MOUND BUILDERS OF THE ANCIENT WORLD

Introduction

"Mound-Builders!" Henry Clyde Shetrone wrote in a more innocent time, "What magic in the very word; what an epitome of all that is romantic and mysterious in human experience! Mere mention of the name suffices to conjure visions of a shadowy race dimly viewed across the ages—come from no one knows whence, gone no one knows whither."

Described simply, mounds are piles of dirt. Yet, these heaps of rock and soil have long inspired poetry. Herodotus, the Father of History, described the burial of a Scythian king, writing that the strangulated bodies of concubines, cup-bearer, cook, groom, lackey, messengers, and horses were placed around the king and that men "set to work and raised a vast mound over the grave, all of them vying with each other and seeking to make it as tall as possible." Tacitus described Caesar laying "the first sod" on a grave "in welcome honour to the dead." The Iliad relates how Achilles built a mound over the remains of his friend, Patroclus, and how Hector, the slayer of Patroclus, was buried in a mound as well.

Definition

The word mound (also called tumulus, earthwork or barrow) refers to banks or ridges intentionally built of earth, sand, stone, or other natural material. Cairns and pyramids are types of mounds. A heap of stones, erected in a conical form is a cairn. A huge structure which has a square base and four triangular sides meeting at a point (Egypt) or a flat surface (the Americas) is a pyramid.

Geographical Distribution

It would appear that sometime during the last ice age, humans began to build mounds. Britain probably has the earliest chamber mound tombs of Western Europe (4650 B.C.). These tomb mounds were built above ground, often to standard measure, of elaborate stonework. Some tombs had a corbelled roof, others a capstone which weighed from 30 to 100 tons. The tomb and its 20 meter passageway were covered with a cairn or mound. Similar mounds, dating to approximately the same time, were found in Iberia, Ireland, and Scotland. Eventually mounds were being built in all parts of the inhabited world. The fact that mounds appear to have been developed independently in the New World adds further interest to the mound builders of the ancient world.

Function of Mounds

Although mounds were constructed for a variety of reasons, their primary use appears to have been for mortuary purposes. Mounds also had other functions: military, agricultural, stockade, ceremonial, sacrificial (altar) or cremation, effigy, observatory, and habitation. At times mounds served a number of social purposes. For example, some Hohokam mounds were used for habitation, storage, ceremonies, and burials.

The intended function of a mound had some influence on its shape and design. Ceremonial mounds in the Americas, for example, are frequently identifiable by stepways leading up to the top of the mound. Otherwise, the shape of mounds often varies by geographical area. Chinese burial mounds are tent-shaped, Siberian mounds are saucer shaped, Adena mounds are conical, and Mexican and Egyptian mounds are truncated pyramids. Effigy mounds were built to resemble wild animals and humans.

Construction of Mounds

Mounds range in size from small (a single burial) to very large; Cahokia (Monk’s Mound) in Illinois is 16 acres at its base and 30 meters tall, one-half the size of the Pyramid of the Sun at Teotihuacan. The Newark Works in Licking County, Ohio, had a base covering 6.4 square kilometers. The pyramid of Cheops had a base of slightly more than 13 acres and was nearly 150 meters tall. Mounds may occur alone or, as in Peru, in a cluster of up to 25 mounds, or as at Cahokia, up to 120. Generally mounds were built of stone, earth, turf, chalk, limestone, and other/or local or imported materials (e.g., shells and oolitic stones). The raw materials generally were available locally, but at times they were imported from 100 kilometers or more. Many...
mounds were built only of soil, some were of adobe bricks, a few were of masonry, or even, like Pueblo Grande, of masonry and adobe. Perhaps the best-known dry masonry mound structures were built in South America by the Inca.

When one studies the vast proportions of mounds it is difficult to understand how they were constructed without superior technology, such as cranes or pulleys. Yet, laborers had little beside wooden spades, baskets, buckets, skins of animals, clay vessels, and stone implements. In England, it was said that mourners brought buckets of soil from their home to the funeral location to add to the buckets full of soil brought by others in order to build the mortuary mound or barrow. Even some of the largest mounds were apparently built, perhaps during successive generations, by the accumulation of bucketful after bucketful of soil or stone after stone. The amount of fill required to construct a mound often was tremendous. It probably took at least 20,000,000 50-pound basketloads of soil to build the mounds in Poverty Point (Alabama), an amount over 35 times the cubage of the Egyptian pyramid of Cheops. The pyramid at Cheops was built of 2,300,000 stone blocks averaging 2.5 tons each in weight. Herodotus suggested that it took 100,000 men twenty years to build this pyramid.

Types of Mounds

Agricultural Mounds, called raised agricultural features (mounds, raised, ridged and terraced gardens), are landscape modifications that help improve agricultural production by making food production more dependable and efficient. Moisture availability, soil fertility, and air and soil temperature are a few of the limiting factors that influence primary production in any ecosystem. As the quality and quantity of any of these factors can influence any society, mounds have been built in all parts of the inhabited world to ameliorate the effects of these limiting factors.

Raised agriculture features varied in size from about one square meter to several thousand square meters, and heights varied from less than one square meter to three or four square meters. Materials for their construction were usually available locally. The function of the raised agricultural features varied in accordance with the limiting factors already mentioned. For example, in areas with excessive moisture (local flooding) raised features served to elevate crops above the water level, thus preventing root waterlogging. When the flood waters receded, flood deposited sediments were used to rebuild and to fertilize the raised area. These agricultural features also can influence temperature. As the altitude of an area increases, the surface (substrate) temperature also changes. Cold air is denser than warm air and it tends to migrate downward. Air temperatures at higher elevation, even if the difference is as little as one meter, tend to be warmer. Plants growing at the higher elevation tend to suffer less from debilitating or killing frosts. Man, by building mounds, was able to influence temperature and control both soil quality (fertility) and water quantity and thus improve agricultural output.

Burial Mounds could contain one, several, or many individuals. In one Hopewell Mound, over 1000 individuals were buried. The burial could occur in one of two ways: the chamber to contain the body was dug into an already constructed mound or a mound was built over the body which was laid upon the ground. In the mound, one might find an entire body, the cremated ashes of a body, or disarticulated bones in a bundle. The objects accompanying the body were usually of a personal nature, mostly articles of personal adornment or implements and utensils. Often these articles were ritually "killed" by intentionally breaking them. On occasion birds or animal bones were placed in a burial and a sacrificial or purifying fire was built on top of the burial.

Ceremonial Mounds. This category includes sacrificial or altar mounds and temple mounds. Temple Mounds were often flat on the top. Some of these mounds did contain burials; however, rituals appear to have been the primary purpose. Squier and Davis wrote that altar mounds occurred only in the vicinity of "enclosures or sacred places" and that they were stratified and contained "symmetrical altars of burned clay or stone; on which are deposited various remains which in all cases have been more or less subjected to the action of fire" (Mound City near Chillicothe, Ohio). The caches of offerings placed in the fires on these sacrificial mounds apparently consisted of cherished possessions, both personal and tribal.

Garcilaso de la Vega (el Inca), influenced by the diaries of men who marched with de Soto through Florida, described temples standing on high artificial mounds. Of the temple interior at Talomeco, Garcilaso wrote that it contained 12 wooden statues carrying clubs spiked with diamonds and strands of pearls strung along the ceiling. On the temple floor were chests of pearls piled high. There were so many pearls, he recorded, that it would have been impossible for the Spanish to carry them all away.

According to Webster's New Collegiate Dictionary, an effigy is "a representation or image." Piles of earth and/or stone in the shape of animals and humans are called Effigy Mounds. Perhaps the most well known effigy mounds are in the Midwestern United States. Thousands of effigy mounds were built in the upper Mississippi Valley region, but many were destroyed before they could be studied.
systematically. The largest number of effigy mounds appear to have been located in Wisconsin, where as many as 5,000 once may have existed, with effigy mounds also found in Illinois, Ohio, Iowa, South Dakota, Georgia, Michigan, Missouri, and Minnesota.

Effigy mounds were present in a variety of forms, including bears, birds (eagles, swallows, and geese), buffalo, lizards, turtles, snakes, panthers, and humans. Most of these forms were represented in profile, but some were depicted as though to be seen from above. Generally no more than six feet (2 meters) in height, many of the mounds were quite large in areal extent, with some mounds over 150 meters in length. In some cases, the mounds were built on top of clay or stone foundations, other times simply on native soil. Effigy mounds usually occurred with other lineal and conical mounds, or with other effigy mounds, and occasionally as isolated mounds. Dates obtained from charcoal remains in Iowa mounds indicate that they were built between A.D. 1 and A.D. 1300.

The function of these mounds is not clear. Only about half of the mounds contained burials, including individual and bundle burials, often with the burials located centrally within the effigy head, midway between the shoulder and hip, or in the position of the heart. Some of the burials were deposited on altar-like platforms of stone, with grave goods sometimes present and sometimes not. Scholars have suggested that the mounds may have served several functions, such as territorial markers or political and ceremonial centers that established institutional means for maintaining economic and ideological relationships among different regional groups.

Effigy mounds in the Southwestern United States are rare. Giant earth figures (or intaglios) are common along the lower Colorado River, but these effigies are made of cobble outlines or by the removal of dirt and pebbles from the ground to form a pattern. A large serpent mound with a stylized head was built of masonry and soil at Casas Grandes in Northern Mexico between A.D. 1050 and 1250. This plumed serpent is 113 meters long.

**Fortress Mounds**, or prehistoric fortifications, were embankments of earth or stone or a combination of the two which enclosed the tops of hills and other strategic and inaccessible locations. They appear to have been purely defensive. Such mounds were widely used, but they were very common in Ohio (Fort Ancient and Fort Hill) and in Toltec times. **Habitation Mounds** consisted of large platform mounds upon which residences were built. Based on the rooms built at the top of Hohokam mounds, it is believed that they were occupied by families holding special status in their communities. Palaces, containing 30 or 40 rooms for priests and other officials, were built upon Maya low-stepped platforms.

**Hohokam Platform Mounds**
The construction of mounds by the ancient Hohokam began during the Colonial Period (after A.D. 600). Early mounds were constructed by the accumulation of sterile desert soil, over which caliche plaster was applied. These early mounds appear to have been ceremonial platforms where dances were conducted. During the Classic Period (A.D. 1100 - 1450), the Hohokam living along the Salt and Gila Rivers built approximately 40 platform mounds systematically spaced about every five kilometers along the irrigation canals. These later mounds were utilized as residences.

Construction techniques were elaborate: massive coursed adobe retaining walls were built in the shape of a well-defined rectangle, caliche-rich adobe was utilized, the space defined by the wall was filled with some combination of trash and sterile soil, and the whole was covered with a plaster cap. While archaeological studies of Hohokam mounds are limited, they nonetheless attracted the attention of such famous antiquarians as Frank Hamilton Cushing and Jesse Walter Fewkes. More recently, mounds have been excavated at the Escalante Ruin (near Florence) and at Las Colinas (in Phoenix). Arizona State University is presently undertaking a long-term study of the mounds in the Tonto Basin in the Roosevelt Dam Site.

In addition to those built in the Salt and Gila River Valleys, mounds were built along the northern, eastern, and southern margins of the Picacho Mountains, south of these mountains down into the Tucson Basin and in the Papagueria. These mounds were generally smaller.

**Poets and Prophets**
Scholars and poets in the Americas, educated in the classics, were fascinated by mounds. One question these early scholars addressed was the origin of the American Mound Builders. Fortuitous resemblances in physical characteristics and cultural material led to often fantastic hypotheses that the original ancestors were Siberians, Tartars, Chinese, Japanese, Malay, Polynesians, Norse, Danes, Irish, Basques, Welsh, Jews, Romans, Greeks, Phoenicians, Carthaginians, Egyptians or even Ethiopians. Plato influenced some of the more glorious explanations. While in his 70s, around 355 B.C., he composed a dialogue called *Timaeus* in which Critias related the story of Atlantis, an island said to be larger than Asia and Africa put together. Critias, who had heard the story from the great lawgiver Solon, who heard it from Egyptian priests, claimed that Atlantis was a place of great splendour and wealth with soaring palaces, vast canals, and beautiful parks which due to an earthquake and "a single day and night of rain . . . disappeared and was sunk beneath the sea."

In 1882, Ignatius Donnelly brought out his *Atlantis: The Antediluvian World*, a book which is still in print, having gone through fifty printings and several translations. Atlantis, he claimed, was the Garden of Eden, a region
where man first arose from barbarism to civilization. It became a mighty nation and its overflowing population migrated to many parts of the world. Donnelly's underlying idea was that all civilizations were derived from Atlantis and that mound builders were descendants of a colony of people from Atlantis who had lived in Mexico. To support his claim of a common origin for all Mound Builders, he cited the widespread flood and deluge legends and the use of tropical animals in their art, which pointed to contact with tropical Mexico.

The Scientific Study of Mounds
The mound builders dominated American imagination until well into the 19th century. A few men, Presidents Thomas Jefferson and William Henry Harrison among them, were more careful scholars. When the end of the Revolutionary War allowed Jefferson some time, he explored mounds on his land in Virginia. Although archaeologists of his day were usually treasure hunters, Jefferson's archaeological field work anticipated modern techniques by at least a century. Jefferson first dug a trial trench to get a preliminary understanding of a site, he continued digging until virgin soil was reached, and then meticulously recorded the juxtaposition of features. William Henry Harrison wrote *Discourse on the Aborigines of the Valley of Ohio* about the mounds adjacent to his southwestern Ohio home.

Among the most vigorous of the demythologizers of the mound builder legends was Major John Wesley Powell. Powell spent his Ohio childhood studying the mounds of Jackson and Ross counties. Digging in the mounds of Chillicothe, he found flint points and other artifacts. Later, as Director of the Bureau of Ethnology, he received a Congressional appropriation of $5000 which was to be expended in continuing archaeological investigation relating to mound-builders and prehistoric mounds. Powell appointed Cyrus Thomas to investigate mounds. In the *Annual Reports of the Bureau of Ethnology* the errors, inconsistencies, and exaggerations of prior studies were pointed out. Cyrus showed that the mounds were not all built by the same culture at the same time and that the animals represented in the art were not tropical species.

The destruction of the myth was done without a certain regret. Powell wrote in the 1890-91 *Annual Report of the Bureau of Ethnology*,

> It is difficult to exaggerate the prevalence of this romantic fallacy, or the force with which the hypothetic 'lost races' had taken possession of the imaginations of men. For more than a century the ghosts of a vanished nation have ambuscaded in the vast solitudes of the continent, and the forest-covered mounds have been usually regarded as the mysterious sepulchres of its kings and nobles. It was an alluring conjecture . . .

One hundred years later, it is still an alluring conjecture . . .

Suggested Reading

Denevan, W. M.

Gregory, David A.

Hurley, William M.
1986 The Late Woodland Stage: Effigy Mound Culture. In *Wisconsin Archaeology*, edited by William Green, James B. Stoltman, and Alice B. Kehoe, pp. 283-301. Published in cooperation with the Historical Preservation Division, State Historical Society of Wisconsin and The Wisconsin Archaeological Survey.

Silverberg, Robert

Squier, E. G. and E. H. Davis

Pueblo Grande Museum


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