

c. 25,000 B.C.E.

**SAN PEOPLES CREATE EARLIEST AFRICAN ART**

*More than thirty thousand examples of rock art by a people called the San have been identified in Namibia, including paintings in rock shelters and engravings on large boulders and open rock surfaces.*

**LOCALE:** Namibia, Africa**CATEGORY:** Prehistory and ancient cultures**SUMMARY OF EVENT**

The San, a Khoisan-speaking people also known as the Bushmen, were a Stone Age people who inhabited southern Africa in what is now modern Namibia and Botswana. As hunter-gatherers, they lived in groups within what was most likely an egalitarian society. Today the San occupy the Kalahari Desert and have no longer have a rock art tradition, but more than thirty thousand documented examples of their ancestors' rock art have been identified in Namibia. This coastal country on the Atlantic Ocean has evidence of two basic types of rock art: paintings in rock shelters and engravings more commonly found on large boulders and open rock surfaces. Among the major sites of these images are the Apollo 11 Cave, the Brandberg monolith, Tweyelfontein, and Piet Alberts Kopjes.

The earliest known examples of San rock art were discovered at a rock shelter known as the Apollo 11 Cave, located in the Huns Mountains of southern Namibia. There, eight painted stone fragments were excavated in organic debris. The debris associated with these fragments has been dated between approximately 27,000 and about 2,000 B.P. (before the present). This period, while not necessarily applicable to the rock paintings themselves, establishes the time in which the stones were introduced from another area. Nevertheless, these images are believed to represent the oldest art on the continent of Africa. Imagery on the stone surfaces at Apollo 11 (so called because it was excavated by Wolfgang E. Wendt in 1969, the same year in which the spacecraft of the same name landed on the Moon) represents animals painted in solid black or red, with some drawn in outline. One curious animal appears to be a composite of an antelope and a lion, while others represent single indigenous animals.

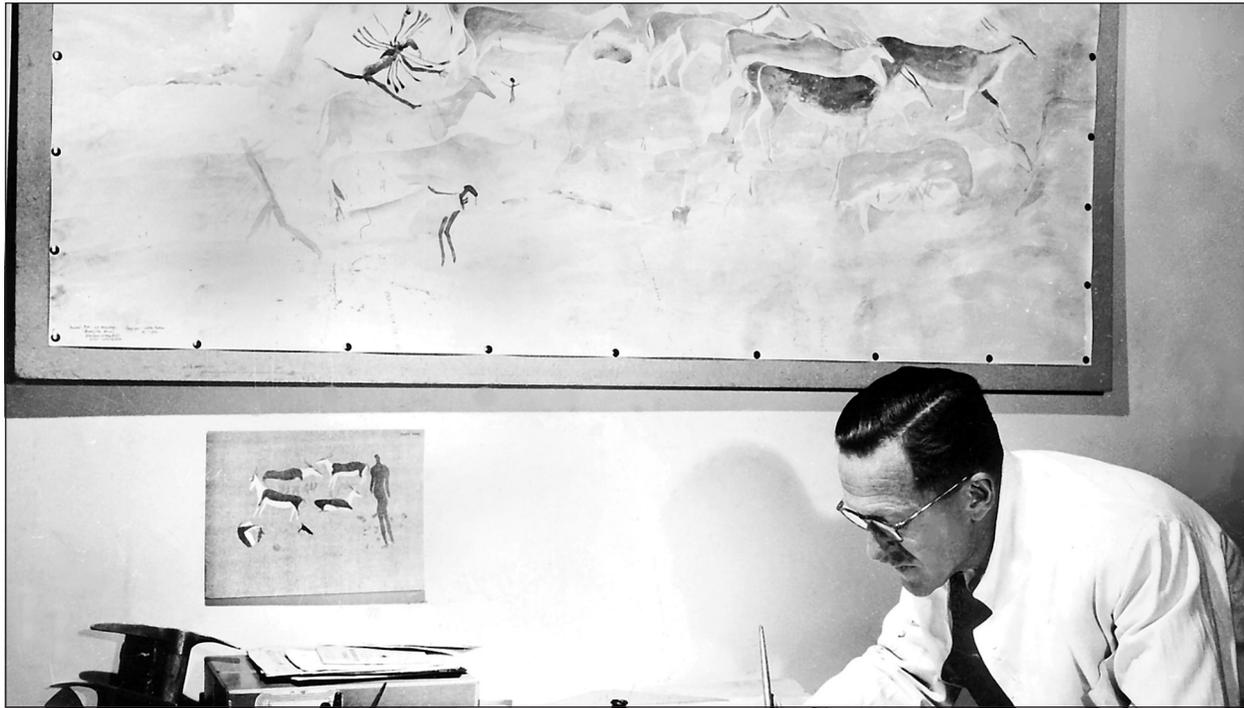
In the Namibian interior, on the edge of the Namib Desert, the granite outcropping known as Brandberg Mountain, approximately 2,600 meters (8,550 feet) high, houses approximately one thousand sites containing some fifty thousand rock art paintings. In the Tsisab

Gorge in the Brandberg, archaeologists have found remarkable painted human figures dating to 2000 B.P. The figures are both standing and in motion, walking, in procession or possibly dancing. Surface detail appears on some figures possibly representing body painting or decorative ornamentation such as jewelry. Scholars have wondered about the meaning of white dots found on ankles, on knees, and in the hair. White ostrich-shell beads used in this region may be represented, or an abstract religious meaning could apply. One of these figures, the so-called White Lady (neither white nor a lady but more likely the image of a shaman), was described by its discoverer, Reinhard Maack, in 1918 as the most detailed rock painting he had ever seen.

Tweyelfontein, in Damaraland, has more than twenty-five hundred images, predominantly engravings on sandstone boulders. This site was first recorded in 1921 and was made a national monument in 1952. It is home to both paintings and engravings, rare for a single site. Moreover, the engravings at this site are very dense.

The range of subject matter in San rock art includes animals, humans, animal tracks, and abstract shapes, with humans and animals predominant. In Namibian rock engravings, there is a ratio of 16 animals to 1 human; in rock paintings, humans dominate animals by a ratio of 2 to 1. Among animal types, the giraffe and oryx were the more frequently painted in the Brandberg. It is important to note the lack of landscape or physical settings within either painting sites or engraving sites. The compositional relationship of images to one another in any environment at any one moment in time is unclear, especially because some images are superimposed on others. In general, both humans and animals are depicted in the prime of life without injury or disease. Animals and humans were represented to be unmistakable to the viewer. Using a twisted perspective, the artists depicted the features of their subjects as they best understood them. Torsos, for example, were depicted frontally, while legs, hips, and heads were shown in profile.

Red, brown, and yellow ochre were the main colors employed. Usually pigments contained no organic carbon; most came from ground minerals. Black was acquired from manganese ores; whites from clays, calcite, or quartz; red from iron oxides. Application of pigments was intended to fill in flat areas with color to form images. While no modeling is evident, some forms are clearly distinguished by the use of outlines.



A San Peoples cave painting, copied in watercolor, hangs on the wall above a South African researcher who is copying other cave paintings. (Hulton/Archive)

### SIGNIFICANCE

There has been no agreement among scholars as to the meaning or content of the large body of San rock art. Several possible reasons for these works may include documenting events, religious ceremonies, and hallucinatory or trance experiences. In addition, scholars have postulated the use of these images to teach or communicate, especially about animals and geographic resources. The controversy over the images' use is ongoing, however. Images of repeated animal tracks, for example, were once thought to be instructional, helping adults to teach children about hunting. Today scholars have called this assumption into question, wondering, for example, why so many tracks of the same animal would be engraved if their purpose was merely to identify the animal. Today's San, moreover, learn from watching other hunters, not from formal symbolic instruction. One hypothesis is that the images of the tracks really are associated with images of ancient shamans in animal form.

Questions regarding sex or gender distinctions in Namibian rock art have been addressed in the Brandberg paintings. This area appears to be distinct, especially when compared with other south African rock art, in that there is no apparent conventional division of gender roles

by showing the majority of humans without any clear indication of sex, age, or status. It is significant that, at the Apollo 11 Cave for example, although a few of the images suggest different roles for women and men, the vast majority of these images suggest no distinction in gender roles.

Ethnographic studies combined with historic documentation of thousands of works of rock art currently indicate two significant facts. One dated fact is that the San peoples of Namibia were the first art-producing peoples in Africa. Second, San images reflect their surrounding animal environment as well as their ritual experiences.

—Patricia Coronel and Michael Coronel

### FURTHER READING

Barnard, Alan. *Hunters and Herders of Southern Africa: A Comparative Ethnography of the Khoisan Peoples*. New York: Cambridge University Press, 1992. A thorough anthropological overview of the Khoisan.

Dowson, T. A. *Rock Engravings of Southern Africa*. Johannesburg, South Africa: Witwatersrand University Press, 1992. Good for numerous illustrations covering the breadth of engraved imagery.

Garlake, Peter. *Early Art and Architecture of Africa*. New

York: Oxford University Press, 2002. Chapter 2 offers an excellent overview of southern African rock art, including interpretive approaches by leading scholars. Guenther, Mathias. *Tricksters and Trancers: Bushman Religion and Society*. Bloomington: Indiana University Press, 1999. Combines early historiography and recent ethnography to explain figurative forms that surface in Bushman rituals and religion. Lewis-Williams, J. D. *Believing and Seeing: Symbolic*

*Meanings in Southern San Rock Paintings*. London: Academic Press, 1981. Connects painting imagery with San beliefs and ritual practices.

**SEE ALSO:** c. 16,000-c. 3000 B.C.E., BaTwa Peoples Thrive in Central Africa; c. 15,500 B.C.E., Early Australians Create the Bradshaw Rock Paintings; c. 15,000 B.C.E., Early Europeans Create Lascaux Cave Paintings.

25,000 - 10,001 B.C.E.

### c. 18,000-c. 11,000 B.C.E.

## BERING STRAIT MIGRATIONS

*Using a land bridge between modern-day Siberia and Alaska, the first human beings arrived in North America and gradually moved east and south into South America, populating these two continents.*

**LOCALE:** Beringia (now the Bering Strait, between Siberia and Alaska)

**CATEGORY:** Prehistory and ancient cultures

### SUMMARY OF EVENT

About two million years ago, for reasons not entirely understood, earth's temperature began to fall. In the north, more snow fell in winter than melted in summer, and great sheets of ice formed on the landmasses. These glaciers went through a series of advances and retreats—sliding forward under the influence of gravity and melting back under warmer climatic conditions.

At the same time, a group of primates (monkeys, apes, and their relatives) was evolving in Africa. This group had already developed the ability to walk on their hind limbs rather than on four feet, thus freeing the forelimbs for functions other than locomotion. Climatic change had initiated a drying trend in Africa, replacing rain forests with grasslands and savannas. Several species of the two-legged primate group had successfully invaded the grassland environment and spread throughout Africa. Well into the Ice Age, late-developing species migrated north into Europe and Asia, using tools, animal skins, and fire to cope with the cold. Some members of one species, today called *Homo sapiens* (literally, wise human), eventually moved into frigid Siberian environments.

Eastern Siberia and western Alaska were not covered by glaciers, even at the height of glacial advance. Although the climate in these unglaciated regions was cold, a number of large mammal species (mammoth, mastodons, giant bison, and others) had invaded the northern

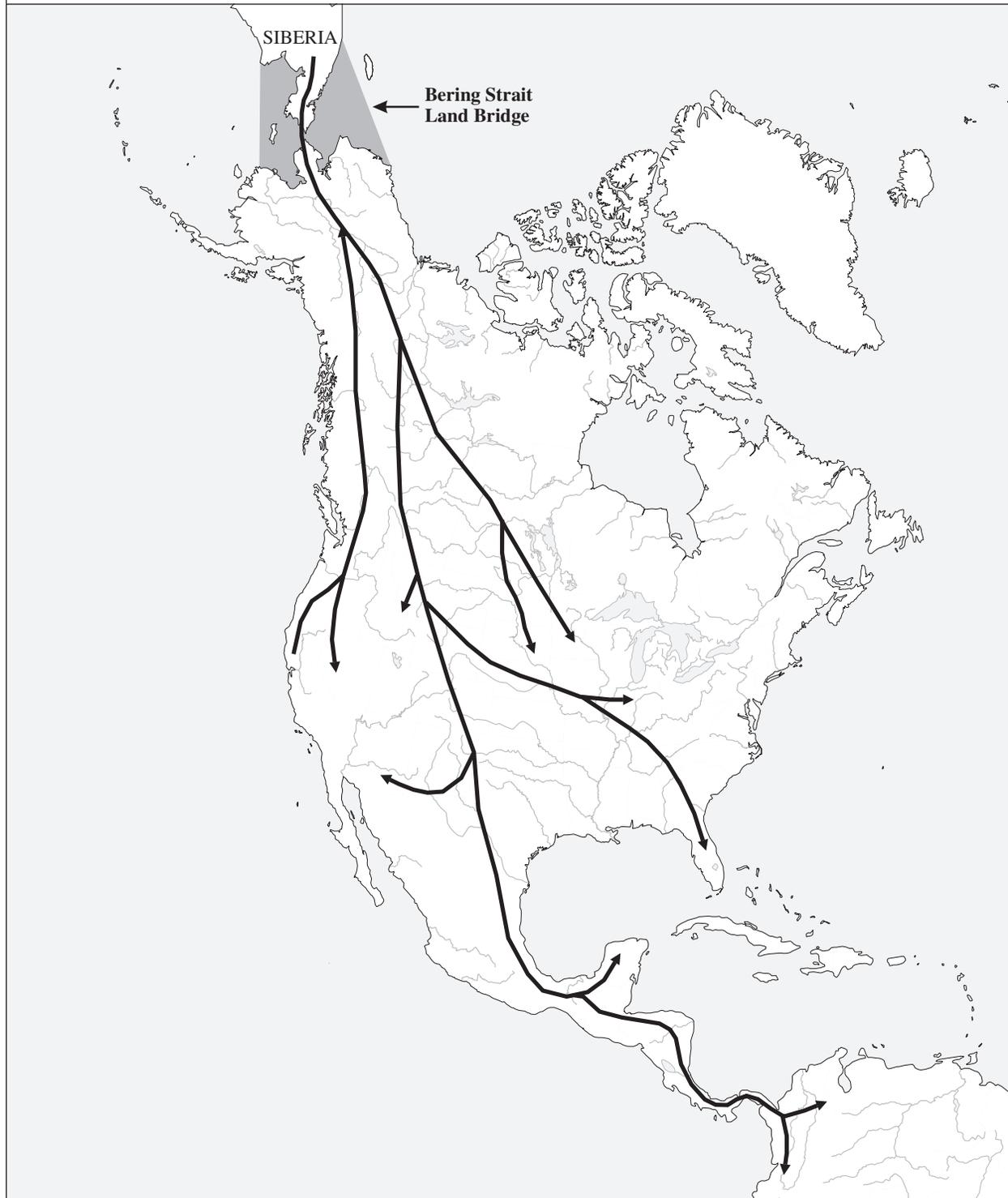
environment ahead of the humans. The newcomers probably used many food sources, but they became especially skilled at hunting the large animals.

Tremendous amounts of water were required to build the continental glaciers. That water came primarily from the most abundant source of water on the planet, the oceans. As a result, each advance and retreat of the glaciers was accompanied by dramatic changes in sea level—the sea rose as glaciers melted and fell with each glacial advance. Today, only about 50 miles (80 kilometers) of water separate Siberia from Alaska across the Bering Strait. The Bering Strait is less than 200 feet (60 meters) deep, and the adjacent parts of the Chukchi and Bering seas are not much deeper. Because of this, a strip of Bering Strait and adjacent sea floor 1,000 miles (1,600 kilometers) wide became dry land whenever extensive glaciation occurred. Along with adjacent parts of Siberia and Alaska, this region is called Beringia. When the glaciers were in full retreat, the Bering Strait reformed, splitting Beringia and placing a barrier between the two continents.

The sea level rose and fell throughout glacial times, and the connection between Alaska and Siberia was established and broken repeatedly. Various land organisms crossed the bridge when it was available, but exchange between the continents was blocked when it was inundated. Mammoths, mastodons, camels, horses, and many other species of animals and plants crossed throughout the Ice Age, but humans probably did not reach northeastern Siberia until the most recent glacial advance.

In North America, the last glacier (the Wisconsin) advanced until approximately sixty thousand years ago, at which time it began a retreat called the mid-Wisconsin interglacial. Fewer than thirty thousand years ago, it began its final advance (the late Wisconsin glaciation) fol-

### BERING STRAIT MIGRATIONS, C. 18,000-C. 11,000 B.C.E.



*According to one theory, the first people to arrive in North America traveled over a land bridge between modern-day Siberia and Alaska. Once on the continent, they gradually spread southward and eastward.*

lowed by its most recent retreat, which began eighteen thousand years ago. It was during or after the mid-Wisconsin interglacial that humans from Siberia made their way across Beringia into North America.

This migration was not a directed, purposeful movement to a new continent. It is unlikely that the first Americans had any sense of their role in history or the nature of continents. The migration probably was the simple result of growing populations expanding into new regions, perhaps drawn by the presence of herds of the large mammals they were so adept at hunting.

The populations continued to expand throughout Alaska and adjacent Canada but were restricted from much of Canada by two major glacial masses. The Laurentide ice sheet covered most of Canada and much of the northern United States, from the East Coast to the Rocky Mountains. The second mass of ice resulted from the coalescence of a number of mountain glaciers into a single glacial complex, the Cordilleran glacier located between the Rockies and the coastal mountain ranges.

During glacial advance, the two ice masses probably met and blocked the migrants' route south. However, when the glaciers melted, a corridor opened between them. The migrants moved south through Mexico and Central America, and on to the tip of South America. As the most recent glacial retreat continued, the first Americans expanded their range into all parts of Canada as well.

Anthropologists and archaeologists call these first Americans (or their immediate descendants) Paleo-Indians. Many details of relationship and pathways of descent are not known, but the Paleo-Indian culture gave rise to another widespread culture, called the Archaic, around 7000 B.C.E. Approximately two thousand years ago, the Archaic culture began to give way to the mound-building culture of eastern North America (the Adena, Hopewell, and Mississippian), the agricultural groups of the southwestern deserts (the Hohokam, Mogollon, and Anasazi), and other cultures. Some time before 1500 C.E., these prehistoric cultures gave rise to the Native American tribes that were later displaced by European settlement. Some archaeologists argue that a similar sequence of cultural replacement took place in Mexico and Central and South America, culminating in the Inca, Aztec, and Mayan civilizations decimated by the Spanish conquistadores in the 1500's.

One of the most vituperative arguments in the history of science centers on the question of when the first Americans arrived. A few students of the question argue for dates earlier than the mid-Wisconsin interglacial, and

some argue for entry times more than thirty thousand years ago (during the mid-Wisconsin interglacial) or around 18,000 B.C.E., during the last glacial maximum, but many favor from 15,000 to 11,000 B.C.E.

The basis for the most popular position is the widespread occurrence of a particular type of spear point found at archaeological sites all over North America, sites determined to be between 11,500 and 10,500 years old. These sites constitute the first recognized North American Paleo-Indian culture, now called the Clovis culture because it was established on the basis of finds in Blackwater Draw near Clovis, New Mexico. Because the culture was so widespread, archaeologists assume that Native Americans must have been on the continent some time before the Clovis dates. Discoveries at sites such as Meadowcroft Rockshelter in southwestern Pennsylvania and Cactus Hill and Saltville in Virginia support the idea that other cultures preceded the Clovis culture. At these sites, archaeologists found artifacts that are very different from and are significantly older than those found at Clovis. Although many archaeologists believe that the first immigrants spread from Beringia to Tierra del Fuego and throughout both continents, the discovery of sites that appear to predate the Clovis culture in South America have caused others to believe that South America may have been populated separately, perhaps even earlier than North America.

Evidence based on Native American languages, tooth anatomy, and genetics suggests that there were at least three migrations of different Siberian peoples into North America. The first group of migrants gave rise to most Native American groups. One of the later migrant groups was ancestral to the Navajo, Apache, and some western Canadian tribes; the Eskimo (Inuit) and Aleut peoples derived from the other group. Each migration probably involved movement of many subgroups through an extended time period. Some archaeologists believe that marine travelers, along the coast or across open seas, may have contributed to the colonization as well.

#### **SIGNIFICANCE**

Although the timing and details of the colonization of North America are unsettled, most archaeologists agree on its basic character. Northern Asiatic people crossed Beringia into North America and spread fairly rapidly throughout North and South America. These people, with possible contributions from earlier and later (and perhaps seagoing) immigrants, developed into the multitude of Native American groups present when Europeans "discovered" the continents. By the most conservative

estimates, ancestors of the Native Americans who met the European explorers and colonists more than five hundred years ago had occupied the Americas for more than twelve thousand years.

—Carl W. Hoagstrom

#### FURTHER READING

Adovasio, J. M. *The First Americans: In Pursuit of Archaeology's Greatest Mystery*. New York: Random House, 2002. An examination of the first human beings to populate the Americas. Bibliography and index.

Dixon, E. James. *Bones, Boats, and Bison: Archeology and the First Colonization of Western North America*. Albuquerque: University of New Mexico Press, 1999. Dixon looks at the archaeological evidence surrounding the peopling of North and South America. Bibliography and index.

\_\_\_\_\_. *Quest for the Origins of the First Americans*. Albuquerque: University of New Mexico Press, 1993. An archaeologist discusses the first Americans in the context of his own research. Illustrations, index, bibliography.

Fagan, Brian M. *Ancient North America: The Archaeology of a Continent*. 3d ed. New York: Thames and Hudson, 2000. A consideration of the first Americans in the context of North American archaeology. Illustrations, index, bibliography.

Jablonski, Nina G., ed. *The First Americans: The Pleistocene Colonization of the New World*. Memoirs of the California Academy of Sciences, no. 27. San Francisco: California Academy of Sciences and University of California Press, 2002. A collection of papers from the fourth Wattis Symposium held in October, 1999, discussing various aspects of the peopling of the Americas. Bibliography and index.

West, Frederick Hadleigh, and Constance F. West, eds. *American Beginnings: The Prehistory and Palaeoecology of Beringia*. Chicago: University of Chicago Press, 1996. This collection of essays examines topics concerning the Bering land bridge, including excavations in the surrounding area. Bibliography and index.

**SEE ALSO:** c. 13,000 B.C.E., Humans Enter the South American Continent; 13,000-c. 7000 B.C.E., Paleo-Indian Culture Flourishes in North America; c. 9500-c. 9000 B.C.E., Clovis Culture Rises in New Mexico; c. 9000-c. 8000 B.C.E., Cochise Culture Thrives in American Southwest; c. 8800-c. 8500 B.C.E., Folsom People Flourish in New Mexico; c. 8000-c. 4000 B.C.E., Plano Culture Flourishes in Great Plains Area; c. 8000-c. 1000 B.C.E., Archaic Indians Adapt to Warmer Climates; c. 7700-c. 1000 B.C.E., Native Cultures Flourish on the North Pacific Coast; c. 7200 B.C.E., Kennewick Man Lives in North America.

### c. 16,000-c. 3000 B.C.E.

## BA TWA PEOPLES THRIVE IN CENTRAL AFRICA

*The BaTwa were ancient hunter-gatherer peoples of central Africa who have been believed to represent the life and culture of "primordial" humans.*

**LOCALE:** Central Africa (present-day Rwanda, Burundi, Uganda, and the Congo Basin)

**CATEGORY:** Prehistory and ancient cultures

#### SUMMARY OF EVENT

Scholarly knowledge of BaTwa history before 3000 B.C.E. is sparse. What is known about the BaTwa ancestral communities in ancient times and even before the nineteenth century comes from the available archaeological data. The fact that hunter-gatherers utilized large territories over relatively short periods of time and may have commonly reused many tools and products, combined with the reality of decay and disintegration of material culture in humid forest climates, makes it difficult to recover historical evidence to reconstruct a consistent cultural

profile for BaTwa in earlier millennia. Based on available data that have been recovered for the period 16,000-3000 B.C.E., it is evident that the BaTwa ancestral communities were hunter-gatherers who made use of Stone Age technologies. Less definitive is whether the various scattered communities categorized as BaTwa descend from a shared common language and how far back that language might be traced. The oldest proposed date for a BaTwa ancestral community is fifty thousand years ago.

Although the BaTwa are thought to have descended from ancestral BaTwa who inhabited the central regions of the African continent by about eighteen thousand years ago, in the present, not all BaTwa speak a common BaTwa language; rather, they have adopted Bantu, Central Sudanic, and even French dialects. Modern-day BaTwa are typically referred to by the derogatory term "Pygmies" and are defined not so much by their language and cultural or ethnic practices as by their lifestyle of

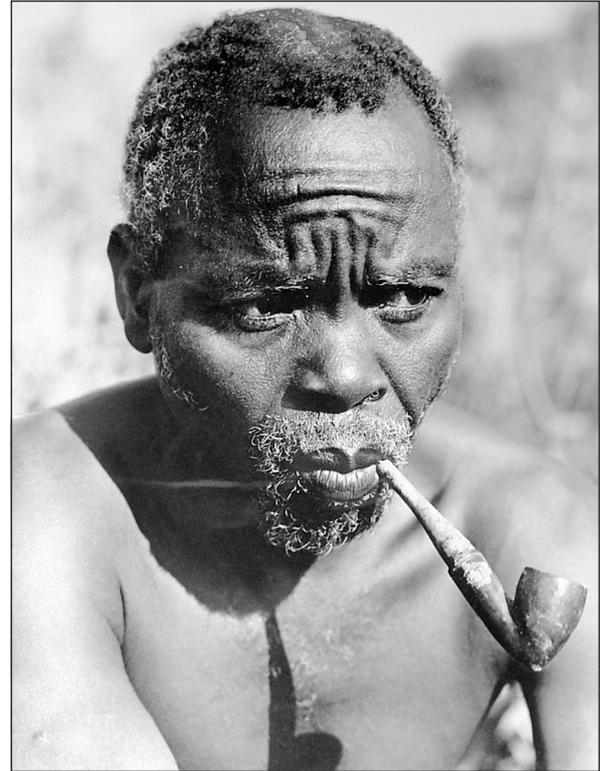
forest-based hunting and their physiology, a noticeably short average stature that is a direct function of environment and diet.

Archaeologists have uncovered a set of microlithic stone tool technologies in the Rwanda-Burundi forest regions that indicate that the ancestral BaTwa predominantly inhabited areas around modern-day Rwanda and Burundi until about five thousand years ago. The archaeological evidence for a claim of BaTwa occupation of the areas in the northeastern Congo Basin has been analyzed and connected to the Tshitolian tradition to the west in the central Congo Basin, a connection that indicates a widespread hunting-gathering network of communities possessing a common tool tradition.

Tshitolian Stone Age technology emerged on the fringes of the equatorial forest and is distinct from the central African Savanna microlithic tradition. Tshitolian appears to be an innovation on Lupemban traditions beginning in about the thirteenth millennium B.C.E., at which point tools began to decrease in size and became, more typically, double-sided blades also known as backed blades or parallel-sided blades. In the denser forested river valleys of Zaire, Gabon, Congo, and Cameroon to the west of Rwanda and Burundi, there are high proportions of the backed blades in the archaeological record. The microlithic tools appear to have been displaced by larger tools, particularly in the savannas, where presumably a different set of economic practices was pursued and different foods consumed. Those who lived on the forest fringes could be distinguished economically and culturally from those BaTwa inhabiting the dense forests based on tool assemblages and the more abundant material culture indicative of settled agricultural communities on the forest fringes.

The BaTwa historically practiced hunting and gathering economies whereby they acquired both food for their own consumption and items to trade with neighboring agriculturalists from about the fourth millennium B.C.E. By 4000 B.C.E., the Bantu had moved into and begun to cultivate lands surrounding dense forests that happened to be inhabited by BaTwa hunter-gatherers in southern Cameroon. The proximity of these distinct communities facilitated the trading of Bantu cultivated food resources, iron, and pottery for the favored forest products—honey, forest meat, and medicinal products from forest roots and plants—acquired by BaTwa.

All that is presently known of BaTwa artistic culture through historical evidence is that the musical tradition included flutes and whistles and that dancing emphasized choreographed foot movements as opposed to fo-



25,000 - 10,001 B.C.E.

*The modern BaTwa are believed to be descendants of the ancient group. This BaTwa man, photographed in 1954, made his living by making earthenware. (Bettmann/Corbis)*

cus on bodily movements. BaTwa produced barkcloth as well as stools with woven seats. Whether such utilitarian art was produced before Bantu contact c. 3000 B.C.E. is not yet known.

BaTwa social, economic, political, and cultural practices are not well understood beyond the fact that they were hunter-gatherers who inhabited rain forests, and who lived in small, semisedentary or nonsedentary bands. Limited types of material culture have been reconstructed in connection with the BaTwa; there is significant evidence of hunting apparatus, but almost nothing to indicate specific cultural practices, clothing, or housing styles has been uncovered. To a great extent, these hunter-gatherers used the crossbow in hunting and employed microlithic stone tools. After 3000 B.C.E., there was also use of Bantu iron tools that the BaTwa most likely obtained through trade.

#### **SIGNIFICANCE**

The BaTwa ancestors may have been one of the first “modern” African communities that formed in the dense

forest regions of the continent fifty to eighteen thousand years ago. The ancestors of modern day BaTwa would have been primarily food collectors and may have been culturally and linguistically linked to other hunter-gatherers of the western equatorial rain forests of central Africa. The easternmost BaTwa would have inhabited forested lands of modern-day Rwanda and Burundi. The westernmost BaTwa had extensive trade relations with Bantu agriculturalists, at least since the fourth millennium B.C.E.

BaTwa ancestry is one of the great unanswered questions of African history. The various BaTwa communities are distinguished from each other in scholarly literature according to language and culture. Although they are distinguished from the Bantu, Sudanic, Cushitic, and even Khoisan language communities, BaTwa cannot necessarily be traced to a single ancestral community and may have been historically connected to one or all of the aforementioned language families. There is no strong linguistic evidence to indicate a single BaTwa ancestral language, but there is ancient technology that is common in various regions in which historical hunting and gathering territory has been identified.

Present-day hunting-gathering communities of the wider Congo Basin that are considered BaTwa are the Twa in the regions around Lake Kivu; the Gesera and Zigaba in Rwanda and Burundi; the Binga, Beku, Bongo, Jelli, Koa, Kola, Kuya, Rimba, and Yaga in the far west along the Atlantic coast; and the Aka, Efe, and Mbuti of the Ituri forest in northeastern Democratic Republic of Congo (Zaire). BaTwa are typically linked to other BaTwa because of their physical size and reliance on hunting and gathering as a central part of food acquisition. Paradoxically, Rwanda's approximately thirty thousand Twa today speak a dialect of a Bantu language, and although they are not always so petite in height that they are conspicuously different from Hutus and Tutsis, they do typically practice hunting and gathering (though not always to the exclusion of cultivation or livestock keeping). Thus, those referred to as "Pygmies," or Twa, for the past 150 years most commonly spoke a Bantu or Central Sudanic language, may have been taller than 5 feet (150 centimeters) in height, and may have combined agricultural food production practices with those of hunting and gathering.

Although the majority of BaTwa have been forced to abandon the hunting and gathering lifestyle, there is a subgroup within the Twa, referred to as the Impunyu, who have managed to sustain forest life and, in the twenty-first century, continue to live in the Nyungwe forest of Rwanda. Whether the BaTwa populations, which

predate the bordering agricultural peoples, were of a common linguistic or cultural origin remains to be uncovered, but what is certain is that hunting and gathering populations have long inhabited the forests of central Africa and have practiced similar types of economies and shared a common tool technology.

The notion that "Pygmies" are relics or vestiges of the ancestral human type remains unproven and is an untenable theory. Because historical processes change all communities over time, modern-day BaTwa cannot be viewed as examples of how ancient peoples lived because they too have incorporated elements of various Bantu cultures, commercial trade, and even European languages into their lives for at least the past five millennia.

—Catherine Cymone Fourshey

#### FURTHER READING

Booth, Graham, et al. "Voices of the Forest." Africa National Geographic Television, Tigress Productions 2001. A documentary that presents modern-day Baka (a BaTwa group) and their lifestyle and social struggles.

Klieman, Kairn A. *The Pygmies Were Our Compass: Bantu and BaTwa in the History of West Central Africa, Early Times to c. 1900 C.E.* Portsmouth, N.H.: Heinemann, 2003. The history of Central African BaTwa of Congo and Gabon and their social and economic relationships with Bantu-speaking peoples in the forest regions.

Lewis, Jerome. *The BaTwa Pygmies of the Great Lakes Region.* London: Minority Rights Group International, 2000. This report focuses on the human rights of modern-day BaTwa descendants.

Ntibazonkiza, Raphaël. *Au royaume des seigneurs de la lance: Une Approche historique de la question ethnique au Burundi.* Brussels: Bruxelles Droits de l'Homme, 1992-1993. Focuses on the ethnic and cultural relations among BaTwa, Hutu, and Tutsi in Rwanda and Burundi. There is some attention to the origins of the BaTwa, but this work focuses primarily on contemporary issues related to democracy. In French.

**SEE ALSO:** c. 25,000 B.C.E., San Peoples Create Earliest African Art; c. 10,000 B.C.E.-c. 1 C.E., Saharan Peoples Create Rock Art; c. 9000-c. 7000 B.C.E., Nilo-Saharan Peoples Produce Food and Pottery; c. 7000-c. 6000 B.C.E., Khoisan Peoples Disperse Throughout Southern Africa; c. 400 B.C.E.-c. 300 C.E., Bantu Peoples Spread Farming Across Southern Africa; 3d century B.C.E., Commercial City of Jenne Is Founded on Niger River.

c. 15,500 B.C.E.

**EARLY AUSTRALIANS CREATE THE BRADSHAW ROCK PAINTINGS**

*Almost twenty millennia ago, members of a sophisticated hunter-gatherer culture in northwest Australia created thousands of images, known as the Bradshaw paintings, on rock walls.*

**LOCALE:** Kimberley region of northwest Australia

**CATEGORIES:** Prehistory and ancient cultures; cultural and intellectual history

**SUMMARY OF EVENT**

The Kimberley region is in the northern section of western Australia and includes the King Leopold mountain range, from which several rivers descend to the Indian Ocean. North of the mountain range are plateaus of grassland, but land travel over the mountains remains difficult. In 1838, one of the earliest nonindigenous visitors to the area, the British explorer Sir George Grey, described the Kimberley as the roughest terrain he had ever seen. Grey discovered a group of rock paintings now described as belonging to the Wandjina period, the youngest epoch of paintings in the region. The rocks in this region are extremely ancient, more than 400 million years old, and it is believed that certain unique climatic and chemical factors preserved the paintings by embedding them in the sandstone. Grey's published drawings of these images stirred excitement in the academic world.

In 1891, explorer Joseph Bradshaw, along with his brother, was surveying the upper Price Regent River in the Kimberley area for potential grazing land. He found a "gallery" of remarkable paintings and was struck by their appearance.

I rode out and found that the river at this place emerges through a gorge in the sandstone range . . . in the secluded chasms of these rocks were numerous aboriginal paintings which appeared to be of great antiquity . . . some of the human figures were life-size, the bodies and limbs very attenuated, and represented as having numerous tassel-shaped adornments appended to the hair, neck, waist, arms and legs . . . the figures are endowed with a strong feeling of reality and graceful movement.

During the century after the initial discovery, more than one thousand paintings were found within an area covering approximately 19,300 square miles (50,000 square kilometers), and thousands more undiscovered or undocumented galleries are believed to exist. The Bradshaw family name was given to this style and epoch of paint-

ings, which represent some of the oldest known human artifacts.

Later expeditions, including the German Frobenius expedition of 1938, provided further documentation of the vast range of sites, and the Bradshaw rock art was eventually divided by style into four major categories: The oldest are the Tassel Figures, which portray extensive ornamentation; followed by the Sash Figures; the Elegant Action Figures, which are shown running and hunting; and the more abstract Polychrome Clothes Peg Figures, believed to be the most recent.

The precise antiquity of the paintings is unknown, and estimates reach as far back as 60,000 years. In 1996, Grahame L. Walsh, one of the most active researchers of Bradshaw art, discovered a means to establish the minimum age for some of the paintings. He found a Bradshaw painting that was partly covered by a fossilized-mud wasp nest. By using the luminescence method, scientists were able to determine the age of single grains of quartz embedded in the nest, showing that the painting underneath the nest was made at least 17,500 ( $\pm 1,800$ ) years ago. Other paintings dated using the radiocarbon method appear to be younger, but there is little doubt that a wide span of human history is represented. Traditional carbon-dating technology is problematic in the case of the Bradshaw paintings because with the passage of time, the original pigments were infused into the rock itself as petrified shades of mulberry red, impervious to rain, wind, and the curiosity of scholars.

The connection between the ancient Bradshaw paintings and the Aboriginal Australians of modern times is not clear, and the topic remains highly controversial. In some Aborigine legends, the images were painted by birds, who pecked the rocks until their beaks bled and used their tail feathers to paint with their own blood. Although Aboriginal peoples living in the immediate area have dismissed the paintings as being of little significance and of a time before theirs, other Aboriginal groups have identified them as part of their heritage and wish to restrict access to them. Although the Bradshaw paintings remain enigmatic, there are proven connections between contemporary Aboriginal cultures and later rock art styles, which are also found in other regions of Australia. Still ancient by Western standards, the newer styles have striking features of their own, including simultaneous representation of interiors and exteriors (this technique is sometimes referred to as X ray).

Walsh of the Bradshaw Foundation has suggested a possible Asian origin for the people who created the Bradshaw art. He points out that the Kimberley shoreline is only about 300 miles (480 kilometers) from Indonesia and was even closer during the last Ice Age, permitting waves of immigration. However, other than the paintings themselves, material remains of the culture that produced the images have been very sparse, so researchers have focused on the content of the pictures to gather clues about the people. For example, boomerangs are included in some of the paintings, suggesting a connection to more recent Australian cultures, but other details, such as the elaborate headgear with tassels, are very unfamiliar. Some of the animals represented in the paintings are now extinct, and this has attracted the interest of paleontologists and bio-historians.

#### SIGNIFICANCE

Understanding the Bradshaw art is an ongoing challenge that will require the joint efforts of scholars from many disciplines, and these activities are likely to continue for many years. Aside from the technical issues mentioned above, the sheer volume of the material is daunting; of an estimated 100,000 Bradshaw galleries distributed over 19,300 square miles (50,000 square kilometers) of rough terrain, only a handful, estimated at between 1 percent and 2 percent of the total, have been documented.

The International Rock Art Research Team (IRART), which has representatives from the United States, Canada, and Denmark as well as Australia and began its work in 1998 under the guidance of Per Michaelsen of James Cook University, has been collecting data and conducting new analyses using digital photography. Walsh, who was awarded the Thompson Medal by the Royal Geographical Society in 1990 for his many years of research on the Bradshaw paintings, continues to advocate for the preservation of the paintings, which are potentially threatened by artifact poachers and corrosion from industrial pollutants.

Most researchers agree that the Bradshaw paintings can provide valuable information about human life at the end of the last ice age. Because of the wide scope of time represented, changes in subject matter of the Bradshaws suggest human responses to significant environmental changes during the last glacial-interglacial cycle. The early Bradshaw images show abundant plant material, and the later images show more weapons, a possible re-

sponse to an increasingly dry climate with dwindling food supplies.

Aside from questions about one of the earliest known human civilizations, there is strong consensus on the aesthetic value of Bradshaw art. The Bradshaw artists' use of powerful, dynamic silhouettes, especially in the Elegant Action Figures genre, has been compared to the work of the twentieth century French artist Henri Matisse, whose silhouettes of dancing human figures are especially well-loved. The elongated human figures in the ancient art from Kimberley are frequently portrayed in graceful, balanced postures that seem to be on the verge of escaping gravity. Many of these earliest depictions of human clothing show that our forebears of the last ice age, with tassels flying away from their heads, shared our desire for personal ornamentation.

—Alice Myers

#### FURTHER READING

McCarthy, Frederick. *Australian Aboriginal Rock Art*. Sydney, Australia: Australian Museum, 1958. General survey of Australian rock art and paintings. Illustrated.

Mowaljarlai, David, and Jutta Malnic. *Yorro Yorro: Aboriginal Creation and the Renewal of Nature*. Rochester, Vt.: Inner Traditions, 1993. Rock paintings and stories of the Wandjina people, the other major group in the Australian Kimberley region. Color plates, glossaries.

Walsh, Grahame L. *Australia's Greatest Rock Art*. Bathurst, N.S.W., Australia: E. J. Brill/Robert Brown, 1988. An examination of rock art by an expert in the field.

\_\_\_\_\_. *Bradshaw Art of the Kimberley*. Toowong, Qld.: Takarakka Nowan Kas, 2000. In this work, Walsh focuses on the Bradshaw paintings of the Kimberley area. Illustrations and colored maps.

\_\_\_\_\_. *Bradshaws: Ancient Rock Paintings of North-West Australia*. Carouge-Geneva: Edition Limitee, 1994. Published for the Bradshaw Foundation, this is the definitive source of information on the subject. Includes illustrations, maps, photographs, and diagrams.

**SEE ALSO:** c. 25,000 B.C.E., San Peoples Create Earliest African Art; c. 15,000 B.C.E., Early Europeans Create Lascaux Cave Paintings; c. 10,000 B.C.E.-c. 1 C.E., Saharan Peoples Create Rock Art; c. 3000 B.C.E., Australian Aborigines Create Wandjina Cave Paintings.