NO PREP

The Three Gorges Dam

When Modern Progress Threatens the Ancient Past

Includes: Student reading, case study, differentiated questions, teacher key

Name: Period: Date:

The Three Gorges Dam: When Modern Progress Threatens the Ancient Past

The Largest Dam in Human History

The Three Gorges Dam on the Yangtze River in central China is the largest hydroelectric project ever built. Stretching 2.3 kilometers across the river and standing 185 meters tall, it generates more electricity than any other power plant on earth. The dam took 17 years to build and was completed in 2006, with the reservoir reaching its full operating level in 2010. For China's government, the dam represented a triumphant demonstration of the nation's engineering capability and economic ambition — a project that would power the country's industrial expansion and control the devastating floods that had periodically killed thousands of people along the Yangtze. But the creation of the reservoir behind the dam required flooding a

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Salvage Archaeology on an Impossible Scale

Beginning in the mid-1990s, the Chinese government funded a massive salvage archaeology program in the Three Gorges reservoir area. Teams of archaeologists from universities and research institutes across China were dispatched to survey, excavate, and document as many sites as possible before the flooding began. The

scale was staggering: more than 1,000 archaeological sites had been identified in the reservoir zone, ranging from Paleolithic campsites to Han Dynasty cities. Excavating all of them properly was never a realistic possibility. The salvage program did produce remarkable finds. Excavations at sites like Zhongxian and Fengjie revealed Han Dynasty settlement layers with ceramics, bronzes, and architectural remains. At Zigui, archaeologists uncovered evidence of human occupation dating back more than 50,000 years. Several previously unknown sites were identified through survey work that would not have been funded under normal circumstances. The pressure of the deadline (the water was coming whether the archaeology was done or not) produced both extraordinary efficiency and compromises in excavation quality that scholars still debate.

What Was Lost

Despite the salvage effort, the scale of what was lost is genuinely difficult to calculate. The Three Gorges area sits in the valley of a river that has been a center of human habitation for most of human history in China. Geological studies show that the region served as a refuge during ice ages when much of northern China was too cold for agriculture. This means the reservoir may have drowned archaeological sites representing periods of Chinese prehistory that are barely documented elsewhere: Paleolithic and Mesolithic campsites, early Neolithic settlements, and Bronze Age communities that developed somewhat differently from the cultures of the Yellow River heartland. Some specific losses are documented. The Ba people, an ancient civilization contemporary with the Shang Dynasty in the Yangtze valley, left archaeological traces throughout the gorge area. Many of these sites were excavated under emergency conditions or not at all. Temples and architectural monuments dating from the Han through the Qing Dynasty were photographed and partially dismantled, but few were successfully relocated. The Zhang Fei Temple was reassembled at a new location 30 meters above the old one, one of a handful of significant structures saved. Thousands of smaller sites, unmarked tombs, and everyday artifacts went under water unrecorded.

International Controversy and the Ethics of Development

The Three Gorges Dam generated intense international debate from UNESCO, heritage organizations, and scholars who argued that China was sacrificing irreplaceable cultural heritage for economic development. Chinese government

officials responded that the dam would prevent floods that had killed hundreds of thousands of people over history, generate clean electricity to power development that would lift millions out of poverty, and that China had the sovereign right to decide how to balance its own development needs against heritage preservation. This debate — development versus heritage — is not unique to China. Similar tensions have played out in Egypt (the Aswan Dam and Abu Simbel), in Turkey (the Ataturk Dam and numerous ancient sites in the Tigris-Euphrates valley), and in dozens of other nations where industrial development has threatened archaeological sites. There are no easy answers. The populations who need electricity and flood control are real people with urgent needs. The archaeological sites that are lost were irreplaceable records of human history. Understanding how different societies balance these competing values is itself an important part of understanding the modern world.

Lessons for the Future

The Three Gorges experience has influenced how major infrastructure projects are planned in China and elsewhere. Environmental and cultural heritage impact assessments are now required before major construction begins — a direct consequence of the Three Gorges controversy. Remote sensing and digital technologies developed partly in response to the Three Gorges urgency can now survey large areas quickly and identify sites that require investigation before development proceeds. Some scholars have proposed that the deliberately flooded area is not a permanent loss: future technology might someday allow underwater archaeology in the reservoir, recovering data from sites that are now submerged rather than destroyed. The Yangtze silt that is now covering the flooded sites may, paradoxically, be providing some of them with the same kind of anaerobic, low-oxygen preservation that has made certain wetland and underwater sites elsewhere in the world extraordinarily rich in organic materials. Whether the reservoir ever gives back any of what it took remains an open question.

What Was Saved and the Limits of Salvage

Despite the scale and funding of the Three Gorges salvage program, the archaeological community has been largely honest about its limitations. The program succeeded in documenting many sites that would otherwise have been flooded with no record at all, and it produced genuine research advances — new knowledge about

the Ba civilization, new evidence of Paleolithic habitation in the gorge region, and new understanding of Han Dynasty settlement patterns in the Yangtze valley. These are real contributions that justify the effort and expense invested. But the program also conducted what archaeologists call 'salvage excavation' at many sites — rapid work focused on recovering objects and making basic records rather than the slow, careful, complete excavation that yields the richest data. The distinction matters because archaeology is fundamentally a destructive process: excavating a site destroys it as a stratigraphic record, which is why careful, unhurried excavation is so important. A rushed salvage excavation recovers objects but loses the contextual relationships between them that are often more scientifically valuable than the objects themselves. Archaeologists working in the Three Gorges zone knew this, documented it explicitly in their professional reports, and proceeded anyway because the alternative — abandoning sites to flood with no documentation at all — was worse. This honest acknowledgment of limits in the face of impossible constraints is one of the more admirable aspects of the Three Gorges salvage effort, even as the losses it could not prevent remain genuinely mourned by the global heritage community.

Key Information: Three Gorges Dam

Detail	Information
Location	Yangtze River, central China
Construction	17 years; completed 2006; full reservoir level reached 2010
Size	2.3 km wide, 185 m tall; world's largest hydroelectric project
Reservoir Length	600 km of gorge system flooded
People Relocated	Over 1.3 million displaced from towns and villages
Archaeological Sites	1,000+ sites identified in reservoir zone; many impossible to fully excavate
Key Salvage Finds	Han cities at Zhongxian and Fengjie; human occupation at Zigui 50,000+ years ago

Detail	Information
Major Loss	Ba civilization sites, Paleolithic-Mesolithic sites, Han through Qing architecture

Case Study: The Last Season at Baidicheng

Archaeologist Huang Min had been given six weeks and four assistants to excavate a site near Baidicheng that preliminary survey suggested contained a Han Dynasty settlement layer. She had six weeks because that was when the water would reach this elevation. She would have preferred six months. They worked twelve-hour days, screening soil through mesh while local villagers watched from a respectful distance. The villagers were also being relocated — their houses, their fields, the graves of their grandparents, all going under water. One old man came every afternoon and sat on a nearby rock without speaking. One day Huang Min asked him what he was thinking. 'My father found a bronze pot in that field,' he said, pointing to the area they were excavating. 'He sold it for enough rice to feed us through the winter. I always wondered where it came from.' Huang Min's team found ceramic fragments, animal bones, bronze fittings. They documented everything they could. On the last day before the water date, she walked the site one final time with her notebook, writing descriptions of features she knew they hadn't had time to excavate properly. 'What happens to the notes?' her assistant asked. 'They go in the archive,' she said. 'Maybe someone builds a better underwater excavation system someday.' She didn't say she believed it. But she wrote the notes anyway.

1. Huang Min says 'maybe someone builds a better underwater excavation system someday.' How does the reading connect this hope to what archaeology has learned from similar situations in the past?

2. The old man's story about his father selling a bronze pot connects the archaeological site to living people. How does this complicate the debate between development and heritage preservation described in the reading?

Multiple Choice

1. Why did the Three Gorges Dam create an urgent salvage archaeology operation?

a) The dam construction unearthed significant artifacts in the riverbed

b) The reservoir flooded 600 km of territory with over 1,000 identified archaeological sites

c) Ancient texts described lost treasures buried somewhere in the gorge region

d) International archaeologists were legally required to excavate the area before China could proceed

2. What response did China's government give to international criticism about damaging cultural heritage?

a) They invited international archaeologists to take responsibility for excavating the important sites

b) They agreed to stop the project and find an alternative energy source

c) They argued the dam's benefits for flood control and clean energy outweighed the heritage losses

d) They moved all significant archaeological sites to higher ground before flooding

3. What long-term possibility do some scholars suggest regarding the flooded sites?

a) Future underwater archaeology technology might recover data from the submerged sites

b) International law will eventually require China to drain the reservoir and return it

c) The rising water will bring artifacts to the surface within 50 years

d) The sites have been permanently destroyed and cannot be recovered

Matching

Write the letter of the correct definition on the line next to each term.

Term	Definition
1. ___ Salvage archaeology	A) United Nations cultural organization that criticized the Three Gorges project for threatening irreplaceable heritage
2. ___ Ba people	B) Emergency excavation conducted before a site is destroyed by construction, flooding, or other development
3. ___ UNESCO	C) An ancient civilization in the Yangtze valley area, contemporary with the Shang Dynasty, whose sites were threatened by the dam
4. ___ Reservoir	D) A required study evaluating how a proposed development project will affect archaeological and cultural sites
5. ___ Heritage impact assessment	E) The artificial lake created behind a dam by blocking and backing up a river's flow

Fill-in-the-Blank

1. The Three Gorges Dam required the relocation of over _____ million people from towns and villages that would be flooded.

2. Excavations at Zigui in the reservoir zone uncovered evidence of human occupation dating back more than _____ years.

3. As a result of the Three Gorges controversy, environmental and cultural heritage _____ assessments are now required before major construction projects begin in China.

Short Answer

Answer each question in 2-4 complete sentences.

1. The reading describes the Three Gorges Dam as both a triumph and a tragedy. Explain both sides of this characterization using specific evidence from the reading.

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2. Why is the debate over the Three Gorges Dam described as 'not unique to China'? Give another example from the reading and explain what it shows about the broader issue.

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3. How did the urgency of the Three Gorges salvage operation produce both positive and negative outcomes for archaeology?

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