

LOOKING EAST

The Story of Bronze

By Xiang Zhonghua



Foreign Languages Press

Contents



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Preface

Copper is a form of wealth that the Great Mother Earth bestows on mankind. The human race finally reached the age of copper refining after cutting and grinding stone and firing pottery, and saw the first light of civilization after groping in darkness amid hardships for centuries.

To recall the age of bronze is to understand the importance of metal to human civilization, an age of casting and sculpting that has imbued history with a sense of dignity and hardness since remote antiquity. With ancient grace and pristine beauty, every piece of bronze ware we see now impresses us with its brassy yet shining tint, seemingly to testify to us that it has gone through many severe frictions in the long tunnel of time and that it is a product of the wisdom and hard work of mankind. Bronze is part of the historical record. With an appreciative and relaxed eye, we can witness in bronze the birthmark of primitive civilization, discerning the traces of ancient craftsmanship, looking for the train of thought of the ancients, savoring their esthetic and technological achievements, and getting a glimpse into the formation of the traditional mentality and cultural traits of the Orient.

I





■ Simuwu Ding, Shang Dynasty, unearthed at Houjiazhuang Village in Anyang, Henan Province.



Ancient bronze was born together with such advances in civilization as writing, cities and states. Be it a great coincidence or an arrangement by Heaven, it was nevertheless the embodiment of the greatest artistic and technological advance in art at the time when the first light of civilization dawned. Though no names of the great bronze masters are preserved, a large number of masterpieces have been passed down to posterity.

In every nation's history of development, there is, without exception, an invaluable "bronze age." Bronze relics, no matter what their use or degree of ornamentation, are "envoys" dispatched from that remote age.

In China, the bronze age refers especially to the period covering the Xia Dynasty (2070-1600 BC) to the end of the Warring States Period (770-476 BC) — over 1,500 years. It is mainly in the bronze wares which they handed down that the forefathers of the Chinese nation give us a glimpse of their lives — their glories and sorrows, dreams and hardships, and even their thoughts and ideas.

Perhaps, much of the spirit embodied in bronze ware has melted into our blood without our being fully aware of it. Moreover, a foreigner who wishes to understand this ancient land of the East may find inspiration from the inner world of ancient Chinese bronze ware, so as to have a fuller understanding of China and its people today.

III





■ Crouching tiger *ding* with flat *kui*-dragon legs, Shang Dynasty, unearthed at Dayangzhou, Xingan County, Jiangxi Province

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Chapter I

Bronze in Remote Antiquity

The ancient Chinese theory of the "Five Elements" holds that the world is formed of five materials, namely, metal, wood, water, fire and earth. To be listed as one of the five basic elements indicates the importance of metal in the minds of the Chinese people in remote antiquity. Here, metal primarily refers to copper, the use of which can be traced back to the days of primitive clan society.

Guan Zi (a book written by Guan Zhong of the Spring and Autumn Period [770-476 BC]) says, "On Mount Gelu a stream shot out, and along with it metal appeared." And, "On Mount Ronghu a stream shot out, and along with it metal appeared." Here, metal means copper. The book also records that Chi You, a mythological warrior who fought against the legendary Yellow Emperor (said to have lived in the 26th century BC), used copper to make bronze weapons such as swords and spears. In addition, the book claims that there were 467 mountains in the area of what is now central China where copper was found. The *Records of the Historian*, written by Sima Qian of the Han Dynasty (206 BC-220 AD), includes the following record: "The Yellow Emperor collected copper from Mount Shoushan and cast *ding* (cauldrons with either three or four legs) at the foot of Mount Jingshan."

While most of the mountains named in these records remain unidentified, the documents are clear evidence that people in the remote past had discovered and begun to use copper.

■ Animal-mask square *ding* with patterns formed by round nail heads, Shang Dynasty, unearthed at Zhangzhai Village, Zhengzhou, Henan Province

001

Bronze in
Remote Antiquity



Rosy Copper and Brass

Natural copper exists in two forms: One is the rare pure copper, also called rosy copper as it has a red tint, and the other is ores containing copper, including malachite, azurite, chalcopyrite and chalcocite.

Natural copper is fairly soft, and simple forging and grinding can turn it into various kinds of utensils and tools, such as small knives and awls. People in ancient times probably found pieces of natural copper when they were collecting stones to make tools, and processed it to make knives, awls or small ornaments in the way they processed stone tools. Bronze could have been discovered when pieces of malachite accidentally fell into a charcoal fire.

So far, the earliest copper products have been mainly found in the western part of Asia. For instance, in Iraq, ancient copper ornaments have been found dating from as early as 10000 BC. Similar ornaments almost as old have been found in western Iran, and copper needles and awls dating back to about 8000 BC have been unearthed in south Turkey. All these objects are made of natural copper, not made by smelting ore.





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Bronze in
Remote Antiquity



■ Owl-shaped zun, Shang Dynasty,
unearthed from Fu Hao Tomb, Xiaotun,
Anyang, Henan Province

The Story of Bronze

From using only natural pure copper to smelting the ore to obtain pure copper and then to making bronze alloy, the ancient people had groped in the dark for a very long time.

Brass is obtained by smelting copper ore. The earliest smelted copper known so far was discovered in Shaanxi Province, China, in 1973, when a semi-circular flat piece of brass dating from around 4700 BC was unearthed in the Jiangzhai Ruins at Lintong. Chemical analysis indicates that it was made by smelting ore containing copper and zinc over a charcoal fire. The temperature of the smelting was 950-1000 degrees Centigrade, a temperature the ancients had already been able to attain in the firing of pottery.

A Brief History of Bronze

In 1975, an intact bronze knife was discovered in the Majiayao Culture ruins of Lijia Village, Dongxiang, Gansu Province. It is 12.5 mm long and made of copper-tin alloy using the method of putting two moulds together. Dating back to about 3100 BC, it is the earliest product made of bronze so far discovered.

In the valleys of the Yellow, Huaihe and Yangtze rivers there are scattered large numbers of remains of copper



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rather than wine vessels being emphasized and the shapes and motifs tending to become simplified. Also, there was a rise in the number and length of epigraphs. Starting from the middle part of the Spring and Autumn Period (770-476 BC), as the power of the Zhou court declined, princes and dukes throughout the country vied with one another to cast bronze sacrificial vessels, which were symbols of their power and influence. The animal decorations on these vessels became increasingly more lifelike, and scenes of everyday life began to appear. This indicated that the influence of ritual and religion was waning, and by the end of the Warring States Period (475-221 BC), sacrificial vessels had disappeared, and bronze was reserved for weapons, and utensils such as bronze lamps and brass mirrors.

By the end of the Warring States Period, copper gave way to iron for the making of weapons and tools, leaving only brass mirrors and copper coins as reminders of the bygone age.





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Bronze in
Remote Antiquity



■ Bronze you engraved
with dagger-like epigraph,
Shang Dynasty, unearthed at
Huangcai Village, Ningxiang
County, Hunan Province