National Museum of Natural History Newsletter for Teachers

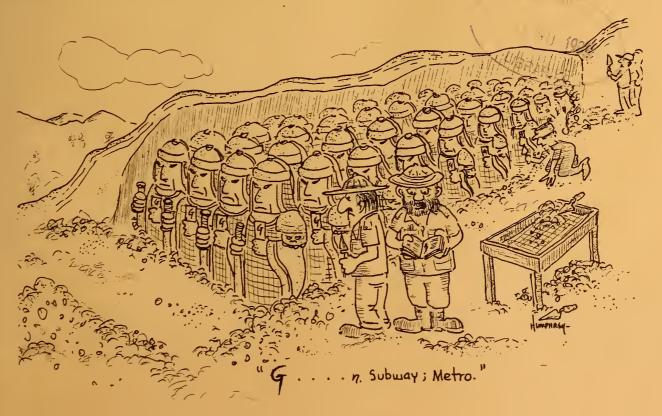
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EXPLORING ARCHEOLOGY SITES IN CHINA

Green and wet rice paddies froze in my mind. Nor could I forget the enigmatic smiles of dignified terracotta warriors, the stares and snorts of water buffalo, the daring sword tricks of Chinese acrobats, the roar of a 400 pound pig in a wooden cart in the middle of Wuhan, graceful ballet dancers, disco dancing with strobe lights, and a television ad selling a computer sitting on the Great Wall.

I was in China from July 14 to August 5 along with 36 high school students and two other teacher-leaders: Steve McCarter, an anthropology and social studies teacher at Lower Merion High School in Ardmore Pennsylvania, and David Orr, Chief of the Division of

Archaeology, Mid-Atlantic Region, National Park Service. We and the students participated in the 1988 American-Chinese Youth Science Exchange, a pilot program hosted by the China Association for Science and Technology (CAST). The administration and operation of the program was handled by the High School Ambassador program division of People to People International. Nine science areas including archeology formed delegations. As part of the archeology delegation, we travelled to Hong Kong, Beijing, Xian, Wuhan, Changsha, and Guangzhou and explored over a dozen archeological sites and half a dozen museums. In the process, we discovered much about the glories and concerns of



Chinese archaeology and about this 4,000 year old civilization.

Zhoukoudian

Our first stop was the town of Zhoukoudian (Choukoutien), an hour's drive southwest of Beijing where the famous Peking Man site at Dragon Bone Hill is located. At the bottom of Locality I cave, 500,000 years ago, Homo erectus is supposed to have killed, cooked his food, slept, and prospered. Other generations found the cave hospitable, in spite of the resident hyenas and sabre toothed cats, until about 50,000 years ago when the roof of the cave fell in. By that time the floor level had risen about 80 feet (30 meters of human activity).

In his visit to Zhoukoudian three years ago, Lewis Binford questioned the evidence for large game hunting and the use of fire in his videotape "K'ao-Ku, Paleolithic Sites in Contemporary China" and in "Zoukoudian: A Closer Look" (with Nancy M. Stone, Current Anthropology 27, December 1986). You Yu-zhu, from the Institute of Paleontology and Vertebrate the Academia Paleoanthropology at Sinica, and two graduate students had met with Binford and remain skeptical conclusions. about his Another graduate student, specializing taphonomy and zooarcheology, is doing research on Zhoukoudian materials to answer some of Binford's queries. While we were there, we saw the scrapers, points, hand-axes, reconstructed skull caps, and shovel-shaped incisors belonging to more than forty individuals--males and females, young and old. The last excavation was in 1979.

Dr. You explained that archeology is not as well-funded by the government as he would wish. The last significant infusion of money occurred in the 1960s when the Soviet Union had the "audacity to say that Chinese civilization

originated in the U.S.S.R." Chinese archaeologists proved them wrong.

Forty Chinese high school students accompanied us to the site. After a lunch of peaches, hard-boiled black eggs, bread, cold cuts, mineral water, and the ubiquitous orange soda, the students laughingly engaged in an amusing dinosaur-naming contest.

On an oppressively humid day, the Museum of Natural History in Beijing surprised us with a new, impressive exhibit hall, "The Origin of Man." It was more up-to-date than any exhibit I have seen in the U.S. and showed particular Chinese cultural biases.

The first section focused on man as a vertebrate, a mammal, a primate, an ape, and as an unique animal. Cases were filled with excellent color photographs, comparative skeletons, and easy-to-read type in English Chinese. In the section on "The Origin Modern Man₂" three scenarios of evolution human were For australopithecus, the location of archeological finds were shown on a large map, with several well-known sites shown in floor-toceiling color photographs reconstructed casts such as the footprints at Laetoli in Tanzania. The skeletons, bones, tools, and modes of living were also displayed along with some of the controversies surrounding them. For Homo erectus, Homo sapiens neanderthalensis, and Homo sapiens sapiens, the cases portrayed their notable physical characteristics, tools, and main cultural achievements.

Surprisingly, from an American perspective, the next section focused on "The Origin of the Mongoloid Race" and read as follows:

The basic racial characteristics of Mongoloids can be seen among the modern Chinese, Mongolian, Japanese, and

American Indian. Such characteristics can be traced back to the time of Homo erectus, over one million years ago. Researchers have shown that China was a significant area for human origin, especially the Mongoloid origin and its development.

Controversial evidence is given for traces of australopithecus in China--the Yuanmou site, in particular. Physical characteristics of Chinese are traced more definitively to the time of Homo erectus, with an emphasis on the shovel-shaped incisors and on the sagittal keel (ridge) running along the top of the skull. The last section in the exhibit focused on the origin of human life, explicitly showing the fetus's development over nine months and the process of birth.



The exhibit ends with a philosophical expression that would not be found in U.S. museums:

In contrast to the long history of mankind, life of an individual is extremely short. However, throughout the generation, every limited life can offer brilliant contributions to mankind. It is the sum of these contributions that glorifies our civilization.

The Great Wall

Our next stop both dismayed and delighted our archeological senses. The Great Wall--the eighth wonder of the world, the only human structure seen with the naked eye from the moon--is surrounded, at least at Badling Pass, with the worst of uncontrolled tourism. Buses swarm in by the hundreds to unmarked dusty dirt fields, and hawkers line the blocks on either side of the wall. On this hot summer day, the press of humanity was so great that you had no trouble believing that China had 1.3 billion people. Yet the crush of people could be escaped if you were willing to climb, and climb, and climb -- an aerobic challenge. At the top of a guard tower, it was impressive to see the Wall's width (which could accomodate 5-6 horses abreast), its solidity, and its intimidating power. The invading armies would have had to first climb the mountainside, then the wall. The wall also greatly eased communication, an essential glue for a nation as Chinese mounted or on foot relay a message from one guard tower to the next.

Xian

After a rare undelayed flight on China's airlines, we landed in Xian, the old capital of China or the Middle Kingdom as it was called, and the beginning of the ancient Silk Road to India. In this famed city, our delegation "traveled" in time from 6,000 years ago to the present. Our

time travel began with the domestication of plants and animals (the Neolithic Period) well-chronicled at the Banpo Village and Museum, about 1/2 hour outside Xian. Here is an example of a museum erected over an archeological site--a practice common in China, though rare in the U.S. Starting about 6,000 years ago, houses evolved from a round brush shelter to wattle and daub construction to a rectangular adobe walled house with slanting roof, the prototype of the typical Chinese house. As we walked around the well protected site, the post holes were easy to spot along with the remains of semi-subterranean dwellings, a fire hearth, and later a well hole, and an underground cooling area. But these Neolithic wonders do not compete with China's most famous burial.

The Terracotta Warriors and Horses Museum stands about 20 miles east of Xian; the tumulus of Emperor Qin Shi Huangdi is clearly seen, miles before arrive. Considered China's greatest archaeological attraction, the first Qin emperor forced thousands of his subjects to not only build an impressive tomb, yet to be excavated, but also to "guard" it with 7,500 terracotta warriors, a re-creation of the Qin army. All this was accomplished before his death in 210 B.C. None of this would be known if not for a peasant who was digging a well in 1974 and struck a terracotta warrior. Today an aircraft-like hangar protects the site from the weather and once again allows the public to view an archeological site on location. Most of the warriors have been reconstructed from their fall state; graceful horses and remarkable individualized and hairdos of expressions reconstructed warriors are impressive, but even more so imagining them in their original bright colors. During the reception and tea that followed our visit, the museum director said wisely that the tomb itself would not be excavated until preservation could be quaranteed.

Xian is home to dim sum, and one evening we banqueted with over fifteen different kinds of dumplings brought to the table in bamboo steaming baskets. Eating reminded us each day that we not in the U.S. Chinese generosity to guests meant that lunch and dinner were usually of banquet proportions. At round tables for ten, a lazy susan spun with cold meats, sea slugs, sliced tomatoes, and roasted peanuts. These were followed by slices of potato and pork, roasted duck, a whole carp delicately moist in a sweet sauce, steamed eggplant, green peppers, another green scallion-like vegetable, spicy rice noodles, a soup of greens, noodles, strips of chicken, and, of rice, followed course, by inevitable serving of watermelon. The usual drinks were hot tea and warm orange soda.

One dominant impression of China is that it is a walled country. The Great Wall stretches for thousands of miles keeping people in and out, defining boundaries, and marking if not creating a concept of China. Cities are walled. Xian's eight miles of walls are still intact and still impressive. A country, cities, even houses are also walled. People pass through gates, and walk inside to a courtyard so that life is lived turned inward, not outward to the street.

Changsa

Changsha far south of Beijing was our most concentrated archeological stop. At the Hunan Provincial Museum and Hunan Provincial Archaeological Fu Juyou, Associate Institute, Professor and Vice Director explained that two laws, one state and one national, protect archeological sites. People are remunerated if they report a new site to an archeological society. also punished with People are imprisonment or even death in some cases for removing artifacts from a

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site. An archeologist showed us in his workroom 100 pieces of a Shang dynasty pot that he is slowly reconstructing. About 30 archeologists work for the museum.

On the following day, we drove for three hours in three Mitsubishi white buses through the countryside to the ancient (A.D. 600-1,000) Changsha kiln site. On the way, I saw only three repeated messages on billboards: have only one child, obey the traffic laws, and do not drink and drive. Also on the way, rice paddies, blue trucks, human pulled carts, and small villages whirled by us as we moved from paved to increasingly rougher and narrower dirt Our bus had to stop for a roads. funeral proceeding down the street. The family members dressed in white with white hats. One person held a large photograph of the deceased, and others carried a brightly colored paper dragon. The body covered with brightly decorated paper was carried on poles. Firecrackers went off fore and aft sending momentary smoke and noise into the air. Once it had past, we were again on our way until the irrigation ditches, potholes, and eroded road forced the drivers to halt.

From here we walked for half an hour through horticultural hamlets with a lifestyle thousands of years old. Water buffaloes plowed the paddies while people bent over planting and weeding the rice plants. Rice paddies with tender green shoots graced the landscape as far as the eye could see across the valley. We passed through small hamlets with sun dried mud brick houses, some with thatched roofs, some with tile. Laundry floated on the Chickens pecked freely. A mother and baby pig lay by the side of the path. Women slapped wet clothes with wooden paddles at the pond's edge. Wooden huskers, wooden chairs, and wooden water buckets were the working tools. We walked single file on the

narrow mound of packed earth separating the rice paddies. Men walked by us with straw and rice bundles tied on either side of a long pole. People stared at us. On the ground, pottery sherds were everywhere, some stoneware, some earthenware, some proto-porcelain (light green celadon glaze). We saw the wasters--the piles where all the mistakes were dumped. Some sherds have raked designs, some have light brush strokes. The ancient tunnel-shaped kiln, one of many in the area, was found when men were digging an irrigation ditch. I was reminded of importance of pottery the archeologists; it is made, transported, used, and discarded. It cannot destroyed.

The next day found us deep in red clay in the middle of Changsha at an urban archeology site. Construction had been stopped weeks ago while a team of archaeologists came in to excavate the recently discovered Western Han dynasty graves (200 B.C. to A.D 100). Song, the archeologist associated with the Changsha Museum, orchestrated the work of our 36 students on the dig. fully excavated grave revealed that acid had destroyed the skeleton, but bronze and pottery funerary objects (both ceremonial and practical) were intact. Our archeology delegation dug at a tomb site that had been robbed; we could easily see the disturbances in the soil. We each had an opportunity to dig and to carry the mud in two straw baskets hanging from a wooden pole that goes across the back.

We dumped the mud in refuse piles where archeologists sifted through for small, overlooked artifacts. Our digging did uncover parts of a ding (three-legged cooking pot) and black lacquer ware.

A 4,000 Year History

In exploring archeology in China we discovered the common concerns with U.S.archeologists--the difficulty of

preserving a site, the concern for funding and the need for greater funding, and the development and use of up-to-date methods. We also discovered some differences. In China, museums often built on the actual excavation site, and many are more modern than in the U.S, yet the lifestyle surrounding them is still often primarily horticultural. laws protect archeological Unlike the U.S., China preserves a 4,000 year written history of rulers and dynasties along with the technological achievements distant past. Paper was made from rags and wood fiber a thousand years before Europe learned the technique. Books were printed centuries before Gutenberg Bible in Europe. The Chinese produced cast iron in the 4th century B.C. about 18 centuries before Europe discovered such an ability. They were the first to discover the destructive qunpowder and power of the restorative power of tea. Yet, today China remains a land where one can experience the living past.

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