

Journeys along the Silk Road

Teaching State Standards While Exploring Central Asia



A Social Science Lesson for Middle & High School Classes

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Middle/High School Version

Unit 1: What is the Silk Road?

Objective: Students will be able to explain what the Silk Road is and how it contributed to the diffusion of goods, people, and culture across Eurasia.

Standards:

- **WG.2** Students will acquire a framework for thinking geographically about places and regions. They will identify the physical and human characteristics of places and regions. They will understand that people create regions to interpret Earth's complexity, and how culture and experience influence people's perception of places and regions.
- **WG.4** Students will acquire a framework for thinking geographically about human activities that shape Earth's surface. They will examine the characteristics, distribution and migration of human populations on Earth's surface; investigate the characteristics, distribution and complexity of Earth's cultural mosaics; analyze the patterns and networks of economic interdependence on Earth's surface; examine the processes, patterns and functions of human settlement; and consider how the forces of cooperation and conflict among people influence the division and control of Earth's surface.
- **WG.5** Students will acquire a framework for thinking geographically about the environment and society. They will analyze ways in which humans affect and are affected by their physical environment and the changes that occur in the meaning, distribution and importance of resources.
- **GHW.3** Students will examine the physical and human geographic factors associated with population characteristics, distribution and migration in the world and the causes and consequences associated with them.
- **GHW.8** Students will examine the physical and human geographic factors that encourage or impede economic interdependence between and/or among countries and the local, regional and global consequences of those exchanges

Lesson Plan Content

Definition

The "Silk Road" is the name often given for the vast network of land and maritime trade routes between the Mediterranean Sea and East Asia. The Silk Road covered more than 4,600 miles and was in use from about the 2nd century BCE to the 15th and 16th centuries CE. However, the name 'Silk Road' is relatively recent. It was coined by the German scholar, Ferdinand von Richthofen, in 1877. He derived the term from Rome's historical connection to the trade route and their love of silk.¹

Story Behind the Name

Scholars say that the Romans first encountered silk in one of their campaigns against the Parthians in 53 BC. They realized that it could not have been produced by the relatively unsophisticated Parthians and allegedly learned from prisoners that it came from the east. The Romans obtained samples of the silk, which became very popular in Rome for its soft texture

¹ Tucker, Jonathan. *The Silk Road: Art and History*. Art Media Resources, 2003. p 15.

and beauty. The Romans sent their own agents out to explore the route east and try to obtain silk at a lower price than the one set by the Parthians. For this reason, the trade route to the East was used by the Romans chiefly to obtain silk, although they also prized other goods.

Did You Know?

- The Romans did not know how silk was obtained or made. Pliny wrote that the Chinese were ‘famous for the wool of their forests. They remove the down from leaves with the help of water’; and Virgil thought that the Chinese combed down off leaves to get silk. However, as many students know, silk does not grow on trees, but is obtained from silkworms.



- The Romans’ obsession with silk became so draining on the economy that in 14 BCE Rome’s Senate issued a ban against men wearing silk. The ban had little effect, however.

Commodities

As mentioned earlier, the name “Silk Road” is a misnomer because it is not one road, but rather a network of roads passing through different regions. Furthermore, the “Silk Road” was not a trade route that only traded silk. Many other commodities were traded, from gold and ivory to exotic animals and plants. Caravans heading towards China carried gold and other precious metals, ivory, gems, and glass (which was not manufactured in China until the fifth century). Caravans headed west carried furs, ceramics, jade, bronze, lacquer and iron. Many of the goods were bartered for others along the way, and objects often changed hands several times. There were not Roman traders in China, or Chinese merchants in Rome, although their goods were appreciated in both places. Merchants did not lead their caravans across the whole route; they would transport their goods between two commercial centers and would then sell them to other merchants. Along with trade goods came new ideas, religions, medical knowledge, scientific and technological innovations.²

Activity

² Tucker, Jonathan. *The Silk Road: Art and History*. Art Media Resources, 2003. p 15.

Have students research what items were exchanged on the Silk Road. Where did they come from? Where were they headed? What items were most valuable? The list below is a large representative sample of items that were exchanged, and may help as you direct students to items they could look at.

Alternatively, if you don't have time for students to conduct research, you could print out the following list for them to see.

Summary of Trade Goods From East and West Carried by Land and Sea

Commodities from the East

From India

- Household slaves
- Pets and arena animals
- Exotic furs
- Cashmere wool
- Raw and finished cotton (cotton plants have been cultivated in India for 4,000 years)
- Spinach (mainly from Nepal)
- Sandalwood and other exotic woods
- Palm-oil
- Cane-sugar
- Perfumes and aromatics
- Gems (rubies, sapphires and emeralds; diamonds, surprisingly, were not prized by the Chinese)

From China

- Silk
- Skins
- Iron
- Mirrors
- Weapons
- Porcelain (first manufactured around the 8th century)
- Lacquerware
- Jade (from Khotan)
- Rhubarb
- Tea
- Paper (traditionally thought to have been invented by the court eunuch Cai Lun in 105 CE)
- Gunpowder (invented in China around the 7th century and first used by them for military purposes around the 12th century. It reached Europe during the fourteenth century.)
- Medicines – Ephedra (Chinese: *Mahuang* – used for millennia in China to treat respiratory diseases. Ephedrine was originally made from ephedra.)
- Epsom salts
- Elixirs for immortality (which often shortened, rather than extended, life)
- Ginseng (the best was from Korea)

- Snake bile (collected in Southern China and Indochina; used for whooping cough, rheumatic pain, high fever, infantile convulsion, hemiplegia, hemorrhoids, gum bleeding, and skin infections)
- Seaweed

From various parts of Asia

- Precious and semi-precious stones (including lapis lazuli mined in Afghanistan, jadeite from Burma, rock crystal, carnelians and other quartzes, rubies from Sri Lanka and Southeast Asia and sapphires from India, Southeast Asia and Sri Lanka)
- Jewelry, ivory, tortoiseshell, rhinoceros horn, seashells and pearls
- Ornamental woods, gum resins and aromatics (camphor from China, Japan, Borneo and Indochina was highly coveted)
- Silver and gold (especially from Southern China, Tibet and Indochina, but also imported from many other parts of the world)
- Spices (especially pepper, ginger, cardamom, turmeric, nutmeg and cloves and cinnamon)
- Cochineal and indigo used for dyeing fabrics and cosmetics
- Minerals (sulphur and realgar)
- Ceramics
- Horses (Central Asian breeds were especially prized in China) and camels
- Flowers (including peonies, roses, camellias, chrysanthemums and tulips (tulips from Central Asia and Turkey first arrived in Europe in the 1550s and were so coveted in seventeenth-century Holland that a single bulb could sell for 5,000 guilders, more than the price of a house!)
- Alfalfa and millet for animal feed
- Human beings: acrobats, Central Asian jugglers and musicians, Central Asian grooms, dwarves, household slaves, South Sea Island pearl divers, Southeast Asian dancers, foreign guards

From Persia and the countries of the Middle East

- Incense (from southern Arabia)
- Dates, pistachios, peaches, walnuts
- Tyrian purple and indigo for dyeing
- Frankincense and myrrh
- Storax (an aromatic resin)
- Muslin cloth
- Wines
- Glassware
- Olive oil
- Silver vessels (especially the work of the Sasanian craftsmen of Persia)

Commodities from the West

Merchants on the land routes and Roman ships

- Wool and linen textiles

- Carpets
- Baltic amber
- Mediterranean coral
- Asbestos
- Bronze vessels
- Lamps
- Glass vessels and glass beads
- Wines
- Papyrus
- Huge quantities of coins
- Ambergris (from the sperm whale, used in the manufacture of perfume and collected along the African coast)
- Entertainers
- Exotic animals
- Opium (opium poppies probably originated in the eastern Mediterranean and reached China in about the 7th century)

Religions

Spread Along the Trade Routes in All Directions

- Buddhism (arose in India and spread in both directions as far east as Japan and as far west as modern day Turkmenistan)
- Islam (founded in the 7th century, it spread in all directions and now attracts a worldwide following of more than one billion devotees)
- Christianity (arose in the Eastern Mediterranean and spread throughout the Roman world. Nestorian Christianity spread eastwards after the expulsion of Nestorius, patriarch of Constantinople, during the 5th century. It reached China by 635)
- Manichaeism (developed in the Middle East during the 3rd century and reached China by the 7th or 8th century)
- Zoroastrianism (the state religion of Persia until the arrival of Islam in the 7th century, it had spread eastwards to China and India by the 7th or 8th century)

Technology and Innovations

Acquired by China from the lands to the west

- Harnesses, saddles and stirrups (from the steppe nomads)
- Construction-methods for bridges and mountain roads
- Knowledge of medicinal plants and poisons
- Cultivation of cotton
- Seafaring techniques

Acquired by the West from Asia

- Chinese inventions
- Medical techniques (especially from Arab scholars such as Ibn Sina)
- Science and mathematics (algebra, astronomy, and the Arab numerals that we use in the West today; the zero came from India)

- The use of passports (a Mongol innovation)
- Military techniques and strategies
- Architectural styles and devices (the Persian invention of the squinch allowed the addition of a dome and led to the construction of many of the world's great buildings)

Did you know?

- There was considerable traffic in human beings in both directions along the Silk Road and there were also many instances of mass migration of entire communities. Perhaps the farthest wanderings of any single people are contained in the migration of the Roma, or Gypsies, who now number between eight and twelve million people and reside mainly in Eastern Europe. The origin of the Roma is uncertain but there are linguistic similarities between the Romani language and some dialects of India. It appears that the Roma originated in northwestern India and departed from their homeland in about the ninth century. They moved slowly westwards along the Silk Road through Iran and the Near East and by the fourteenth century were settled in the Balkans. Centuries of persecution and pogroms have caused the Roma to live in close-knit communities, often avoiding contact with non-Gypsies.

Technological Beginnings

The westward flow of Chinese technology occurred throughout the existence of the Silk Road. Joseph Needham summarized the plethora of new inventions that reached Europe between the first and eighteenth centuries, often after a time lapse of several hundred years. There are many other examples not listed in the chart below, such as the use of paper money, the abacus and the use of coal for fuel, but the table gives a good illustration of how technologically advanced the Chinese were from the Europeans.

Summary of the Transmission of Mechanical and Other Techniques From China To the West

Type of Device	Approximate timelag in centuries
Square-Pallet Chain Pump	15
Edge-Runner Mill	13
Edge-Runner Mill with application of water power	9
Metallurgical Blowing Engines, Water Power	11
Rotary Fan and Rotary Winnowing Machine	14
Piston Bellows	14
Draw-Loom	4
Silk-Handling Machinery (A form of flyer for laying thread evenly on reels appears around the 11 th century and water power is applied to spinning mills in the 14 th century)	3-13

Wheelbarrow	9-10
Sailing Carriage	11
Wagon Mill	12
Efficient Harness For Draught-Animals: Breast Strap (Postilion)	8
Collar	6
Crossbow (as an individual arm)	13
Kite	12
Helicopter Top (spun by a cord)	14
Zoetrope (moved by ascending hot-air current)	10
Deep Drilling	11
Cast Iron	10-12
Cardan Suspension	8-9
Segmental Arch Bridge	7
Iron-Chain Suspension Bridge	10-13
Canal Lock-Gates	7-17
Nautical Construction Principles (including watertight compartments, aerodynamically efficient sails and fore-and-aft rigging)	10
Stern-Post Rudder	4
Gunpowder	5-6
Gunpowder for Military Use	4
Magnetic Compass (Lodestone Spoon)	11
Magnetic Compass with Needle	4
Magnetic Compass Used for Navigation	2
Paper	10
Printing (Block)	6
Printing (Movable Type)	4
Printing (Metal Movable Type)	1
Porcelain	11-13

Related Articles

You may want to have students browse through the following short articles highlighting the accomplishments of high school inventors.

<http://www.popsci.com/scitech/gallery/2009-08/gallery-scouting-guide-top-high-school-inventors?image=7>

You could also have students read about ancient Arab-Persian scientists

<http://www.saudiaramcoworld.com/issue/200703/rediscovering.arabic.science.htm>

Critical Thinking

It should be noted that Silk Road commerce was primarily driven by three basic factors:

1. The obvious desire for profit
2. A fascination with the exotic
3. A means to enhance the political power of a particular nation

In what ways could people profit from trade along the Silk Road?

Possible Answer: Selling unique goods to other people who weren't familiar with them could provide more income than selling the goods locally. Also, middlemen along the route would profit by the transport of goods.

How did the Silk Road provide contact with the exotic?

Possible Answer: The Silk Road provided a route for items to travel long distances to places where the items were not available. For example, silk was an exotic item to Europeans and Middle Easterners. Amber and opium were exotic items for the Chinese.

How might a nation enhance their political power by use of the Silk Road?

Possible Answer: The Silk Road provided a convenient route for soldiers to invade other territories without having to make their own paths. Alexander the Great used the Silk Road to expand his empire. If you look at maps of his empire, you will see it closely follows the route of the Silk Road.



Discussion Activity

As goods and commodities were exchanged along the Silk Road, they passed through the hands of many middlemen. Discuss with your students what middlemen are, the role they play, and modern examples of middlemen.

What is the role of middlemen?

Possible answers: Middlemen enable the exchange of goods from one entity or region to another. This enables people to exchange goods without actually meeting the other person. Instead, they can go through middlemen, who ensure that the trade is made.

What are their advantages? Disadvantages?

Possible answers: Advantages - Middlemen make it possible for people to exchange goods without actually contacting the other person directly. For example, we have a lot of goods that were made in China, but we don't actually have to go to China to get these goods.

Disadvantages – Middlemen need to be paid for their services, so it increases the price of a good when it has to go through a middleman. Also, if middlemen have a monopoly on the industry, they can take high profits from their services.

What are some examples of modern middlemen?

Possible answers: Amazon.com or Wal-mart (or any department store) could all be considered middlemen because they enable us to get goods from other places without actually coming in contact with those places. We can order something online from across the country. Department stores bring goods from around the country or around the world to our communities so that we can buy them. We don't have to travel to a different state or a different country where a particular factory is in order to buy something we want. (i.e. We can buy Toyotas here at our local car dealer rather than having to travel all the way to Japan to buy one.) Through middlemen, we are able to purchase things from far away at a location nearby.

How would our economy be different without middlemen? Would prices of goods be lower or higher?

We would be much more limited in our buying selection. We would have to buy things that were produced nearby. For example, people from colder, northern areas would not be able to enjoy bananas, oranges, pineapples, or other fruits. Although middlemen charge a fee for their services, prices would ultimately be higher without them. Items produced overseas in China may be cheaper than before they are shipped through Wal-mart, but are still cheaper in comparison to some products produced domestically. Although the cost to manufacture a pair of jeans in China is around \$5, for you to personally go to China and buy a pair of jeans would cost thousands of dollars. And for jeans to be produced in the USA would be more expensive than the \$20 you can currently buy a pair of jeans for. So, even though middlemen like Wal-mart are making a profit from their sales, overall it saves US consumers money to use a middleman.

Essay

To help students make a connection between history and modern times, have your students write an essay answering the following question.

How was the Roman Empire's connection to China and the Silk Road similar to the United States' connection with China and modern trade?

Additional Links:

History of the Silk Road

<http://www.ess.uci.edu/~oliver/silk.html>

Silk Road Seattle – good maps of the Silk Road

<http://depts.washington.edu/silkroad/>

Silk Road Project

<http://www.silkroadproject.org/tabid/177/default.aspx>

Stanford Silk Road

<http://virtuallabs.stanford.edu/silkroad/SilkRoad.html>

Video:

Depending on how much time you have and how deeply into economics you want to go, you may consider showing your students all or part of the film “China Blue” shown on PBS and available at this link:

<http://video.pbs.org/video/1488092077/>

The film shows what Chinese factories are like and looks at some of the mechanisms of global trade. It could help students better understand some of the complexities behind modern trade and create parallels between trade today and trade along the Silk Road.