Baffin Eskimo Cooperative, like other art cooperatives organized in various parts of Canada, is owned and operated by the Native people and is now an autonomous and successful business enterprise that contributes greatly to the Inuit economy of several communities in the High Arctic.¹¹⁷

Some commercial companies and non-profit organizations have formed

partnerships with native arts and crafts cooperatives in Guatemala, Peru and elsewhere in Latin America. Many of these firms offer the artists' products through mail-order catalogs. These joint ventures help to provide the Indian artists with promotion and distribution of their works to markets in the United States and other wealthy nations. Some of them also help to acquire and send art materials to the village artists, who otherwise would have difficulties in getting access to non-local media. One such non-profit organization is Pueblo to People of Houston, Texas.



"Family Camping in Tuniq Ruins"
1976 by Pitseolak Ashoona.
This work is reproduced with the
permission of the West Baffin
Eskimo Co-operative Ltd., Cape
Dorset, NWT.

Among the community and tribal arts and crafts guilds are the Musk Ox Producers' Co-Op of Anchorage, Alaska; the Qualla Arts & Crafts Mutual, Inc. of the Eastern Cherokee Tribe in Cherokee, North Carolina; the Indian Pueblo Cultural Center in

Albuquerque, New Mexico; the Hopi Arts & Crafts Silvercraft Co-Op Guild of Second Mesa, Arizona; and the Institute of Alaska Native Arts, Inc. of Fairbanks, Alaska. Many tribes and community organizations are also providing gallery space and promotional assistance to their artists through tribal museums and cultural centers. Examples of these efforts are the Yakima Nation Cultural Center on the reservation in Toppenish, Washington; the Navajo Tribal Museum on the reservation in Window Rock, Arizona; the Warm Springs Tribal Museum on the reservation at Warm Springs, Oregon; and the Day Break Star Arts Center of the United Indians of All Tribes Foundation at their urban cultural center in Seattle, Washington.

The native artists' support organization Atlatl of Phoenix, Arizona was founded in 1976 and became a non-profit organization in 1981. Supported by grants from the National Endowment for the Arts, the Phoenix Arts Commission, the Arizona Commission on the Arts and other public and private foundations and donors, Atlatl helps train American Indian artists to market their works, arrange exhibitions and network with Indian and non-Indian artists and art organizations. Atlatl publishes annual directories of American Indian and Alaska Native artists, holds workshops around the U.S. on Indian arts and related issues, rents a videotape library about American Indian artist and the arts, and publishes newsletters about current events, opportunities and personalities in the world of Indian arts.

In some ways, these 20th century art and craft societies and cooperatives operate as modern versions of older, indigenous institutions. The Cheyenne Women's Quilling Society may serve as an example of these traditional specialists' associations which served to select, initiate, train and support the standards of work of American Indian artists in ways somewhat similar to the medieval European artisan guilds.

According to Cheyenne oral traditions, a man once married a woman who turned out to be a buffalo who had taken human form. The Buffalo Wife taught this man how

to skin, prepare, decorate and use the hides of her people to make many of the things that the Cheyenne needed to live well on the Great Plains. Later, he returned to his own people and eventually married a human woman. She and her friends learned from him the techniques of working with hides and decorating them with dyed porcupine quills as he had been taught by his Buffalo Wife. These skills were accompanied by several ceremonies for appropriately handling the gifts of knowledge and lives given by the buffalo.¹¹⁸

The Cheyenne women kept these skills and ceremonies alive through succeeding generations by inducting and training new members, supervising their work, and working together cooperatively to maintain excellence in the finished products of their art as quillers. This is how the Cheyenne Women's Quilling Society came to be, so it is told.

The Indian Arts and Crafts Board

Established by Congress in 1935, the purpose of the Indian Arts and Crafts Board was and remains the promotion and support of Indian artistic production and development of marketing opportunities for Indian art in the United States. The intent of Congress, from a reading of the act establishing the Board, was to promote Indian art as one component of tribal and individual Indian economic welfare.

The Indian Arts and Crafts Board fulfills this function by conducting technical and market research, arranging loans to support Indian art production projects and cooperatives, and, at one time, creating government trade marks to insure the authenticity of 'genuine' Indian artistic products.

The Board has published a number of books and maintains a photographic archive of some value to researchers looking into 20th century American Indian art. It has functioned to coordinate the work of public and private agencies dealing with Indian art, including museums, galleries and trading posts, and it has sponsored a number of

showings and museum exhibits over the years. This latter function is the Indian Arts and Crafts Board's major involvement in Indian art in contemporary times.

The Institute of American Indian Art and Other Schools

In 1962, Congress and the Bureau of Indian Affairs established the Institute of American Indian Arts in Santa Fe, New Mexico, to serve as a national training center for American Indian artists. Early faculty members included the Apache sculptor and painter Allan Houser and Charles Loloma, a famed Hopi painter, potter, and jeweler.

Notable students of the IAIA have included many, perhaps most, of the American Indian artists who have earned national and international reputations in the past two decades. Among them have been the Tewa/Hopi painter Dan Nomingha and Doug Hyde, a Nez Percé/Assiniboine/Ojibwe sculptor.

Following a decade of federal funding cutbacks during the 1980s, Congress on June 3, 1988 issued the Institute of American Indian Arts a new charter as a private non-profit educational institution under American Indian leadership. The Board of Trustees of the IAIA is currently appointed by the President and confirmed by the Senate. The new charter authorized the Institute to offer programs in Alaskan Native arts in addition to its existing American Indian arts program. The charter also authorized the expansion of IAIA's educational programs in the visual and performing arts, and directed the IAIA to create a new center for cultural research and cultural exchange programs.

The IAIA is presently accredited as a junior college with courses in ceramics, creative writing, drawing, fashion design, fiber arts, graphic arts, jewelry, museum management, painting, photography, print making, sculpture, traditional pottery, and Native American Studies. The Institute is also home to a museum of contemporary American Indian art.

Also in Santa Fe is the School of American Research. Dedicated to supporting scholarship and research in the humanities, one of its major activities is the operation of an important Indian Arts Research Center with a substantial research library and a large reference collection of Southwestern American Indian art. Scholars and artists from around the world can apply for use of the collections in their studies; the School offers a certain number of residencies to visiting scholars working on research and publications relating to Indian arts.

Many of the 24 tribally-controlled community colleges and other Indian or predominantly Indian colleges (Haskell Institute, Bacone College, Deganawidah-Quetzalcoátl University, and the Northwest Indian College) in the U.S. offer programs of study in American Indian arts. So too do a substantial number of state universities and colleges, often through an Indian Studies program but sometimes as a program of their regular art departments. These programs offer young Indian artists a good opportunity to develop skills, often while working with older Indian artists as mentors. This has enabled a growing number of young native artists to successfully enter the competitive world of the professional artist.

Many public school systems are also supporting and encouraging their American Indian students with interests in the arts. One of the best ways in which this happens is through cooperation with local, regional and tribal Indian artists and artist groups to identify and bring Indian artists into the schools through Artist in Residency or other visiting artist programs which are already in place. The direct, living example of successful, respected elders as role models in the arts is among the most powerful, supportive incentives that schools can provide their Indian students.

Schools also can support their art teachers and students through providing access to current videotape materials by and about leading American Indian artists. They can also help teachers to better understand the background of American Indian art by

making available some of the better national and regional Indian arts journals. On of the former, which publishes high quality studies of American Indian arts and artists on a quarterly basis, is *American Indian Arts* magazine.

AMERICAN INDIAN ARTS AND TRADE

Traditional trade in American Indian art products was hemispheric in scope. It flowed in the same trade networks that are mentioned in the Economics section of the Social Sciences essay. As noted there, once European-Americans engaged in this trade network, they received and sometimes sought a certain amount of art products along with the furs and other commodities in which they had an interest.

Art objects were thought of by most Indians as personal possessions to be traded like other objects. 'Art' is not a traditionally distinct category or concept for most Indian cultures. All things, even manufactured ones, have a spiritual significance and therefore a thing made by a person has to be made well and with appropriate beauty if the object is to be in harmony with the world. Unless there might also be especial religious significance in an object, it could be traded. Thinking of some of these objects as 'art' came later as American Indians learned of the perspectives and predilections of their new neighbors and trading partners.

The long native tradition of trade in 'art' objects within the scope of normal economic activity began to gain importance late in the 19th century, particularly in the Southwest. With the development of tourism brought by the railroads into the region, European-American businessmen promoted Indian artwork as souvenirs of visits by Easterners to the region.

Among these businesses were the older trading post establishments such as those run by the Hubbell family or by Richard Wetherill.¹¹⁹ They were later joined by hotel operators, the best known and most influential of which was Fred Harvey.

Harvey operated lodges at the Grand Canyon and many other scenic sites as well as in major Southwestern towns. He extensively decorated his establishments with local Indian-made pottery, textiles, paintings and woodwork. Harvey commissioned many Indian art works for use in his businesses as well as for sale to his guests, as was mentioned above in recounting his association with the Hopi/Tewa potter Nampeyo.

Southwest Indian art became so popular in the era between 1920-1940 that it sparked interest by collectors in the native art of other regions. However, this popularity also stimulated unscrupulous dealers to have cheap imitations made to sell in volumes far exceeding what authentic Indian artists could produce.

This latter development became a serious problem for many legitimate Indian artists. They often found that buyers who were used to the low prices for factory made or Asian knock-offs of 'Indian' art and craft objects were reluctant to pay higher prices for authentic pieces of much higher aesthetic and spiritual quality. It was mentioned earlier that the federal government, through the Indian Arts and Crafts Board and other organizations, has tried to help support legitimate Indian artists by making available seals of authenticity and by occasionally prosecuting manufacturers and dealers of bogus 'Indian art'.

By the beginning of the 1990s, the business of trading and selling American Indian arts and crafts products was valued at \$400 million a year in the U.S. alone.¹²⁰ The problem of cheap imitations of American Indian artistic products made by factories has continued to bother some Indian artists and galleries. Another factor complicating the trade has been the borrowing of American Indian styles and motifs by non-Indian artists, a few of whom claim to be Indian in order to boost the market value of their works.

These problems recently led to the passage of the federal Indian Arts and Crafts Act of 1990, Public Law 101-644, which makes it illegal for any work of art to be

displayed and sold with false claims about being 'Indian-produced'. Under the new law, works can be sold as 'Indian' only if the artist or crafts person is an enrolled member of a state- or federally-recognized tribe. While the intent of the law is to prevent fraud and support the market value of authentic Indian art works, it also raises serious problems of its own.

As galleries and museums try to comply with the new law, many *bona fide* Indian artists who are not enrolled members of recognized tribes are being legally excluded from identifying themselves and their work as 'Indian'.¹²¹

Because of the effects of historical Indian policies (treaty-making, allotment, BIA and tribal enrollment practices, termination and the federal and state processes of granting recognition to tribes and Indian individuals; see the Social Sciences essay), thousands of Indian people and some 200 Indian tribes in the United States are not legally recognized as being 'Indian.'

Artists and crafts people excluded by such policies, even those acknowledged by their tribes or urban communities and with well-known reputations as Indian artists, are beginning to find it difficult to place their works into the market for 'Indian art' because of the terms of the Indian Arts and Crafts Act of 1990. Some of the affected artists have noted that some of the Indian artists and gallery owners who supported the passage of the Act have been competitors in the past. Some excluded artists have publicly questioned whether the real reason for the new Act is to protect the integrity and authenticity of 'Indian art' as a whole or whether it is to protect the market share of particular galleries and artists.¹²²

APPENDIX A CHRONOLOGY

A Chronology of American Indian Arts

Dates in **boldface** indicate events primarily due to American Indian initiatives; dates in plain type indicate events primarily due to initiatives by others.

- ca.-10000** At a sandstone rockshelter in northeastern Brazil, paleo-Indians leave a spectacular series of paintings on the cliff walls of a site now called Pedra Furada. The scenes depicted include local animal life, hunting practices and social activities, shown in a pictographic style using red, yellow, white, and black pigments.
- ca.-9000** A camel sacrum (fused pelvic vertebrae) carved to represent the head of a dog is made by an early people living at Tequixquiac, in the Valley of Mexico.
- ca.-7000** Archaic (incipient agriculturist) phase Desert cultures in eastern Oregon (Fort Rock Cave) and Utah (Danger Cave) leave evidence of skills in basketry, woven mat, and woven sandal making in cave shelters. This complex of cultures is very extensive, as post-Ice Age warming extends desert conditions through most of western North America. Desert Culture groups are found from Oregon south to Belize in Central America, and as far east as Texas. The Utah basketry finds are believed to be the oldest evidence in the world of human development of skills in basketry.
- 4500** The earliest known American Indian pottery is made on the Hondo River at Chalco, in the Valley of Mexico.
- ca.-4000 to -3000** Some of the oldest pottery known in the Americas appears in the areas of Valdivia in modern Ecuador and Monagrillo in modern Panama. The decorative design (incised and rocker-stamped) of the pieces resembles contemporaneous work done by the Jomon culture of Kyushu, Japan, according to some authors; it is unknown whether or how there might be any connection.
- 2600** The oldest buildings and pottery which appear ancestral to the later Mayan civilization are created in what is now Belize.
- ca.-2500 to -2000** Effigies of mountain sheep and deer made of woven split twigs and grass

are left in caves in the Grand Canyon; probably used in hunting magic, these figurines are the product of the early Basketmaker phase of what will become the Anasazi (early Pueblo) culture in the American Southwest.

**-2500 to
-1500**

Large villages and ceremonial centers are built in the valleys of the north central coast of Peru, notably at Chuquitana and Las Holdas. The sites are constructed of stone and of adobe masonry and feature temples and pyramids. The material culture is elaborate, with evidence of textiles and a wide range of functional and ornamental artifacts in bone, clay, wood, and stone. Mummification is practiced, and multiple burials suggest that a social class system is well developed.

In the northern highlands of Peru, ceremonial centers are developing in the farming valleys. At Kotosh, a group of temple mounds is built, including one which contains a niche for the display of a clay sculpture of a pair of crossed hands. Some pottery from this pre-Chavín culture suggests an influence from the Olmec to the north, particularly in head and facial forms characteristic of that Mesoamerican people.

-2300

A pottery figurine of a woman is made at the hamlet of Tlapacoya in the Valley of Mexico, the oldest figurine known in Mesoamerica.

**ca.-2000
to -1500**

Undecorated ceramics appear in the American Southeast in Georgia and Florida.

Pottery appears in the villages of northern highland Peru.

ca.-1500

Pottery made at Chiapa de Corzo in central Chiapas, the southernmost state in modern Mexico, shows incised and rocker-stamped decoration; clay figurines are also common at this early Formative period agricultural center.

-1200

Establishment of Olmec culture at San Lorenzo, southeast of modern Veracruz on the Gulf of Mexico, inaugurates a distinctive artistic style of three dimensional stone and wood carving centered on images of jaguars and were-jaguar infants with cleft heads; gigantic Colossal Heads of basalt; jade celts, figurines and jewelry; later trade and missionary connections would spread these art objects throughout Mexico. Olmec-influenced settlements appear at this time in the Valley of Mexico.

ca. -1100

The core pyramid for the later Pyramid of the Sun at Teotihuacan in the Valley of Mexico is constructed.

ca. -1000 Archaeological evidence from Sierra Nevada and California sites of Pinto Indian architecture using wood frames interwoven with reeds and covered with soil.

The Ohio River Valley is the center of the so-called Adena culture, a long-lived, extensive Eastern Woodlands civilization characterized by the construction of burial and effigy mounds (the best known being the Serpent Mound in Peebles, Ohio), sophisticated clay and carved stone pipes and ornaments, circular house architecture with unusual outward-sloping roof support beams and an economy based on a mixture of trade, agriculture, hunting, and foraging.

The walls of Panther Cave in the Pecos River valley of Texas are used for a series of remarkable paintings showing shamans invoking hunting magic and displaying the weapons and accouterments of the hunt, along with some of the game animals sought by the hunters.

ca. -800 After the violent destruction of San Lorenzo, Olmec culture rises again at the urban center of La Venta in modern Tabasco, Mexico. Notable artistic creations of this cultural center include three separate mosaic pavements representing jaguar masks, a burial group scene of sixteen jade and serpentine statues and six jade celts, magnetite mirrors capable of projecting images in the manner of a *camera lucida*, and a 111.5 foot tall clay pyramid and associated courtyard.

The first great civilization of the Peruvian highlands arises at a center called Chavín de Huantar. Its architectural masterpiece is the so-called Castillo, a stone temple decorated with relief carvings, and featuring stelae monuments, stone head figures fastened to the walls by the device of tenons, and interior stone passageways. The Chavín are notable for the quality of their pottery, gold work, and woven textiles. The pottery makes use of polishing, incised and rocker-stamped decorative patterns, as well as stirrup spouts.

ca. -600 The Maya make pottery at the site of their later ceremonial center at Tikal, in what is now Guatemala.

ca. -500 The Zapotec peoples of the Valley of Oaxaca in southern Mexico found what will become their great center of Monte Albán, with the construction of the so-called Temple of the Danzantes ('the Dancers', believed to be representations of conquered kings in death postures). Some of the pottery associated with this era also bears incised Danzante figures.

ca. -300 The core pyramid for the Pyramid of the Moon (Atetelco) is constructed at Teotihuacan. A city begins to develop around the earlier ceremonial site.

The Hohokam people, ancestors of the modern Pima in the Southwest, establish their cultural center at the large community of Snaketown (near modern Phoenix) after they are believed to have migrated north from Mesoamerica. They become exquisite potters and basket makers, expert jewelers and stone sculptors. The Hohokam introduce the architecture of the Mesoamerican ritual ball courts into the Southwest around 700 A.D. Their initial house architecture is a modified form of semi-subterranean pithouse.

The Hopewell culture, successors to the Adena mound-building tradition, is characterized by the construction of large burial mounds containing beautiful carvings in stone, native copper, and pottery as funeral offerings; the religious observances of this culture gain very wide influence throughout much of the eastern U.S. and the river valleys of the Great Plains as far as the Rocky Mountains. The architecture of these people later becomes a basis for the rectangular Plains earth lodge found in use in Contact times by the Mandan and Hidatsa, among other tribes.

ca. -200 The Mochica culture in the Andes of northern Peru develops a very sophisticated, naturalistic style of effigy pottery believed to be a form of portraiture.

A unique form of simple pottery is originated in the Arctic.

The second phase of Zapotec culture at Monte Albán witnesses the construction of 'Building J' in the southern plaza of the city, which now has a population of 10 to 20 thousand; it appears to be an astronomical observatory as well as bearing inscriptions of new Zapotec conquests, and is built in the shape of an arrowhead. Some Mayan influence is noticeable in the decorative arts at this time.

ca. -100 Some two or three centuries after the destruction of La Venta, the last major florescence of Olmec culture takes place at Tres Zapotes, on the San Juan River in modern Vera Cruz. While Tres Zapotes' earliest Olmec occupation is contemporaneous with La Venta, this period appears to represent a mixture of Olmec and other cultures. Two of the oldest dated American Indian monuments are created here, one the so-called Stela C, dated September 3, 32 B.C. and the other the duck-billed Tuxtla Statuette, dated March 14, 162 A.D. in the Long Count system used by the Maya and Olmec.

-36 A reused slab at Chiapa de Corzo bears an Olmec date corresponding to December 8, 36 B.C.

ca. 0 Tapestry weaving begins among the Mochica and Nazca cultures of Peru.

- 100** In the Pacific Northwest, the extensive development of woodworking technology leads to the earliest verified beginnings of the great regional traditions of carved cedar log totem poles, cedar log sea-going canoes, and cedar plank houses and household objects.
- 100-150** The Pyramid of the Sun takes its completed form, with a height of 70 meters (229.67 feet) and base of 225 meters (738.22 feet); its volume containing over 1,175,000 cubic meters of fill. It is topped with a wood and thatch temple and fronts along one side of the four-mile long Avenue of the Dead. Teotihuacan has become the dominant culture in the Valley of Mexico and its trade network extends its influence throughout Mesoamerica and into the American Southwest. It is particularly noted for its fine pottery, obsidian and turquoise work, and exotic feather clothing and ornamentation.
- 150-200** The Pyramid of the Moon is completed; smaller than but similar to the Pyramid of the Sun, it sits nearby at the northern end of the Avenue of the Dead. Both pyramids have a large forecourt with small flanking temple pyramids.
- 164** The oldest known Mayan stelae monuments are raised.
- 400-600** The peak of Hopewell cultural development is reached in the north-central U.S. The large Hopewell populations build elaborate geometrical mounds for ceremonial purposes, and their funerary offerings become particularly rich, with objects made of many imported materials from throughout North America appearing in the burials.
- Establishment of a pre-Inca culture in Tiahuanaco, Bolivia. This city influences ceramic and textile art styles far beyond its political and military grasp. Its people create a prominent stone-faced temple mound, the Akapana, as well as numerous other stone buildings.
- Teotihuacan culture has become dominant in much of the Mayan homeland, producing a rich blend of architectural and artistic styles exemplified by the modifications made in this period to the Mayan religious center of Kaminaljuyú in the Guatemalan highlands.
- 507** The creation of a Mayan stone altar showing the head of the Death God in Copan, modern Honduras.
- 550** The Maya establish their great ceremonial city of Tikal in Guatemala; it grows to a population of some 45,000 and supports five great temple pyramids along with an elaborate array of private and public architecture.
- ca. 500**

to 1200 Tapestry reaches an extremely high level of sophistication in the pre-Incan cultures of Peru. Generally created by women, the work is characterized by thread counts of 150 to 250 weft threads per inch (very fine), polychrome colors using natural dyes with strong contrasts, and the use of wool weft threads from a variety of small camelids with occasional use of cotton. Cotton is usually used for warp threads. Designs are conventionalized human and animal figures and geometric patterns. Tapestry is usually incorporated into clothing as a decorative element; it is also used to decorate burial wrappings.

The Inuit ('Eskimo') cultures in the circumpolar regions of Alaska, Canada, and Siberia develop a distinctive carving tradition in sea mammal ivory and wood.

ca. 500 to 800 Classic era Monte Albán experiences a great development of building, with evidence that Mayan influence has been superseded by that of Teotihuacan. Nearly 200 important buildings are created in this period, and a profusion of rich tombs are created, many with antechambers and corbelled vault roofs. Frescos and logographic inscriptions are common decorative elements, featuring the extensive pantheon of local and pan-Mexican gods and goddesses. Clay statues of many of these are important funerary offerings, and are done in a powerful style incorporating diverse influences.

ca. 700 The rise of the Mississippi River valley Mississippian culture in much of south and central North America is characterized by construction of stockaded villages and flat-topped temple mounds showing possible Mesoamerican influence after the destruction of Teotihuacan around 700 A.D. Painted pottery becomes a common feature of this culture, which appears to emphasize a death and burial cult.

The Mayan cultural center of Chichén Itzá is established in 711 A.D.

750-900 The first Pueblo period in the North American Southwest sees development of adobe and wood-beam 'apartment' house villages in defensible cliff faces or overhangs, and, toward the end of the period, on exposed mesa sites. Characteristic of most sites is the presence of one or more large kivas, round, subterranean or semi-subterranean rooms used for ceremonials or for crop storage. When in ceremonial use, the kivas are customarily decorated on the interior walls with murals; the architectural features of the larger kivas often include subfloor passages and concealed entrances.

800 A small Mayan center called Bonampak in Chiapas, Mexico, has three interior walls of a temple decorated in murals depicting preparations for a

raid, the acquisition of sacrificial victims, and the subsequent rituals; rediscovered in 1946, it is the most complete record remaining of Mayan courtly life.

900 A subgroup of the Mogollon culture in the American Southwest creates the famous black and white Mimbres style of pottery.

970-87 The new Toltec capital of Tula, in modern Hidalgo, Mexico, features a temple supported by large, carved stone 'Atlantean' warrior figures as its main columns.

987 Mayan records recount the arrival of a leader from the west who makes Chichén Itzá his capitol; his name in Mayan is given as Kukulcán, or 'Feathered Serpent'. He is believed to be the exiled Toltec leader Quetzalcoátl Topiltzin, and his rule incorporates many Toltec cultural elements into a resurgent Mayan culture.

1000 Tiahuanaco culture widespread in Peru.

The Hohokam people in the Southwest develop the technique of acid etching of shell jewelry using vinegar distilled from juices of the saguaro cactus. The Hohokam development of this jewelry technique predates its appearance in Europe by 300 years.

Mesoamerican cultures adopt metallurgy from South American sources in Peru and Ecuador; the lost wax casting method is used for making copper bells.

1073 The second Pueblo phase of Southwestern culture produces the spectacular village of Mesa Verde in southwestern Colorado, built by the Anasazi (a Navajo term meaning 'the Ancient Ones') on a site occupied by them since 608.

1150 The Hopi descendants of the Basketmaker-Anasazi-Pueblo traditions establish the oldest continuously-inhabited town in the United States at their pueblo of Oraibi on Second Mesa in Arizona.

ca. 1200 The civilization at Tiahuanaco near Lake Titicaca comes to an end.

1300 Hohokam people, influenced by the pueblo-building Salado Indians, build Casa Grande. This building is a three-story fortress set on a five-foot tall foundation of fill and made of caliche adobe earth and timber with an adobe watchtower. It is located at the site of a large 6th-century irrigation works built by the Hohokam in the Gila Valley of south central Arizona. The tower had holes which align precisely with sunset on the days of the equinoxes, and may have functioned as an observatory.

- 1345** The Aztec, recently arrived in the Valley of Mexico, found their southern city of Tenochtitlan and their northern city of Tlatelolco on adjacent islands in the Lake of the Moon in the Valley.
- 1400** Development of the Middle and Upper Mississippi phases of the Mississippian culture in North America; further suggestions of the diffusion of Toltec culture elements from Mexico (probably via contacts with the Pueblo Indians) exist in the structure of temple mounds, effigy mounds, ceremonial plazas, and pottery found in modern-day Georgia, Alabama, Tennessee, and Illinois.
- 1487** Dedication of the final Great Temple of Tenochtitlan, the Coatepec, with its twin temples dedicated to Tlaloc, the Rain God, and Huitzilopochtli. The Coatepec is built under the aegis of the huey tlatoani ('Great Speaker' or leader) Ahuitzotl of the Aztec. 20,000 war captives are reportedly sacrificed to the Sun God of the Aztec (another guise of the war god Huitzilopochtli) in the dedication ceremony. Ahuitzotl also is responsible for the construction of an aqueduct from Coyoacan to the capital.
- 1564-65** Jacques le Moyne, an artist in the short-lived French colony on Parris Island, in the Cusabo territory of what is now South Carolina, becomes the earliest known European painter to depict American Indians.
- 1573-1667** Spanish colonists and Indian craftsmen and laborers construct Mexico City's Metropolitan Cathedral. The Cathedral is placed immediately southwest of the site of the main Aztec temple in Tenochtitlan's central ceremonial plaza (now known as the Zócalo or Plaza de la Constitución).
- 1587** Governor John White, leader of Sir Walter Raleigh's second attempted Roanoke Island (North Carolina) colony, returns to England with paintings of the area's Secotan and Weapemeoc tribesmen.
- ca. 1600** The Spanish introduce sheep and the use of the vertical frame loom for weaving wool into the Southwest. Weaving becomes a highly-developed craft among Navajo and Pueblo tribes in the following centuries into the present.
- 1697** The Spanish destroy the last independent remnants of Mayan civilization in the Yucatán; the Mayan people survive this destruction of their high culture with some of their knowledge and techniques intact.
- 1826** George Catlin, an American painter born in Wilkes-Barre, Pennsylvania, executes an unfinished portrait of Red Jacket (Sagoyewatha), famous orator and chief of the Seneca tribe.

- 1827-28 Catlin produces a series of portraits of prominent Iroquois tribal members.
- 1830-36 George Catlin makes a series of journeys to visit tribes and fur posts in the Missouri and Upper Mississippi regions, writing, painting and sketching prodigiously to produce a record of the last era of free Indian life on the Great Plains.
- 1837 Catlin opens an exhibition of his Plains paintings and collected artifacts, 'Catlin's Indian Gallery' in New York at Clinton Hall. The exhibition later tours Washington, D.C., Boston, and Philadelphia.
- 1839 Catlin takes his 'Gallery' to Europe where the showing is immensely popular for several years. The paintings are exhibited in London and other English cities, and in Paris at the Louvre. He adds portraits of over 100 visiting Indians to the 'Gallery' while in Europe.
- John L. Stephens, U.S. Consul to the Republic of Central America, and the architect Frederick Catherwood conduct an exploration of the jungles of Yucatán and Central America, visiting many abandoned Mayan cities, which they document with Stephens' descriptions and Catherwood's illustrations.
- 1841-44 Stephens and Catherwood publish three books on their findings in the ancient Mayan cities they visited. **Views of Ancient Monuments** (1844) by Catherwood, in particular, is the first internationally popular account of the Mayan civilization's art and architecture.
- 1844 Catlin publishes a series of lithographs of his paintings while in London.
- 1852-70 Deeply in debt early in this period, George Catlin sells his 'Gallery' to an American industrialist, Joseph Harrison. While still in Europe, Catlin recreates most of his 'Gallery' from sketches and memory. He makes several more visits among Indian tribes in South America and the West Coast of North America to add to his new portfolio, called 'Catlin's Cartoon Collection', before returning to New York in 1870.
- 1879 Catlin's original 'Indian Gallery' is given to the Smithsonian Institution [where Catlin spent his last two years before dying in 1872] by the heirs of Joseph Harrison. [Damaged by improper storage in a warehouse, the paintings were first exhibited in 1883; they were then put into storage after the turn of the century until a revival of interest in Catlin in the 1940s brought them forth to tour in America and Europe since. Most were restored in 1959; a group of 27 was hung in the White House in 1961. Most are now displayed in a hall of the Natural History Building of the Smithsonian Institution.]

- 1882 Frederic Remington, American illustrator, painter, sculptor and writer born in Canton, N.Y., produces his first commissioned work, a painting of Indians entitled *Geronimo's Campaign*.
- 1890 Remington produces illustrations for an edition of Henry Wadsworth Longfellow's **Song of Hiawatha**.
- 1890-91 Remington covers the warfare between Indians and European-Americans resulting from forced settlement on reservations, crop failures, ration cutbacks, and the developments attending the Ghost Dance; produces both articles and illustrations.
- 1892 Remington illustrates an edition of the notable history work **Oregon Trail** by Francis Parkman.
- 1909 One of Frederic Remington's last paintings is his *Indian Warfare*, showing a line of Great Plains warriors dashing past a body of U.S. infantry who are beginning to form themselves up for combat. The painting shows a fallen warrior being pulled from the ground by a comrade riding at full gallop.
- 1962 Responding to lobbying by Indian artists and educators, Congress and the Bureau of Indian Affairs establish the Institute of American Indian Arts in Santa Fe, New Mexico, to serve as a national training center for American Indian artists. Prominent early faculty members include Allan Houser, Apache sculptor and painter, Fritz Scholder, California Mission painter, and Charles Loloma, Hopi painter, potter, and jeweler.
- 1972 Famed Pomo basketmaker Elsie Allen publishes **Pomo Basketmaking: A Supreme Art for the Weaver**. The book balances her discussion of the craft with stories about the women who embody the knowledge and traditions surrounding the exquisite basketry of the Pomo tribe.
- 1980 -?? A town-renewal effort in Chemainus, British Columbia leads to the establishment of an annual mural-painting festival and the creation of some 24 murals to date. Included are several murals that prominently feature images representing the Indian heritage of the community, with depictions of Indian people, their traditional activities, architecture and totem designs.
- 1988 After a decade of federal funding cutbacks, Congress issues the Institute of American Indian Arts a new charter as a private non-profit educational institution under independent American Indian leadership. The IAIA is accredited as a junior college with courses in ceramics, creative writing, drawing, fashion design, fiber arts, graphic arts, jewelry, museum

management, painting, sculpture and photography as well as Native American Studies. The IAIA is also home to a museum of contemporary American Indian art.

- 1989 Congress passes S. 978, a bill establishing a National Museum of the American Indian as a part of the Smithsonian Institution. President Bush signs the bill into law on November 28, 1989. The legislation requires that the Board of Trustees of the planned \$200 million facility be composed predominantly of American Indians and that the Smithsonian expand its traveling exhibits of American Indian art and cultural materials to other museums throughout the country, particularly those on reservations. Among the provisions of the law are sections requiring the Smithsonian to repatriate the burial remains of any individuals who can be shown to be culturally affiliated with a particular tribe or family of Indians at the request of that tribe or family, a major change in long-standing Smithsonian Institution policy and practice.

Canada opens its Canadian Museum of Civilization in the federal capital of Ottawa. Designed by Blackfeet-Metis architect Douglas Cardinal, the Museum features a Grand Hall display of a reconstructed Northwest Coast Indian village of the 19th century. The building is decorated with carvings and sculptures by Haida artist Bill Reid. The Museum offers its displays of many world cultures through a format making extensive use of multimedia techniques and its own troupe of live performers to create a dynamic, rather than static, sense of the style and content of human life in various times and places.

- 1990 The Institute of American Indian Arts in Santa Fe, New Mexico, acquires the old Federal Office Building in that city and begins to remodel it to house the Institute's art museum. The architectural team for the renovation of the Pueblo Revival-style building includes the firm of Louis L. Weller, a Caddo tribal member. The IAIA, under Indian control since 1988, also develops plans to expand its college program from two to four years and build a new campus.

Restoration begins on the 19th century Creek Council House in Ocmulgee, Oklahoma. The building served as the seat of the Creek tribal government in the Oklahoma Territory until the abrogation of tribal self-government by the U.S. Congress following the passage of the Curtis Act in 1898. The two-story limestone building has been used since the 1920s as a museum of Muskogee (Creek) Indian culture. This use will continue when the Council House's restoration is complete.

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Footnotes

¹Lopez, Barry, "The American Indian Mind" in *Quest/78*, September/October 1978 edition, p. 109.

²Momaday, N. Scott, "Native American Attitudes to the Environment", in Capps, Walter Holden (ed.), **Seeing With A Native Eye: Essays on Native American Religion**. New York: Harper & Row, Publishers, 1976, p. 79-85.

³Momaday, in Capps, p. 80.

⁴Momaday, in Capps, p. 81.

⁵Momaday, in Capps, p. 81.

⁶Momaday, in Capps, p. 81.

⁷Jacka, Lois and Jacka, Jerry, **Beyond Tradition: Contemporary Indian Art and Its Evolution**. Flagstaff: Northland Press, 1988. This volume is an excellent introduction to modern Indian art and artists, giving insights into contemporary techniques and the inspirations that guide their use. It is illustrated with stunning photographs by the author's husband Jerry, and is a very good place for a teacher to turn in search of information on its topic.

⁸Highwater, Jamake, **Many Smokes, Many Moons: A Chronology of American Indian History Through Indian Art**. Philadelphia: J. B. Lippincott and Co., 1978, p. 23-24.

⁹Highwater, p. 31 and Waldman, p. 6-7.

¹⁰Highwater, p. 27 and Waldman, Carl, **Atlas of the North American Indian**. New York: Facts on File Publications, 1985, p. 6.

¹¹Coe, Michael, **Mexico**. New York: Thames and Hudson, 1984, p. 36.

¹²Waldman, p. 17.

¹³Coe, p. 93-94, 100.

¹⁴Gallenkamp, Charles, **Maya**. New York: Viking Penguin, Inc., 1985, p. 66.

¹⁵Gallenkamp, p. 1443-144.

¹⁶The issues introduced here have been a hot topic of discussion and pronouncement among Indian artists, gallery people, writers and viewers of art for the past two decades. There is a good deal of writing on the subject of the modern Indian artist to be found in many places; some of the examples mentioned here are introduced in an article by Anne Stephenson, "Innate Images", *America West magazine*, July 1990, vol. 5, no. 5, p. 31-39.

¹⁷Dockstader, Frederick, **Indian Art of the Americas**. New York: Museum of the American Indian, 1973, p. 14-16.

¹⁸For example, see the discussion and illustrations in Morgan, Lewis Henry, **League of the Iroquois**. New York: Citadel Press, 1962, p. 354-358. Illustrations of an Iroquoian pot and an Algonkian figurine can also be seen in Kopper, Philip, **The Smithsonian Book of North American Indians Before the Coming of the Europeans**. Washington, D.C.: Smithsonian Books, 1986, p. 140 and 136, respectively.

¹⁹Highwater, p. 26; also Waldman, p. 212.

²⁰Highwater, p. 25-26.

²¹Highwater, p. 28.

²²Rouse, Irving, "The Caribbean Area" in Jennings, Jesse and Norbeck, Edward (eds.), **Prehistoric Man in the New World**. Chicago: University of Chicago Press, 1964, p. 397.

²³Coe, see the illustrations on p. 45, 49-51.

²⁴See the illustration in Highwater, p. 31.

²⁵Waldman, p. 21-22; Highwater, p. 42-43, 47, 57-59, 72-73 (see the illustrations in Highwater, p. 43 and 59, for examples of Mississippian artistic style).

²⁶Waldman, p. 6.

²⁷Waldman, p. 16-17; Dockstader, p. 45, 47.

²⁸See illustrations in Dockstader, p. 41-44.

²⁹This discussion of Nampeyo's art is drawn from Ronald McCoy's biographic essay "Nampeyo: Giving the Indian Artist a Name" in L.G. Moses and Raymond Wilson (eds.), **Indian Lives**. Albuquerque: University of New Mexico Press, 1985, p. 43-57.

³⁰One of these photographs may be seen at the beginning of McCoy's essay in Moses and Wilson, p. 43.

³¹McCoy in Moses and Wilson, p. 53.

³²McCoy in Moses and Wilson, p. 50.

³³Jacka and Jacka, p. 56-59.

³⁴Dittert, Alfred E. Jr. and Plog, Fred, **Generations in Clay: Pueblo Pottery of the American Southwest**. Flagstaff: Northland Publishing, 1980, p. 31-34.

³⁵Ashton, Robert, "Nampeyo and Lesou" in *American Indian Art*. Vol. 1, No. 3, 1976, p. 24-34.

³⁶Dittert and Plog, p. 62-67 and 68-69.

³⁷The Dittert and Plog illustrations on p. 65 show collaborations between Maria and Popovi and a piece by Tony. Another piece of Tony Da's work is pictured in Jacka and Jacka, p. 40; Popovi is represented in the same source on p. 16.

³⁸Examples can be seen in Dittert and Plog, p. 59-62 and in Jacka and Jacka, p. 89 and 160-161.

³⁹Chapman, Kenneth, "Indian Pottery" in LaFarge, Oliver, **Introduction to American Indian Art**. Glorieta, NM: Rio Grande Press, 1973 (reprint of the 1931 edition).

⁴⁰Waldman, p. 50.

⁴¹Waldman, p. 50.

⁴²Waldman, p. 52.

⁴³Noble, David Grant, **Ancient Ruins of the Southwest: An Archaeological Guide**. Flagstaff: Northland Press, 1981.

⁴⁴Page, Susanne and Page, Jake, **Hopi**. New York: Harry N. Abrams, Inc, 1982.

⁴⁵Hadingham, Evan, "Tracking the First Americans: An Ice-Age Mystery", *World Monitor*, vol. 3, no. 3, March, 1990, p. 34.

⁴⁶Underhill, Ruth, **Indians of the Pacific Northwest**. Washington, D.C.: Bureau of Indian Affairs, 1945, p. 75.

⁴⁷Juntunen, Judy and Dasch, May, **The World of the Kalapuya: A Native People of Western Oregon**. Philomath: Benton County Historical Society/Museum, (draft, 1990), p. 4.2-4.3.

⁴⁸Kidder, Alfred II, "South American High Cultures" in Jennings and Norbeck, p. 466.

⁴⁹Kidder in Jennings and Norbeck, p. 470.

⁵⁰Brundage, Burr, **Lords of Cuzco: A History and Description of the Inca People in Their Final Days**. Norman: University of Oklahoma Press, 1967, p. 221-223.

⁵¹Brundage, p. 79-82.

⁵²Brundage, p. 328.

⁵³Coe, p. 68-71.

⁵⁴Illustration in Coe, p. 72; see also p. 73.

⁵⁵Coe, p. 74-75.

⁵⁶Coe, p. 76-77.

⁵⁷Waldman, p. 9.

⁵⁸Coe, 89-92.

⁵⁹Waldman, p. 10.

⁶⁰Gallenkamp, p. 80-81.

⁶¹Gallenkamp, p. 83-84; Wauchope, Robert, "Southern Mesoamerica" in Jennings and Norbeck, p. 356.

⁶²Wauchope in Jennings and Norbeck, p. 348.

⁶³Davies, Nigel, **The Aztecs**. Norman: University of Oklahoma Press, 1973, p. 128.

⁶⁴Davies, p. 91-92; Coe, p. 151.

⁶⁵Davies, p. 91-92, 118-120.

⁶⁶Coe, p. 152

⁶⁷Davies, p. 119.

⁶⁸Illustration after a photograph in Kopper, p. 20.

⁶⁹Kopper, p. 125.

⁷⁰Kopper, p. 150-154.

⁷¹Waldman, p. 20.

⁷²Waldman, p. 20.

⁷³Waldman, p. 22; Kopper, p. 71.

⁷⁴Kopper, p. 152.

⁷⁵Kopper, p. 71.

⁷⁶Noble, David Grant, **Ancient Ruins of the Southwest**. Flagstaff: Northland Press, 1981, p. 12-13.

According to Noble, Dr. Di Peso has compared the operation of Paquimé to a large Hudson's Bay trading post of the 18th-19th centuries, serving as a central hub for a network of traders and small, outlying posts. Like the Hudson's Bay Company, Paquimé functioned to link cultures as well as economies, and Mesoamerican beliefs and customs entered Pueblo life through this link.

⁷⁷Coe, 134-136. The discussion in Coe and in Noble, above, shows the establishment and maintenance of a highly evolved trade network joining the Mexican cities with the Pueblos for over 800 years. Professor Coe calls this linkage the "Turquoise Road" and compares it to the famed "Silk Road" between China and the Near East ast about the same period.

⁷⁸Waldman, p. 6; Kopper, p. 127, Griffin, James, "The Northeast Woodlands Area" in Jennings and Norbeck, p. 233-234.

⁷⁹Waldman, p. 20, 22.

⁸⁰Griffin in Jennings and Norbeck, p. 234; Sears, William, "The Southeastern United States" in Jennings and Norbeck, p. 264-265.

⁸¹Gunther, p. 250; Waldman, p. 43, 48.

⁸²Gunther, p. 249-251.

⁸³Gunther, Erna, **Indian Life on the Northwest Coast of North America**. Chicago: University of Chicago Press, 1972, p. 250.

⁸⁴Waldman, p. 48.

⁸⁵Ekholm, Gordon, "Transpacific Contacts" in Jennings and Norbeck, p. 496.

⁸⁶Kidder in Jennings and Norbeck, p. 458.

⁸⁷Kidder in Jennings and Norbeck, p. 465.

⁸⁸Kidder in Jennings and Norbeck, p. 478-479; Wissler, Clark, **Indians of the United States**. Garden City: Doubleday & Co, 1940, 1966, p. 327-328.

⁸⁹Kidder in Jennings and Norbeck, p. 481.

⁹⁰Kidder in Jennings and Norbeck, p. 470, 473, 480.

⁹¹Coe, p. 121-122, 154; Wauchope in Jennings and Norbeck, p. 352, 374, 382; Ekholm in Jennings and Norbeck, p. 496. Ekholm notes that the use of copper axes as money was also a feature of precontact Ecuadorian culture, although he speculates on no evidence that the practice arose there as a result of supposed contacts with China.

⁹²Wauchope in Jennings and Norbeck, p. 359-360, 374.

⁹³Coe, p. 144, 154, 166. See p. 140 in Coe for an example of a Mixtec gold pendant.

⁹⁴Highwater, p. 91; Waldman, p. 48; LaFarge, p. 43, 47; Dockstader, p. 17. Several illustrations in LaFarge (Plates VXIII-XXI) give a sense of early 20th century Southwest silverwork; Highwater shows a picture of a Kiowa "German silver" breastplate on p. 91.

⁹⁵Reed, Erik, "The Greater Southwest" in Jennings and Norbeck, p. 178, 181.

⁹⁶Griffin in Jennings and Norbeck, p. 238.

⁹⁷Coe, p. 38, 44, 100; Wauchope in Jennings and Norbeck, p. 332.

⁹⁸Kidder in Jennings and Norbeck, p. 455, 458, 462.

⁹⁹Kidder in Jennings and Norbeck, p. 471.

¹⁰⁰D'Harcourt, Raoul, **Textiles of Ancient Peru and Their Techniques**. Seattle: University of Washington Press, 1962, 1977, p. 7.

¹⁰¹D'Harcourt, p. 5.

¹⁰²Underhill, p. 110-114. An excellent source for further information on Northwest weaving is Paula Gustafson's **Salish Weaving**. Seattle: University of Washington Press, 1980.

¹⁰³Feest, Christian, **Native Arts of North America**. New York: Oxford Press, 1980, p. 117; also Drucker, Philip, **Cultures of the North Pacific Coast**. New York: Harper & Row, Publishers, 1965, p. 33-37.

¹⁰⁴Feest, p. 116, 118, 122-123, 126.

¹⁰⁵For illustrations, see the drawings by Molly Braun in Waldman, p. 55.

¹⁰⁶For rather unsympathetic descriptions of the use of animal skins in Indian medicine, see Catlin, George, **Letters and Notes on the Manners, Customs, and Conditions of North American Indians**. New York: Dover Publications, 1973, vol. I, p. 39-41 (Blackfeet shaman); see also Vogel, Virgil, **American Indian Medicine**. Norman: University of Oklahoma Press, 1970, p. 14-15, 27-28.

¹⁰⁷Sears in Jennings and Norbeck, p. 280.

¹⁰⁸Reed in Jennings and Norbeck, p. 181; Coe, p. 134-136.

¹⁰⁹Jennings, Jesse, "The Desert Southwest" in Jennings and Norbeck, p. 160-161.

¹¹⁰Feest, p. 131.

¹¹¹Coe, p. 158-159.

¹¹²Gallenkamp, p. 89.

¹¹³Meggors, Betty, "North and South American Cultural Connections and Convergences" in Jennings and Norbeck, p. 521.

¹¹⁴Brundage, p. 45-46, 119.

¹¹⁵Kopper, p. 17, 81, 149; see the photograph on p. 144 for the cat-man figure mentioned in the text.

¹¹⁶Lancashire, David, "Canada's Cultural Dynamo Enlightens While It Entertains", *Smithsonian*, vol. 20, no. 3, March, 1990, p. 115.

¹¹⁷Katz, Jane (ed.), **This Song Remembers**. Boston: Houghton Mifflin Company, 1980, p. 9-10, 17-18.

¹¹⁸The story of how the Cheyenne Womens' Quilling Society was formed is recounted in Grinnell, George Bird, **The Cheyenne Indians**. Lincoln: University of Nebraska Press, 1972, Vol. II, p. 385-391. Grinnell was a frequent visitor to Indian communities around the turn of the 20th century; his book on the Cheyenne was originally published in 1923.

¹¹⁹Resources for the study of the operations and influence of the traders on Indian artists in the Southwest are McNitt, Frank, **The Indian Traders** (Norman: University of Oklahoma Press, 1962) and James, H.L., **Rugs and Posts** (West Chester: Schiffler Publishing Co., 1988).

¹²⁰Gragg, Randy, "American Indian Artists Disagree Over New Arts Law", *The Oregonian*, Thursday, June 27, 1991, p. C5, quoting Rick West, Director of the Institute of American Indian Arts.

¹²¹Gragg, Randy, p. C5.

¹²²See an article by Randy Gragg entitled "American Indian Artists Disagree Over New Arts Law". *The Oregonian*, June 27, 1991, p. C5. Also relied upon for this section were comments on the legislative and business background of P.L. 101-644 presented by Ward Churchill in a workshop on American Indian arts at the University of Florida, December 8, 1991.

Index

- acid etching, 106, 135
adaptation, 2, 9, 18, 19, 24, 39, 81
Adena, 9, 27, 31, 32, 70, 75, 85, 129, 131
aesthetic, 101
aesthetics, 19, 105, 108, 124
Ahtna, 76
Ahuitzotl, 67, 136
Akapana, 52, 133
Alabama, 71, 136
Alaska, 39, 43, 45, 74, 76, 77, 98, 111, 117
Alaskan Native, 121
Albuquerque, 117
Aleut, 45, 77, 98
Aleutian Islands, 77
Algonkin, 24, 45, 50
Allen, Elsie, 139
alpaca, 88
Alta Vista, 74
Amazon, 7, 24, 50, 99
Amazonia, 85
American Indian Arts, 123
Anasazi, 34, 85, 99, 128, 135
Anchorage, 117
Andes, 25, 27, 29, 131
annealing, 75
antler, 7, 73, 105
Apache, 23, 43, 120, 139
appearance, 101
appliqué, 38, 93
appropriateness, 5, 98, 119, 123
Archaic, 9, 25, 26, 75, 127
architecture, 17, 34, 39, 44, 47, 49, 50, 51, 53, 55, 56, 60, 65, 68, 72, 104, 129, 131, 133, 137, 139, 140
Arctic, 3, 7, 20, 23, 46, 94, 98, 116, 131
Argentina, 24, 79
argillite, 20, 107
Arizona, 14, 32, 33, 34, 47, 106, 117, 118, 135, 136
Arizona was founded in 1976 and became a non-profit organization in 1981. Supported by grants from the National Endowment for the Arts, the Phoenix Arts Commission, the Arizona Commission on the Arts and other public and private foundations and donors, Atlatl helps train American Indian artists to market their works, arrange exhibitions and network with Indian and non-Indian artists and art organizations. Atlatl publishes annual directories of American Indian and Alaska Native artists, holds workshops around the U.S. on Indian arts and related issues, rents a videotape library about American Indian artist and the arts, and publishes newsletters about current events, opportunities and personalities in the world of Indian arts., 118
Arkansas, 32
Asah, Spencer, 21
Assiniboine, 121
Athabaskan, 43, 45, 46
Atlatl of .i.Phoenix, 118
Atzacapotzalco, 66
authentic, 19, 108, 120, 124
awareness, 1, 2, 3, 4
Aztec, 27, 56, 65, 67, 80, 81, 85, 100, 136
babiche, 97
backstrap loom, 86, 89
Bacone College, 122
baidar, 98
ball court, 56, 63, 131
barabara, 45
Basket Maker, 34
Basketmaker, 135
basketry, 6, 8, 9, 13, 14, 23, 84, 85, 99, 127, 139
Basketry, 10, 11
bas-relief, 57, 65
Bathurst Inlet, 76
batik, 26
beads, 7, 75, 78, 80, 93, 106
Begay family, 82
Begay, Harrison, 21
Begay, Harvey, 82
Begay, Kenneth, 82
Belize, 55, 127, 128
Belle Isle, 69
bidarki, 98
Blackfeet, 140
blankets, 84, 90, 92, 115
boarding schools, 112
Bolivia, 51, 133
Bonampak, 18, 134
bone, 7, 46, 73, 75, 98, 104, 105, 107, 108, 128
Bonita, Peña, 23
braiding, 84, 93
Brazil, 17, 127
British Columbia, 89, 90
bronze, 73, 79
buffalo, 95
bullboat, 98
burial mounds, 9, 50, 69, 70, 129
Burial mounds, 68
button blanket, 92
Caddo, 140
Cahokia, 71
California, 23, 41, 44, 45, 77, 99, 129
California Mission, 23, 139
Calusa, 109
camera lucida, 130

- Campbell, Ben Nighthorse, 82
 Canada, 45, 50, 93, 97, 98, 110, 113, 114, 115, 140
 Canadian Handicrafts Guild, 115
 Canadian Museum of Civilization, 140
 cancha, 53
 Caquetío, 48
 Cardinal, Douglas, 140
 Caribbean, 25, 26, 43, 48, 93
 Carlisle, 112
 carving, 6, 7, 20, 28, 52, 64, 69, 104, 105, 107, 109, 110, 127, 129, 130, 131, 133, 140
 Casa Grande, 135
 Casas Grandes, 74
 Castillio, 130
 Central America, 14, 23, 25, 26, 27, 49, 59, 79, 99, 127, 137
 Cenú, 48
 ceramics, 121, 139
 Chaco Canyon, 74
 Chalco, 25, 127
 Chanchan, 52
 Chavín, 51, 78, 128, 130
 Chavín de Huantar, 130
 Cherokee, 117
 Cheyenne, 82, 119
 Cheyenne Women's Quilling Society, 119
 Chiapa de Corzo, 129, 132
 Chiapas, 18, 26, 64, 129, 134
 Chicago, 36
 Chichén Itzá, 80, 134, 135
 chickees, 43
 Chihuahua, 74
 children, 103
 Chile, 25, 49, 79
 Chilkat robes, 90
 Chilkat Tlingit, 90, 111
 Chimú, 30, 49, 51, 52, 86
 Chocó, 48
 Cholula, 81
 Chuquitana, 51, 128
 Classic, 17, 18, 27, 31, 60, 64, 80, 85, 133
 clay, 128, 129
 Clay, 104
 clothing, 7, 8, 11, 86, 93, 94, 95, 96, 97, 99, 132, 133
 Coatepec, 67, 136
 Coatzacoalcos River, 56
 Cochise, 32, 33
 Coffey, Karita, 38
 coiling, 9, 15, 25
 collectors, 124
 college, 112
 Colombia, 25, 79
 Colorado, 33, 135
 Colossal Heads, 57, 129
 Columbia River, 41
 Comanche, 38, 81
 computer art, 6
 computer graphics, 113
 concrete, 64
 cooperatives, 115, 120
 Copan, 133
 copper, 73, 75, 76, 78, 79, 80, 131, 135
 Copper, 74, 76, 80
 Copper Inuit, 76
 Copper River, 76
 coppers, 76
 corbelled arch, 64
 cordage, 84, 97
 cotton, 85, 86, 89, 133
 cotton cloth, 85
 Cowichan, 90
 Coyoacan, 136
 crayon, 6
 Creek, 140
 Creek Council House, 140
 crystal, 73
 Cuba, 48
 Cuna, 48
 Cusabo, 136
 Cuzco, 52, 53
 Da, Popovi, 37
 Da, Tony, 37
 dance, 2, 3, 26, 93
 Dance, 130
 Danger Cave, 9, 127
 Danzante, 130
 Darien, 48
 Day Break Star Arts Center, 118
 Deganawidah-Quetzalcoatl University, 122
 Desert culture, 24, 127
 Desert Culture, 10, 127
 Desert cultures, 32
 dogs, 90
 doll, 104
 dolls, 103
 drawing, 121, 139
 drawing of metals, 80
 drilling, 7, 105, 106, 107
 drums, 98
 Duwamish, 50
 dyeing, 107
 dyes, 6, 7, 8, 133
 earthlodge, 44, 46
 East, 93
 Eastern Cherokee Tribe, 117
 Ecuador, 25, 51, 74, 78, 79, 80, 100, 127, 135
 Edaakie, Dennis, 83
 effigy mound, 69
 effigy mounds, 9, 70, 129, 136
 El Salvador, 55, 59

- engraving, 7
- Esmeraldas Province, 79
- etching, 7, 107
- Etowah, 71
- exhibits, 120
- fabrics, 27, 84, 85, 87, 88, 93
- Fairbanks, 117
- false column, 64
- false crest pyramid, 64
- fashion design, 121, 139
- feather, 37, 132
- feathered capes, 100
- feathers, 7, 74, 99, 100, 101
- Feathers, 84
- federally-recognized tribe, 125
- figurine, 10, 24, 26, 27, 28, 31, 32, 33, 103, 104, 109, 128, 129
- finger-woven textiles, 87
- First Mesa, 34, 35
- Florida, 26, 43, 109, 128
- Fonseca, Henry, 23
- Formative, 9, 25, 26, 27, 129
- Fort Rock Cave, 9, 127
- fresco, 17, 18
- Fresco, 134
- frieze, 51, 64
- fur, 84
- furs, 7, 96, 98, 123
- Furs, 95
- gabled roof, 54
- gabled roofs, 40
- gardens, 67
- geocultural group, 2, 3
- Georgia, 26, 71, 128, 136
- Ghost Dance, 138
- Gila Valley, 135
- Glacial Kame, 75
- glass beads, 18, 106
- glazes, 28
- glue, 8
- gold, 73, 74, 78, 79, 80, 82, 130
- Gran Chaco, 48
- Grand Canyon, 10, 36, 124, 128
- graphic arts, 121, 139
- graphic design, 113
- grave offerings, 33, 69
- Great Basin, 24, 41, 43, 45, 99
- Great Lakes, 24, 43, 74
- Great Plains, 7, 19, 24, 31, 39, 44, 45, 81, 90, 96, 97, 98, 119, 131, 137, 138
- grinding, 105
- Guamán Poma, 54
- guanaco, 88
- Guatemala, 18, 55, 63, 80, 130, 133
- Guetar, 48
- Gulf of Mexico, 129
- Haida, 76, 140
- hammering, 80
- Hano Pueblo, 34
- Haskell Institute, 122
- headdress, 100
- headdresses, 75, 95, 100
- Hidalgo, 134
- Hidatsa, 38, 131
- Highwater, Jamake, 9, 17
- hip-roof, 48
- hogan, 46
- Hohokam, 14, 33, 106, 130, 135
- Hondo River, 25, 127
- Honduras, 55, 56, 59, 133
- Hopewell, 31, 32, 70, 75, 131, 132
- Hopi, 21, 34, 35, 37, 82, 83, 121, 124, 135, 139
- Hopi Arts & Crafts Silvercraft Co-Op Guild, 117
- house, 13, 14, 39, 40, 42, 43, 44, 45, 46, 48, 49, 50, 69, 96, 97, 110, 129, 131, 132, 134
- Houser, Allan, 121, 139
- Houston, 116
- Huexotzingo, 81
- Huitzilopochtli, 67, 136
- Hyde, Doug, 121
- igloo, 46
- ikat weaving, 86
- Illinois, 71, 136
- imitations, 125
- Inca, 30, 51, 52, 53, 54, 86, 88, 100
- incising, 28, 105, 130
- Indian Arts and Crafts Act of 1990, 125, 126
- Indian Arts and Crafts Board, 114, 120, 124
- Indian Arts Research Center, 122
- Indian policies, 125
- Indian Pueblo Cultural Center, 117
- inlay, 38, 74, 83
- Institute of Alaska Native Arts, Inc., 117
- Institute of American Indian Art, 112
- Institute of American Indian Arts, 82, 120, 121, 138, 139, 140
- intaglio printing, 113
- Intihuasi, 53
- Inuit, 3, 7, 20, 39, 45, 76, 98, 102, 107, 113, 114, 115, 116, 133
- iron, 77, 78
- Iroquois, 24, 50, 137
- Itzcoátl, 66, 67
- ivory, 7, 107, 133
- Jaguar Knights, 95
- jeweler, 121, 131, 139
- jewelry, 7, 69, 72, 73, 74, 75, 77, 78, 79, 80, 82, 83, 108, 115, 121, 129, 135, 139
- Jirajira, 48
- Jones, Peter, 38
- Kabotie, Fred, 21
- Kalapuya, 50

- Kalasasaya, 52
 Kaminaljuyú, 133
 kayak, 98
 Keres, 35
 Key Marcos, 109
 Kiowa, 4, 21
 kiva, 47, 50
 Kotosh, 27, 51, 128
 L'Anse-Amour, 68
 La Quemada, 74
 La Venta, 56, 57, 58, 130, 131
 Lake Texcoco, 65, 66
 Lake Titicaca, 49, 51, 135
 language, 1, 3, 5, 108
 Las Holdas, 51, 128
 Las Victorias, 59
 Latin America, 108
 lean-to, 42, 43
 Lesou, 36, 37
 lithography, 113
 Livingston, Jake, 83
 llama, 88
 logic, 1, 2, 3
 Loloma, Charles, 82, 121, 139
 Lonewolf, Joseph, 38
 loom, 85
 looms, 86, 89, 137
 Lorenzo, 58, 130
 Los Naranjos, 59
 lost wax casting, 135
 lost-wax casting, 80
 Lost-wax casting, 80
 Louisiana, 32, 69
 Macon, 26
 Maidu, 23, 99
 Makah, 13, 110
 Mandan, 38, 131
Many Smokes, Many Moons, 9, 17
 marketing, 120
 Martinez, Julian, 37
 Martinez, Maria, 37
 mask, 58, 64, 69, 101, 114
 masonry, 51, 64, 128
 matting, 6, 8, 13, 40, 41, 43, 45, 85, 127
 Maxtlatzin, 66
 Maya, 18, 27, 48, 56, 60, 63, 64, 80, 85, 100, 128, 130, 131, 132, 133, 134, 135, 137
 meaning, 1, 5, 35, 100, 101
 media, 2, 5, 6, 7, 8, 18, 32, 109, 112, 113
 medicine, 98
 Medicine Flower, Grace, 38
 Mesa Verde, 135
 Mesoamerica, 27, 50, 55, 56, 59, 74, 78, 79, 80, 81, 93, 99, 128, 131, 135
 metal tools, 75, 76, 77, 78, 79, 80
 metallurgy, 18, 135
 Metís, 140
 Mexica, 66
 Mexica see Aztec, 65
 Mexico, 13, 17, 18, 19, 25, 26, 27, 31, 32, 33, 43, 44, 46, 47, 48, 49, 55, 64, 74, 79, 80, 85, 94, 99, 129, 130, 134, 136
 Mexico City, 67, 136
 Michoacan, 80
 Midwest, 31
 Mimbrenño, 34
 Mimbrenños, 33
 Mimbres, 33, 134
 mirror, 74
 mirrors, 78, 130
 Miskito, 48
 Mississippi, 32
 Mississippi River, 31, 43, 68, 70, 75, 134
 Mississippian, 31, 32, 70, 75, 99, 134, 136
 Missouri River, 44
 Mixtec, 27, 48, 80, 85
 Mochica, 29, 30, 51, 52, 131, 132
 Moctezuma Ilhuicamina, 66
 Mogollon, 32, 33, 46, 134
 molds, 25
 Momaday, N. Scott, 4
 Monagrillo, 25, 127
 Monk's Mound, 71
 Monongye, Jesse, 83
 Monte Albán, 130, 131, 133
 mosaic, 58, 64, 74, 130
 motif, 32, 35, 37, 59, 125
 mounds, 50
 Moundville, 71
 mountain goat, 90
 multimedia, 140
 mural, 100, 134, 139
 music, 1, 2, 3
 Musk Ox Producers' Co-Op, 117
 Namingha, Dan, 121
 Nampeyo, 34, 35, 36, 37, 124
 Naranjo, 37
 Natchez, 32
 National Museum of Anthropology, 81
 National Museum of the American Indian, 139
 naturalism, 29, 31
 Navajo, 21, 22, 34, 46, 81, 82, 83, 88, 115, 135, 137
 Navajo Arts and Crafts Guild, 115
 Navajo Tribal Museum, 118
 Nazca, 30, 51, 132
 netting, 93
 Nevada, 41
 New England, 24
 New Mexico, 32, 33, 37, 73, 74, 117, 120, 139, 140
 Newark, 70

Newfoundland, 69
 Nez family, 82
 Nez Percé, 121
 Nezahualcoyotl, 66
 North America, 7, 9, 14, 23, 24, 26, 30, 32, 39, 68, 71, 76, 77, 81, 85, 93, 94, 127, 132, 134, 136, 138
 North Carolina, 117
 Northeast, 40, 50, 75, 98, 106
 Northwest, 20, 23, 40, 50, 74, 76, 88, 89, 92, 93, 102, 107, 110, 111, 114, 132, 140
 Northwest Indian College, 122
 Northwest Territories, 76
 Northwest. Also, some .i.Peru, 86
 Oaxaca, 80
 observatories, 63
 observatory, 131
 Ocmulgee, 140
 Ocmulgee Mounds, 26
 Ohio, 70, 129
 Ohio River, 9, 27, 71, 72, 129
 Ojibwe, 121
 Oklahoma, 71, 140
 Oliver, Marvin, 113
 Olmec, 27, 56, 57, 58, 128, 129, 130, 131
 Onondaga, 38
 Oraibi, 135
 Oregon, 3, 9, 24, 50, 118, 127
 Osage, 22
 Ottawa, 140
 oxidizing firings, 28
 Ozette, 13, 110
 paint, 6, 7, 8, 18, 26, 30, 33, 34, 36, 45, 52, 57, 64, 93, 96, 97, 100, 104
 Paint, 134
 painter, 20, 121, 139
 painting, 2, 16, 17, 19, 121, 124, 127, 129, 139
 palace, 17, 53, 54, 63, 64, 67
 Palenque, 63, 64
 Panama, 25, 48, 127
 Panther Cave, 17, 129
 Paquimé, 74
 parfleche, 97
 pearl, 73
 pecking, 105
 Pecos River, 17, 129
 Pedra Furada, 17, 127
 Peebles, 70, 129
 pencil, 6
 performing arts, 121
 Peru, 20, 25, 27, 29, 30, 51, 52, 53, 78, 85, 86, 87, 88, 128, 129, 130, 131, 132, 133, 135
 Phoenix, 33, 118, 131
 photography, 6, 121
 pigments, 6, 7, 127
 Pima, 33, 130

Pinto, 129
 pithouse, 42, 44, 46, 47, 131
 Pitseolak Ashoona, 114
 plaiting, 14, 15, 84, 93
 Plateau, 24, 40, 45
 platinum, 73, 74, 79
 plaza, 53, 57, 60, 63, 131
 pok-ta-pok, 56
 Polacca, 35
 polishing, 7, 27, 30, 37, 73, 78, 105, 107, 130
 Polishing, 28
 polychrome, 28, 38, 99
 Pomo, 99, 139
Pomo Basketmaking
A Supreme Art for the Weaver, 139
 porcupine quills, 119
 portrait, 137
 portraits, 29, 131, 137
 post-and-lintel, 64
 Post-Classic, 27, 60, 80
 potlatch, 77
 potter, 121, 131, 139
 pottery, 6, 20, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 100, 121, 124, 127, 128, 130, 131, 132, 134, 136
 Pottery, 7, 24, 69, 129
 Poverty Point, 69, 71
 Preclassic, 61
 Prince of Wales Island, 77
 print making, 113, 121
 prints, 114
 process printing, 113
 public buildings, 52
 pueblo, 34, 47, 50
 Pueblo, 32, 34, 36, 44, 73, 74, 81, 128, 134, 135, 136, 137
 Pueblo Revival, 140
 Pueblo to People, 116
 pyramid, 51, 57, 59, 63, 67, 71, 130
 Pyramid of the Moon, 59, 60, 130, 132
 Pyramid of the Sun, 59, 60, 129, 132
 Qualla Arts & Crafts Mutual, Inc., 117
 Quetzalcoátl Topiltzin, 135
 Quimbaya, 79
 Quinault, 113
 Quonset hut, 40
 rackets, 97
 rawhide, 7, 97
 Rawhide, 97
 Red Jacket, 137
 reducing firings, 28
 Reid, Bill, 140
 relationship to the land, 4
 relationships, 1, 3, 7, 77, 96
 relationships to the land, 5
 relief, 30, 36, 37, 38, 52, 76, 78, 130

- relief printing, 113
- religion, 3, 5, 18, 27, 31, 50, 51, 59, 96, 101, 123
- répoussé technique, 75, 78
- research, 120, 121
- resist technique, 37
- rhea, 95
- Rocky Mountains, 31, 45, 90, 131
- roof comb, 64
- rugs, 115
- Sacsahuaman, 53
- Salado, 135
- Salish, 89, 90
- San Ildefonso Pueblo, 37
- San Juan River, 59, 131
- San Lorenzo, 56, 57, 59, 129
- Santa Clara Pueblo, 37
- Santa Fe, 120, 122, 138, 140
- Scholder, Fritz, 23, 139
- scrimshaw, 20, 107
- sculptor, 121, 131, 139
- sculpture, 19, 26, 27, 51, 69, 73, 100, 104, 108, 121, 128, 139, 140
- Seattle, 114, 118
- Second Mesa, 117, 135
- self-image, 4, 5
- Seminole, 43
- Seneca, 38, 137
- Serpent Mound, 70, 129
- shell, 7, 73, 104, 106, 107, 108, 135
- Shell, 106
- shields, 97
- Sierra Nevada, 129
- Sikyatki Pueblo, 34
- Sikyatki Revival, 35
- silk-screen, 113, 114
- silver, 73, 74, 80, 115
- Silver, 78, 81
- sinew, 7, 94
- sintering, 79, 83
- skin, 19
- skins, 7, 49, 93, 94, 95, 97, 98
- Skins, 96
- slips, 28, 36
- smelting, 79
- Smith, Richard Zane, 38
- Smithsonian Institution, 139
- Snaketown, 33, 131
- snowshoe, 98
- soapstone, 107
- South America, 8, 14, 23, 24, 25, 26, 27, 29, 39, 48, 52, 74, 79, 93, 95, 99, 135, 138
- South Carolina, 136
- Southeast, 24, 26, 31, 43, 49, 68, 93, 99, 128
- Southwest, 20, 21, 24, 32, 34, 35, 38, 44, 46, 47, 50, 56, 74, 81, 85, 89, 99, 115, 122, 124, 128, 130, 132, 134, 135, 137
- souvenirs, 124
- spindle whorl, 108
- Spiro, 71
- squash blossom, 82, 83
- St. Lawrence River, 24
- stamping, 28, 130
- steel tools, 18
- Stela C, 59, 132
- stelae, 57
- Stevens, Jacquie, 38
- stone, 6, 20, 36, 46, 49, 51, 52, 53, 64, 67, 69, 73, 75, 82, 104, 105, 106, 107, 108, 128, 129, 130, 131, 133
- stone technology, 107
- Subarctic, 8, 94
- Sub-Arctic, 45
- surface printing, 113
- sweaters, 90
- symbols, 1, 2, 3, 5, 19, 96, 97
- Tabasco, 56, 57, 130
- Tafoya, Margaret, 38
- Tafoya, Serafina, 38
- Taino Arawak, 26
- talisman, 103
- Tamaulipas, 13
- tanning, 96
- Tapajó, 24
- tapestry, 86
- Tapestry, 132, 133
- Tarahumara, 48
- Tarascan, 80
- temple mounds, 71
- Temple of the Danzantes, 130
- Temple of the Inscriptions, 63
- Tennessee, 136
- Tennessee River, 71
- Tenochtitlan, 66, 67, 68, 136
- Teotihuacan, 17, 31, 56, 59, 60, 73, 85, 129, 130, 132, 133, 134
- Teotihuacano, 27
- Tepanec, 66
- Tepantitla, 18
- Tequiquiac, 127
- termination, 125
- Tewa, 34, 37, 121, 124
- Texas, 17, 44, 116, 127, 129
- Texcoco, 66
- textiles, 86, 93, 95, 124, 128, 130
- Tezcatlipoca, 67
- Tiahuanaco, 51, 52, 133, 135
- Tikal, 18, 63, 130, 133
- tin, 74, 80
- tipi, 7, 19, 44, 45, 49, 96
- tlachli, 56
- Tlaloc, 18, 67, 136
- Tlalocan, 18

- Tlapacoya, 26, 128
 Tlatelolco, 66, 67, 81, 136
 Tlatilco, 27, 59
 Tlingit, 76, 77, 78
 Tohono O'odham, 33
 Toltec, 27, 31, 63, 67, 73, 134, 135, 136
 Tonalá River, 57
 tools, 105, 106
 Toppenish, 118
 totem poles, 111, 132
 Totonac, 27
 tourism, 114, 124
 trade, 5, 14, 19, 24, 25, 26, 27, 31, 32, 59, 73, 74, 75, 77, 81, 85, 90, 92, 93, 95, 99, 107, 115, 123, 125, 129, 132
 trade marks, 120
 transformation, 101
 Tres Zapotes, 56, 58, 131
 Tsaybetsaye, Edith, 83
 Tula, 31, 134
 Tunyo Polychrome, 37
 turquoise, 73, 74, 81, 132
 Tuxtla Statuette, 132
 twilling, 13
 twining, 15, 84, 85, 93, 99
 umiak, 98
 understanding, 1
 United Indians of All Tribes Foundation, 118
 University of Washington, 113
 Usahal, 13, 110
 Utah, 9, 33, 127
 Valdiva, 25, 127
 Valley of Mexico, 25, 26, 27, 59, 65, 81, 127, 128, 129, 132, 136
 Valley of Oaxaca, 130
 Vancouver Island, 90
 vaulted arch, 65
 Vera Cruz, 131
 Veracruz, 56, 129
 vertical frame looms, 86, 89
 vicuña, 88, 95
 vision, 4
 visual arts, 1
 wampum, 106
 Warm Springs, 118
 Warm Springs Tribal Museum, 118
 Washington, 24, 89, 110, 118
 wattle and daub, 43
 Waurá, 24
 weaving, 6, 8, 14, 15, 84, 85, 86, 88, 89, 132, 137
 Weller, Louis L., 140
 West Baffin Eskimo Cooperative, 115
 West Baffin Inuit, 114
 White Patio, 17
 Whitehorse, Emmi, 22
 wickiup, 43
 wigwam, 43
 Willamette River, 50
 Window Rock, 118
 Winnebago, 38
 women, 14, 86, 119, 133, 139
 Women, 24
 wood, 6, 23, 48, 67, 69, 98, 104, 106, 109, 110, 124, 128, 129, 132, 133, 134
 Wood, 110
 Woodlands, 40, 43, 68, 98, 106, 129
 Woodring, Carl, 22
 wool, 7, 86, 88, 90, 108, 133, 137
 Wounded Face, Tex, 38
 Wyandot, 38
 Xingu River, 24
 Yakima, 41
 Yakima Nation Cultural Center, 118
 yarns, 89
 Yucatán, 55, 63, 80, 137
 Yukon, 43
 Zacatec, 74
 Zapotec, 27, 80, 130, 131
 zinc, 80
 Zócalo, 136
 Zuni, 33, 35, 81, 83