

# CHINESE INVENTIONS

THE FOUR GREAT INVENTIONS OF CHINA ARE THE COMPASS, GUNPOWDER, PAPERMAKING, AND PRINTING. HOWEVER, THE CHINESE HAVE HAD MANY MORE OTHER SIGNIFICANT INVENTIONS, BOTH ANCIENT AND MODERN.

## THE FOUR GREAT INVENTIONS

The four great inventions of China, although Chinese, were first enumerated as so by the European, showing the significant impact that these four inventions had on the Western world.

Early Chinese compasses were "wet compasses," composed of a magnetic fish, pointing south, floating in a bowl of water. Later, these evolved into a magnetic needle in a bowl of water and used as navigational compasses by mariners and travelers alike. These were much more prevalent in China than the dry compasses (shown below).



The Chinese Dry Compass: a turtle suspended from a board whose head pointed south and whose tail pointed north

Gunpowder was actually invented by Chinese alchemists looking for the elixir of immortality. After three centuries of perfecting the formula and creating different types of explosive weapons, the Chinese invented fireworks using gunpowder to scare away evil spirits. Later, they were often used not only during large celebrations, but also in people's personal lives.



# A drawing of the rockets used in warfare

The processes of papermaking and printing – what we explored today – were also invented in China.

Prior to paper, the Chinese wrote on bone, bamboo, or sometimes silk, although the latter was extremely expensive and not commonly used. Paper was actually first used as wrapping and padding. Later, when printing was invented, using paper for writing became much more widespread. Paper was also first used in China as toilet paper. The paper manufactured during this time was usually much thinner than the paper used in the west.

The Chinese are responsible for both woodblock as well as movable type. Woodblocks were wooden boards with full sentences and designs inscribed. In movable type, each letter or character was carved into separate pieces of wood and these individual letters would be assembled to make the board. For both, ink was then applied with a brush, the paper laid on the block, and then a long, narrow pad rubbed on the paper to transfer the ink.



# Chinese drawings of the early papermaking process

The Four Inventions are greatly celebrated in Chinese culture and now serve as symbols of China's science and technology

#### OTHER INVENTIONS OF CHINA

**Junks.** Junks were first made in the second century, and by the fifteenth century, the ships were strong enough that Admiral Zheng He was able to lead fleet of over three hundred ships and thirty thousand men to the west coast of Africa.

**Kites.** Kites were first made of silk and bamboo in the fifth century BC; kite fighting became and remain extremely popular.

**Porcelain.** Porcelain was one of the major motivators for European

**Seismometer.** Zhang Heng invented the first seismoscope (shown below), which had eight dragon head at the rim of the seismometer holding bronze balls. When an earthquake happens, one of the mouths would open and drop its ball into a bronze toad at the base.

**Tea.** Tea is central to Chinese culture in its use as a beverage, a medicine, and as part of ceremonies. Tea was the other major driver of Sino-European trade.



**Early Chinese seismometer** 

## **GENERAL INFORMATION**

#### **PLAYGROUP**

BU-Dumpling Playgroups are for adopted Chinese children (ages 4-9) and their families. Through activities such as stories, crafts, and cooking, these children are exposed to Chinese culture and their families have a way to connect and network

Boston Chinatown Neighborhood Center: 38 Ash St, Boston, MA 02111

Saturday, April 28; 10:30am - noon

#### **ABOUT US**

MIT China Care (MITCC) and Boston University China Care Fund (BUCCF) are student-run organizations dedicated to creating life changing opportunities for Chinese orphans and locally adopted Chinese children.

Email us at bu.mit.dumplings@gmail.com
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