

Chinese Inventions: Can You Name Them?

- Silk
- Tea
- Porcelain
- Paper
- Printing
- Gunpowder
- Compass
- Alchemy [Chemistry]
- Civil Service
- Grain Storage
- Other [plant life, political theory]
- Discussion Questions

Silk

The Chinese knew how to produce silk at least by 1300 B.C., but not until the second century B.C. did it begin to be exported to Europe, and not until about 550 A.D., when monks who had traveled to China brought back silkworm eggs, did the West learn the Chinese secret of silk-making.

The Chinese traded silk with the Roman Empire and then with Byzantium. In return they received such items as wool, glass, and asbestos. Through the silk trade the world's two great empires in the first century A.D. Rome and Han China - were linked, mainly because Roman women wore Chinese silks. The overland trade route between China and the Mediterranean was called the "Silk Road" because China exported so much of this fabric to the West.

Tea

Tea drinking originated in China and spread throughout the world. Whether a country calls the beverage "tea" (or some variant thereof) or "chai," as in Russia, depends on whether it came over the sea route or the land route from China. The sea route originated in Fukien province on China's coast, where the word for the drink in the Fukien dialect is "te." The land route originated to the north, where the term for the drink is "cha," Even today in northern England, people often speak of "having a cup of cha," although the more common term in England is "tea."

Porcelain

Porcelain, also called "china," is a type of clay pottery that was invented in China by using clay with special minerals. Chinese porcelain was exported throughout the world, and eventually the secret mineral ingredients were discovered by Europeans in 1709. Europeans began to experiment with porcelain making only after they saw and admired the Chinese porcelains.

Paper

Paper was first invented in China about 105 A.C. Its use then spread to Chinese Turkestan in central Asia, the Arab world (c. 751 A.D.), Syria, Egypt, Morocco, Spain (c. 1150 A.D.), southern France, and the rest of Europe.

Printing

The Chinese invented both block printing, to reproduce the Confucian classics that had often been carved on stone, and moveable type. It appears that Europe learned about block printing from China and did not invent it separately.

One possible source of the spread of block printing from China is playing cards, which the Chinese also invented and introduced to Europe. Another source is paper money, first printed in China in the tenth century A.D. and later introduced to Europe.

Gunpowder

Gunpowder was invented in China c. 1000 A.D. and probably spread to Europe during the Mongol expansion of 1200-1300 A.D., but this has not been proven. The use of gunpowder in Europe was first recorded in 1313. Europeans used gunpowder for cannons, while the Chinese used it primarily for firecrackers. Despite such early knowledge of explosives and their use, China did not pursue the development of weaponry as did the West; ironically, it was through the use of cannons and guns that the Europeans were able to dominate China in the mid-to late-1800s.

Compass

Historians believe that the Chinese invented the magnetic compass and used it for navigation c. 1100 A.D. Arab traders sailing to China probably learned of the Chinese method of sailing by compass and returned to the West with the invention.

Alchemy (Chemistry)

The Taoist search for the elixir of life (a life-extending potion) led to much experimentation with changing the state of minerals. The Chinese practice appears to have spread first to the Arab world and then to Europe. Chinese alchemy predates that of the Egyptians in Alexandria and other cities by about two centuries, beginning by 133 B.C.

Civil Service

Exams for government service were introduced in both France and England in the 1800s, apparently inspired by the Chinese practice instituted almost two thousand years earlier, in 154 B.C.

Grain Storage

Henry A. Wallace, the U.S. Secretary of Agriculture from 1933 to 1940, introduced governmental storage of excess grain after reading the dissertation of a Chinese student at Columbia University on Confucian economic policies. Wallace adapted the Confucian notion of government grain purchases to provide for times of scarcity, and he introduced the practice in the U.S. to deal with over-production due to mechanization and the resulting drop in agricultural prices.

Other (plant life; political theory)

Some of the West's most popular fruits - peaches, apricots, and citrus fruits - came from China, as did some of the most common flowers, including chrysanthemums. The West also learned of goldfish and wallpaper from China and may have adopted the Chinese idea of the folding umbrella.

Many Western political and social thinkers admired the Chinese bureaucratic system of government. In particular, the German philosopher and mathematician Leibnitz (1646-1716), the Frenchman Voltaire (1694-1778), and the French political economists of the

late 1700s, known as the Physiocrats, were inspired by Chinese thought, as was America's Ralph Waldo Emerson.

Discussion Questions

1. Which of these inventions do you think have been most important to the development of civilization throughout the world? Choose three.
2. Which is an example of the United States learning from a Chinese example in the twentieth century?
3. What is an "elixir"? How is it related to the development of science in China?
4. Using the example of tea, explain how trading patterns influence the names of new products brought from other countries.