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TO: Cultural Property Advisory Committee, U. S. Department of State

FROM: Robert W. Bagley, Professor, Department of Art and Archaeology, Princeton University

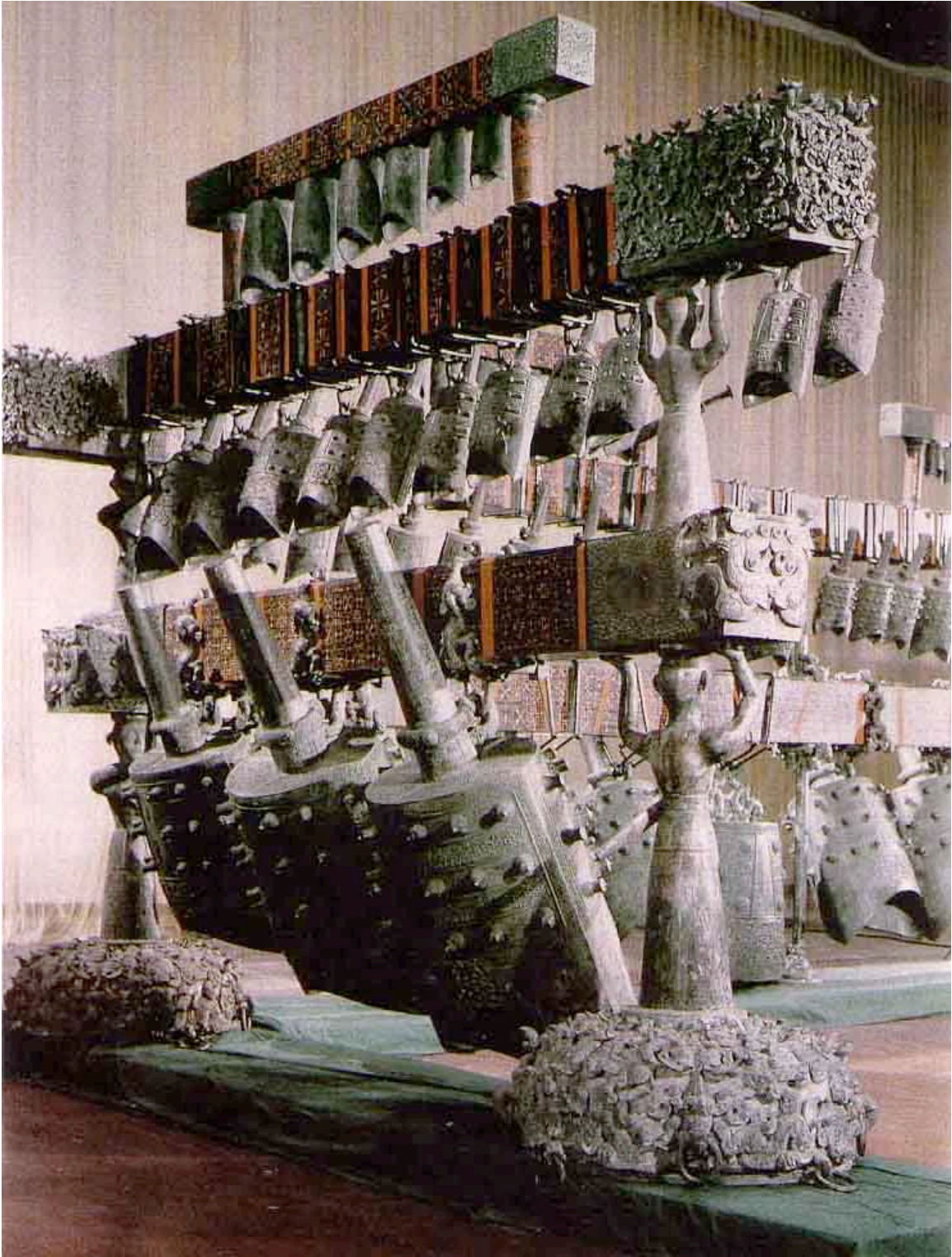
SUBJECT: Request of the People's Republic of China under Article 9 of the 1970 UNESCO Convention

DATE: 2 February 2005

In support of the Chinese government's request, I should like to describe an archaeological discovery that has been the focus of my research for the last eight or ten years. It is an ancient tomb that Chinese archaeologists excavated in 1979. The tomb was a timber-built construction, an underground palace with four large chambers. It seems to have filled up with water immediately after it was sealed, and this had the fortunate effect of keeping perishable materials from decaying.

The tomb was astoundingly rich; in a few pages I cannot even list its contents, much less describe them. Let me just mention that it contained ten metric tons of bronze artifacts-22,000 lbs of bronze. And it contained the instruments of an orchestra: about 30 wooden instruments, mainly winds and strings, all perfectly preserved, and a tuned set of 65 bronze bells. The bells were found in place on a lacquered wooden rack 9 feet high; the rack survived intact underwater even though the bells it was carrying weigh 6000 lbs. One of the bells has an inscription that gives us a date for the whole tomb: the occupant of the tomb, the ruler of a minor state in the middle Yangzi region, died in 433 BC. The buried orchestra is 2,500 years old. In the archaeology of ancient music it is the most important discovery ever made anywhere in the world.

Let me talk just about the bells. They have gold-inlaid inscriptions about music theory; the text is spread over the bells and continues on the wooden rack. These inscriptions are the earliest known Chinese writings about music theory. Moreover each bell is labelled with its pitch, and the bells still sound their original pitches, so the musical scale of the 5th century BC is written out for us on an instrument that can still play that scale. And the scale is a surprise: it is a chromatic scale, in other words it is exactly the same scale that we tune our pianos to today. This set of bells is by far the oldest chromatically-tuned instrument known anywhere; it is older by almost 2000 years than the earliest Western instruments tuned chromatically.



Set of 65 bells on an L-shaped rack, rear view of the short arm of the L. Tomb of Marquis Yi of Zeng (d. 433 BC) at Suizhou, Hubei province, China.

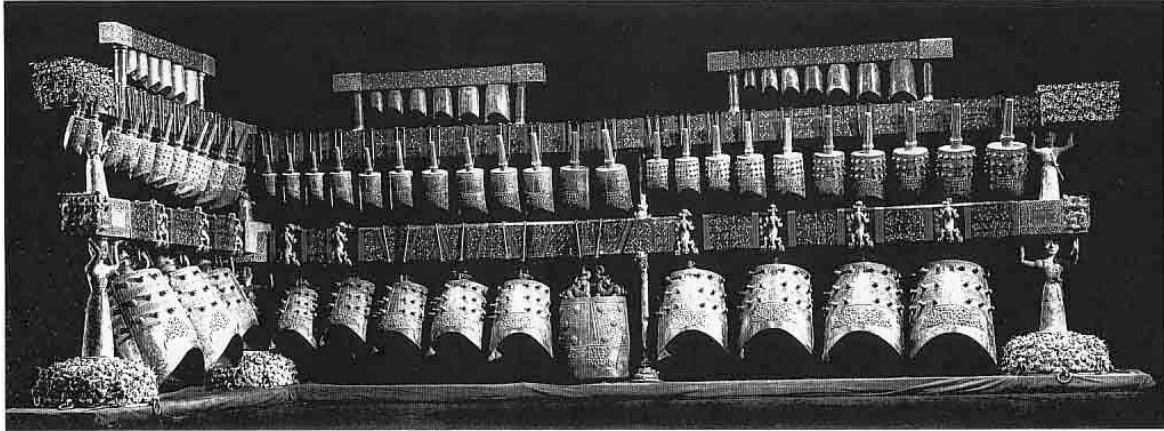


Detail of bell set showing gold-inlaid inscriptions concerning musical scales.



Performers behind the long arm of the rack playing the bells of the middle tier.

This is not only a sensational discovery, it is a bewildering one. Why does our musical scale turn up in China in the 5th century BC? When I tell Western musicologists that these bells play a chromatic scale, they do not believe me; then I show them the evidence, and they are speechless. The evidence is ironclad- or perhaps I should say, it is cast in bronze and inlaid in gold: it is clear, and it is irrefutable. Musicologists must abandon their ideas about how the chromatic scale originated, and they must think again about how this scale relates to the mechanisms of human auditory perception.



Set of 65 bells from the tomb of Marquis Yi. Height 8' 11", length of long arm 24' 7".



Zither with 25 strings, lacquered wood. Length 5' 6". Tomb of Marquis Yi.

The bells, along with the other contents of this tomb, are on permanent display in the Hubei Provincial Museum in Wuhan. The excavators filmed the excavation as it proceeded; they have published a detailed excavation report (it gives frequency measurements taken from the bells); they have issued a CD and a CD-ROM on which you can hear the bells play; and they have published several books with good photographs of the tomb and its contents. Countless other books and articles have been written about the discovery, and the Hubei Provincial Museum has held an international conference devoted to it. Replicas have been made of all the instruments, performers have learned to play them, and the replica orchestra has given concerts all over the world. Objects from the tomb have been sent abroad in many travelling exhibitions; I have seen them not only in China but also in Provo (Utah), Orlando (Florida), San Diego, and here in Washington at the National Gallery and the Sackler Gallery. Five years ago the Sackler Gallery did an exhibition devoted exclusively to the musical instruments. The catalogue of that exhibition is *Music in the Age of Confucius* (Smithsonian Institution: 2000), edited by Jenny F. So.

Now let us try to imagine what would have happened if looters had reached this tomb before the archaeologists did.

Tomb robbers are not careful excavators. They tunnel in, generally doing a lot of damage in the process; they take the objects that are most marketable and easiest to transport; and they leave the rest -sometimes they deliberately smash what they leave behind, perhaps to increase the value of what they take.

In this tomb they would not have taken the wooden objects; those are too fragile, too difficult to conserve: preserving them after they are removed from the water is very tricky. The moment looters broke the seal of the tomb and drained the water, the wooden objects would have begun drying out, and as soon as they were dry, they would have disintegrated. That would have been the fate of the lacquered wooden rack for the bells: it would have crumbled, taking its inscriptions with it. As for the bells themselves, it is not likely that looters would try to smuggle out of China intact a set that weighs 6000 lbs. They would probably take a selection of the most attractive medium-sized bells and leave the rest; or perhaps they would cart off all 65 bells, hide them, and sell them to dealers a few at a time. Either way, the set would be broken up, and the bells that survived would be scattered all over the world. Most of them would probably disappear into private collections and then, after a generation or two, resurface in museums.

In short, once the looters had finished with their work, nothing would survive of the orchestra but the bells, and the bells would survive only as scattered individuals, not as a tuned set.

If that had happened, what would we have lost? We would not have a date for the objects that survived; only one object in the tomb has a datable inscription, and once the other objects were separated from it, they would be undatable. Worse still, there would be no record of where the bells were found or how many were found together; we would not know what the set originally consisted of, we would not even be certain that the bells we knew of were components of a single set. Not having all the inscriptions, we would be unable to make sense of the ones we had. And we would never suspect that the set plays a chromatic scale. Instead of being the greatest discovery in the history of musical archaeology, this tomb would just have supplied some pretty bells to a few collectors.

Dealers and collectors and museums often defend the purchase of looted objects by saying that they preserve those objects. But they do not talk about what they destroy; they do not even know what they destroy-looters do not keep records. Nobody will ever know what looting has cost us, but there is no doubt that the destruction going on today at sites all over China is catastrophic, despite the fact that looters are subject to prison terms or even the death penalty (they risk death because of the money that dealers and collectors, safe on the other side of the border, hold out to them). Archaeological institutes try to patrol places that are known to contain major tombs-half a dozen unexcavated tombs are known in the vicinity of the one I have described-but long-term policing of sites that archaeologists lack the resources to excavate is extremely costly and limited in effectiveness. Readers of archaeological reports are all too familiar with statements like this one: "We excavated one tomb in the cemetery; the other seven had been recently looted." The loss to China, the loss to all of us, is incalculable. And it happens because dealers and collectors and museums pay good money for loot.