THE SONG DYNASTY

China in 1000 CE: The Most Advanced Society in the World

In 1000, 1100, 1200, and 1300, China was the most advanced place in the world. Marco Polo (1254-1324) recognized this when he got to China in the late 13th century after traveling through much of Asia. In what is now Europe, this was the period now referred to as the "high" Middle Ages, which fostered the Crusades and witnessed the rise of Venice, the mercantile center that was Marco Polo’s home.

For several centuries the Chinese economy had grown spectacularly. During the Song (Sung) Dynasty (960-1276), technology was highly advanced in fields as diverse as agriculture, iron-working, and printing. Indeed, scholars today talk of a Song economic revolution.

The population grew rapidly during this time, and more and more people lived in cities. The Song system of government was also advanced for its time. The upper levels of the government were staffed by highly educated scholar-officials selected through competitive written examinations.

Yet, despite its political and economic strengths, Song China was not able to dominate its neighbors militarily. Central to its engagement with the outside world were efforts to maintain peace with its powerful northern neighbors and extend its trading networks.

Why the Song Dynasty Is So Significant

Many ways of living and acting that Westerners now see as most thoroughly "Chinese," or even characteristically East Asian, did not appear before the Song.

The Chinese, we know, are rice eaters and tea drinkers; but most Chinese in the Tang and before at wheat and millet and drank wine, in that respect looking perhaps more "Western" than "Eastern"; rice and tea became dominant food and drink in the Song.

China’s population, we know, is huge, and tends to “explode”; its first explosion occurred in the Song.

The Chinese, we know, are “Confucians”; but the kind of Confucianism that served as government orthodoxy throughout late-imperial times was a Song reinvention.

Chinese women, we may know, bound their feet; but they did not bind them until the Song.

The Song Economic Revolution

Between 750 and 1100, China’s population doubled, money supply grew tenfold, paper money came into use, and trade and industry grew rapidly. There was no single cause of this great transformation. Advances in technology helped, especially in agricultural technology, and each advance helped foster others.

A Population Boom

In 742 China’s population was approximately 50 million, very close to what it had been in 2 CE. Over the next three centuries, with the expansion of rice cultivation in central and south China, the country’s food supply steadily grew, allowing its population to grow as well.
By 1100, the population reached 100 million. China was certainly the largest country in the world at the time. Its population probably already exceeded that of all of Europe, as it has in more recent centuries.

Commercialization

Farmers in Song China did not aim at self-sufficiency. They had found that producing for the market made possible a better life. Farmers sold their surpluses in nearby markets and bought charcoal, tea, oil, and wine. Some of the products on sale in the city depicted in the scroll would have come from nearby farms, but others came from far away. In many places, farmers specialized in commercial crops, such as sugar, oranges, cotton, silk, and tea.

Merchants in the cities became progressively more specialized and organized. They set up partnerships and joint stock companies, with a separation between owners (shareholders) and managers. In large cities merchants were organized into guilds according to the type of product they sold. Guilds arranged sales from wholesalers to shop owners and periodically set prices. When the government wanted to requisition supplies or assess taxes, it dealt with the guild heads.

Transport

As the economy became more commercialized, the need for transport grew. In the scroll, we see goods carried in backpacks, larger wheelbarrows, wagons, and on donkeys and camels. Camels carried goods from Inner Asia or further west across large deserts.

Water transport, however, has always been far cheaper than going over land. The South, with its many rivers and waterways, had an advantage in this respect, but northern cities, too, were served by water transport, often canals. The Grand Canal linked the North to the Yangzi River region. One section of the Beijing qingming scroll shows men unloading bales of grain from a river boat, as a merchant, seated, directs them.

From Copper Coins to Paper Notes

Helping to grease the wheels of trade during the Song was the world’s first paper money. For centuries, the basic unit of currency in China was the bronze or copper coin with a hole in the center for stringing. Large transactions were calculated in terms of strings of coins, but given their weight these were cumbersome to carry long distances.

As trade increased, demand for money grew enormously, so the government minted more and more coins. By 1085 the output of coins had increased tenfold since Tang times to more than 6 billion coins a year.

The use of paper currency was initiated by merchants. To avoid having to carry thousands of strings of coins long distances, merchants in late Tang times (c. 900 CE) started trading receipts from deposit shops where they had left money or goods. The early Song authorities awarded a small set of shops a monopoly on the issuing of these certificates of deposit, and in the 1120s the government
took over the system, producing the world’s first government-issued paper money.

Iron and Steel

During Song times, heavy industry — especially the iron industry — grew astoundingly. Iron production reached around 125,000 tons per year in 1078 CE, a sixfold increase over the output in 800 CE.

Iron and steel were put to many uses, ranging from nails and tools to the chains for suspension bridges and Buddhist statues. The army was a large consumer: steel tips increased the effectiveness of Song arrows; mass-production methods were used to make iron armor in small, medium, and large sizes; high-quality steel for swords was made through high-temperature metallurgy. Huge bellows, often driven by waterwheels, were used to superheat the molten ore.

From Charcoal to Coal

At first charcoal was used in the production process, leading to deforestation of large parts of north China. By the end of the 11th century, however, coal had largely taken the place of charcoal.

According to Marco Polo

The sight of these “black stones ... which they dig out and burn like firewood” was something else that amazed Marco Polo:

It is a fact that all over the country of Cathay there is a kind of black stones existing in beds in the mountains, which they dig out and burn like firewood. If you supply the fire with them at night, and see that they are well kindled, you will find them still alight in the morning; and they make such capital fuel that no other is used throughout the country. It is true that they have plenty of wood also, but they do not burn it, because those stones burn better and cost less.

Textiles and Silk

The common people mostly wore clothes made of plant fibers such as hemp and ramie, and, at the end of the period, cotton — but the most highly prized fabric at home and abroad was silk.

The feeding of silkworms (which devoured vast quantities of mulberry leaves), the cleaning of their trays, the unraveling of the cocoons, the reeling and spinning of the silk filaments — all this was women’s work, as was the
weaving of plain cloth on simple home looms.

Professional weavers, mostly men working in government or private workshops, operated complex looms to weave the fancy damasks, brocades, and gauzes favored by the elite.

Technology

Rice Cultivation

During Song times, new developments in rice cultivation — especially the introduction of new strains of rice from what is now Central Vietnam, along with improved methods of water control and irrigation — spectacularly increased rice yields. Rice was used primarily as food, but was also used to brew the wine consumed in homes and taverns.

Rice was grown primarily south of the Yangzi River. This area had many advantages over the north China plain, as the climate is warmer and rainfall more plentiful. The mild temperatures of the south often allowed two crops to be grown on the same plot of land — a summer and a winter crop.

The many rivers and streams of the region facilitated shipping, which reduced the cost of transportation and, thus, made regional specialization economically more feasible. During the Song period, the Yangzi River regions became the economic center of China.

Printing

By the 9th century, Chinese craftsmen had developed a way to mass produce books by carving words and pictures into wooden blocks, inking them, and then pressing paper onto the blocks. Each block consisted of an entire page of text and illustrations.

As in Europe centuries later, the introduction of printing in China dramatically lowered the price of books, thus aiding the spread of literacy. Inexpensive books also gave a boost to the development of drama and other forms of popular culture. The storytellers depicted in the Beijing Qingming scroll (below) may have benefited from “prompt books” that would help them review the stories that they told orally to their audiences.

Gunpowder

Song military engineers found gunpowder to be helpful in siege warfare, leading to the development of early types of rockets, cannons, bombs, and mines.
The Wujing zongyao ("Collection of the Most Important Military Techniques"), a military manual from 1044 CE, records the first true gunpowder formula and describes how to produce it on a large scale. Gunpowder was first use in warfare as an incendiary, or fire-producing, compound. Small packages of gunpowder wrapped in paper or bamboo were attached to arrows and lit with a fuse.

Bombs of gunpowder mixed with scrap iron would be launched with catapults. Another use was "fire-spurtting lances," which were a kind of flame-thrower using bamboo or metal tubes for their barrels.

Weapons involving gunpowder were extensively used by both the Chinese and the Mongol forces in the 13th century. Song efforts to continually improve their weapons were one reason they were able to hold off the Mongols for several decades. But the Mongols, like the Khitans and Jurchens before them (who conquered the first, or northern, Song dynasty capital in Kaifeng), were equally ready to adopt new and better military technology, often by capturing the Chinese engineers and gunners.

**Shipbuilding**

The Song Chinese were world leaders in shipbuilding. Watertight bulkheads improved buoyancy and protected cargo. Stern-mounted or stern-post rudders (see right) improved steering. Sounding lines were used to determine depth. Some ships were powered by both oars and sails and large enough to hold several hundred men.

**The Compass**

Also important to oceangoing travel was the perfection of the compass. The way a magnetic needle would point north-south had been known for some time, but in Song times the needle was reduced in size and attached to a fixed stem (rather than floating in water). In some cases it was put in a small protective case with a glass top, making it suitable for sea travel. The first reports of a compass used in this way date to 1119.

**Experimentation and Innovation by Song Dynasty Officials**

Quite a few educated men in Song times took an interest in matters related to engineering, as well as inquiry about the physical world.

**Su Song and the Mechanical Clock Tower**
One high official, Su Song (1020-1101), is famous for having designed and constructed a mechanical clock tower (almost 40 feet high) by adding a chain-driven mechanism to the existing water-powered clock. The clock told not only the time of day but also the day of the month, the phase of the moon, and the position of certain stars and planets in the sky. At the top was a mechanically rotated armillary sphere that showed the changing location of the planets and stars.

**Shen Gua (Shen Kuo)**

Another notable polymath of the time was Shen Gua (1031-1095), who made contributions in fields as diverse as mathematics, geography, economics, engineering, medicine, divination, archaeology, military strategy, and diplomacy. In his writings Shen Gua described the use of petroleum and explained in detail how Bi Sheng first made movable type from clay. He often analyzed issues mathematically, and once computed the total number of possible situations on a game board, and another time the longest possible military campaign given the limits of human carriers who had to carry their own food as well as food for the soldiers.

**A New Kind of City Emerges**

The quickening of the economy in Song times fueled the growth of cities. Dozens of cities had 50,000 or more residents, and quite a few had more than 100,000. As in previous dynasties, the Song’s largest cities were its capitals — first Kaifeng in the North, then Hangzhou in the South. Both capitals are thought to have had about a million residents. (The population of London at the time was around 15,000).

**Urban Life**

Like the city in the scroll, the Song capitals boasted a lively street life, with markets, shops, restaurants, and houses right on the street. Some of these buildings were multi-story.

**Temples & Religious Life**

As in earlier cities, the highest structure in Kaifeng, the Northern Song’s capital, was a pagoda. Although pagodas do not appear in this scroll, they dominated the skyline of many cities during the Song dynasty, as they had in the Tang dynasty. Like the spires of Europe’s cathedrals and churches, the city pagoda was often the first thing the traveler would see as he approached a city or town.
The Rainbow Bridge

“Rainbow” bridges, such as the one that occupies the dramatic center of the Beijing qingming scroll, are so called because of the way in which the bridge arches, resembling a rainbow. The bridge pictured is an elaborate wooden bridge that spans the river and offers room for peddlers to show their wares to the pedestrians crossing from one side of the river to the other.

The technology of the bridge is impressive. In Song times one observer remarked that the bridge had no piers, but rather spanned the river using giant timbers curved like a rainbow. What keeps the bridge up is a series of interlocking horizontal and cantilevered beams.

The Song Confucian Revival

Scholar-Officials of the Song

The Song period saw the full flowering of one of the most distinctive features of Chinese civilization — the scholar-official class certified through highly competitive civil service examinations.

Most scholars came from the landholding class, but they acquired prestige from their learning and political clout by serving in office. In a society in which most people were illiterate, scholar-officials stood out by virtue of their reading and writing skills. Their Confucian education encouraged them to aspire for government service, but also to speak up when they thought others were pursuing the wrong course, making them courageous critics of power.

Examination System

Since the Sui Dynasty (581-617), it had been possible to become a government official by passing a series of written examinations. It was only in the Song, however, that the examination system came to be considered the
normal ladder to success.

From the point of view of the early Song emperors, the purpose of the civil service examinations was to draw men with literary educations into the government to counter the dominance of military men. So long as the system identified men who would make good officials, it did not matter much if some talented people were missed.

From the point of view of those taking the examinations, however, fairness was crucial. They wanted to be assured that everyone was given an equal chance and the examiners did not favor those they knew. To increase their confidence in the objectivity of the examiners, the Song government decided to replace candidates' names with numbers and had clerks recopy each exam so that the handwriting could not be recognized.

Scholars in and out of the government regularly debated what should be asked on the examinations, but everyone agreed that one element should be command of Confucian texts. Candidates were usually asked to discuss policy issues, but the examinations tested general education more than knowledge of government laws and regulations.

Candidates even had to write poetry in specified forms.

To prepare for the examinations, men would memorize the Confucian classics in order to be able to recognize even the most obscure passages.

In Song times exam success came to carry such prestige that the number of men entering each competition grew steadily, from fewer than 30,000 early in the dynasty, to about 400,000 by the dynasty’s end. Because the number of available posts did not change, a candidate’s chances of passing plummeted, reaching as low as one in 333 in some prefectures.

Men often took the examinations several times, and were on average a little over 30 when they succeeded. The great majority of those who devoted years to preparing for the exams, however, never became officials.

The Three Perfections
The life of the educated man involved more than study for the civil service examinations and service in office. Many took to refined pursuits such as collecting antiques or old books and practicing the arts — especially poetry writing, calligraphy, and painting ("the three perfections"). For many individuals these interests overshadowed any philosophical, political, or economic concerns; others found in them occasional outlets for creative activity and aesthetic pleasure.

In the Song period the engagement of the elite with the arts led to extraordinary achievement in calligraphy and painting, especially landscape painting. But even more people were involved as connoisseurs. A large share of the informal social life of upper-class men was centered on these refined pastimes, as they gathered to compose or criticize poetry, to view each other’s treasures, or to patronize young talents.

**Neo-Confucianism**

There was a vigorous revival of Confucianism in the Song period. Confucian teachings were central to the civil service examination system, the identity of the scholar-official class, the family system, and political discourse.

Confucianism had naturally changed over the centuries since the time of Confucius (ca. 500 BCE). Confucius’s own teachings, recorded by his followers in the *Analects*, were still a central element, as were the texts that came to be called the *Confucian classics*, which included early poetry, historical records, moral and ritual injunctions, and a divination manual. But the issues stressed by Confucian teachers changed as Confucianism became closely associated with the state from about 100 BCE on, and as it had to face competition from Buddhism, from the second century CE onward. Confucian teachers responded to the challenge of Buddhist metaphysics by developing their own account of the natural and human world.

With roots in the late Tang dynasty, the Confucian revival flourished in the Northern and Southern Song periods and continued in the Yuan, Ming, and Qing dynasties that followed. The revived Confucianism of the Song period (often called Neo-Confucianism) emphasized self-
cultivation as a path not only to self-fulfillment but to the formation of a virtuous and harmonious society and state.

The revival of Confucianism in Song times was accomplished by teachers and scholar-officials who gave Confucian teachings new relevance. Scholar-officials of the Song such as Fan Zhongyan (989-1052) and Sima Guang (1019-1086) provided compelling examples of the man who put service to the state above his personal interest.

The Southern Song philosopher Zhu Xi (1130-1200) is known for his synthesis of Neo-Confucian philosophy. Zhu Xi wrote commentaries to the Four Books of the Confucian tradition, which he extolled as central to the education of scholars. Zhu Xi was also active in the theory and practice of education and in the compiling of a practical manual of family ritual.

The Centrality of the Family in Confucian Teaching

In Confucian teaching, the family is the most basic unit of society. Everyone should respect and obey his or her parents and put the interests of the family before personal interests. This attitude of "filial piety" extended also to ancestors. It was considered essential that everyone marry, so that family lines would continue and male heirs make offerings of food and drink to their deceased ancestors.

The Status of Women

Girls left their families when they married. So long as they gave birth to sons, they would eventually gain a respected place in their family of marriage, and would be treated as ancestors by their sons and sons' sons. Mothers and grandmothers had important and respected places in their families.

The Song is often seen as a time when the status of women declined. Compared to Tang times, women were less active in politics and less commonly seen on the streets. Song Confucian teachers argued against widows remarrying, and footbinding began in Song times.
the other hand, women's rights to property were relatively secure in Song times, and older women were often very powerful within their families.

**Children**

Children were highly valued in the Chinese family system. They were what made possible the continuation of the family. Although they were expected to learn to be filial, they were also indulged. Toy peddlers like the one in the scroll were sometimes depicted by painters surrounded by excited children.
Sing Us a Song of the Song

Today you will be reading and learning about the Song Dynasty. The songs were a sophisticated society where great advancements were occurring that we can still see in society today.

In celebration of their achievements and fitting to their name, today, to demonstrate you knowledge, you will be writing and singing the song of the song.

1. Read through the information packet and identify 15-20 specific interesting facts about the Song Dynasty.
2. Use your facts to write a song that your group will perform in front of the class.
3. Your song can be a rap, it can be to the tune of a children’s song such as ”Twinkle Twinkle Little Star, or Mary Had a Little Lamb, etc, or really any type of song that you want.
4. It needs to be a minimum of 20 lines and every one of your group members need to participate in the singing of it. You may choose to divide the sections up or have your whole group sing together.

Be Creative...Have Fun and Sing!!!!
Sing Us a Song of the Song

List your 20 facts here:

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TIME TO WRITE YOUR SONG!!!
Song Dynasty and Mount Everest

Enduring Understanding: Culture is embedded in everyday life.

Essential Question: How do the characteristics of a society shape its culture?

I Can: Explain how the unique characteristics of a place create its religion.

Everest:

There is an Imax Video that Brittany has. It is only on a VCR tape, so you will need to divide and conquer. Have them pay special attention to the culture of the Sherpa that they see throughout the video.

Song Dynasty:

1. Break Students into groups no larger than 4.
2. Give 2 packets of information to each group.
3. Have students read the packets entirely highlighting everything they think is particularly important or interesting.
4. Then they will rank their facts, choosing the top 20. They will write the top 20 on the handout.
5. Then they will work with their groups to incorporate their 20 facts into a song in honor of the Song Dynasty.
6. Performances at the end of the class. (30 points)