



A team of excavators digs near the Great Pyramid of Giza in Egypt to uncover an ancient graveyard for working-class Egyptians.

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Mellink reported the continuation of international efforts on such sites as Kultepe, Bogazkoy, Arslantepe-Malatya, Troy, and Gordion, as well as several new efforts. Much was being recovered concerning the late protoliterate and early historic ranges of Turkey (as well as of the Classical period there). Joint excavation (Turkish, U.S., and Canadian) at a mound near Gaziantep promised new information on the neo-Hittite period.

*The Greco-Roman World.* On the Aegean island of Mochlos, there were indications that the Minoan period outlasted the great eruption on Thera by about 150 years. It had been believed that the Minoan came to an end with the eruption. In Greece an Ohio State University team began mosaic restoration at Isthmia, as well as work in the Roman bath. A University of Illinois team worked on the sanctuary of Poseidon on the Greek Isthmus. In the Adriatic impressive clearances of both prehistoric and Classical times were made on Hvar and Corfu. A Roman settlement survey project, done jointly by the University of Maryland and Wesleyan University, Middletown, Conn., was in its third year on Sardinia. Another archaeological survey concentrated on the Kasserine region of Tunis. The journal *Antiquity* published a variety of papers collected by V.M. Masson on Soviet archaeology of the steppe zone. A copper horse bit from a Copper Age Ukrainian site (c. 4000 BC), showing clear marks of the horse's teeth, suggested that horse riding existed at that early date.

*Africa, East Asia, and the Pacific.* The University of Ibadan, Nigeria, continued work on Old Oyo, a 17th- to 19th-century (AD) walled site, and surveyed the surrounding region. The sites, said to be distinctly Yoruba, yielded evidence of the precolonial culture of Nigeria. An ancient cemetery in Thailand, at Khok Phanom Di near Bangkok, included the burial of a "princess"—so called because of the rich collection of jewelry adorning the skeleton. Charles Higham of the University of Otago, New Zealand, and Rachanie Bannanurag of Bangkok described the site and its cultural yield of knowledge in *New Scientist*, with particular attention to the growing importance of the role of women. The time was evidently c. 2000 BC or soon thereafter.

Road builders in central China encountered what was

believed to be the burial site of the emperor Jing Di (Ching Ti), a Han dynasty ruler who died in 141 BC. It was thought that the site would rival the famous site at Xian (Sian). Again, there were long rows of terracotta figures of men and boys, about 60 cm (24 in) tall, armless, and painted red. The site was large, and so far not much had been exposed. In New Zealand a University of Auckland team attempted a computer-assisted study, using meteorological data, of how and when the Pacific was first explored and settled. The study suggested that Hawaii, Pitcairn, and Easter islands were reached by around 1500 BP.

(ROBERT J. BRAIDWOOD)

**Western Hemisphere.** Archaeological developments during 1990 were marked by major discoveries concerning the initial migration and origins of the first Native American inhabitants of the New World and by important findings in the area of historic archaeology relating to Columbus' first settlement in the New World. Developments in historic archaeology also included the exposure of significant Civil War-era military remains that had been hidden from researchers by a modern cap of toxic contaminants. After years of acrimonious debate between archaeologists, members of the museum community, and Native American representatives, legislation was passed aimed at balancing the religious and ceremonial concerns of Native Americans with the desire by researchers for continued access to archaeological collections in North American museums. Signed into law by Pres. George Bush in November, the new law established a review committee and legal mechanisms governing all agencies and institutions receiving federal funds. The object was to give tribal groups clearly defined legal procedures for reclaiming artifacts of religious significance, such as the wampum belts of the Iroquois and the kachina masks of the Pueblo peoples.

For decades, archaeologists had debated the nature of the earliest migrations of the first Native American inhabitants to the New World, between 15,000 and 30,000 years ago across the former land bridge between Alaska and Siberia. One school of thought, supported by the majority of the scientific community, argued for a series of migrations, involving possibly hundreds of different groups at different times. An alternate perspective was that the influx of early peoples into the New World was a much more restricted—possibly a single—episode of human migration, from which all subsequent Native American groups diversified both culturally and linguistically. This previously little-supported interpretation gained new scientific support in 1990 with the announcement by Douglas Wallace of Emory University, Atlanta, Ga., of significant new genetic evidence derived from the study of mitochondria. These small energy-producing bodies, found within each human cell, contain genetic information separate from, and in addition to, that normally found in the nuclei of all cells. Using comparative studies of genetic material taken from different Native American groups, Wallace argued that similarities in the gene material suggested that the original migrants had been a relatively small band of people consisting of a small number of males and as few as four females. If proved correct, this new evidence represented a significant independent line of data. Until recently, this interpretation had only been suggested on the basis of linguistic reconstructions and limited recovery of stylistically and technically similar forms of early man spears throughout the Americas.

In what was described as one of the most important finds in Alaskan archaeology in the last half century, officials of the U.S. Fish and Wildlife Service announced the unexpected discovery of the previously undisturbed mummified

remains of 30 people in a cave at an undisclosed location in the Aleutian Islands. The find was made by a summer volunteer worker who was scouting an uninhabited island for fox dens, being studied as part of an effort to protect a rare species of goose. Currently being studied by Lucy Lewis Johnson of Vassar College, Poughkeepsie, N.Y., the discovery represented a unique opportunity to document the remains of male and female adults, as well as infants and toothless elders. This, together with the intact burial ornaments, offerings, and undecomposed organic materials, would provide a better understanding of early Aleutian cultural history.

The year was also marked by the announcement of major new discoveries of more recent historic archaeology. One consisted of the excavation of the 1493 settlement of Columbus in the Dominican Republic; another involved the discovery of the buried and preserved Civil War remains, under a cap of highly polluted toxic cadmium, of the North's major gun-testing and development facilities at West Point Foundry along the banks of the Hudson River in Cold Spring, N.Y.

As part of a major multinational effort in New World archaeology for the 500th anniversary of the European discovery of North America, a number of teams over the last decade had been working toward the identification of Columbus' site of initial settlement in the New World. Following extensive research into the archives of Seville and other documentary repositories, archaeologists from Venezuela and the University of Florida found convincing archaeological evidence that identified the initial landing place and settlement of Columbus' 1493 expedition in what is now the Dominican Republic. Under the direction of José M. Cruxent of the National University of San Francisco de Miranda in Venezuela, the excavation at the site of La Isabela found evidence that the early settlement was more extensive and diversified in nature than historians had projected on the basis of archival sources alone. In addition to the fortified settlement built on the rock promontory of La Isabela, it appeared that the original settlers lived in the valley bottoms below.

Additional investigations under the direction of Kathleen Deagan identified the remains of settlers' huts, indicating that the main settlement was constructed around a central plaza bounded on the north by a large storehouse or barracks structure. Below the plaza the remains were found of the settlement's church, cemetery, a number of small houses, and, at the far end of the plaza, what appeared to have been the house of Columbus himself. While most of the associated pottery from his dwelling consisted of coarse, unglazed, locally made ceramics, the archaeologists recovered datable 15th-century Spanish pottery of lead-glazed Moorish style.

The excavation of previously unsuspected Civil War-era archaeological remains added a significant new chapter to current understanding of the technology and origins of Union military superiority over the South. In the first major archaeological rescue excavation of a highly polluted Superfund site in Cold Spring, archaeologists under the direction of Joel W. Grossman worked throughout the winter beneath heated domes in protective gear to expose the 130-year-old Civil War remains of the North's major gun-testing and development facilities. To reduce the scientists' exposure to the contaminated environment, the team used computer-assisted magnetic scans to "see through" the modern surface debris and toxic chemicals and a new 3-D computer-based camera system to record the archaeological remains.

The archaeologists documented the preserved remains of

R.P. Parrott's 1860 gun-testing platform and cannon hoist system, a number of 100-lb explosive and binary incendiary cannon shells, and the undisturbed tools and artifacts of the gun-testing crews. The discovery, coupled with intensive archival research, also revealed the existence of extensive Civil War-era government efforts in international espionage and intelligence gathering, which permitted the Union military establishment to leapfrog ahead of both the Confederate and European powers in the development of long-distance, high-powered cannon.

Archaeological developments in Latin America, although hampered by limitations in funding and political turmoil in some areas, were marked by several significant discoveries in the historic and prehistoric period archaeology of Middle and South America. In Peru the government announced the opening of a major new museum, the Museo de la Nacion, which—despite soaring inflation of 2,700% per year—culminated a five-year effort to house the nation's pre-Spanish patrimony in a single institution. In Mexico government archaeologists under the direction of Elsa Hernández from the National Institute of Anthropology continued to make important archaeological discoveries beneath modern Mexico City that related to both the last epoch of Aztec presence and the beginnings of Spanish occupation at the ancient Mexican capital of Tenochtitlán. At a site found during the renovation of a colonial mansion in downtown Mexico City, the archaeologists excavated a severed skull, probably belonging to a prisoner or gladiator, which was exposed together with six elaborately carved stone tablets depicting dismembered limbs and symbols of blood and acorns belonging to the god Xipetotec.

In Honduras, following five years of intensive research, excavators of the ancient Mayan city at Copán reported the discovery of the earliest episode of the city's construction, as well as the clear linkage, via both archaeological and hieroglyphic evidence, between episodes of the city's growth and the reigns of specific individuals among the 16 Mayan kings who ruled between AD 426 and 822. Working in the earliest sector of the ancient acropolis, Robert J. Sharer of the University of Pennsylvania described what appeared to represent the original phase of construction at the complex dating back as early as AD 100. Ongoing work in the tropical forest of northern Guatemala continued to shed new light on what appeared to represent the earliest known Mayan city of Nakbe. Excavations under the direction of Richard Hansen of the University of California at Los Angeles yielded radiocarbon determinations and ceramic evidence that the early Mayan centre dates back as far as 600 BC. This appeared to push back the origins of Mayan civilization in the New World over 400 years beyond the previously accepted date of 200 BC. (JOEL W. GROSSMAN)

*See also* Anthropology.

## Architecture

Britain's Prince of Wales once again was in the architectural news when in February 1990 he gave the keynote speech at a newly inaugurated gathering for members of the American Institute of Architects called "Accent on Architecture." The speech was given at the closing gala of the conference, which was held at the National Building Museum in Washington, D.C. In his speech the prince reiterated his opposition to modern architecture, criticizing it as architecture of the "throwaway society." In addition, he criticized what he considered to be too strong a reliance on technological content in modern building. "I understand