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Neolithic Drums in China

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ZUSAMMENFASSUNG

Dieser Beitrag gibt erstmals einen Überblick über chinesische Trommeln aus der Jungsteinzeit. Die meisten erhaltenen Trommeln wurden aus Ton hergestellt und es wurden die Objekte ausgewählt, die für Trommeln charakteristische Eigenschaften haben, wie z. B. Haken um den oberen Rand und die offenen Standflächen für die Klangäußerung. Das Material legt die folgende Systematik nahe: (1.) Trommeln gab es nur zwischen 4300 und 1900 v. Chr. (2.) Die Gegend, in der Trommeln gefunden wurden („die geographische Zone“), erstreckt sich weit vom Landesinneren der Shandong Provinz westwärts bis zur Gansu Provinz; die nord-südliche Ausdehnung ist dagegen schmal und liegt in der Nähe des Gelben und des Wei Flusses. Die charakteristische Form der Trommeln ändert sich von Region zu Region.

Neben der Darstellung des publizierten archäologischen Materials werden 17 bislang unveröffentlichte Trommeln aus der Gansu und der Qinghai Provinz präsentiert. Alle haben eine trichterähnliche Gestalt und laufen in einem schmalen Zylinder aus. An jeder Trommel befinden sich zwei Ösen, in denen vielleicht ein Trageriemen befestigt war, der um den Hals des Spielers gelegt wurde. Mit diesen Eigenschaften wurde die Trommelform in vielen Regionen gebräuchlich und sie ist in der ethnographischen Forschungsliteratur umfangreich dokumentiert. Ein frühes Beispiel (1950–1550 v. Chr.) wurde in der Region der Hethiter im türkischen Anatolien gefunden. Später entstanden als die hier besprochenen chinesischen Trommeln, scheint es sich um eine unabhängige Erfindung zu handeln.

INTRODUCTION

Several flutes from Jiahu, Wuyang county, Henan Province are known from 7000–5800 BC¹. With up to seven finger holes, they imply that melodic music or complex sound signal existed at that time.

This exciting view into the earliest “music” in China, was opened to us because bone (in this case the ulnae of the red-crowned crane) survives well in archaeological sites. Clay also does, as testified by clay vessel flutes from 4600 BC and onward². Another instrument made of clay is the drum, and we find it in China between 4000 and 2000 BC. By 1400 BC bronze and wood drums take over in the archaeological records.

Drums provide most of what we know about music in the long period between the Jiahu flutes and the relatively well attested musical ensembles of the Shang dynasty. China discovered pottery comparatively late, many millennia after fired clay vessels were made in Japan and Siberia³. The earliest Chinese pottery belongs to the Peiligang and related cultures of the seventh millennium⁴. This phase initiated a rapid development, and the first surviving drums were produced two millennia later. This is long before Europe, where the earliest ones in the north and central Germanic regions, appeared 3600 BC⁵.

THE NEOLITHIC PERIOD, CA. 4000–1600 BC

Before examining Chinese drums⁶, I will examine the societies that produced them, all located near the course of the Yellow River (Fig. 1). The first surviving drums come from its easternmost part, the Shandong Province, when it was the home of

¹ The first publication, Henan Provincial Institute of Cultural Relics 1989, was followed by a note in English (Zhang/Harbottle/Wang/Kong 1999) and several articles in Hickmann/Kilmer/Eichmann (eds.) 2002, 143–167.

² DeWoskin 1988, Fig. 2.

³ Krahl 2000, 24.

⁴ Chang 1986, 87–106.

⁵ Lustig 2002.

⁶ I have touched on parts of the subject earlier (Lawergren 2002), but the article was mainly concerned with the similarities between the western group of drums and that of Beycesultan.

the Dawenkou Culture, 4300–3500 BC (Fig. 2)⁷. In regions near the central part of the river, i.e., areas now belonging to southern Shanxi, northern Henan and Shaanxi Provinces, pottery drums were produced later, 3000–2000 BC. They were part of the Miaodigou and Longshan Cultures. At that time the Majiayao Culture dominated in the west (the Gansu and south-eastern Qinghai Provinces) and it also produced drums. These cultures have distinct pottery, and the drums are also distinct. Drums of the Dawenkou period were played two millennia before the birth of the Shang dynasty, the first historical dynasty.

We recognize two steps in the organization of “Chinese” Neolithic society which lead to the final stage considered here, Shang. The conditions during the Shang dynasty are documented in sources contemporary to it: Oracle Bone Inscriptions (OBI), texts cast onto bronze vessels, and archaeological finds. During Shang the Central Plains (the middle and lower reaches of the Yellow River) were organized into large states where settlements formed complex networks. Kings were recruited within elite clans and were assisted by administrative groups and large armies. Beside his political and military role, the king had a religious function conducting ancestor worship. Many of his activities were guided by ritually questioning oracle bones, and some questions concerned musical matters, e.g.⁸:

- Should we play ocarina (vessel flute) [for] Ya? Should [the] king’s large drum [be] used?
- Divine: [Should the] king play bells [for ancestor], Father Yi?
- [On the day] Geng if [we] perform bells [will it be] auspicious?

There were large groups of ritual assistants, and OBI show that musicians were among them. Many highly specialized craftsmen existed – magnificent bronze vessels testify to that – and equally magnificent drums seem to point to specialized instrument makers.

But three millennia earlier – during early Neolithic times – society was organized on a much smaller scale. The village was the primary unit, and it yielded limited resources. Craft specialization could not develop. Societies in the central region were confined to such intra-village structure before 2500 BC (Fig. 2). They have left no drums, but vase decorations show dancers (Fig. 3). Both vases have the shape of a *pen* basin. The upper one has three groups of five dancers, and the members of each group hold hands. The end of a narrow hair braid is seen on the left side, and a tail⁹ or a penis protrudes on the right. The lower vase may show pregnant dancers.

The first drums come from the second level of development when “villages had developed political, economic, and military bonds that lead us to find the following phenomena in the archaeological record: the beginning of internal differentiation into poor and rich classes; evidence of internal and/or external violence; specialized handicrafts (such as pottery); the existence of religious specialists, probably in the exclusive service of the chieftain class. Under these conditions, intervillage leagues of a more or less permanent nature had formed, administered by full-time rulers. We classify the Shanxi, Henan, and Shandong Longshan Cultures at this level; the Dawenkou Culture of the east coast may have reached this degree of development, but we are not certain yet of the classificatory status of the Miaodigou II Culture in the interior”¹⁰.

DEFINING DRUMS

What is a drum? Which are the minimum requirements for us to consider a Neolithic pot a drum? First we need a hollow body, rigid enough to withstand the pressure of a taut membrane. The latter is usually made of skin¹¹, and rarely survives. What survives are rows of hooks surrounding the aperture, presumably for attaching the skin. Man-made holes in the pottery may also be significant, especially if they are near the bottom of the vessel. They would have rendered it useless as a liquid container but would have improved the acoustic properties of a drum. But these criteria are suggestive, rather than absolute, requirements. Hooks around the opening for the skin might merely be posts for attaching a lid (Fig. 4)¹². Several examples of such close-fitting lids are known. On the other hand, hooks may not be necessary at all. Today there are many types of drums (especially in Africa and East Asia) where the skin is securely attached by ropes woven around the drum.

Holes are another matter. Vent holes are necessary to allow external and internal pressures to equalize when weather changes, but these may be tiny and escape the notice of archaeologists who

⁷ Figs. 1, 2, 5, and 14 used a consistent color scheme to separate the eastern, central, and western regions.

⁸ Tong 1982, 51, OBI 32; 53, OBI 36; 55, OBI 43.

⁹ Jin (1978) thinks they are tails and draws attention to *Shan-hai jing*, a text of the Warring States and earlier, which asserts that the Queen Mother of the West wore the tail of a panther. Hunting magic is also invoked.

¹⁰ Chang 1983, 513–514.

¹¹ For Yunnan drums, their political and ritual significance, and current bibliography, see Murowchick 2002. For Dian drums, see Lutz 1986, nos. 7, 13, 25, 27. Instead of skins they have bronze membranes, a technical point that qualifies them as gongs.

¹² Li 1976, Fig. 1.

recover vase fragments. Larger holes turn the drum body into a Helmholtz resonator which influences the sound. To reveal the holes, cross-sections of pottery should always be included. It forms crucial evidence, showing, for example, the central bottom hole in Fig. 6,6.

But even large holes do not necessarily prove the vessel to be a drum. It has been speculated that one such vessel may have been a child's coffin where the hole permitted the spirit of the dead to visit relatives¹³. Both hooks and holes must be interpreted with caution.

The methods of Experimental Archaeology could illuminate the situation. If a modern drums skin could be securely fitted to a reproduction of the pot, and it give a "reasonable" sound, the object could surely have been a drum. Problems remain, however: would Neolithic ears also judge it "reasonable"? If so, would this sound move the Neolithic person to use it as a drum? There can never be full certainty in pre-historical research, but when we find many examples of the same type of "drum" spread across large areas, I will consider them drums.

Chinese archaeologists have surveyed the field and identified a number of Neolithic drums, and I adopt some of the material presented by Guo¹⁴. Chinese musicologists have also looked at the field, in particular Li Chunyi¹⁵. But his Neolithic material has not convinced all musicologist, and it also needs updating.

SURVEYING DRUMS

The eastern geographical region

The first evidence for drums comes from the earliest phase of the Dawenkou Culture¹⁶, which flourished in Shandong Province. All known pottery has consistent features: there are 15–20 hooks encircling the opening at the top. The vessels are fairly small (17–36 cm high), and have several tiny holes (ca. 6 mm diameter) on the sides and a slightly larger hole through the bottom¹⁷. Considering the presence of hooks and holes, most of these pots are likely to be drums. There are few lugs for carrying straps, so, presumably, most drums were played by seated drummers.

Excavations at the site of Wangyin are well documented¹⁸. The tomb drawing in Fig. 6 shows the drum lying near the feet of the male skeleton. The placement will later be compared to a western burial in Qinghai Province.

The central geographical region

The drums excavated in the central region¹⁹ come from a later period, cover a wider area, and exploit a greater range of shapes. Those from Zijing,

Yanggua, Huxizhuang, and Buzhaozhai have holes²⁰, and hooks. They were accepted as drums by Guo²¹, but I am slightly doubtful about the Buzhaozhai vessel since it seems to lack hooks (but it has large holes along a band around its midriff). Hooks seem to be universal feature of all other vessels considered drums at this time. Moreover, the Buzhaozhai vessel comes from a place well outside the Shaanxi provenance of the others.

The shape of the vessel from Dazhang differs from all others. Judging by its set of hooks around the upper broad opening and the large hole near the bottom, it may be a drum. Its waist resembles that of some other drums in this region, but the proportions are unique. Again, this difference, and its location far from most drums, makes me hesitate calling it a drum.

The youngest set of drums in this region come from Taosi (Fig. 7), a site located in Xiangfen county, Shanxi Province, some distance from adjacent drum regions. The very large site (1.5 x 2 km) contains a gigantic cemetery with several thousand graves²². By the mid-80s, a thousand had been opened and displayed great variations in wealth. It is a remarkable site from a musical point of view. Nine large tombs contained musical instruments, such as chime stones (*qing*), small bells (made of copper and clay)²³ and large wooden and ceramic drums, ca. 100 cm in length. Beside the drums in tombs M3015 and M3002, there were also chime stones, 80 and 95 cm long with weights of 33 and 43 kg²⁴. Another chime stone in the neighborhood is 138 cm long and weighs 78 kg. But the most astonishing find were wooden objects, including drums²⁵. Tomb M3015 contained two drums placed in vertical position (Fig. 7)²⁶, as were those in tomb M2001²⁷. One was made from a hollowed-out tree trunk, the other from pottery. The

¹³ Rawson 1996, 43.

¹⁴ Guo 1991. Also cited in Tong 2002, Fig. 2. There are others, e.g. Chen 1990, but he deals with all types of Neolithic instruments, such as drums, suspended sounding stones, bells, flutes, vessel flutes, and rattles in a brief round-up.

¹⁵ Li Chunyi 1996, 2–29.

¹⁶ Labeled period 7 and given blue color in Figs. 1–2, 5, 14.

¹⁷ The drawing of the vessel from Zhufeng is unclear, but it probably also has the central bottom hole. Some of the vessels from Yedian are also unclear since no cross sections are given.

¹⁸ Shandong 2000, esp. 271, Fig. 228,6–7, Pl. 175,3–4.

¹⁹ Brown color scheme in Figs. 1–2, 5, 14.

²⁰ But only Huxizhuang has a central bottom hole.

²¹ Guo 1991, 126.

²² Yang 1999, especially Figs. 1–8, 3–1 (upper left side), 3–19.

²³ Chang 1986, 279.

²⁴ Li Chunyi 1996, 31–32.

²⁵ For examples of other brightly colored Taosi objects, see Yang 1999, 107, 109–114.

²⁶ Gao/Li 1983, Fig. 5.

²⁷ See discussion in Wagner 2000, 20, Fig. 7.

former was ca. 100 cm long, with diameters of 43 (above), and 57 cm (below). On the outside it was covered in red lacquer, with patches of white, yellow, black, and sapphire-blue. The inside contained alligator bones and skin, probably imported from the east coast²⁸.

The Taosi site has left several more vessels which may be drums, but little information has so far been published. The one in tomb M3072 seems to lack hooks, but has several large holes near the bottom, as has the one in tomb M3002.

The western geographical region

The western corpus possesses all the characteristic features of true drums. The upper part flares to a top of about 20 cm diameter. Around its rim are a set of hooks (Fig. 8) to which the skin is likely to have been tied. Their lower part is a narrow tube which expands at the very bottom. Each vessel has a pair of lugs on one side. The tube fits conveniently under the player's arm while the other hand beats the skin. With a strap tied to the lugs, it could also hang around the player's neck.

The Gansu Provincial Museum in Lanzhou has a large collection (Figs. 9 and 10)²⁹, mostly acquired on the local antiquities market. But several were found in scientific excavations at Yangshan, Minhe county, Qinghai Province,³⁰ and Leshanping, Yongdeng county, Gansu Province. All the drums come from a small region near the border of the eastern ends of these provinces.

There is a second museum in Lanzhou, the Lanzhou Municipal Museum. Although much smaller, it has fine collections of drums – with five on display (Fig. 11). All drums were displayed with their wide end downward, but they were inverted in the photos³¹. One of those in the Provincial museum (no. 47270) has a ridge along the narrow funnel part. It has 10 holes, suitable for decorative tassels. A similar ridge was present on a drum in the Municipal museum.

The tomb content at Yangshan is clearly presented in the excavation report. Allow me to quote some comments on it by Louisa Fitzgerald-Huber, an authority on Chinese prehistoric pottery:

There is something curious about two of the drums recovered from the Yangshan site: namely, that each came from a grave (M60 and M 147)³² that contained two male skeletons, in both cases one of them old and the other relatively young. But I have no idea what, if anything, to make of this observation. Double male burials at Yangshan are very rare (only about four out of over two hundred burials), but the others do not have drums. The third Yangshan grave (M23) from which a drum was recovered, on the other hand, included the bodies of four persons, an old man, an elderly woman and a young woman, along with

remains of someone else whose sex and age could not be determined³³.

In contrast to these drum burials in tombs with multiple skeletons in western China, the eastern ones contained only one body (Fig. 6). Eastern drums were placed near the feet, while western ones were near the head. Such distinctions imply considerable independence in usage across the vast region possessing drums.

With their large top mounted on a narrow and hollow foot Western drums were goblet drums. This type is now found in many areas of the world and is well documented in the ethnographic literature. In the vicinity of China we note the *ò-zi* from Myanmar, the *klōng yāō* from Thailand, and the Dai drum from Yunnan, as well as specimens in New Guinea³⁴. In antiquity there is a remarkably close similarity with drums excavated in Beycesultan, Anatolia, dated 1900–1550 BC (Fig. 13)³⁵. The excavators, who worked in the mid-1950s, did not doubt the objects were drums. The similarities include the goblet shape, the size, the hooks, the lugs (although they are placed differently here), but there is also an important difference: apparently, it had no vent holes (at least none is shown on drawings). Migration over such a long distance is unlikely and must be discounted until drums of similar age are found in intermediary regions. Until then, we consider them early independent inventions. The similarities across time and space may be connected to the goblet shape. It is an efficient design: the narrow cylindrical lower part is easily held with one hand, under one arm, or between legs, while the skin is beaten with the other. The expanding top accommodates a large skin that could radiate large sound and provide ample space for dexterous manipulations. The advantages of this design may have occurred to many drum makers.

Before concluding this microscopic survey of Neolithic drums in China, let's return to view the

²⁸ Li Liu 1996, 8; also Zhou 1982, 260 and Pl. 1. The concept of alligator drums continued into the Shang and Zhou dynasties, and I will treat them in a sequel to the present paper.

²⁹ Some were discussed, dated, and shown by Yin 2001.

³⁰ Peng/Zhang 1990, esp. Figs. 35, 88, 92, and Pl. 15–16.

³¹ In archaeological reports heads also point straight down, and the musicological literature follows suit. Judging by ethnographic material, played drums have heads pointing anywhere from 45° below the horizontal to 90° above it.

³² M60 and M23 are given in Fig. 12.

³³ Private communication on May 8, 2002.

³⁴ For a large hour-glass drum in New Guinea, see Sachs 1928, Fig. 86.

³⁵ Lloyd/Mellaart 1965, Fig. 23A, Pl. P.8, no. 17, P.23, no. 6, P.29, no.3.

two first pictures. The map (Fig. 1) shows a narrow belt of drums along the Yellow River. It defines the prehistoric drum zone. Prehistoric cultures are known all across China, and they are associated with abundant pottery, but the only cultures with pottery drums occurred in this geographical zone. On the time scale, the drums also define a narrow zone (Fig. 14). They first appeared in the east ca. 4000 BC and a millennium later in central and western China. The zone cuts a millennium-wide swath through history (Fig. 2). The bone flutes from Jiahu (7000–5800 BC) preceded it, and a Dark Age followed. Drums re-emerged

during Shang – as seen on OBI and archaeological material. Wooden drums may have replaced pottery models during the Dark Age, a technique perhaps initiated at Taosi. Wooden drums could more easily be built on larger scale.

Drums of the Shang dynasty were large, and their range of musical instruments was wide. Music occupied a prominent place in the elaborate rites led by a powerful king. Before this, during the Neolithic, society was less centralized, and its various centers held more circumscribed rites. Most of the drums considered here, belong to this early phase.

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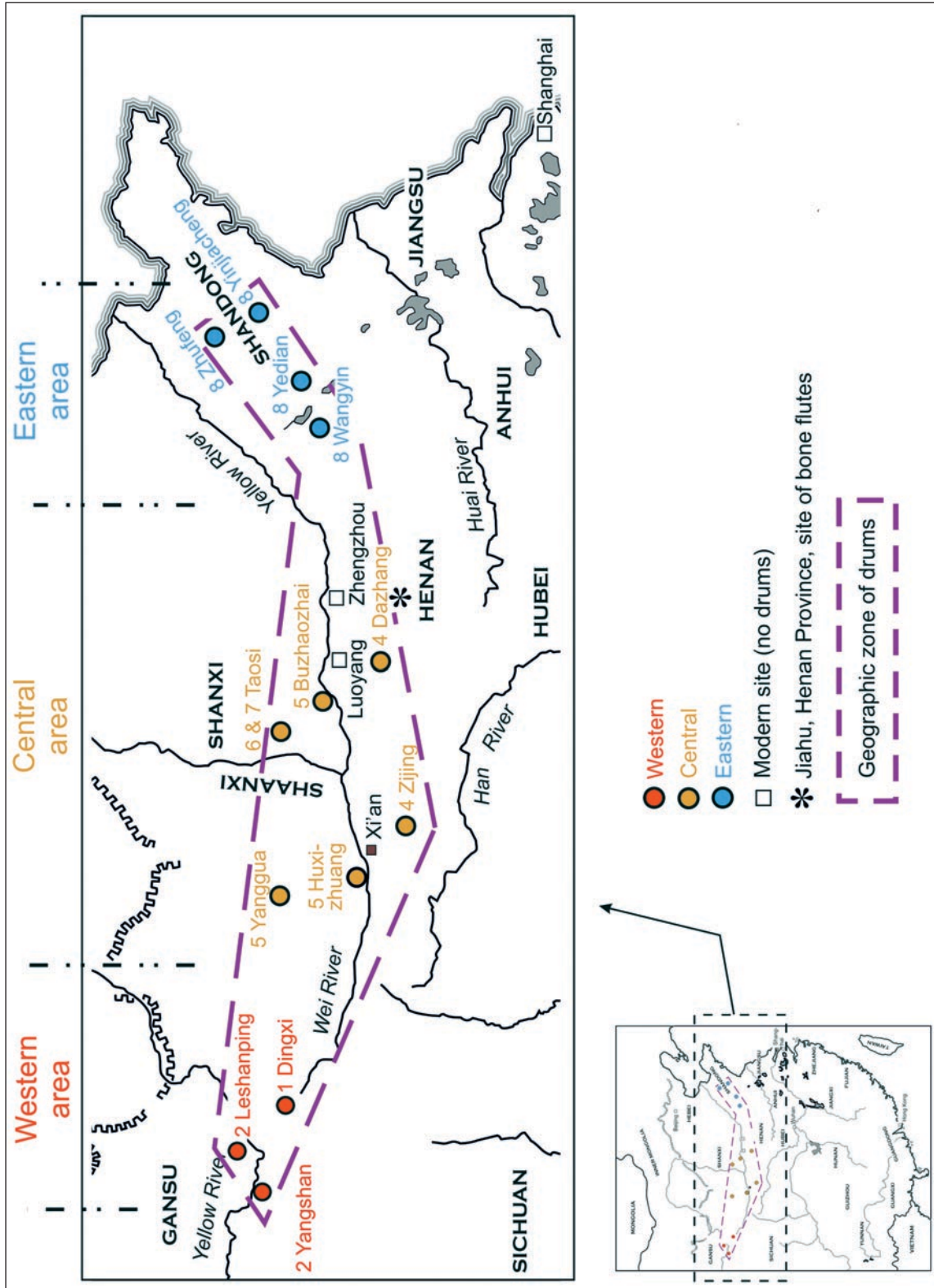


Fig. 1 Location of the Neolithic drums shown in Fig. 5. Drums in each of the three regions (East, Central, and West) are distinct.

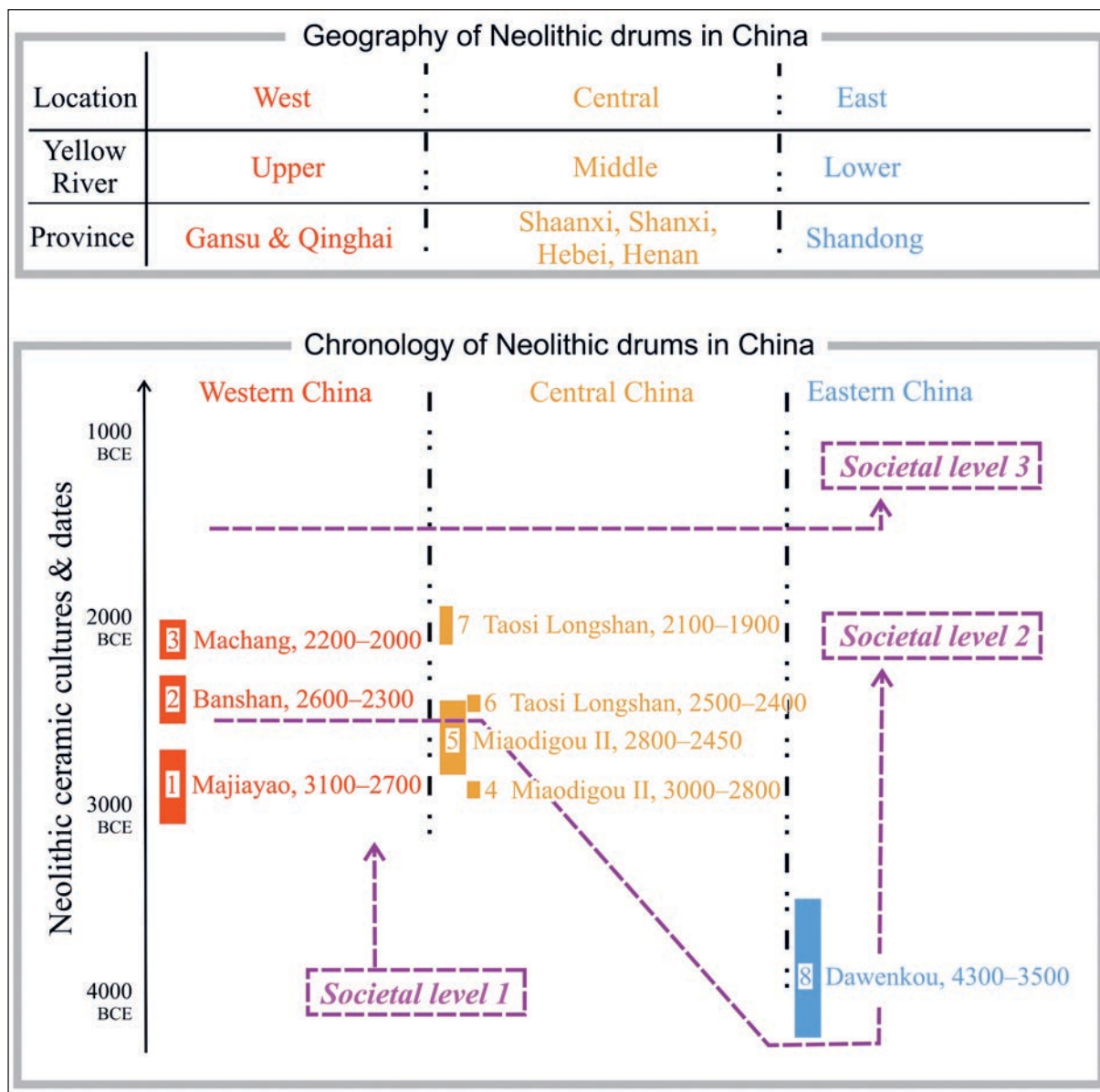


Fig. 2 Geography and chronology of drums in the three regions of Fig. 1. The terminology in the lower diagram is discussed in the text.

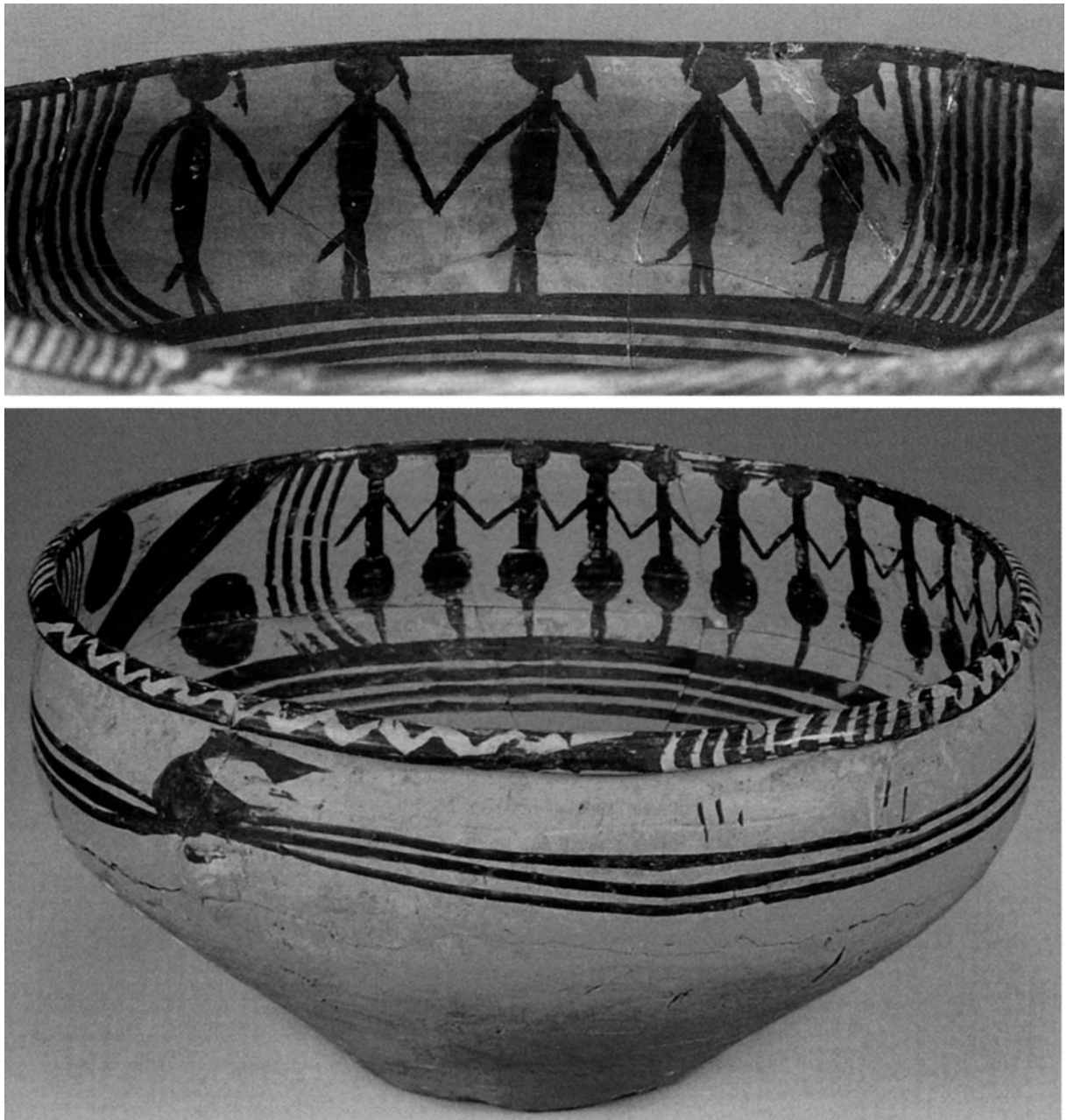


Fig. 3 Two dance scenes on *pen* vessels from Qinghai Province (West China). They were made during the early Majiayao culture (Shilingxia phase), ca. 3900-3500 BC. Above: A *pen* jar from Shangsunjiazhai village in Datong county. Below: A *pen* from Zongri village, Tongde county, tomb M 157.

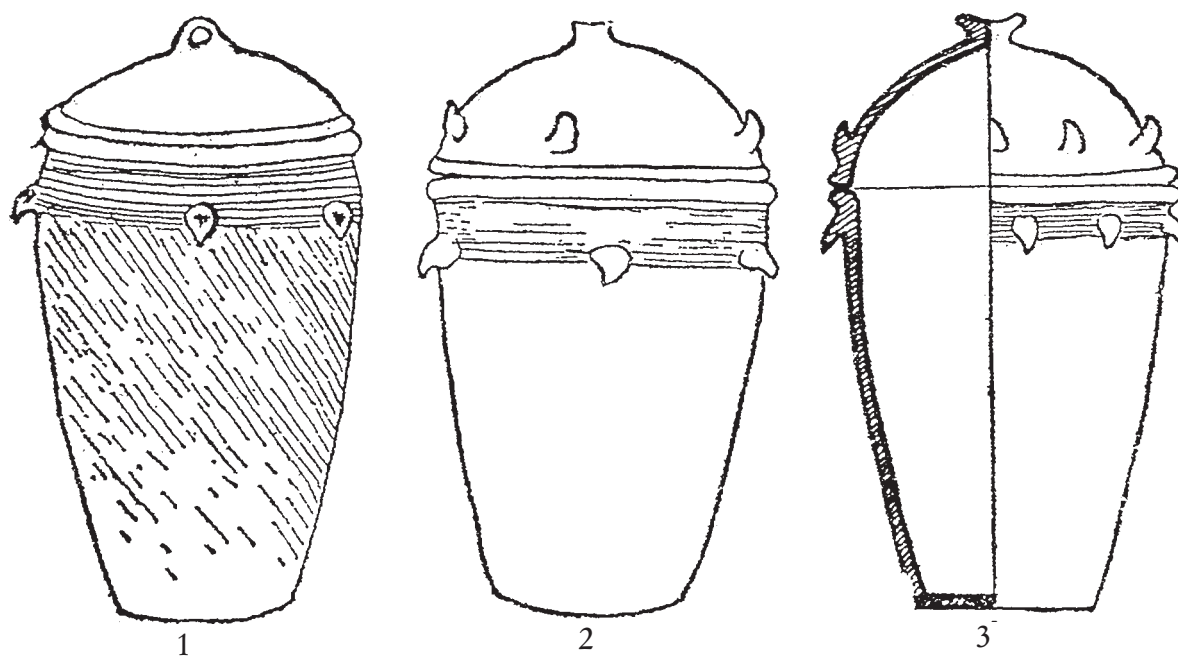


Fig. 4 A pottery vessel supplied with hooks meant for attaching a lid (Kaogu 1997.6, 356).

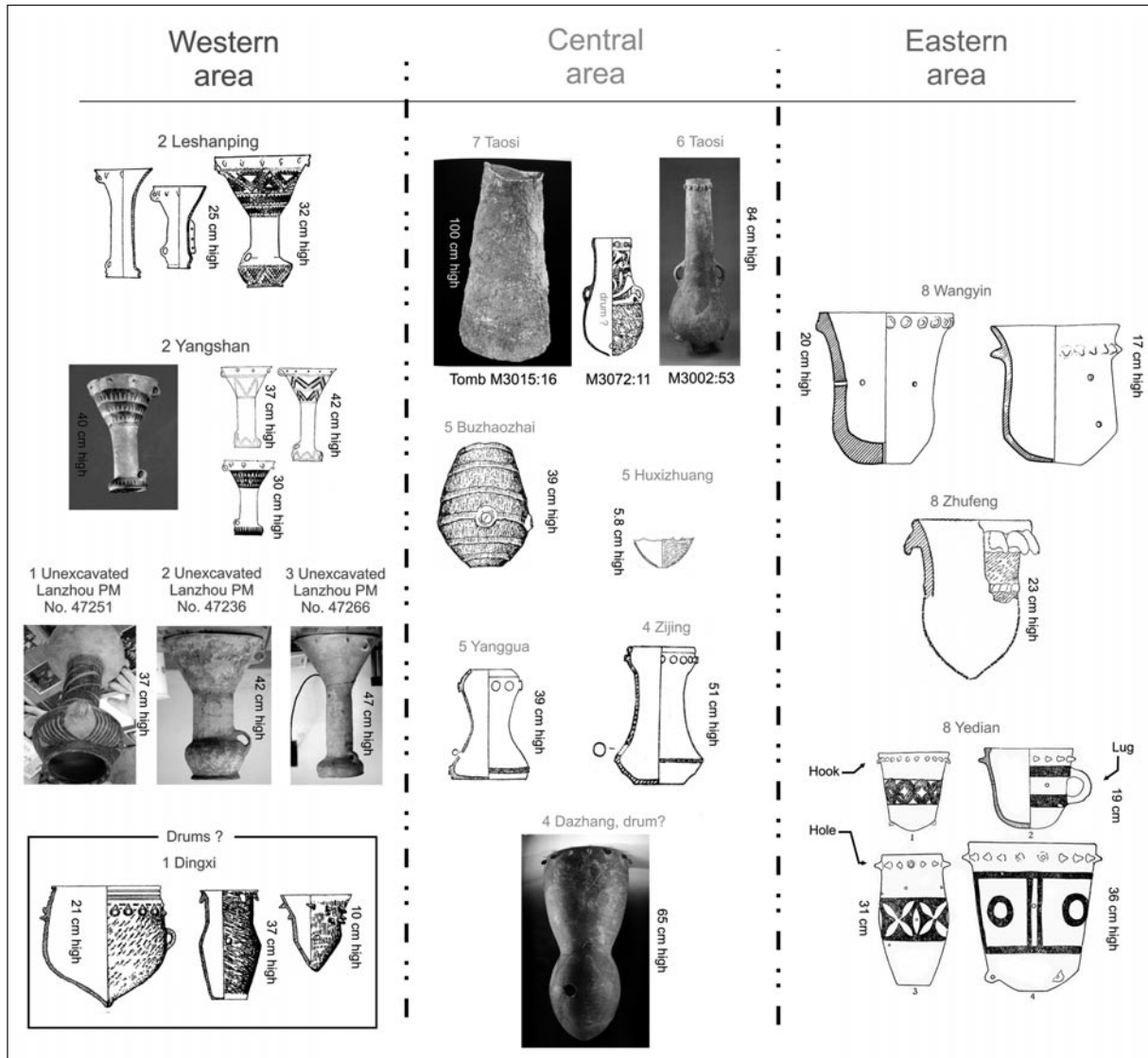


Fig. 5 Types of Neolithic drums in China. The three geographical regions correspond to those in Figs. 1 and 2. Here each drum description begins with a number corresponding to the periods and area defined in those figures.

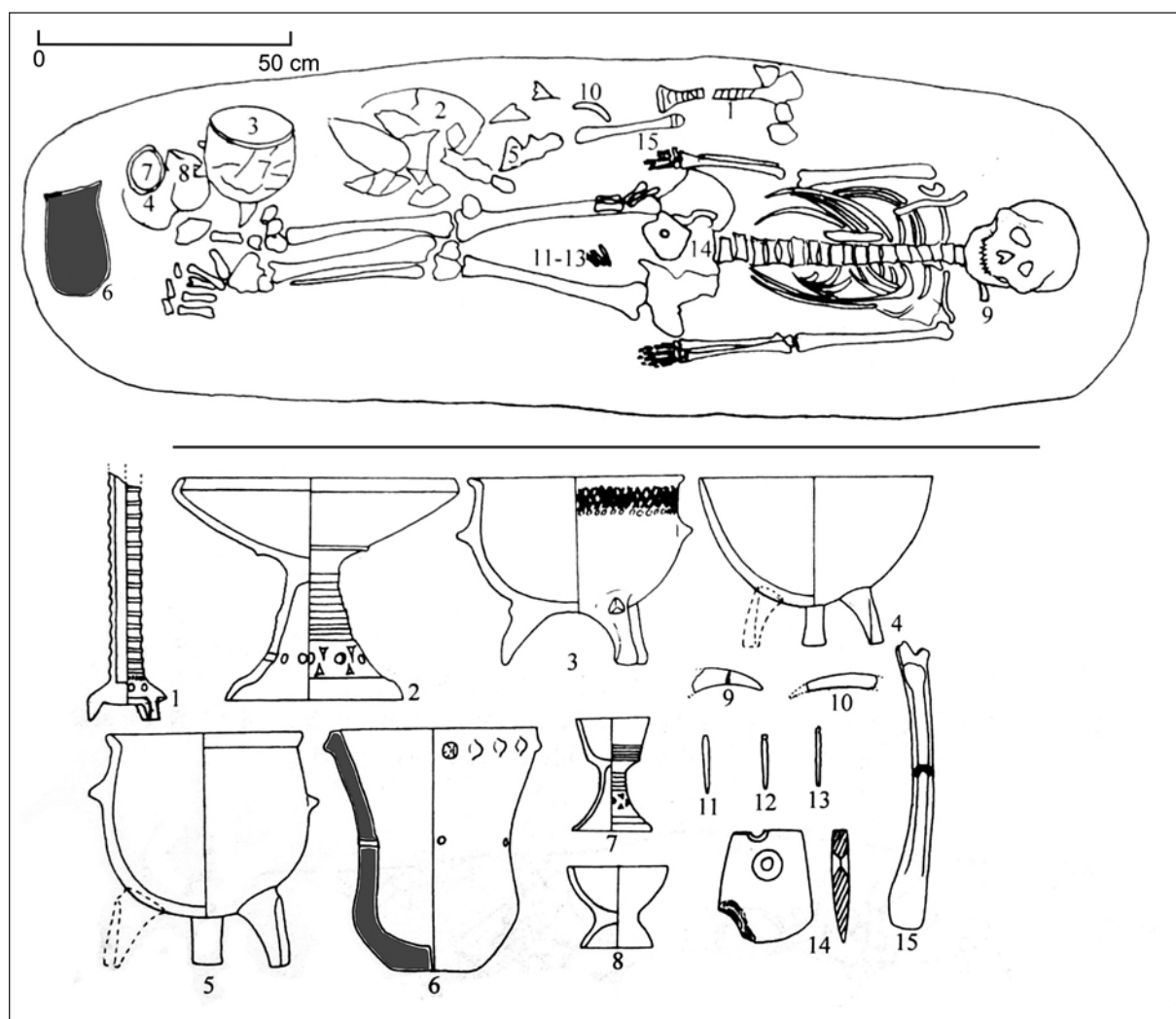


Fig. 6 Tomb 174 at Wangyin, Shandong Province.

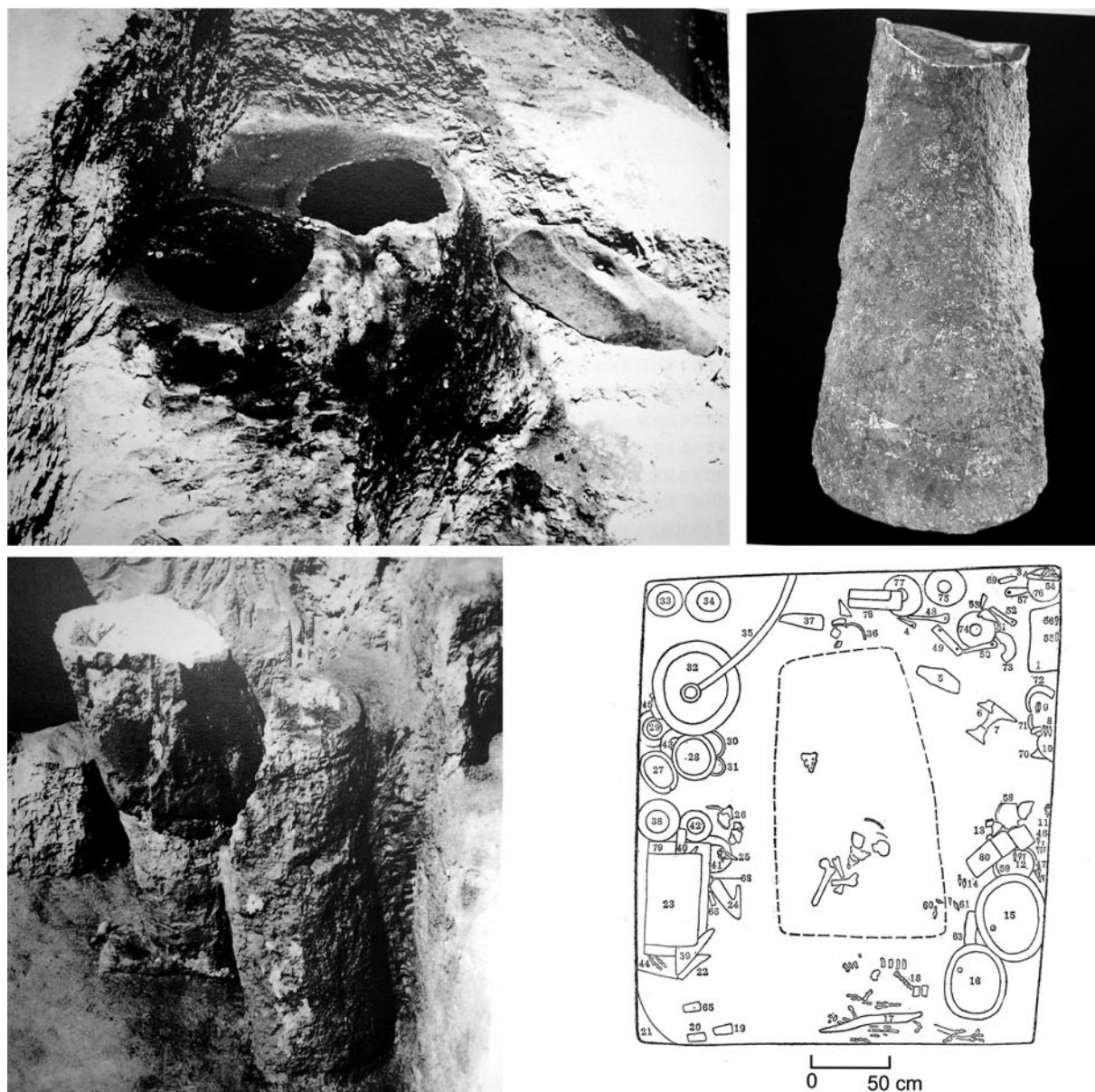


Fig. 7 Drums in tomb M3015 at Taosi, Xiangfen, Shanxi Province. In the tomb drawing nos. 15 and 16 show the tops of the drums in the three photos. Ca. 2000 BC.



Fig. 8 Hooks at the rim of vessel No. 47251 (Fig. 9a, 3100–2700 BC). Gansu Provincial Museum.

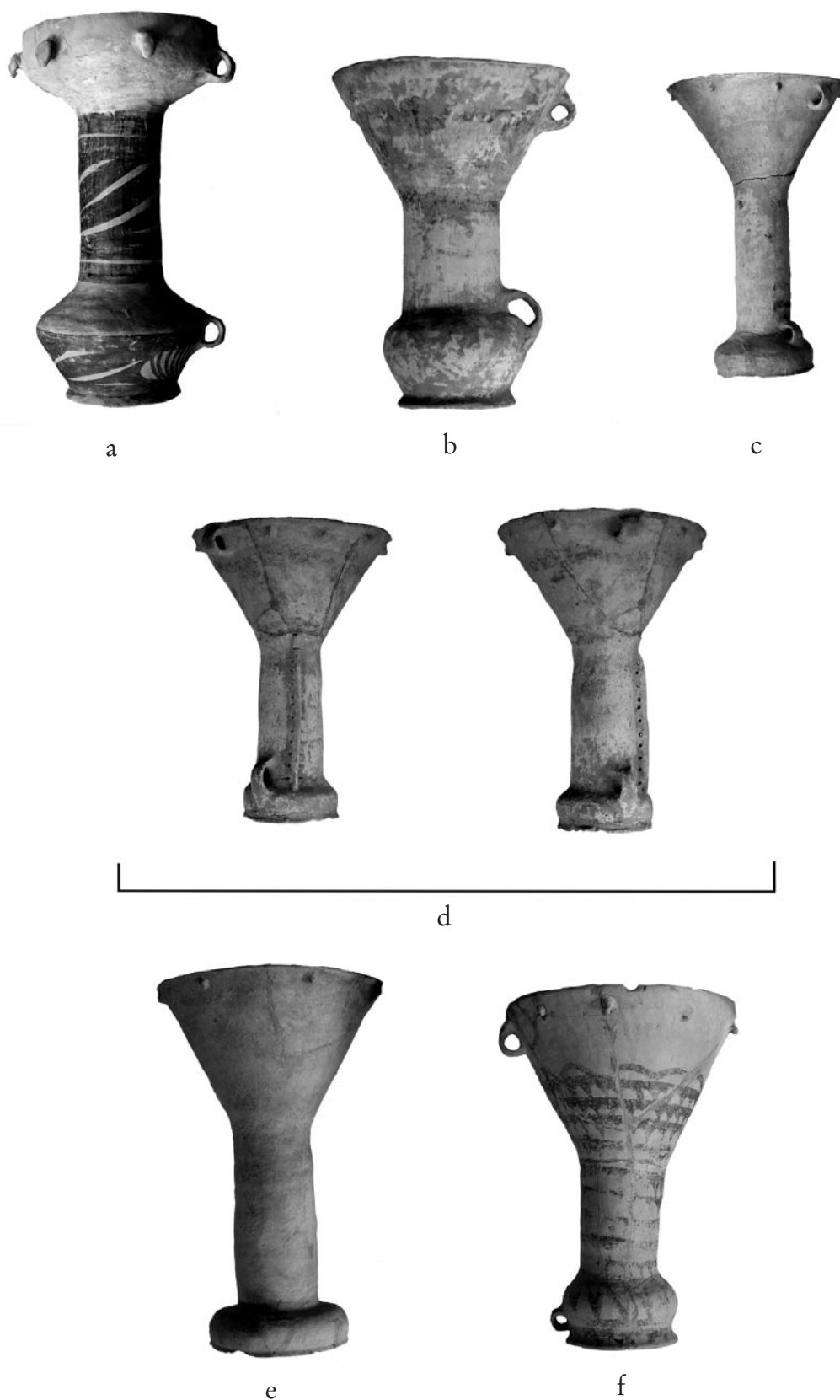


Fig. 9 Pottery drums in Gansu Provincial Museum, Lanzhou (1). All drums here and in Fig. 10 are shown at approximately the same scale. – a. 1 Majiayao, No. 47251 (3100–2700 BC). L=37.5 cm, 6 hooks; b. 2 Banshan, No. 47236 (2600–2300 BC). L=42.5 cm, 8 hooks; c. 3 Machang, No. 47266 (2200–2000 BC). L=47.5 cm, 7 hooks; d. 3 Machang, No. 47270 (2200–2000 BC). L=29 cm, 9 hooks. 11 side holes; e. 3 Machang, No. 47237 (2200–2000 BC). L=46 cm, 6 hooks; f. 3 Machang, No. 47243 (2200–2000 BC). L=27 (or 18.5?) cm, 6 hooks.

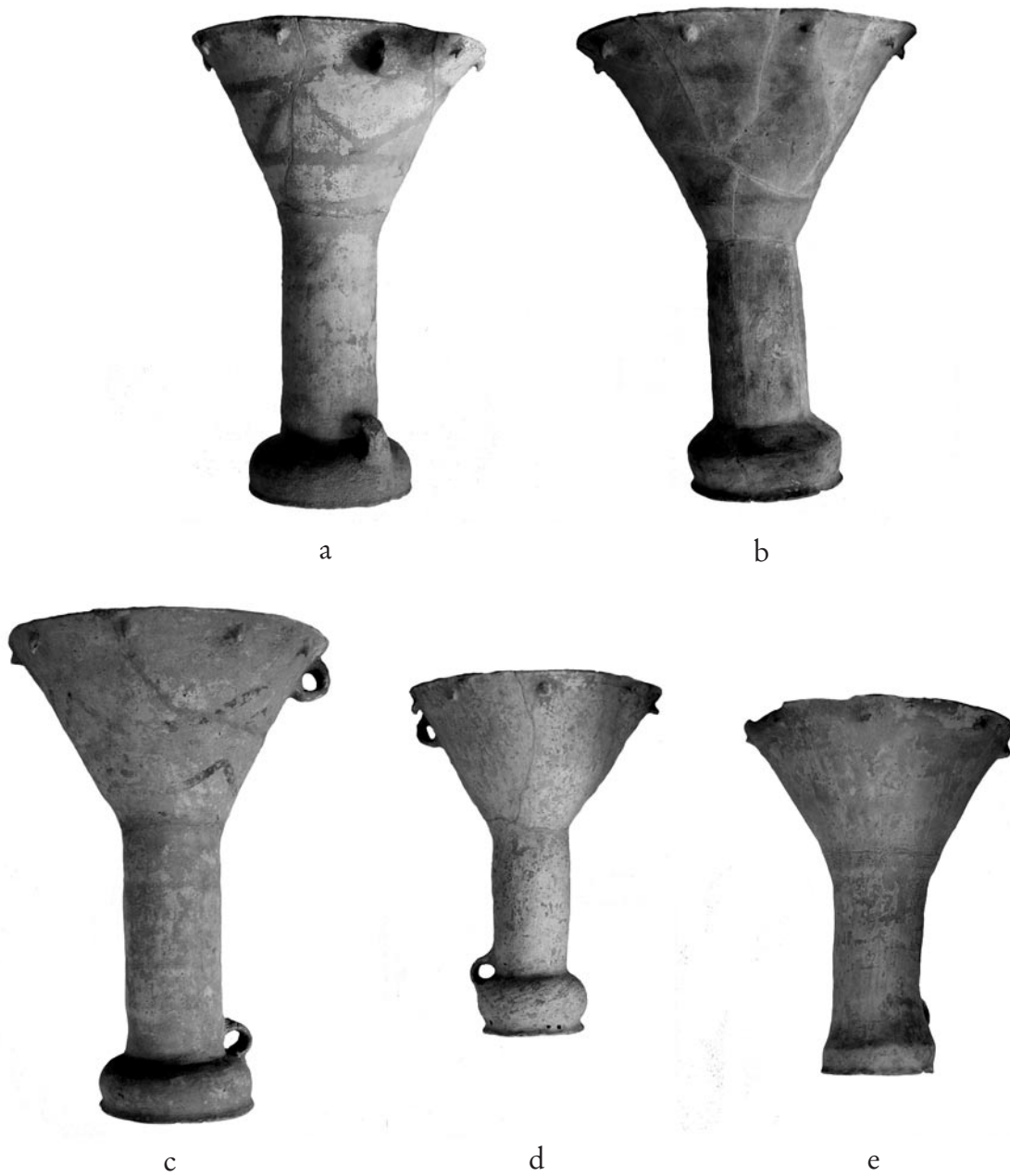


Fig. 10 Pottery drums in Gansu Provincial Museum, Lanzhou (2). – a. No. 47265. L=42 cm, 8 hooks; b. No. 47264. L=45.5 cm; c. No. 47267; d. No. 47268. L=35 cm, 8 hooks. Pair of holes drilled into bottom; e. No. 47269. L=28 cm. 7 hooks.



Fig. 11 Pottery drums displayed in Lanzhou Municipal Museum.

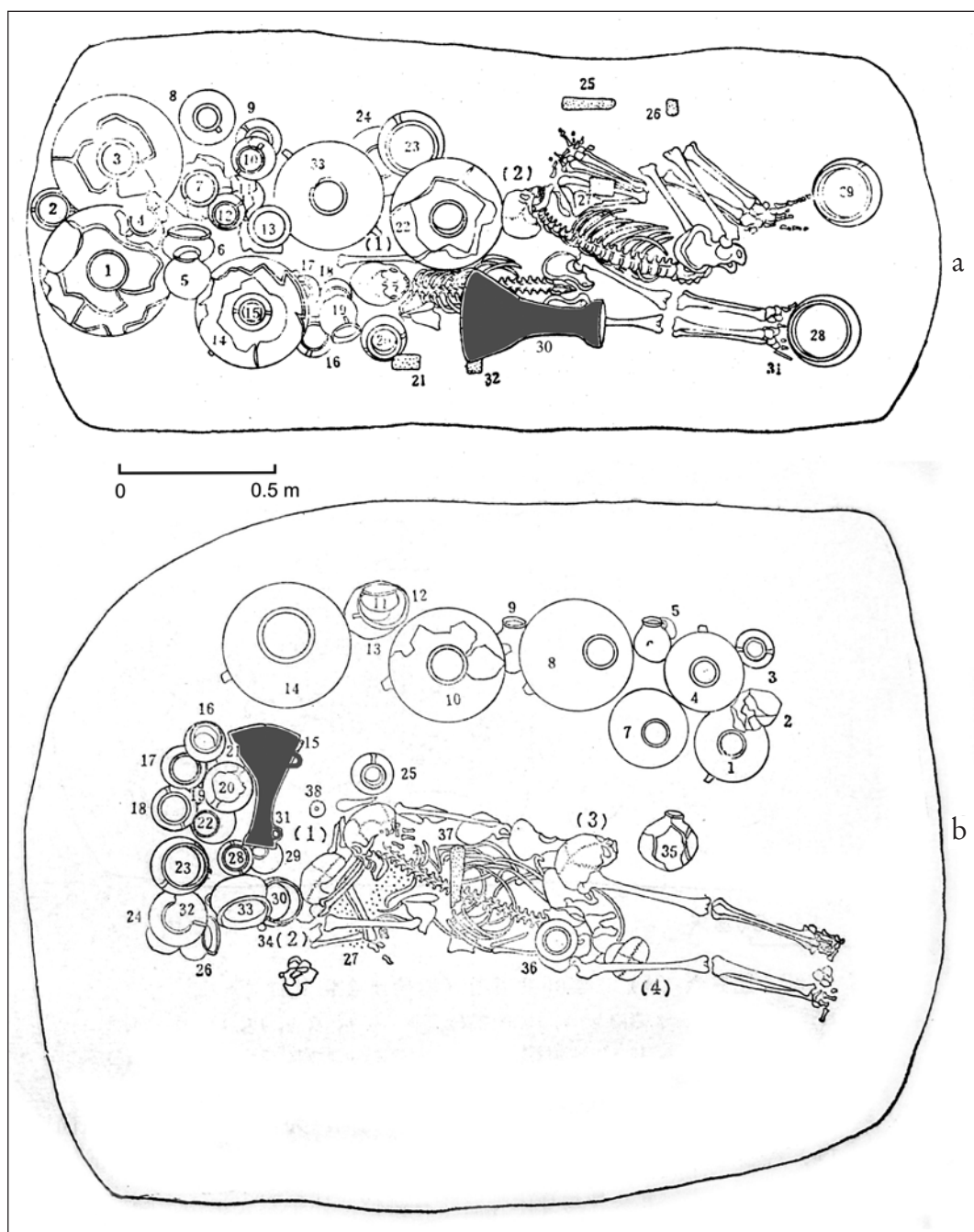


Fig. 12 a. Yangshan, Qinghai. Tomb M60. Double burial. Drum is No. 30. – b. Yangshan, Qinghai. Tomb M23. Double burial. Drum is No. 15.



Fig. 13 Beycesultan, Anatolia (1900–1550 BC). Excavated in the mid-1950s by Seton Lloyd and James Mellaart. Previously unpublished photo. Published by courtesy of The British Institute of Archaeology at Ankara.

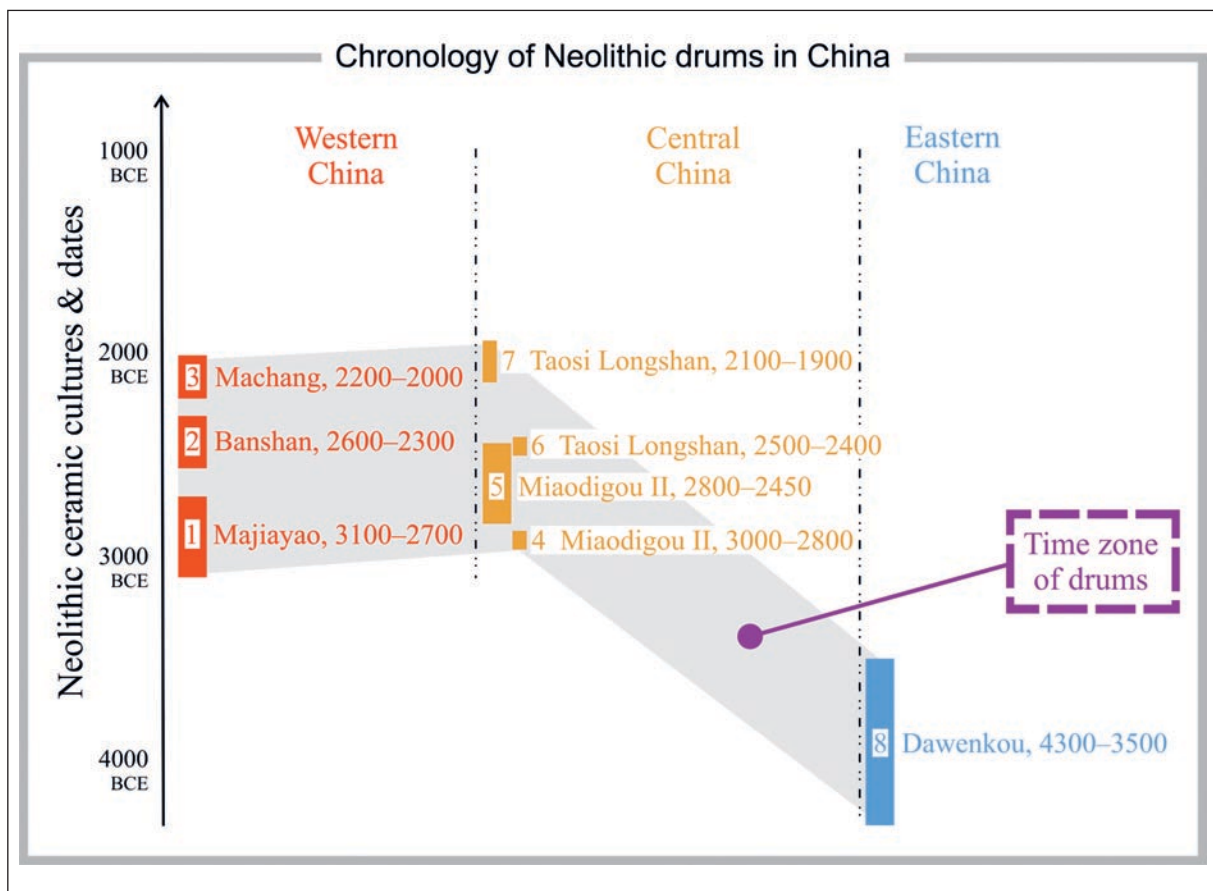


Fig. 14 Chronology of Neolithic drums in China (Cf. Fig. 2). The time zone of drums.