## Native Earthen Architecture in Eastern North America

or at least 7,000 years people in eastern North America have made use of earth as a building material. Accumulations of various types of earth, including sand, loam, humus, clay, silt, muck, and loess, often in conjunction with other natural materials such as shell and stone, have been used to bury the dead, raise the living above the floodplain, elevate the social elite above the masses, symbolize political boundaries and mythic beliefs, and demarcate both sacred and secular space, transforming the natural world into a humanly defined landscape. Today, across the great expanse of the eastern United States, thousands of mounds and other mounded earthworks remain as tangible evidence of hundreds of nowvanished societies.

The variety of mounded earth formations included enclosures of public places, burial mounds of single individuals and multiple interments, mounds without burials that served as public monuments, places where communal feasting and ritual occurred, and elevations upon which the temples and residences of hereditary elites were placed. Monks Mound, an edifice near St. Louis, Missouri, was a truncated pyramid measuring 300 meters on each side and nearly 30 meters high. Built between c. A.D. 1000 and 1200, it reflects the intentional activity of thousands of people working together were a major source of food, as in coastal and riverine areas of the Southeast, the resultant architectural features stood as high as 15 meters and often were hundreds of meters long. Although often distinguished from mounds composed primarily of excavated soil by being called "incidental" rather than "purposeful" constructions, their sizes and geometrically distinct shapes belie this notion. These shell mounds served the same architectural functions as places of burials, enclosure, habitation, and symbolization as did their strictly earthen counterparts.

The effort required of leaders to gain the cooperation of builders to excavate earth and determine areas to place the building material, combined with the ceremonial and ritual behavior that went along with the construction, served to bring people together and substantiate their culture. Earthworks were viewed as symbols of the groups that made them, and they indicated their tenure in that area.

## Historical Trends in Earthen Construction

The earliest known earthen construction in Eastern North America dates to about 7,500 years ago. Located at L'Anse Amour, Labrador, it is a burial mound of a child, and it measures 10 meters in diameter and 1.5 m high. The mound was built by a small group of egalitarian hunter-

Typical Mississippian temple mound complex c. 1200-1450, southeastern United States. over long periods of time. However, the most prosaic of prehistoric mounds, often called mounded middens, were simple garbage dumps resulting from the disposal of cooking scraps and other debris. When used for short periods of time by few people, they may not have stood more than a few centimeters above the surrounding landscape. When commingled with accumulated soil, however, over time substantial mounding could result. In areas where shellfish



gatherers, typical of the kinds of societies that sparsely populated North America at the time.

By 5,000 years ago egalitarian hunter-gatherers still roamed the East, but populations had grown, and much larger earthworks began to appear. At the Watson Brake site in Louisiana, for example, a complex of 11 mounds was built between c. 5400 and 5000 B.P. The site extends over 300 meters, with seven of the mounds tied together by a circular earthen embankment. It is but the largest and most dramatic of a number of mound complexes built around this time in the Lower Mississippi Valley.

At the same time, large mounded shell and earthen sites were made along many of the rivers in the interior as well as along the Southeastern coasts. The interior riverine "Shell Mound Archaic" cultures of Kentucky and Tennessee participated in long-distance exchanges with societies in other parts of the continent, exchanging valuable raw materials like conch shell from the Atlantic and Gulf coasts and copper from the Great Lakes as well as elaborate finished goods, such as grooved and polished axes and decorated bone pins. Competition between individuals and societies for status increased and evidence of warfare appears in burials with embedded projectile points and other weapons trauma. These mounded middens sometimes contained formal cemeteries demarcating kin groups and territory.

Elsewhere, a notable shell-earthwork dating to 5,000 years ago is found at Horr's Island along the southwest Florida Gulf coast. There, analysis of food remains indicates a permanently settled community, the oldest known from North America. Remains of wooden structures, large sand and shell mounds, and a "ring" midden, which surrounded the site, indicate a relatively complex society compared to those that preceded it. This site combined with the contemporary mound complexes in Louisiana (which were occupied seasonally), were places where large numbers of people came together for at least some extended periods, and is the earliest evidence of the first steps toward the creation of more complex social organizations such as tribes, and eventually chiefdoms, which later built the majority of earthen works in the East.

The "ring" motif in monumental earthen architecture at Watson Brake and Horr's Island reached it apogee 1,000 to 2,000 years later on the coasts of South Carolina, Georgia, and Florida, where scores of circular shell rings up to four meters in height and ranging between 50 and 280 meters in diameter were built from shell and earth between 4,200 and 3,000 years ago. Their function is debated, but it is known that people lived on or adjacent to the rings, and the center "plazas" were kept clean, perhaps for public ceremony.

At about the same time, a most impressive monumental earthen architectural center was built at Poverty Point, Louisiana. The site contains a massive earthen mound, built in the idealized shape of a bird measuring more than 100 meters long and over 20 meters high, with six concentric earthen ridges extending almost one kilometer in diameter. The site is the largest feasting and trading center of a number of mound centers built by this culture, which participated

> in a vast exchange network spanning much of the lower Southeast.

Beginning about 3,000 years ago, groups throughout the Southeast and Midwest began a tradition of burying their dead in or below earthen mounds. Some of the earliest such mounds were small, and individuals were buried without elaborate burials goods. Collective burials were often placed in larger conical or rounded mounds. In these early mounds, most members of society were allowed burial entry; however, over time

Pritchard Landing, a Middle woodland mound complex c. A.D. 800, Ouachita Valley, Louisiana.



Horr's Island, a Late Archaic earthen and shell mound/ring complex c. 5,000 B.C., southwest Gulf coast Florida. mound burials were increasingly reserved for higher-status individuals, leaders in ceremony and exchange. As populations increased, certain elites gained more power and prestige. These individuals were the coordinators of the ceremonial and exchange network, directed monumental construction at the centers, and were privileged to receive elaborate burial treatment. High-status individuals have been found in log-lined tombs with rich grave offerings, and others beneath conical mounds massive in extent or



intricately constructed of differing textured and colored soils. A ceremonial and exchange network spanned much of the region at this time, and massive mound and earthwork complexes were built in several areas, including the Pinson site in western Tennessee, Marksville in Louisiana, and Kolomoki in Georgia. Numerous other equally large and smaller centers dotted the Eastern Woodlands.

In southern Ohio, the elaborate vast earthen enclosures of the Hopewell culture were built between 2,200 and 1,700 years ago. Some covered tens of acres and were shaped like circles, rectangles, squares, or octagons, often with long causeways leading to them. At this time effigy mounds were also constructed in the shapes of animals such as snakes, birds, panthers, lizards, and humans throughout the Midwest; while in the Everglades, strangely shaped and designed sites such as Fort Center, consisted of linear earthen embankments, mounds, ditches, and circles.

Besides extensive geometric earthworks, flat-topped mounds resembling truncated pyramids also appeared in several areas around the time of Christ, notably in the Southeast. These mounds appear to have been elevated stages where collective ceremony and feasting occurred. Some sites were large, with numerous mounds and extensive earthworks, while other sites were small, little more than single mounds that may have served as simple shrines.

Over time, the nature and function of mound complexes in the eastern North America changed. By A.D. 800, the individualistic geometric mound complexes that characterized earlier constructions had largely disappeared. Large mound and plaza complexes were now functioning as administrative and ceremonial centers of larger, hierarchically organized agricultural societies, or chiefdoms. Flat-topped mounds were now used as platforms upon which temples and elite residences were built, facilities reserved for the highest members of society. Some centers were the largest ever constructed in the East. The largest center, Cahokia in southern Illinois, encompassed hundreds of hectares and well over 100 mounds.

Although the rise of mound-building in the eastern United States has often been linked to influence from complex cultures of South America and Mexico, no direct influence from these distant cultures has ever been found. The unique and ubiquitous traditions of mound building found throughout eastern North America have always been indigenous phenomena.

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All paintings by Martin Pate. Photos courtesy National Park Service Southeastern Archeological Center and (this page) Collier Country Museum, Florida.