

## Introductions

By Carolyn Woodford Schmidt

[Introductions to the Online Exhibit, "From Heaven and Earth: Chinese Jade in Context:"]

---

**Table of Contents**

**INTRODUCTION TO EXHIBITION.....2**

**NEPHRITE AND JADEITE.....3**

**The Two Minerals Known as Jade: Nephrite and Jadeite ..... 3**

**Sources for Jade ..... 3**

**Suggested Further Reading: ..... 4**

        Mineralogy and Jade Working..... 4

        Ancient Chinese Jades..... 4

        Sources for Jade ..... 4

**TOOLS FOR WORKING JADE .....5**

**VALUES AND SYMBOLISM.....6**

## INTRODUCTION TO EXHIBITION

Over the ages, the Chinese built a remarkably ordered and coherent society that spread across an immense and varied landscape, a society for which the past of more than six millennia remains an ever-present vital part of its modern identity. As observed by Jessica Rawson in the introduction to *The British Museum Book of Chinese Art*, few societies before modern times have matched the extraordinary visual and technical virtuosity of the Chinese. Characteristics developed from very early periods in ceramics, jade, bronze, lacquer, silk, calligraphy, and painting fostered the development of a cultural and social identity. Distinctive features found in both the functional and decorative arts seem to be essential elements in the order and coherence of society so much valued by the Chinese.

In many ways, the history of jade reflects the evolution of Chinese culture, encompassing its long and eventful history, its shifting geographical boundaries, and the many regional sub-cultures and ethnic groups unified as modern China. From the Neolithic period to the present day, jade has been intimately linked to the beginnings of Chinese ritual and civilization. In fact jade is often cited as one of the defining characteristics in the continuity of Chinese culture. In the hierarchy of valuable materials, this remarkable substance has traditionally ranked above gold, silver, and the precious stones admired in Western culture.

As indicated above, the use of jade predates the use of bronze~ the only other material of comparable value in Chinese culture~ by several thousand years. As jade is a very hard stone, fashioning it into the desired shapes was an exceptionally long and painstaking process, especially when the only simple tools were available. Over the more than six thousand years of its use, a rich variety of functions and symbolic values were ascribed to jade. Above all, it came to be associated with power for those who used it in association with rituals and ceremonies or wore it in the form of ornaments.

From Heaven and Earth: Chinese Jade in Context celebrates the rich diversity of collections of Chinese art in the greater Columbus area. The jade objects are from a single private collection, which was thoughtfully assembled over the course of three decades, and which reflects the collector's scholarly interest in Chinese jade dating from the Neolithic period to the twentieth century. Contextual objects~ including handsome Neolithic storage jars, a highly refined and rare, archaic bronze cooking vessel, a group of Han Dynasty tomb warriors, and beautiful porcelains and scroll paintings~ were selected from distinguished private collections in the community and augmented by pieces from the collection of the Columbus Museum of Art. Together, they offer timeless tribute to the patience, training, skill, and virtuosity of their creators as well as lasting testimony to cultural and social continuity of the Chinese people.

## NEPHRITE AND JADEITE

### The Two Minerals Known as Jade: Nephrite and Jadeite

In Chinese, the word yū, meaning precious stone, is used for a variety of hard stones although only two are thought of as true jade: nephrite and jadeite. Nephrite, a silicate of calcium and magnesium of the amphibole group, is a mineral with a fibrous crystalline structure. It is less hard than jadeite, and when polished has a soft oil-like appearance. Nephrite was the primary material used in ancient China. Jadeite, a silicate of sodium and aluminum within the pyroxene group, is a mineral with an interlocking granular structure that can take on a high-gloss, glass-like finish. Both nephrite and jadeite are colorless or white when free of foreign elements. The pale tones of white jade were the tones most valued by the ancient Chinese. However, due mainly to the presence of compounds of iron, chromium, and manganese, both minerals exhibit a wide range of colors. Mottled and veined effects are common. Frequently, the original colors of archaic jades have been affected by contacts with chemicals in the earth or other organic substances. Nephrite has a range of browns, grays and greens that rarely occur in jadeite. The color range for jadeite is diverse as well, including bright greens and lavender tones, which have become popular in recent years. Jadeite was not worked extensively in China prior to the eighteenth century. Thus, most objects created before the latter part of Qing era (1644-1911) are of nephrite. Despite all the chemical and physical differences, the two minerals cannot always be distinguished from one another without the use of an electron microscope.

### Sources for Jade

Nephrite is found in large or small clumps or seams within larger bodies of non-precious rocks. Such pieces are usually split by weathering from the primary mass of rock in which they occur with the result that small and large boulders of jade are often washed down in rivers and streams. Based on recent identification, it has been demonstrated that the nephrite used during the Neolithic period came from areas in eastern China, particularly around Lake Tai in Jiangsu Province. Throughout most of its long history, however, it appears that Chinese jade carvers received their raw materials from river beds and quarries in distant regions. Until quite recently, the primary, if not the only, major sources for nephrite were areas near the Central Asian cities of Khotan and Yarkand in the present-day Xinjiang Uigur Autonomous Region of China. The jadeite mines of upper Burma, now modern Myanmar, were not exploited until the eighteenth century and the same appears to be true for the nephrite mines in Siberia, which produce the highly valued, mottled-green stones, commonly referred to as "spinach jade."

## Suggested Further Reading:

### Mineralogy and Jade Working

\* For a well illustrated work that covers, with detailed descriptions of distinctive features, an extensive range of gems and precious stones, including nephrite and jadeite as well as other ornamental materials such as ivory, amber, and man-made substances, see: Curzio Cipriani, and Alessandro Borelli, *The Macdonald Encyclopedia of Precious Stones* (London: Macdonald and Company Publishers Ltd., 1986).

\* The essay covering the gemological aspects of jade by Jill Walker, "Jade: A Special Gemstone - The Gemology of Jade," is indispensable to connoisseurs, gemologists, and general readers with interests jade; see, Ladislav Keverne, *Jade* (New York: Lorenz Books, 1995), 19-41.

\* Of general interest to both professional gemologists and enthusiasts, the sixty-four-page publication *Jade* (Bethesda: Gem Book Publishers, 1996) from the Fred Ward Gem Series, provides an easy-to-read and fascinating history of jade, especially pages 3-5 and 8-25.

### Ancient Chinese Jades

\* Carol Michaelson, "All Excellent Qualities... Chinese Jade from the Neolithic to the Han," Jill Tilden, *Silk and Stone: The Art of Asia* (London: Hali Publications Limited, 1996), 176-85.

\* Angus Forsyth "Neolithic Chinese Jades: Hemudu to Erlitou Period," Ladislav Keverne, *Jade* (New York: Lorenz Books, 1995), 49-87.

\* Ann Aerts, Koen Janssens, and Fred Adams, "A Chemical Investigation of Altered Chinese Jade Objects," *Chinese Jade: Selected articles from Orientations 1983 - 1996* (Hong Kong: Orientations Magazine Ltd., 1997), 170.

\* Jessica Rawson, "Jades and Bronzes for Ritual," *The British Museum Book of Chinese Art* (New York: Thames and Hudson Inc., 1996), 44 and 48-54.

### Sources for Jade

\* Elizabeth Childs-Johnson, "Jade as Material and Epoch," *China 5,000 Years: Innovation and Transformation in the Arts* (New York: Guggenheim Museum Publications, 1998), 56.

\* Elizabeth Childs-Johnson, "Dragons, Masks, Axes and Blades from Four Newly-documented Jade-working Cultures of Ancient China," *Chinese Jade: Selected articles from Orientations 1983 - 1996* (Hong Kong: Orientations Magazine Ltd., 1997), 50-69.

Angus Forsyth, "Neolithic Chinese Jades: Hemudu to Erlitou Period," Ladislav Keverne, *Jade* (New York: Lorenz Books, 1995), 58-60.

Jessica Rawson, "Jades and Bronzes for Ritual," *The British Museum Book of Chinese Art* (New York: Thames and Hudson Inc., 1996), 48.

Fred Ward, *Jade* (Bethesda: Gem Book Publishers, 1996), 43-9.

## TOOLS FOR WORKING JADE

Nephrite and jadeite are extremely difficult to fashion requiring a harder stone such as quartzite or diamond to abrade or "carve" it.<sup>1</sup> Notwithstanding this challenging characteristic, the surfaces of Neolithic ritual jades of simple shape have a smooth and polished appearance. The highly sophisticated, abraded decorative motifs on others objects of the same period, however, are somewhat less refined in finish and often appear chipped under high magnification. Recent research supports several theories as to how objects of nephrite were worked ancient China, each related to techniques that require stages of production using abrasives, from the initial slicing of blocks or slabs of jade to the boring of holes and modeling of linear motifs. Openwork designs mark the final steps in the completion of an object. It is likely that a straight-edged-hand or gut-string saw was used to cut, slice, and pare the jade into a workable form. Quartzite crystals have been found on the surfaces of many Hongshan period (circa 3800-2700 BCE) and Liangzhu period (circa 3300-2250 BCE) jades, thus confirming that quartzite was one abrasive that was used with water when working surfaces. In addition to hand or gut-string saws, the list of tools probably included awls and tubular drills, which may have been of bamboo. Bamboo with quartzite as an abrasive was probably used to make the holes in ritual jades such as bi (disks) and cong (prismatic tubes), as the remaining elliptical marks, particularly noticeable in the hollowed-out centers of cong, suggest that type of tool. For the fashioning of fine details, archaeological discoveries suggest the use of awls made of flint and possibly sharks teeth.<sup>2</sup> Tools for carving the delicate ornamentation of late-Zhou period (circa 3rd - 2nd centuries BCE) amulets and pendants, reflect the introduction of new iron tools and possibly even the diamond point, enabling carvers to attain a new, highly refined level of technical excellence.<sup>3</sup>

### NOTES

1. For ranking the hardness of minerals, the Mohs scale is generally used. On the Mohs scale, which ranges from 1 to 10, jade measures 6-6.5, quartzite measures 7-7.5, and diamond measures 10. These hardness designations relate the resistance of a surface to scratching or abrasion as measured on a relative scale devised in 1812 by the German mineralogist Friedrich Mohs. For these and other rankings, see: Curzio Cipriani and Alessandro Borelli, *The Macdonald Encyclopedia of Precious Stones* (London: Macdonald and Company Publishers Ltd., 1986).

2. Elizabeth Childs-Johnson, "Jade as Material and Epoch," *China 5,000 Years: Innovation and Transformation in the Arts* (New York: Guggenheim Museum Publications, 1998), 56; Elizabeth Childs-Johnson, "Symbolic Jades of the Erlitou Period," *Archives of Asian Art* 48 (1995), 65-66. Angus Forsyth, "Neolithic Chinese Jades: Hemudu to Erlitou Period," Ladislav Keverne, *Jade* (New York: Lorenz Books, 1995), 56-7.

3. Maxwell Hearn and Wen Fong, "The Arts of Ancient China," *The Metropolitan Museum of Art Bulletin* 32 (1973-1974), 2:20, figs. 33-35. This bulletin, published as an exhibition catalogue and as a monograph, is difficult to locate as only the authors names and exhibition title appear in the publication itself.

## VALUES AND SYMBOLISM

Over the centuries, the minerals known as jade, nephrite and jadeite, but more particularly nephrite, were treasured for their hardness, texture, translucency, and color, characteristics that have been interpreted as symbols of immortality, protection, and virtuous behavior. Objects made of jade also served as emblems of both temporal and heavenly powers, and of wealth, values undoubtedly enhanced by the difficulties associated with acquisition and manufacturing.<sup>1</sup>

Given the interest in jade that developed among the early Chinese, it is not surprising that jade became a symbol for immortality. The earliest evidence, suggestive of the significance and functional associations, comes primarily from burial practices of the Neolithic period where jade beads and other objects were placed near or on the deceased. As these traditions evolved jade came to be thought of as a preservative, clearly leading to alchemical experimentation, such as the consuming of powdered jade, and the use of jade burial suits during of the Warring States and Han periods. These jade vestments, including pieces to plug the orifices of the deceased, were used, according to texts of Eastern Zhou and Han dates (770 BCE - CE 220), to protect the corpse from decay as long as the spirit continued to live.<sup>2</sup>

As to lasting cultural values, however, it is the inherent qualities of the stone itself that captured the Chinese imagination. By the middle of the first millennium BCE, jade had become a symbol of human potentiality, the slow working of the stone likened to the arduous process of perfecting the human mind. Only through persistent and disciplined effort could true character and virtue be developed. Jade, being similar to other boulders in its natural uncut state, came to be thought of that which holds its potential beauty revealed.<sup>3</sup>

### NOTES

1. Jessica Rawson, "Jades and Bronzes for Ritual," *The British Museum Book of Chinese Art* (New York: Thames and Hudson Inc., 1996), 44.

2. Elizabeth Childs-Johnson, "Jade as Material and Epoch," *China 5,000 Years: Innovation and Transformation in the Arts* (New York: Guggenheim Museum Publications, 1998), 62-67. Childs-Johnson suggests, to understand the purposes of these pieces, which are both aesthetic and profoundly religious, the poem "Summons of the Soul" in the *Chuci* ("Songs of the South"); for a relatively recent translation, see: David Hawkes, trans., *The Songs of the South: An Anthology of Ancient Chinese Poems by Qu Yuan and Other Poets* (Harmondsworth: Penguin Books, 1985). Jessica Rawson, "Jades and Bronzes for Ritual," 80.

3. Denise P. Leidy, "Jade and Other Hard Stones," Denise P. Leidy, Wai-fong Anita Siu, and James C. Y. Watt, *Chinese Decorative Arts. The Metropolitan Museum of Art Bulletin* 55 (Summer 1997), 19; John King Fairbank, *China: A New History* (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1992) 52-53.