

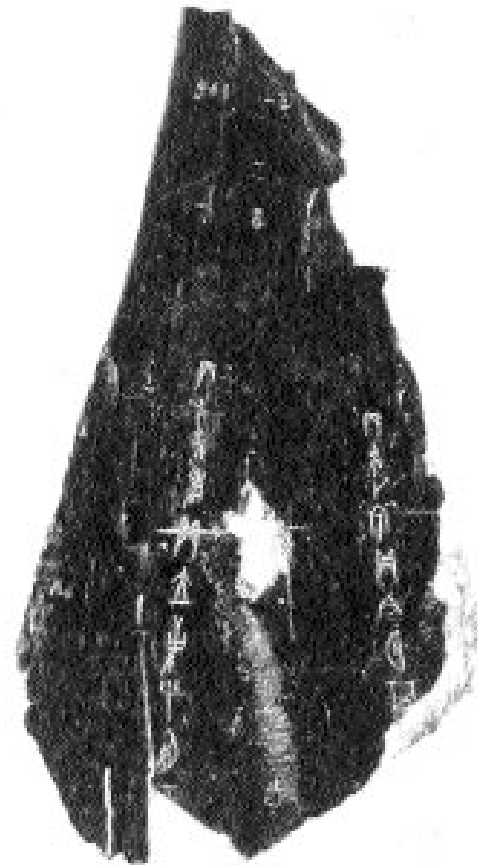
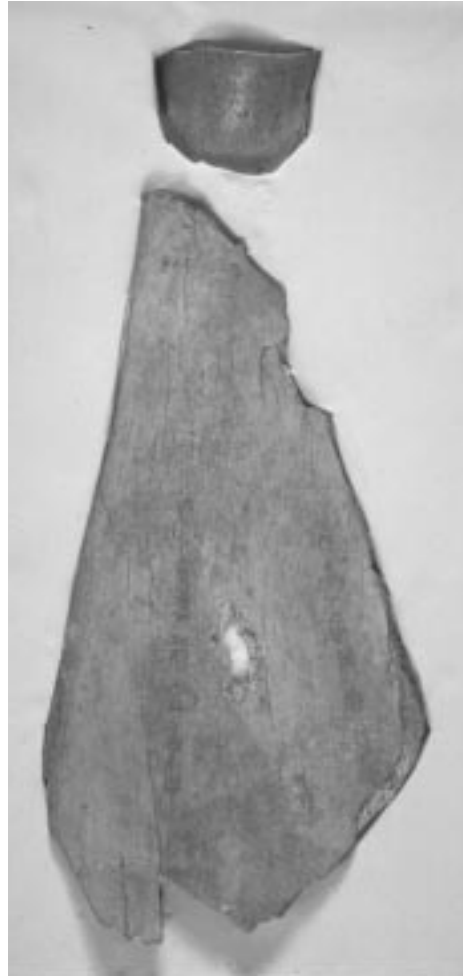
Theme 2 Traces of Ideas: Communicating Through Writing and Technology

Try to imagine a world without writing: no Internet, no E-mail, no newspapers, no sports page, no baseball scores, no love letters, no messages sneaked to one's neighbor during class, no on-line trading, no best-sellers, no college or job applications. Writing is central to our everyday lives as well as to our understanding of the past. How can we study history without written records? (We even call the time before writing prehistory.) How can we transmit the wisdom of the past to future generations without writing?

The earliest examples of Chinese writing were used by Shang rulers to try to project what would happen in the future so they would know how to rule; this early writing was very important both ritually and politically. Written Chinese also played a significant role in unifying diverse areas and people who spoke many different dialects. Because its characters are logographic—that is, they represent words or a minimal unit of meaning, not sounds—literate people, no matter what dialect they spoke, could read the characters (as we read international road signs, such as No Right Turn). The Chinese invented paper and created printing, which developed from ink rubbings on stones and metals.

Traces of Ideas introduces students to written Chinese and woodblock printing. The first background essay, “**Tradition and Transformation in the Chinese Writing System**,” provides information about the characteristics of written Chinese and how it has changed over time. The second essay, “**Writing and Technology in China**,” focuses on technologies for writing and printing. In the activities, **Creating Characters**, **Woodblock Printing**, and **Writing Timelines**, students are introduced to the concept of a logographic language by creating their own symbols for words and to the concept of block printing by printing posters.

Ox scapula fragments (oracle bone)



Ox scapula fragments (oracle bone)

Shang dynasty (ca. 1600–ca. 1100 B.C.E.), undated, from the reign of the king Wu Ding (ca. 1198–ca. 1189 B.C.E.).

Two fragments; dimensions vary (a: 4.8 x 7.5 cm; b: 27.7 x 15.2 cm).

Introductory Questions People in early China tried to tell the future by communicating with spirits. They would inscribe questions onto an animal bone or turtle shell. After boring holes through the bone or shell, they would insert a stick into it, which they would then heat. As the stick expanded, the bone cracked and a shaman, or person who could communicate with spirits, interpreted the cracks to read the future.

- Find the writing on the bone. Where is it in relation to the cracks? Look at the writing on the shoulder blade of an ox, above. How might the characters have been inscribed into the hard bone surface?
- What would have been the advantages and limitations of writing on bone and shell?
- More casual forms of writing from this period have not been found. Does this mean that they did not exist? Why or why not?

Greater Sutra of the Perfection of Transcendent Wisdom



Greater Sutra of the Perfection of Transcendent Wisdom (Mahaprajnaparamita-sutra), 600 juan from the Jin Tripitaka at Zhaocheng

Jin dynasty (1115–1234), Huangtong period (1141–1148) through Dading period (1161–1189), printed between 1149 and 1173.

Translated from the Sanskrit by Xuanzang (602–664).

From the Tripitaka deposited at Guangsheng Temple, Zhaocheng County, Shanxi province.

Handscroll containing juan 103, woodblock-printed ink on paper, 29.8 x 1,320.0 cm.

A sutra is a Buddhist sermon. Many sutras were written on handscrolls. After writing scrolls in ink, artists might carve whole sections of a scroll in mirror image on a block of wood. Applying ink to the block, they would then smooth paper on top to produce a print. Written Chinese has over 50,000 characters (though knowledge of between three and four thousand is required for literacy). Although the Chinese invented printing by movable type in the twelfth century, many printers still preferred the woodblock method.

Introductory Questions

- This sutra originally was transcribed with a brush and ink. Describe how the characters differ from those on the oracle bone and shell.
- What stylistic characteristics do the written characters share with the painting of the Buddha on the right-hand side?
- Why might making prints be important for Buddhist texts?
- What are other instances in world history where a belief system has benefited from printing and communication technology?
- What are the advantages and disadvantages of using woodblock printing?
- Movable type was invented in China in the mid-eleventh century.

Individual characters made of fired clay were assembled and glued onto a plate to create a printing block. The number of unique characters in a book might reach into the thousands, meaning that a printer would have to stock from 20,000 to up to 400,000 character types in order to meet the demand of a book. Woodblock printing was less expensive and more popular than movable type in China. In Europe, however, movable type proved very popular after it was introduced during the fifteenth century. Why might this have been the case?