A historical map of the Americas, likely from the 17th or 18th century, showing the continent of North America and parts of South America. The map is titled 'VE NOVI ORBIS TABULA' at the top. It features a sailing ship in the Atlantic Ocean and a Native American figure in the lower left. The map is overlaid with a grid of latitude and longitude lines. The text 'EXPLORERS, TRADERS & IMMIGRANTS' is prominently displayed in the center, with a large decorative ampersand. Below the title, the subtitle 'TRACKING THE CULTURAL AND SOCIAL IMPACTS OF THE GLOBAL COMMODITY TRADE' and the text 'A CURRICULUM UNIT FOR GRADES 9 - 12' are visible. The word 'Hemispheres' is written in a cursive font at the bottom.

EXPLORERS, TRADERS & IMMIGRANTS

TRACKING THE CULTURAL AND SOCIAL IMPACTS
OF THE GLOBAL COMMODITY TRADE

A CURRICULUM UNIT FOR GRADES 9 - 12

Hemispheres

EXPLORERS, TRADERS & IMMIGRANTS

TRACKING THE CULTURAL AND SOCIAL IMPACTS
OF THE GLOBAL COMMODITY TRADE

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**Explorers, Traders & Immigrants:
Tracking the Cultural and Social Impacts of
the Global Commodity Trade**

Publication Date: October 2008

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**EXPLORERS, TRADERS & IMMIGRANTS:
TRACKING THE CULTURAL AND SOCIAL IMPACTS OF THE GLOBAL COMMODITY TRADE**

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INTRODUCTION

Explorers, Traders & Immigrants: Tracking the Cultural and Social Impacts of the Global Commodity Trade is based in part on the 2003 Hemispheres Summer Teachers' Institute "Explorers, Traders & Immigrants: Tracking Cultural Contact through Food." That four-day workshop examined aspects of cultural contact that have left trace evidence on the food that we eat. In seeking to expand the workshop's scope as we developed this unit, we have moved beyond looking only at foodstuffs and incorporated a number of other commodities that have had significant global impact.

This unit examines eight global commodities from their points of origin and the social, cultural, political, and economic changes they have wrought along their way. Each case study encompasses four "stops" along the commodity's journey: its initial discovery and/or access; its progress from local good to international trade; the ramifications of large-scale production; and the drama of its boom-and-bust cycles through the years.

We have sought to address the Texas Essential Knowledge and Skills (TEKS) and National Geography Standards that cover spatial and cultural diffusion. This unit draws on primary source readings, images, and maps so that students can both track and assess commodities as they have traveled the world. Each case study is laid out in a Document-Based Question (DBQ) format so that students can cite, interpret, and evaluate sources; consider point of view; and use historical evidence to develop and support a thesis.

In addition to responding to specific questions about each commodity, students can compare commodities by placing the following set of questions and their answers into a graphic organizer:

1. What role did _____ play in people's lives?
2. How were people's lives affected by _____?
3. To what extent has _____ been harmful or beneficial to society?

Each case study may also be used as a mapping activity in which students can trace on a world map each commodity's journey from origin to global impact. Toward that end, a blank world map is included on page xiii for you and your students to use.

We have also sought to include images among the primary source documents included in the DBQs. To help your students analyze these images as documents, we have included an image analysis worksheet, which can be found on page xv.

It is our hope that with *Explorers, Traders & Immigrants* students will be able to better appreciate the long-term effects of intercultural contact and population movements by relating them to the presence of various commodities that they see and use every day.

We welcome feedback and comments on the unit and your experience using it in the classroom. Please do not hesitate to contact us at hemispheres@austin.utexas.edu.

STANDARDS ALIGNMENT

This unit is designed to address the following standards in the Texas Essential Knowledge and Skills (TEKS):

CULTURE

18) The student understands the ways in which cultures change and maintain continuity.

The student is expected to:

A) describe the impact of general processes such as migration, war, trade, independent inventions, and diffusion of ideas and motivations on cultural change.

(113.34 World Geography Studies)

ECONOMICS

12) The student understands the economic importance of, and issues related to, the location and management of key natural resources.

The student is expected to:

A) compare global trade patterns at different periods of time and develop hypotheses to explain changes that have occurred in world trade and the implications of these changes;

B) analyze how the creation and distribution of resources affects the location and patterns of movement of products, capital, and people.

(113.34 World Geography Studies)

GEOGRAPHY

6) The student understands the types and patterns of settlement, the factors that affect where people settle, and processes of settlement development over time.

The student is expected to:

B) explain the processes that have caused cities to grow such as location along transportation routes, availability of resources that have attracted settlers and economic activities, and continued access to other cities and resources.

(113.34 World Geography Studies)

HISTORY

1) The student understands how geographic contexts (the geography of places in the past) and processes of spatial exchange (diffusion) influenced events in the past and helped to shape the present.

The student is expected to:

B) trace the spatial diffusion of a phenomenon and describe its effects on regions of contact such as the spread of bubonic plague, the diffusion and exchange of foods between the New and Old Worlds, or the diffusion of American slang.

(113.34 World Geography Studies)

5) The student understands causes and effects of European expansion beginning in the 16th century.

The student is expected to:

A) identify causes of European expansion beginning in the 16th century; and

B) explain the political, economic, cultural, and technological influences of European expansion on both Europeans and non-Europeans, beginning in the 16th century.

(113.33 World History Studies)

NATIONAL GEOGRAPHY STANDARDS ALIGNMENT

This unit addresses the following standards in the National Geography Standards:

Standard 5: Places and Regions: That People Create Regions to Interpret Earth's Complexity

By the end of the eighth grade, the student knows and understands:

3. The connections among regions

Standard 9: Human Systems: The Characteristics, Distribution, and Migration of Human Populations on Earth's Surface

By the end of the eighth grade, the student knows and understands:

3. The types and historical patterns of human migration
4. The effects of migration on the characteristics of places

Standard 11: Human Systems: The Patterns and Networks of Economic Interdependence on Earth's Surface

By the end of the eighth grade, the student knows and understands:

2. The basis for global interdependence
3. Reasons for the spatial patterns of economic activities
4. How changes in technology, transportation, and communication affect the location of economic activities

Standard 16: Environment and Society: The Changes that Occur in the Meaning, Use, Distribution, and Importance of Resources

By the end of the eighth grade, the student knows and understands:

1. The worldwide distribution and use of resources
2. Why people have different viewpoints regarding resource use

BLANK WORLD MAP

Name:

Class:

Date:

BLANK WORLD MAP



© FNSP/IEP de Paris 2001

projection Gall-Bertin

IMAGE ANALYSIS WORKSHEET

Select and analyze an image from this case study using the Image Analysis Worksheet. Compare your findings with those of your classmates.

A. Observations

Study the image for 2 minutes. First, consider any written information that accompanies the image (including title, date, source, comments). Next, form an overall impression of the image and then examine individual items in the image. Divide the image into four sections and study each to see what new details become visible. Use the chart below to write down your observations. List people, objects, and activities in the image.

PEOPLE	OBJECTS	ACTIVITIES

B. Deductions

Based on your observations above, list three things you might deduce from this image.

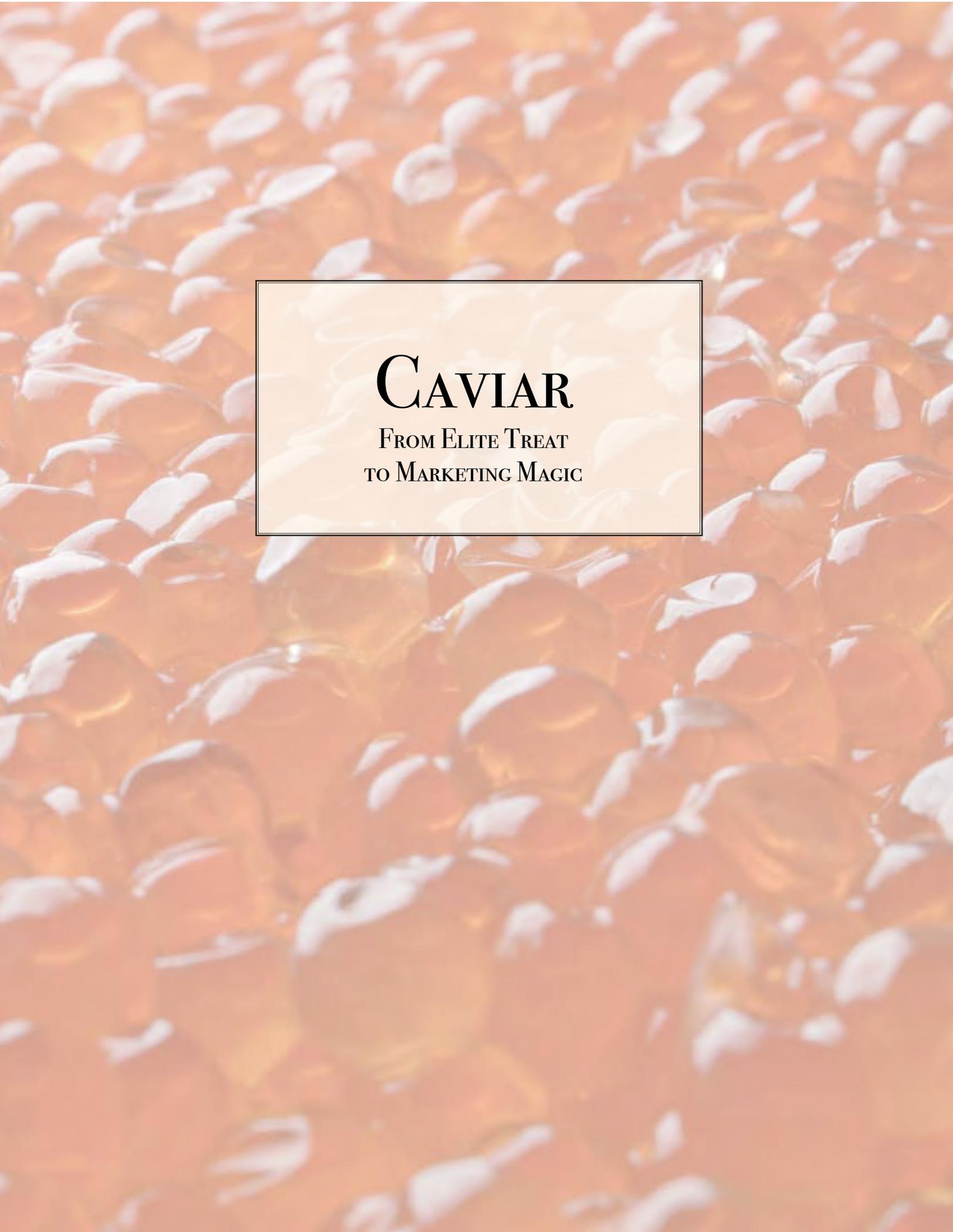
- 1.
- 2.
- 3.

C. Questions

What questions does this images raise in your mind? List two.

- 1.
- 2.

How might you go about finding answers to your questions?



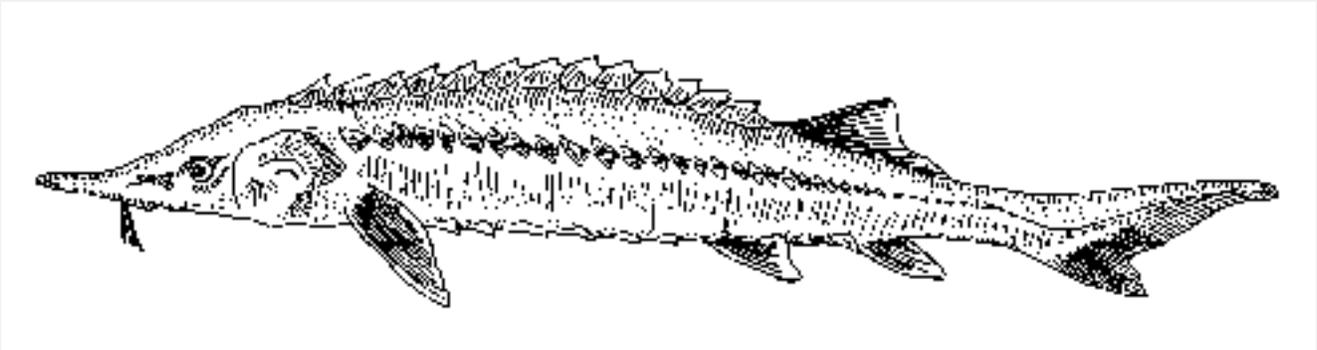
CAVIAR
FROM ELITE TREAT
TO MARKETING MAGIC

INTRODUCTION

Caviar is a delicacy savored the world over. While caviar is, crudely speaking, fish eggs, only the roe of the sturgeon can be sold as “caviar.” The roe of any other fish must be described using the name of the fish it comes from (such as “paddlefish caviar”).

There are twenty-seven different types of sturgeon, but the caviar of the beluga—the largest species, found only in the Caspian Sea—is the most famous. The large dark eggs have been the delight of Tsars through the ages, but Russians were not the first to process fish eggs. Writings from the ancient Egyptians, Greeks, and Persians all mention of caviar.

Source 1: Illustration of a sturgeon



U.S. Fish and Wildlife Service, <http://www.fws.gov/endangered/i/e3c.html>.

Source 2: Journalist Inga Saffron describes the life cycle of sturgeon in an interview, 2002

Sturgeon are an anadromous fish, which means they live in the seas, and commute up freshwater rivers to spawn. Sturgeon are born in rivers: in the Volga River, or the Ural River, or the Delaware River or the Sacramento River. After the female lays her eggs, they are fertilized by the male sturgeon with milt. Tiny inch-long fingerlings are born within a few hours. Those fingerlings make their way down the river into the sea, where they live until they grow up. When the fish are mature, and it takes quite a while for them to mature, they start the whole trip back up the river. They are famous for trying to spawn in the spot where they were born, repeating the cycle of their parents.

One of the reasons the sturgeon is in so much trouble now is, unlike most fish, they take quite a long time to mature. Beluga can take 20 years before sexual maturity. Even some of the smaller sturgeon take six to 10 years to reach adulthood and lay their eggs. When they finally mature, they go up the river.

“Caviar in Crisis: Luxury Food and Market Failure,” interview with Inga Saffron, *Multinational Monitor*, 23, no. 12 (2002), <http://multinationalmonitor.org/mm2002/02december/dec02interviewsaffron.html>.

Comprehension Exercise:

1. Why does Inga Saffron mention the sturgeon’s late maturity as a reason they are “in so much trouble now”? How might the sturgeon’s life cycle affect future populations of sturgeon?

SECTION I: A COMMON RUSSIAN DELICACY

Source 1: Merchant Jonas Hanway describes caviar preparation on the Volga River, 1753

Besides the vast abundance of fish taken in this river, and sent either salted or frozen to distant parts of the Russian empire, there is a considerable commerce carried on in caviare.

The method of preparing this commodity is to take away the stringy part; then to mix it with salt well cleaned and made into brine; when it is drained from the oily parts and pressed, it becomes of such a consistency as to keep two or three years. The grain is of a darkish grey colour, almost as big as a peppercorn, and cuts transparent. In the winter it is sent fresh to all parts of the empire, and is much esteemed by the natives as well as foreigners, being well known to partake of the nature of oysters. There is also a large quantity made for exportation, which is consumed in Italy and by the Christians in the Levant. The Armenians have the skill of preparing it best, and usually make above six thousand poods [about 100 tons] every year. In 1749 they brought twenty thousand poods to market.

Jonas Hanway, *An Historical Account of the British Trade Over the Caspian Sea* (1753), 94.

Source 2: French novelist Alexandre Dumas describes a method for transporting live fish, 1860

The method that Dumas describes for transporting sterlet also applied to sturgeon, as caviar spoils quickly. While caviar can be preserved with salt, fresh caviar is the most highly regarded.

The sterlet is found in certain rivers, chiefly the Volga and the Oka, and can live only in its native waters. The problem is to bring it, alive, the four or five hundred miles to St. Petersburg. (If it arrives dead, it is useless.) In summer there is no special difficulty. The fish travels in a tank of river water, shaded from the sun, extra supplies of the same water being carried in specially cooled jars. But in winter, with 30 degrees of frost, it's a very different matter, calling for a little furnace operated by a skilled man, to maintain the water always at the right temperature.

In the old days, before railways, great Russian lords kept special trucks, equipped with fish-tanks and slow oven, to bring sterlet to St. Petersburg, for custom demands that the host shall show his guests the fish, alive and swimming, that, a quarter of an hour later, they will enjoy as soup.

Elena Molokhovets, *Classic Russian Cooking: Elena Molokhovets' A Gift to Young Housewives* (1897), trans. Joyce Toomre (Bloomington: Indiana University Press, 1992), 60.

Source 3: Literary description of a celebration at the home of a Russian village Police Chief, 1842

While the guests were settling down to a game of cards, there appeared on the table in the adjoining room big helpings of white sturgeon, salmon, pressed and fresh caviar, herring, an assortment of cheeses, smoked tongue, and more sturgeon of a different variety, all with the compliments of the food store. Then additional dishes, the contribution of the host's kitchen, appeared: a fish-head pie into which had gone the trimmings of a three-hundred-pound sturgeon, another pie containing mushrooms, and then tarts, turnovers, and fritters.

Nikolai Gogol, *Dead Souls* (1842), trans. Andrew R. MacAndrew (New York: Signet Classics, 1961), 169.

Source 4: Description of pressed caviar

Pressed caviar is a less fragile and less expensive form of caviar that has been popular since the nineteenth century

One can also find *payusnaya* caviar, highly regarded in Russia, though less appreciated in the West. This pressed caviar is made from damaged eggs, which are crushed to form a rather sticky paste that is quite strong in flavor. *Payusnaya* caviar traditionally served as soldiers' rations during their long stints at the front, as it is much less perishable and consequently less expensive than the fresh caviar.

Darra Goldstein, "A Taste of Russia," *Russian Life Online*, <http://www.russianlife.net/vodka/zakuska2.cfm>.

Source 5: Chart detailing the value of merchandise for sale at the annual market fair, Nizhni Novgorod, 1841

The Nizhni Novgorod market fair was an annual month-long summer event where Russian, European, and Asiatic products and merchandise were bought and sold.

Value of Russian Merchandise at the Fair in 1841.

Articles.	For Sale.	Sold.
	Silver Roubles.	Silver Roubles.
Cottons	7,366,665	5,947,865
Woollens	3,448,275	2,620,175
Linens and hempen cloths	3,126,736	2,375,736
Silks	3,220,489	2,239,789
Furs	1,996,273	1,498,273
Hides, leather tanned and manufactured	1,043,583	876,083
Produce of mines and forges; iron, copper, hard- wares, jewellery, &c.	7,600,330	6,450,330
Porcelain, earthenware, glass, and mirrors	398,860	336,860
Dried fish, caviar, fish oil, and glue	513,778	473,278
Wheat and flour	2,850,750	1,645,750
Wines of Russian growth, brandy, hydromel, &c. Sugar from the refiners of St. Petersburg and Archangel (137,000 poods), and other merchan- dise, such as wax candles, potash, soap, tobacco, paper, pens, &c.	866,786 4,730,148	781,386 4,516,748
Total Russian produce and manufactures	37,132,693	29,762,473

Silver Roubles.
Increase in sales of Russian merchandise in 1841 over 1840 . 2,479,968

A. Slowaczynski, "Notices of the Commerce of Russia," *Journal of the Statistical Society of London* 5, no. 3 (Oct. 1842), 305.

Comprehension Exercises:

1. Based on these documents, do you think caviar was a special food or an everyday food for Russians? What factors made caviar more common among some Russians?
2. What methods were used to overcome the fragility of caviar?
3. With caviar so valuable a product, why do you think it did not represent a greater percentage of Russia's export commodities? Support your answer citing the sources.

Source 6: Description of caviar by Bartolomeo Scappi, personal cook to Pope Pius V, 1570

Caviar is made from sturgeon's eggs and is brought from Alexandria and from places in the Black Sea by merchants who pack it in kegs. It is served on hot toasted slices of bread with an eggplant sauce and capsicum.

Bartolomeo Scappi, *Opera* (Venice: 1570).

Source 7: King Louis XV of France first tastes caviar, mid 1700s

Offered a taste by an emissary of Peter the Great, the French king was so repulsed that he spat the contents on the elegant carpet of the Versailles palace. ... A few years later, in 1741, Savary's *Dictionnaire du Commerce* nevertheless attempted to promote caviar with this back-handed praise: "It is beginning to be known in France where it is not despised at the best tables."

Inga Saffron, *Caviar* (New York: Broadway Books, 2002), 61.

Source 8: English Law establishing sturgeon as a royal fish, 1765–1769

X. A TENTH branch of the king's ordinary revenue, said to be grounded on the consideration of his guarding and protecting the seas from pirates and robbers, is the right to royal fish, which are whale and sturgeon: and these, when either thrown ashore, or caught near the coasts, are the property of the king, on account of their superior excellence. Indeed our ancestors seem to have entertained a very high notion of the importance of this right; it being the prerogative of the kings of Denmark and the dukes of Normandy; and from one of these it was probably derived to our princes. It is expressly claimed and allowed in the statute de praerogativa regis: and the most ancient treatises of law now extant make mention of it; though they seem to have made distinction between whale and sturgeon.

William Blackstone, *Commentaries on the Laws of England* (Oxford: Clarendon Press, 1765-1769), <http://www.yale.edu/lawweb/avalon/blackstone/bk1ch8.htm> (accessed July 10, 2008).

Source 9: Europe responds to reports of plague in Russia, 1878–1879

In late 1878, reports of plague began to emerge from a village on the Volga River. This news frightened Europe as word spread and European nations began to take action to protect themselves from the contagion of this fatal disease, the cause of which no one knew.

On January 19, 1879, the German Ministry of Health forbade the importation of a wide variety of Russian goods, established a twenty-day quarantine for travelers from suspicious areas, and promised to dispatch German doctors to the plague-stricken region. ...

By the end of January the real and artificially sponsored alarm in Berlin had turned the subject of the plague into the prime topic of conversation. Some even shrank from eating caviar, lest they catch the deadly disease, although this deprivation hardly affected the mass of Germans.

A German-Austrian agreement prohibited the importation of linen cloths, rags, furs, skins, leather, hair bristles, feathers, caviar, fish, Sarepta balsam, felt, and wastepaper.

Hans Heilbronner, "The Russian Plague of 1878–79," *Slavic Review* 21, no. 1 (Mar. 1962), 94-95.

Comprehension Exercises:

4. How common was caviar among western Europeans? Based on these documents, do you think caviar was a special food or an everyday food for Europeans? How might the ban on caviar have impacted the common man's impression of it?
5. How might trade restrictions affect the future price of caviar? The German import ban was not just on caviar, but on many other products as well. Would those products, such as linen cloths and leather, also be affected in the future? What factors might differentiate the European response to different products and commodities?
6. How would the sturgeon's status as a "royal fish" affect the common Englishman's access to caviar?

SECTION 2: CRISIS IN THE CASPIAN

The Caspian Sea is the largest inland lake in the world, covering more than 386,000 sq. kilometers. It is one of the richest fisheries in the world and the source of the three most sought-after types of caviar: beluga, osetra, and sevruga. The beluga sturgeon is the largest—individuals can be four to six meters long and can weigh up to one thousand kg. Beluga caviar is a grey/black color. The osetra, on average, is about two meters long and can weigh sixty to one hundred kg. Osetra caviar ranges in color from grey to brown. The sevruga is much smaller, about one meter in length, and can weigh fifteen to twenty kg. Caviar from the sevruga is grey/black in color.

The Caspian is fed by more than 120 small rivers, but just five rivers provide 90 percent of the freshwater inflow. Of these, the Volga River is by far the largest.

Source 1: Lady Mary Leonora Woulfe Sheil, wife of a British diplomat, describes Caspian fisheries, 1856

Sturgeon and salmon are caught in immense quantities on these coasts; the fisheries of the sturgeon are in the hands of Russians, who rent them from the Persian Government. Having no scales, visible at least, this fish is valueless as an article of food to Persians. The best caviare is said to be obtained in the Caspian.

Mary Leonora Woulfe Sheil, *Glimpses of Life and Manners in Persia* (London: John Murray, Albemarle Street, 1856), <http://digital.library.upenn.edu/women/sheil/persia/persia.html> (accessed July 10, 2008).

Source 2: Russian Stamp, 1959

This postage stamp shows an osetra sturgeon with a map of its habitats in Russia and the statement “Save the osetra, most valuable fish of our homeland.”



“Stamps of the Soviet Era,” StampRussia.com, <http://www.stamprussia.com/2331b.jpg>

Comprehension Exercises:

1. What do you think happened in the Caspian region during the one hundred years between the description of Caspian fisheries and the declaration that sturgeon must be “saved”?
2. What does Lady Mary Leonora Woulfe Sheil mean when she says that sturgeon is “valueless as an article of food to Persians”? Do research to ascertain the religious restrictions on scaleless fish (hint: Jews and Shi’ite Muslims observe the same restrictions).

Source 3: Map of industry around the Caspian Sea, 2002

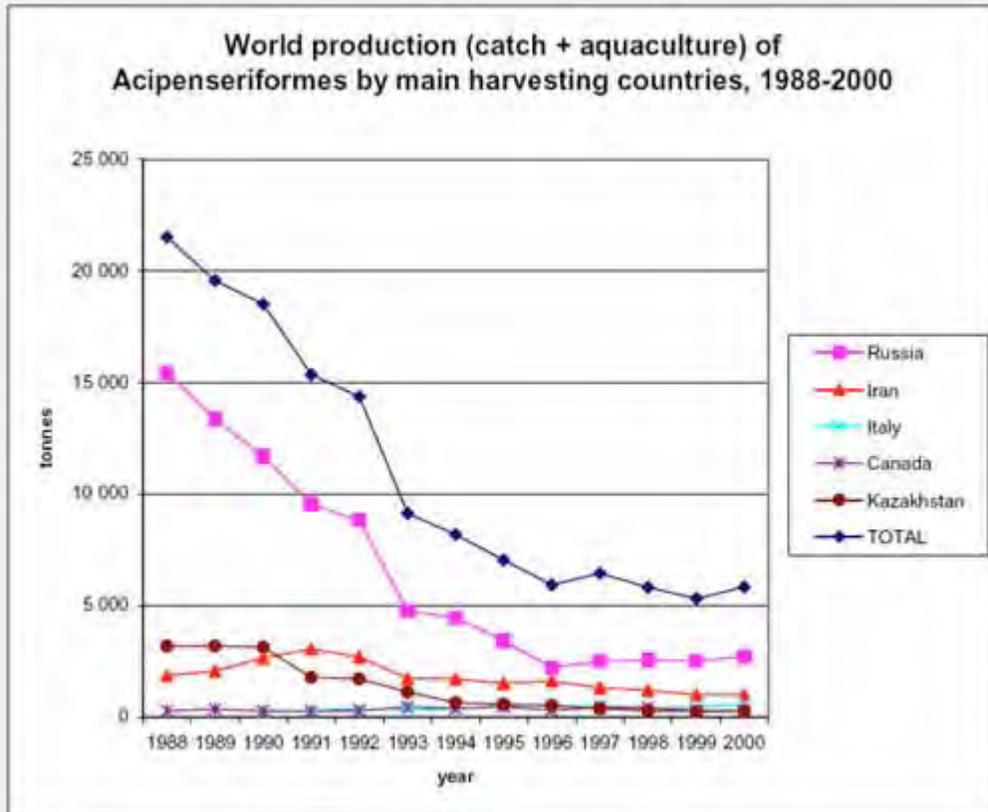
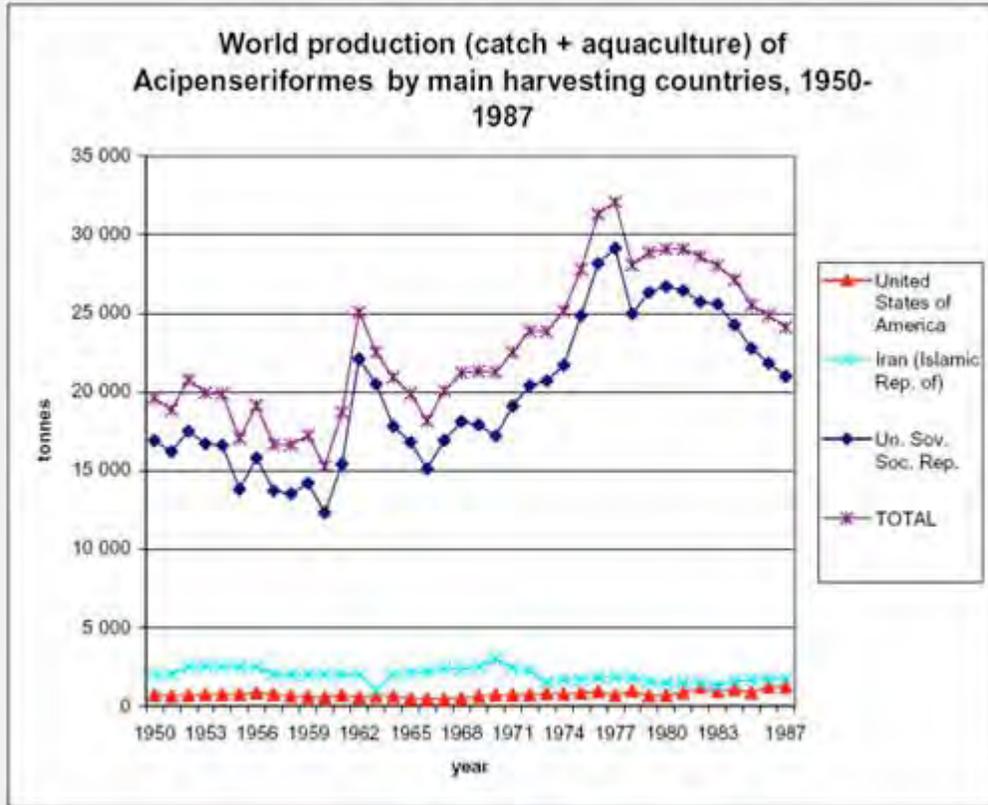


United Nations Environment Programme, *UNEP GRID-Arendal*, http://www.grida.no/graphic.cfm?filename=graphics/vital_caspian_graphics-p32_300dpi.jpg

Comprehension Exercise:

- How many countries border the Caspian Sea? Note the industries that surround and affect the rivers and sea.
- What impact do you think this has had on the sturgeon catch in this region?

Source 4: United Nations statistics indicating trends in catch of *Acipenseriform* fish (sturgeon and paddlefish) since 1950



Camillo Catarci, "World Markets and Industry of Selected Commercially-Exploited Aquatic Species with an International Conservation Profile," *FAO Fisheries Circular* 990 (Rome: United Nations Food And Agriculture Organization, 2004), <http://www.fao.org/DOCREP/006/Y5261E/y5261e06.htm>.

Comprehension Exercises:

5. What has happened to the catch of sturgeon since 1988? What factors might have contributed to this?
6. Why are there more countries involved in sturgeon catch since 1988 (what happened in 1990 that affected the region)?
7. On a world map, color the countries that are the main sturgeon harvesters.

Source 5: Convention on International Trade in Endangered Species (CITES) news release, January 2, 2007

Since 1998, CITES has required that sturgeon and sturgeon products, such as caviar, have a permit. CITES sets an annual limit on the amount of such products that can be sold internationally.

Geneva, 2 January 2007—The Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) has today published the export quotas for caviar and other sturgeon products from the Caspian for 2007.

The publication of 2007 quotas contrasts with the situation in 2006, when the Secretariat did not publish caviar quotas for the Caspian Sea’s sturgeon fisheries because the five States concerned—Azerbaijan, the Islamic Republic of Iran, Kazakhstan, the Russian Federation and Turkmenistan—did not provide sufficient information about the sustainability of their sturgeon catch. Recognizing that sturgeon stocks have declined in recent years, the States bordering the Caspian Sea agreed amongst themselves to reduce the combined catch quotas for the Sea’s six sturgeon species by an average of 20 % compared with 2005, with reductions of one third for some species.

Convention on International Trade in Endangered Species of Wild Fauna and Flora, “Following a 2006 ban, CITES authorizes quotas for all Caspian Sea caviar except beluga,” news release, January 2, 2007.

Source 6: U.S. airport display, 2007



Comprehension Exercises:

8. CITES sets quotas for the amount of fish that can be caught by any one country. What methods can CITES apply to enforce these rules? Does CITES have any control/authority over domestic sale/purchase of caviar?
9. How might restrictions on sturgeon catch and caviar export affect the price of a jar of caviar?

Source 7: U.S. Department of Justice news release, May, 4, 2004**COMPANY PRESIDENT PLEADS GUILTY TO CAVIAR SMUGGLING CONSPIRACY****Miami Ring Used Paid Couriers To Smuggle Caviar In Suitcases**

The Department of Justice announced today that Mariusz Chomicz, the President of a caviar company in Poland, pled guilty and was sentenced to 30 months in prison for his part in a caviar smuggling conspiracy. The conspiracy ring used paid couriers to smuggle suitcases filled with caviar into the United States after new international restrictions were announced in 1998 to protect sturgeon.

“Caspian Sea sturgeon are a species of pre-historic origin which are likely to be wiped out by the greed of smugglers and those willing to buy from them,” said Tom Sansonetti, Assistant Attorney General of the Justice Department’s Environment and Natural Resources Division. “Recent prosecutions have shown that the caviar trade is plagued by criminal activity which will result in the inevitable collapse of sturgeon populations absent vigorous enforcement. The Justice Department is dedicated to enforcing the laws designed to protect and preserve sturgeon and other protected wildlife from the threat of extinction.”

“Wildlife smuggling is a vice that will not be tolerated in Miami,” said Marcos Daniel Jiménez, U.S. Attorney for the Southern District of Florida. “We are committed to vigorously prosecuting those who place the prospect of profits before environmental concerns and violate wildlife laws.”

Chomicz, 29, a Polish national, was sentenced in a late afternoon hearing yesterday before U.S. District Court Judge Joan A. Lenard. The prosecution of Chomicz is the tenth criminal case to be brought in the Southern District of Florida relating to caviar smuggling over the past three years. The individuals previously convicted in Miami have all received prison sentences.

U.S. Department of Justice, “Company President Pleads Guilty to Caviar Smuggling Conspiracy,” news release, May 4, 2004.

Source 8: Environmental News Service article on poaching, May 17, 2007

In 2004, the president of Azerbaijan reported that the average salary in Azerbaijan was “approaching \$100” per month.

When a south wind blows from the Caspian Sea towards the coastal village of Hovsan, 32 kilometers (20 miles) east of the Azerbaijani capital of Baku, hundreds of dead fish are washed ashore.

The fish are the victims of illegal poachers and indiscriminate methods of killing their prey that are threatening stocks of sturgeon, an endangered species and the most precious resource of the Caspian.

The ordinary fishermen say that for the last 10 years poachers have been catching fish on this spot, mostly unhindered and using dynamite or homemade explosives made of fertilizers. They go out fishing in motorboats either early in the morning or late at night.

Fishing is one of the most lucrative businesses in modern day Azerbaijan. On the black market, a kilo of fresh sturgeon can be bought for 10 manats (US\$12) while a kilo of black caviar costs around 120 manats (US\$140). Overseas, these prices can be dozens of times higher.

International alarm about a steep decline in sturgeon stocks prompted the Convention on International Trade in Endangered Species, CITES, to halt exports of Beluga caviar from the Caspian Sea in 2006.

Environmental News Service, “Azerbaijan: Sturgeon Poachers Out of Control,” <http://www.ens-newswire.com/ens/may2007/2007-05-17-04.asp>, May 17, 2007.

Comprehension Exercises:

10. How might economic forces contribute to the problem of sturgeon poaching?
11. How are individual fishermen affected by the CITES quotas, as compared to large fishing fleets?
12. Source 7 mentions that ten smuggling cases have been prosecuted in Florida. What effect have airport restrictions had on smugglers?

SECTION 3: THE RISE AND FALL OF THE ATLANTIC STURGEON TRADE

Before the advent of canning, few non-elite Europeans had tasted caviar. Although the rivers of North America were teeming with sturgeon, explorers and colonists made little use of them for food. Fish products were commonly used as fertilizer, and had other non-food uses such as oil for lamps.

Source 1: Report by Henry Hudson to the British East India Company on his North American expedition, 1609

There are plenty of sturgeon which the Christians do not make use of, but the Indians eat them greedily.

Inga Saffron, *Caviar* (New York: Broadway Books, 2002), 87.

Source 2: Excerpt from a report by Captain John Smith, Virginia Colony, 1612

“In somer [summer] no place affordeth more plenty of Sturgeon, nor in winter more abundance of fowle, especially in the time of frost. There was once (1607–9) taken 52 Sturgeons at a draught, at another draught 68. From the later end of May till the end of June are taken few, but yong Sturgeon of 2 foot or a yard long. From thence till the midst of September them of 2 or 3 yards long and fewe others. And in 4 or 5 houres with one nette were ordinarily taken 7 or 8: often more, seldome lesse. In the small rivers all the yeare there is a good plenty of small fish, so that with hookes those that would take paines had sufficient.”

John Smith, “A Map of Virginia, etc.,” (1612), in John C. Pearson, “The Fish and Fisheries of Colonial Virginia,” *William and Mary College Quarterly Historical Magazine*, 2nd Ser. 22, no. 3 (Jul 1942), 213–220.

Source 3: Written report by Sir Augustus John Foster, British representative to Washington, describing the response of American congressmen to caviar, 1804–1812

Plenty of sturgeon are caught at the little falls of the Potomac a short distance above George Town where the river becomes narrow and the scenery is very romantic; such abundance was there indeed of this fish that I determined to try if the roe might not be cured so as to afford caviar and my maitre d’hotel having nothing to do in the summer, I gave him a receipt out of Chambers Dictionary for the purpose which he so successfully followed that I had some excellent Caviar for the following winter but on its being served to the members of Congress, the precaution of telling them to taste a little first not having been observed they took such quantities thinking it was black raspberry Jam that the stock was soon exhausted and very few of them liked it but spit it out very unceremoniously as a thing excessively nasty. Nevertheless it had met the approbation of some of the gentlemen of the Russian legation and I trust that the manufacture of it being thus introduced into the country it may by degrees become an object of consumption and even of exportation. ...

Margaret Bailey Tinkcom, “Caviar along the Potomac: Sir Augustus John Foster’s ‘Notes on the United States,’ 1804–1812,” *The William and Mary Quarterly*, 3rd Ser. 8, no. 1 (Jan. 1951), 77–78.

Comprehension Exercises:

1. With so much sturgeon available in the New World, why is there so little mention of caviar?
2. What was the general attitude of early Americans to caviar?
3. Based on the readings in the previous sections, what factors might have affected early Americans’ access to and consumption of caviar?

In the mid-1800s, European merchants, looking for a new, less-expensive source of caviar, turned to America. By the late 1870's the newly perfected process for canning caviar in glass jars motivated American fisheries to stop throwing away roe as "worthless" and to package and export caviar to Europe. Caviar for export rapidly increased in price, stimulating an ever-greater sturgeon catch. The best caviar was sent to Europe, while "surplus" remained in America. New York bartenders offered salty caviar sandwiches to encourage more drinking (much as salty peanuts are served today). This caviar enthusiasm continued to the point of overfishing in North American waters.

Source 4: Description of the status of the Atlantic sturgeon trade, 1915

Like many other fishery products which later came to have large commercial value, the sturgeon were once looked upon in many localities as utterly worthless, and often, when they became entangled in fishermen's nets, they were wantonly killed and thrown back into the water. ... Processes of preparing the roe for caviar were soon perfected, however, and by 1880 the sturgeon fishery was well developed. The great demand for caviar in Europe stimulated the fishery and the sturgeon soon rose from a position of worthlessness to one of extremely high value. Caviar mounted in price from about \$10 a ked in 1885 to \$40 ked in 1894. This rapid increase in price gave the sturgeon fishery prominence, but reckless fishing soon brought about a rapid decline. ... In some rivers which once supported a valuable fishery the sturgeon is entirely exterminated, and in all sections the catch has steadily diminished. ... Under present conditions the sturgeon fishery as a commercial enterprise will soon disappear, and the fish itself will probably be practically extinct within a few years.

Emory R. Johnson, T. W. Van Metre, G. G. Huebner, and D. S. Hanchett, *History of Domestic and Foreign Commerce of the United States, Volume II* (Carnegie Institution of Washington, 1915), 197.

Source 5: News article on fraud in caviar imports, 1900

... [S]even-eighths of the caviar sold in this country as Russian caviar is made a few miles below this city from eggs of the sturgeon caught in this vicinity. ... To show how rapidly the sturgeon are passing away it is only necessary to refer to the report of the Pennsylvania Fish Commission.

The Daily Herald, August 11, 1900.

Source 6: Chart of the paddlefish catch in the lower Mississippi River, 1899–1917

Around 1896 fishermen along the lower Mississippi began to make caviar from paddlefish roe. Once they were able to export caviar without spoilage, they increased their catch.

In 1894 paddlefish catch in Mississippi = 1,000,000 pounds valued at about \$21,000.

1899 catch 2,473,000 pounds, valued at \$55,514

1908 catch 1,500,000 pounds valued at \$49,000

1914 catch 9,000 pounds (value not specified)

1917 catch 3,000 pounds (value not specified)

R. E. Coker, "Methuselah of the Mississippi," *The Scientific Monthly* 16, no. 1, (Jan. 1923), 95.

Comprehension Exercises:

4. What was the attitude of early Americans toward caviar and sturgeon? How might immigration have affected this attitude?
5. How did fishing practices and environmental factors affect the sturgeon catch in North America?
6. How do you think the impact of American caviar might have affected the caviar industry in Russia and Iran? Cite evidence from readings in this section.

Source 7: Description of the decline of sturgeon populations in the early 1900s.

By 1925, factory and sewage pollution coupled with over fishing caused the sturgeon and caviar industry on the Delaware to diminish. In 1904, the Sturgeon Fishermen's Protective Association discussed passage of a law forbidding the landing of any sturgeon under 4 feet, since fish this size are of little value as a source of caviar. State laws were eventually passed but not before most of the sturgeon in the Delaware Bay had disappeared.

Kimberly R. Sebold and Sara Amy Leach, *Historic Themes and Resources within the New Jersey Coastal Heritage Trail Route* (National Park Service, 1991), http://www.nps.gov/history/history/online_books/nj2/chap3b.htm (accessed July 10, 2008).

Source 8: Abandoned sturgeon docks at Caviar/Bayside, New Jersey, ca. 1930



Kimberly R. Sebold and Sara Amy Leach, *Historic Themes and Resources within the New Jersey Coastal Heritage Trail Route* (National Park Service, 1991) http://www.nps.gov/history/history/online_books/nj2/chap3b.htm (accessed July 10, 2008).

Source 9: Excerpt from “Old Timers,” poem describing Port Bruce, Ontario, in 1896

On one side of the fish house, row on row,
Were kegs and cases of sturgeon roe,
The public hadn't acquired the expensive taste
That now is featured in caviar paste.
The sturgeon are gone and so is the roe
And the exciting days of long ago.
And the rough, kindly, friendly fisher folk
Who chewed tobacco and spit at my feet as a joke.

Violet Reid Reavie, “Old Timers” (1961), <http://www.amtelecom.net/~bjohnson/PortBruce/oldtimers.htm>.

Comprehension Exercises:

7. How did the decline in sturgeon catch affect the lives of fishermen along the Atlantic coast?
8. According to the sources in the previous sections, caviar was a delicacy in Europe for hundreds of years before overfishing reduced the sturgeon population in the Caspian Sea. Why did sturgeon and paddlefish populations decline so rapidly in American waters? Explain your answer citing texts in this section.

Source 10: Nazi Minister of Armaments, Albert Speer, recalling Hitler's taste for caviar

For a few weeks, Hitler actually ate caviar by the spoonful with gusto, and praised the taste, which was new to him. But then he asked Kannenberg [the house steward] about the price, was horrified, and gave strict orders against having that again. Thereupon, the cheaper red caviar was served him. But that too was rejected as an extravagance. To be sure, these expenses were insignificant in comparison with the total outlay for the Chancellor's household. But the idea of a caviar-eating Leader was incompatible with Hitler's conception of himself.

Albert Speer, *Inside the Third Reich* (Macmillan, 1970), 128.

Source 11: American film actress Marilyn Monroe describing fame

Fame is not really for a daily diet, that's not what fulfills you. It warms you a bit but the warming is temporary. It's like caviar, you know—it's good to have caviar but not when you have it every meal every day.

Carl E. Rollyson, *Marilyn Monroe: A Life of the Actress* (Da Capo Press, 1993), 55.

Comprehension Exercises:

9. What do the above quotations imply about the perceived status of people who eat caviar? What sort of self-image is reflected in these comments?
10. How have American attitudes toward caviar changed over time? Consider factors that might account for differences and changes in attitudes. Explain your answer citing readings in this and previous sections.

Source 12: Label of a can of Canine Caviar pet food, 2007



Discover a line of pet foods so premium they will meet the needs of every animal, no matter what the breed. These diets are leading the way in the pet food industry's search for the perfect pet food with its naturally preserved allergen free food.

Canine Caviar, <http://caninecaviar.com/>

Comprehension Exercises:

11. Canine Caviar products do not actually contain caviar. What is the company saying about its product by naming it “caviar”?
12. Is this a legitimate method of advertising?

SECTION 4: THE MARKETING AND POLITICS OF A BANNED LUXURY

The taste for caviar has expanded even as the supply has contracted. This has led to a search for roe that can satisfy the public's continuing demand.

Source 1: Texas from an advertisement by Deluga Caviar, 2007

“Protecting the Environment”

Five years ago, our company, Deluga Caviar, Inc, recognized that Beluga Sturgeon was being over fished and on the verge of extinction. We immediately set out to create Deluga Caviar, a substitute for Beluga Caviar with the look, texture, and taste of Beluga, at a fraction of the cost. Our caviar is an all natural product with no preservatives, made with legally imported roe of a fresh water European fish carefully blended with top quality caviar essence.

Deluga Caviar, <http://delugacaviar.com/caviar.html>.

Source 2: Excerpt from a *New York Times* article about U.S. paddlefish roe, 2003

LOUISVILLE, Ky., July 19—

While caviar might go with canapés, it does not usually go with y'all.

But tell that to Lewis Shuckman.

A plucky, compact vendor of fish, Mr. Shuckman spent years peddling southern paddlefish roe from his seafood shop in Louisville, knocking on doors of fancy restaurants and country clubs, asking anyone who would listen, “Y'all want some caviar?”

Noses were turned up, he says, and chef after chef dismissed his product as a far cry from “the gray pearls” of the Caspian Sea and just the eggs of some toothless, goofy-looking creature that swam the Mississippi.

But then things changed. Markedly. Pollution, over-fishing and corruption ravaged the once bountiful stocks of Caspian Sea sturgeon, mothers of famed sevruga, osetra and beluga caviar, a salty jam sometimes costing as much as \$100 a spoonful. A recent Iranian report said 140 million prized sturgeon had disappeared.

Now, Mr. Shuckman and his paddlefish eggs are the toast of homegrown caviar aficionados, an industry growing as fast as a well-fed fingerling. Ten years ago, domestic caviar accounted for a sliver of American consumption. Today, some seafood experts say, the cheaper (though mushier) roe feeds 60 percent of the market.

The chef Wolfgang Puck calls the paddlefish eggs “the Chevrolet of caviar.”

Jeffrey Gettleman, “Humble Paddlefish Fulfills Southerners' Caviar Dreams,” *New York Times*, July 20, 2003.

Source 3: Caviar vending machine, Moscow, 2005

This vending machine contains salmon caviar, as indicated by the bright orange eggs.



English Russia, <http://englishrussia.com/?p=566>.

Source 4: RIA news article about the introduction of caviar vending machines in Moscow, 2005

Moscow took another step Friday toward justifying its reputation as one of the world's most expensive cities by installing a vending machine dispensing one of the country's best-loved delicacies: caviar.

In a move that seems to reflect the country's new-found riches and makes Coke machines look almost proletarian in comparison, the dispenser, known locally as an "ikromat" from the Russian word for caviar "ikra," has been set up in a City Hall building on the New Arbat, a street now better known for its casinos than as the home of the House of Books.

True, the goods on offer are not top of the range Beluga, but the highly popular red [salmon] caviar should be a hit with the local employees in the run-up to New Year's Eve, the country's main holiday.

A representative of the company behind the vending machine ... only said they [caviar sold in the vending machine] would be expensive.

"After all, it [caviar] is not coffee," the representative said.

In fact, the "ikromat" is far more of a technical challenge than your average instant coffee machine. The temperature, for one, has to be maintained at a steady 5 degrees Celsius, otherwise the produce will spoil. And nobody would want the New Year's celebrations to be ruined because of that.

But unlike coffee machines and soft drinks dispensers, caviar is unlikely to appear any time soon at a gymnasium or a movie theater near you. "We would have to put a guard to them," the company representative said.

Russian News and Information Agency, "Russian Delicacy Goes on Sale in Low-End Vending Machine," December 9, 2005.

Comprehension Exercises:

1. What does Wolfgang Puck mean when he calls paddlefish eggs “the Chevrolet of caviar”?
2. How are new advertising strategies affecting the market for caviar?
3. The vending machines in the above source sell salmon caviar, a less expensive type of roe. Do you think that making caviar available in a vending machine will make it more accessible to the general public? What other factors might influence the sale of salmon caviar?

Source 5: News article on a World Wildlife Fund survey of Russian attitudes toward caviar, October 9, 2007

Russians only let the price, not the threat of extinction, come between them and caviar, a survey by the global conservation organization WWF said on Monday.

Russians are consuming less of the prized delicacy compared with a couple years ago, but only because the price of the tiny black sturgeon roe has increased, it said.

Rising prices discouraged 68 percent of respondents from buying caviar, the WWF survey said, while only 4 percent cited the collapse of Caspian Sea sturgeon stocks as a factor in the decline.

“We found that our countrymen don’t think of the environment when they eat caviar, but the rising prices are making people buy less and less,” WWF’s Moscow spokeswoman Darya Kudryavtseva said.

WWF estimates that 9/10 of all black caviar—the most expensive kind—have been taken illegally from the waters.

“People are ready to buy illegal caviar. The fate of sturgeon and the legality of caviar is of little concern to Russians,” she said.

Last month Russian police seized almost half a ton of contraband caviar worth an estimated \$600,000 as it was being smuggled through a military airfield in black rubbish bags, the interior ministry said at the time.

Overfishing, poaching, pollution, poor management and corrupt law enforcement agencies have cut sturgeon stocks severely, environmental groups have said.

Caviar can be extracted from various species of fish, though in Russia most come from sturgeon. It is usually served lightly salted as either a snack or a light meal, and often comes accompanied by pancakes.

Caviar from the rare beluga sturgeon costs about \$1,800 per kg in Moscow markets, versus 3,700 British pounds (\$7,499) in London, though other types cost less.

Thompson Reuters, “Prices, not extinction, worry Russian caviar fans,” October 9, 2007.

Source 6: Excerpt from article discussing the connection between the U.S. and Iran over caviar, 2004

Axis of Fish Eggs: Sure, Iran is our enemy. But its caviar is so good. Here, just try a little taste. ...



The United States increasingly relies on its former enemy Russia to provide a stable supply of oil at a time when we prefer to do less business with nasty Islamic regimes such as Iran. But when it comes to another expensive, oozy black substance packaged in metal containers, the U.S. government is suggesting that we rely less on Russia, which has historically provided a stable supply, and more on a charter member of the Axis of Evil.

Daniel Gross, "Axis of Eggs," *Slate*, July 2, 2004, <http://www.slate.com/id/2103316/>.

Comprehension Exercise:

4. What do the sources suggest about what happens when politics and economics clash?

GRAPHIC ORGANIZER I

Fill in the following chart for each stop along caviar's progress from hidden Caspian delicacy to contraband. How did it move from one stop to the next?

	(1) A Common Russian Delicacy	(2) Crisis in the Caspian	(3) The Rise and Fall of the Atlantic Sturgeon Trade	(4) The Marketing and Politics of a Banned Luxury
<i>Where is caviar found?</i>				
<i>With whom did it arrive?</i>				
<i>When did it arrive?</i>				
<i>How was it used?</i>				

GRAPHIC ORGANIZER 2

Fill in the following chart for each stop along caviar's progress from hidden Caspian delicacy to contraband.

<p><i>To what extent has caviar been harmful or beneficial to society?</i></p>	<p><i>How were people's lives affected by caviar?</i></p>	<p><i>What role did caviar play in people's lives?</i></p>	
			<p>(1) A Common Russian Delicacy</p>
			<p>(2) Crisis in the Caspian</p>
			<p>(3) The Rise and Fall of the Atlantic Sturgeon Trade</p>
			<p>(4) The Marketing and Politics of a Banned Luxury</p>

The background of the image is a close-up, slightly blurred photograph of a burlap sack filled with almonds and cacao beans. The almonds are light brown and have a textured, wrinkled surface. The cacao beans are darker, reddish-brown, and have a more elongated, ribbed shape. The lighting is soft and even, highlighting the natural textures of the ingredients.

CHOCOLATE

FROM NEW WORLD CURRENCY
TO GLOBAL ADDICTION

INTRODUCTION: CHOCOLATE IS INTRODUCED TO THE EUROPEANS

Source: Italian traveler Girolamo Benzoni describes chocolate, mid-1500s

Benzoni is one of the first Europeans to describe the cold, bitter-tasting drink, which at the time was made with flavorings that included chilies, vanilla, honey, and flowers and whipped up into a foamy concoction.

They drink it [chocolate], though it seems more suited for pigs than for men. I was upwards of a year in that country without ever being induced to taste this beverage; and when I passed through a tribe, if an Indian wished occasionally to give me some, he was very much surprised to see me refuse it, and went away laughing. But subsequently, wine failing, and unwilling to drink nothing but water, I did as others did. The flavour is somewhat bitter, but it satisfies and refreshes the body without intoxicating: the Indians esteem it above everything...

Girolamo Benzoni, *History of the New World*, trans. W. H. Smyth (London: Hakluyt, 1857), 150.

Comprehension Exercises:

1. What was the attitude of the Indians towards chocolate? Explain your answer by citing text from the passage.
2. What was Benzoni's attitude towards the drink? Explain your answer citing text from the passage.
3. Benzoni's reaction to chocolate was fairly typical for Europeans who visited the New World. Based on this passage, do you think chocolate would have a future with Europeans? Why or why not?

SECTION I: CHOCOLATE IN MESOAMERICA: FOOD OF THE GODS

The word “cacao” can be traced as far back as the Olmec civilization, which dates to 1000 B.C.E., in Mexico. The Olmecs were probably the first to grow cacao (the large pods whose seeds are used to make chocolate), and to process it for consumption. Their process was passed down to the Maya, whose ancestors were in the region around the same time as the Olmecs. The Maya used cacao to make a drink served on special occasions. Once the Aztecs entered the area, around 1300 C.E., they also began to use cacao. The following two sets of documents describe the Mayan and Aztec relationships to chocolate.

Source 1: From the *Popul Vuh*, creation myth of the Maya

We will now return to the story of man’s creation by the Creators and Makers Tepew and Q’uk’umatz.

“The time for the first dawn has arrived, and we must complete our creation. Let man and all of humanity appear on the earth’s surface. Humankind will give us our sustenance,” they said.

They came together in the darkness to think and reflect. This is how they came to decide on the right material for the creation of man. They had to hurry because there was little time left before the sun, the moon and the stars would appear in the sky.

The corn used to create the first men was found in the place called Paxil and K’ayala’. Yak the wildcat, Utiw the coyote, K’el the parrot, and Joj the crow were the creatures who discovered this food. They were the ones who showed the way to Paxil so that the corn could be brought back.

And that is how the beautiful place where abundant white and yellow corn grew was discovered. All kinds of fruits and seeds, including beans, cacao, zapote, anona, wild plums, nance, white zapote and honey were also to be found in Paxil and K’ayala’.

Victor Montejo, *Popol Vuh: Sacred Book of the Maya*, trans. David Unger (Toronto: Groundwood Books/Douglas & McIntyre, 1999), 61.

Source 2: Excerpt from a Spanish manuscript letter about the Maya, 1595

The form of the marriage is: the bride gives the bridegroom a small stool painted in colors, and also gives him five grains of cacao, and says to him, “These I give thee as a sign that I accept thee as my husband.” And he also gives her some new skirts and another five grains of cacao, saying the same thing.

J. Eric Thompson, “Sixteenth and Seventeenth Century Reports on the Chol Mayas,” *American Anthropologist* 40 (1938): 602.

Source 3: Clay sculpture depicting the Mayan cacao god, from the Late Classic Period (600–900 C.E.)



Source 4: Engraving from a bowl, Mayan Classic Period (300–900 C.E.).



The name of the god, not yet readable by scholars, appears in the vertical panel.

Comprehension Exercises:

1. What role did cacao play in the lives of the Maya? Explain your answer citing the documents.
2. Did cacao have a role in the religious beliefs of the Maya? Explain your answer citing the documents.

Source 5: Excerpt from an Aztec creation myth

When the gods created humans, they knew that they had to feed them so that they would grow and multiply. Quetzalcoatl, the Plumed Serpent, was the first to see a grain of maize (what we now know as corn) being carried by an ant, and so he disguised himself as an ant to find the source of the food.

He followed his disgruntled guide where she led him, through a tiny crevice into the dark belly of a mountain called Tonacatepetl, the Mountain of Sustenance. It was well-named for, deep in its stone heart, a cavernous chamber opened out, which was filled with seeds and grains of every kind. There were kernels of maize and the flat seeds of squash; there were cacao pods whose seeds yielded chocolate; there were beans and the fiery seeds of the pepper and the pips of the tomato. The place was a treasure trove of the seeds of plant life. ...

With lightning bolts and other divine devices, the gods split Tonacatepetl open ... and out poured the contents of the rock, so long stored up inside. At once the Tlaloque [rain gods of the four directions] gathered them up—all the seeds and the kernels and the pips and the beans—and carried them away to the four corners of the earth. There they scattered them and fed them with life-giving rain to make them germinate and shoot and in their turn bear seed, so that people would for ever be able to grow their own crops.

That is how the gods gave food to humankind. And when you yourself next eat—fiery chilli, perhaps, or some rich, dark chocolate or a tasty tomato or a cob of butter-glazed corn—remember who first blessed you with these things ... and be thankful.

Diana Ferguson, *Tales of the Plumed Serpent: Aztec, Inca and Mayan Myths* (London: Collins & Brown, 2000), 135.

Source 6: Ruling establishing market prices by Spanish Judge Gómez de Santillán, Tlaxcala, New Spain (Mexico), 1545

- One good turkey hen is worth 100 full cacao beans, or 120 shrunken cacao beans.
- A hare or forest rabbit is worth 100 cacao beans each.
- A small rabbit is worth 30.
- A chicken egg is worth 2 cacao beans.
- An avocado newly picked is worth 3 cacao beans; when an avocado is fully ripe it will be the equivalent to one cacao bean.
- One large tomato will be equivalent to a cacao bean.
- A newly picked prickly pear cactus fruit is equivalent to one cacao bean, when fully ripe two cactus fruit (for a cacao bean).
- Chopped firewood is equivalent to 1 cacao bean.
- A tamale is exchanged for a cacao bean.

Arthur J. O. Anderson, Frances Berdan and James Lockhart, trans. and eds., *Beyond the Codices: The Nahuatl View of Colonial Mexico* (Berkeley: University of California Press, 1976), 211.

Source 7: Excerpt from Spaniard Bernal Díaz del Castillo's chronicle, *The Discovery and Conquest of Mexico*, 1521

While he was at his meal the men of his guard who were in the rooms near to that of Montezuma never dreamed of making any noise or speaking aloud. They brought him fruit of all different kinds that the land produced, but he ate very little of it. From time to time they brought him, in cup-shaped vessels of pure gold, a certain drink made of cacao, and the women served this drink to him with great reverence. ...

As soon as the great Montezuma had dined, all the men of the Guard had their meal ... and it seems to me that they brought out over a thousand dishes of food ... and then over two thousand jugs of cacao all frothed up, as they make it in Mexico, and a limitless quantity of fruit, so that with his women and female servants and bread makers and cacao makers his expenses must have been very great.

Bernal Díaz del Castillo, *The Discovery and Conquest of Mexico*, trans. A. P. Maudslay (New York: Noonday Press, 1965), 210–211.

Comprehension Exercises:

3. What role did cacao play in the lives of the Aztecs? Explain your answer citing the documents.
4. Did cacao have a role in the religious beliefs of the Aztecs? Explain your answer citing the documents.
5. Compare and contrast the role of cacao in the lives of the Maya and the Aztecs. Use the documents for examples.
6. How did the Maya and Aztecs influence the development of chocolate?

SECTION 2: CHOCOLATE ACROSS THE ATLANTIC: EUROPE

Although Europeans' first descriptions of chocolate were not positive, the bitter drink eventually won them over. Chocolate traveled to Spain with the returning explorers. In the 1500s, the Spanish were the first to add sugar—a very expensive ingredient—to chocolate; sugar made the drink even more appealing. At first the Spanish controlled the distribution of cacao because they controlled the plantations in Mexico, but chocolate's popularity had spread to Italy, France, and England by the late 1600s.

Source 1: Excerpt from a letter by Marie de Villars, wife of the French Ambassador to Spain, 1680

I observe my chocolate diet, to which I believe I owe my health. I do not use it crazily or without precaution. My temperament would seem incapable of accepting this nourishment [presumably her temperament was melancholic or phlegmatic]. However it is admirable and delicious. I have made it at home, which can do no harm. I often think that if I should see you again, I would make you take it methodically, and make you confess that there is nothing better for the health. There's an encomium of chocolate! Remember that I am in Spain, and taking it is almost my only pleasure.

Sophie D. Coe and Michael D. Coe, *The True History of Chocolate* (London: Thames & Hudson, 1996), 138.

Source 2: Excerpt from writings by Italian Francesco Redi, ca. 1666

Chocolate was first introduced from America by the court of Spain, where it is made in all perfection. And yet, to the Spanish perfection has been added, in our times, in the court of Tuscany, a certain I know not what of more exquisite gentility, owing to the novelty of diverse European ingredients; a way having been found out of introducing into the composition the fresh peel of citrons and lemons, and the very genteel odour of jasmine; which, together with cinnamon, amber, musk, and vanilla, has a prodigious effect upon such as delight themselves in taking chocolate.

Leigh Hunt, *Bacchus in Tuscany: A Dithyrambic Poem from the Italian of Francisco Redi, with Notes Original and Select* (London: John and H.L. Hunt, 1825), 122–23.

Source 3: Excerpt from a letter by Marie de Rabutin-Chantal, Marquise de Sévigné, 1671

I want to tell you, my dear child, that chocolate is no longer for me what it was, fashion has led me astray, as it always does. Everyone who spoke well of it now tells me bad things about it; it is cursed, and accused of causing one's ills, it is the source of vapors and palpitations; it flatters you for a while, and then suddenly lights a continuous fever in you that leads to death. ... In the name of God, don't keep it up, and don't think that it is still the fashion of the fashionable. All the great and the less [great] say as much bad about it as they say good things about you. ...

Sophie D. Coe and Michael D. Coe, *The True History of Chocolate* (London: Thames & Hudson, 1996), 158–59.

Comprehension Exercises:

1. What were European attitudes towards chocolate? Explain your answer citing the documents.
2. Based on the documents, do you think chocolate was a special drink, or an everyday food, for the Europeans? Support your answer citing the texts.
3. How did the Europeans consume and influence the development of chocolate?
4. How was the use of chocolate in Europe both similar to and different from its use in the Americas?

Source 4: Excerpt from Charles Dickens, *A Tale of Two Cities*, 1859

Monseigneur was about to take his chocolate. Monseigneur could swallow a great many things with ease, and was by some few sullen minds supposed to be rather rapidly swallowing France; but, his morning's chocolate could not so much as get into the throat of Monseigneur, without the aid of four strong men besides the Cook.

Yes. It took four men, all four a-blaze with gorgeous decoration, and the Chief of them unable to exist with fewer than two gold watches in his pocket, emulative of the noble and chaste fashion set by Monseigneur, to conduct the happy chocolate to Monseigneur's lips. One lacquey carried the chocolate-pot into the sacred presence; a second, milled and frothed the chocolate with the little instrument he bore for that function; a third, presented the favoured napkin; a fourth (he of the two gold watches) poured the chocolate out. It was impossible for Monseigneur to dispense with one of these attendants on the chocolate and hold his high place under the admiring Heavens. Deep would have been the blot upon his escutcheon if his chocolate had been ignobly waited on by only three men; he must have died of two.

Charles Dickens, *A Tale of Two Cities* (Philadelphia: Courage Books, 1992), 78–79.

Source 5: Spanish tiles depicting a *chocolatada* (chocolate party), 1700s



Museu de Ceràmica, Barcelona.

Comprehension Exercises:

5. The excerpt from *A Tale of Two Cities*, written by an Englishman, describes the life of an aristocratic Frenchman. What impression does it give of the life of French nobility? Support your answer citing the text.
6. Based on the documents, how important do you think chocolate was in European society? Explain your answer.

SECTION 3: LARGE-SCALE CACAO PRODUCTION

In order to provide an ever-expanding amount of chocolate to consumers, European colonists in the Americas turned to the large-scale production of cacao on plantations. The plantation system attempted to reap maximum benefits for the least expense: productive lands were taken away from native groups, natives and Africans were enslaved to work the plantations, and resources were extracted until the land was drained. But the plantations of the Americas were producing many tons of chocolate for all those who now consumed it on a daily basis. By the twentieth century—after innovations such as the Dutch process (1828), which gave powdered chocolate a milder flavor, and conching (1879), which allowed chocolate to be formed into solid bars—chocolate was food for the masses.

Source 1: From the *Harleian Miscellany*, a collection of political and historical tracts collected by the Earl of Oxford, about cacao in the British and Spanish colonies, 1690

Cocoa is now a commodity to be regarded in our colonies, though at first it was the principal invitation to the peopling of Jamaica, for those walks the Spaniards left behind them there, when we conquered it, produced such prodigious profit with so little trouble that Sir Thomas Modiford and several others set up their rests to grow wealthy therein, and fell to planting much of it, which the Spanish slaves had always foretold would never thrive, and so it happened: for, though it promised fair and throve finely for five or six years, yet still at that age, when so long hopes and cares had been wasted upon it, withered and died away by some unaccountable cause ... Those slaves gave a superstitious reason for its not thriving, many religious rites being performed at its planting by the Spaniards, which their slaves were not permitted to see. But it is probable that, where a nation as they removed the art of making cochineal and curing vanilloes [a kind of vanilla] into their inland provinces, which were the commodities of those islands in the Indians' time, and forbade the opening of any mines in them for fear some maritime nation might be invited to the conquering of them, so they might, likewise, in their transplanting cocoa from the Caracas and Guatemala, conceal willfully some secret in its planting from their slaves, lest it might teach them to set up for themselves by being able to produce a commodity of such excellent use. ...

Brandon Head, *The Food of the Gods: A Popular Account of Cocoa* (London: R. Brimley Johnson, 1903), http://www.gutenberg.org/files/16035/16035-h/16035-h.htm#Footnote_3_3 (accessed July 30, 2007).

Source 2: Painting of Indian workers on a cacao plantation in Trinidad

Brandon Head, *The Food of the Gods: A Popular Account of Cocoa* (London: R. Brimley Johnson, 1903), http://www.gutenberg.org/files/16035/16035-h/16035-h.htm#Footnote_3_3 (accessed July 30, 2007).

Source 3: Robert Louis Stevenson writing about planting cacao in the Samoan Islands (South Pacific), 1891

You should have seen us; the veranda was like an Irish bog, our hands and faces were bedaubed with soil, and Faauma was supposed to have struck the right note when she remarked (*à propos* of nothing), ‘Too much *eleele* (soil) for me.’ The cacao, you must understand, has to be planted at first in baskets of plaited cocoa-leaf. From four to ten natives were plaiting these in the wood-shed. Four boys were digging up soil and bringing it by the boxful to the veranda. Lloyd and I and Belle ... were filling the baskets, removing stones and lumps of clay; Austin and Faauma carried them when full to Fanny, who planted a seed in each, and then set them, packed close, in the corners of the veranda. From 12 on Friday till 5 p.m. on Saturday we planted the first 1,500, and more than 700 of a second lot. You cannot dream how filthy we were, and we were all properly tired.

Brandon Head, *The Food of the Gods: A Popular Account of Cocoa* (London: R. Brimley Johnson, 1903), http://www.gutenberg.org/files/16035/16035-h/16035-h.htm#Footnote_3_3 (accessed July 30, 2007).

Source 4: Cacao production in the chief producing areas of the world, 1916–1918, in metric tons (1 ton=1,000 kilograms)

Country	1916	1917	1918
Gold Coast*	72,200	91,000	66,300
Brazil	43,700	55,600	41,900
Ecuador	42,700	47,200	38,000
San Thom�e	33,200	31,900	26,600
Trinidad	24,000	31,800	26,200
San Domingo	21,000	23,700	18,800
Venezuela	15,200	13,100	13,000
Lagos*	9,000	15,400	10,200
Grenada	5,500	5,500	6,700
Fernando Po	3,800	3,700	4,200
Ceylon*	3,500	3,700	4,000
Jamaica*	3,400	2,800	3,000
Surinam	2,000	1,900	2,500
Cameroons	3,000	2,800	1,300
Haiti	1,900	1,500	2,300
Total (including countries not listed here)	295,400	344,000	275,600

* *British Possessions.*

Arthur W. Knapp, *Cocoa and Chocolate: Their History from Plantation to Consumer* (London: Chapman and Hall, 1920), <http://www.gutenberg.org/files/19073/19073-h/19073-h.htm> (accessed July 30, 2007).

Comprehension Exercises:

1. What kind of picture do the documents give of life on the cacao plantations? (For example: Who are the workers? What happened to the land?)
2. Do you think that Source 2 gives an accurate impression of life on the plantation? Explain your answer using evidence from the other documents.
3. Write out the series of steps it takes to plant cacao, as described in Source 3. Is it a labor-intensive process?
4. On a world map (p. xiii), (a) shade in the countries listed in the table (Source 4) and (b) write in the number of tons of cacao produced by each country in 1918.
5. Based on the map, answer the following questions: In 1918, who were the top 5 cacao producers? In which world region are most of them located? Why do you think this is? [Hint: use your knowledge from all of the previous documents in this case study.]

SECTION 4: CACAO TODAY: CHOCOLATE, CHOCOLATE EVERYWHERE

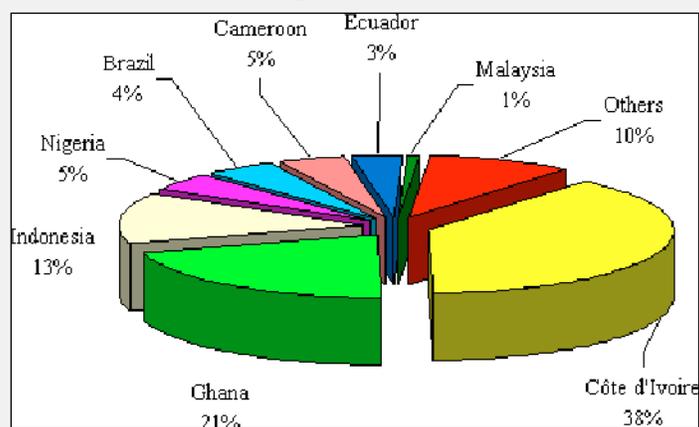
Source 1: World Cocoa Foundation, “Fast Facts”

- Number of cocoa farmers, worldwide: 5–6 million
- Number of people who depend upon cocoa for their livelihood, worldwide: 40–50 million
- Annual cocoa production, worldwide: 3 million tons
- Annual increase in demand for cocoa: 3 percent per year, for the past 100 years
- Current global market value of annual cocoa crop: \$5.1 billion
- Cocoa growing regions: Africa, Asia, Central America, South America (all within 20 degrees of the equator)
- Percentage of cocoa that comes from West Africa: 70 percent
- Length of time required for a cocoa tree to produce its first beans (pods): five years
- Duration of “peak growing period” for the average cocoa tree: 10 years

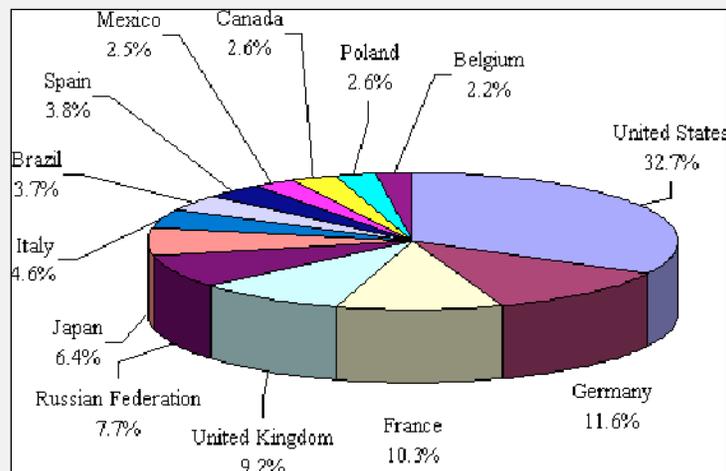
World Cocoa Foundation, <http://www.worldcocoafoundation.org/for-the-media/fast-facts.asp>.

Source 2: Major cacao producing nations, 2005–2006

These countries represent 90% of the chocolate production in the world.



United Nations Conference on Trade and Development, <http://www.unctad.org/infocomm/anglais/cocoa/market.htm>.

Source 3: Major cacao consuming nations, 2004–05

United Nations Conference on Trade and Development, <http://www.unctad.org/infocomm/anglais/cocoa/market.htm>.

Source 4: Editorial from *Coffee and Cocoa International* trade journal, 2007

Due to an overwhelming outcry from the public, the US Food and Drug Administration (FDA) has extended its public comment period for proposed changes to the ingredients in chocolate ... If the change in the ingredients listing passes, the FDA will allow chocolate companies to begin substituting artificial fats and vegetable oils for cocoa butter, but will still allow those companies to label the product ‘chocolate.’ Why? Because big chocolate companies want to reduce their costs, use cheaper vegetable oils, and then be able to pass the final product off on the public as ‘chocolate,’ despite the fact that our understanding of what chocolate is, and what it is made from, has been virtually unchanged for hundreds of years. Changing it now would not be a way of making it taste better, or making it healthier—it is to keep the costs down.

Allowing the move to go ahead could also harm the industry in the long term. Replacing cocoa butter with cheaper ingredients will depress cocoa prices, and could have serious ramifications for cocoa farmers, who, incidentally, the cocoa and chocolate industries in the US have made great play about helping in recent years. Cocoa farmers are, after all, supposed to be key players in plans to create what the ICCO [International Cocoa Organization] calls “a sustainable cocoa economy.” Or is that concept just words?

David Foxwell, “Comment: Not Chocolate!,” *Coffee and Cocoa International*, June/July 2007, as cited by the International Cocoa Organization, <http://www.icco.org/about/press2.aspx?Id=ofn6981>.

Comprehension Exercises:

1. On your world map, label and underline the biggest cacao producers (Source 2).
2. On your world map, label (in a way that differentiates them from the cacao producers; for example, in all capital letters or in a different color) the countries that consume the most chocolate. Are these the same countries that produce cacao? Why do you think chocolate is popular in these countries? Cite evidence from any of the documents in this case study.
3. Based on these documents and those about cacao plantations (see Section 3: Large-Scale Cacao Production), how has the production of cacao changed? (For example: How much is grown? Where is it grown? How is it grown?) Use the documents to compare and contrast then and now.
4. Considering this case study as a whole, as well as your knowledge of chocolate in the United States, how has the consumption of chocolate changed since its earliest uses in Mesoamerica? Chart its progress on a timeline with at least 5 stops.

GRAPHIC ORGANIZER I

Fill in the following chart for each stop along chocolate's route from the New World to global trade. How did chocolate move from one stop to the next?

	(1) Chocolate in Mesoamerica	(2) Chocolate in Europe	(3) Large-Scale Cacao Production	(4) Cacao Today
<i>Where is chocolate found?</i>				
<i>With whom did it arrive?</i>				
<i>When did it arrive?</i>				
<i>How was it used?</i>				

GRAPHIC ORGANIZER 2

Fill in the following chart for each stop along chocolate's route from the New World to global trade.

	(1) Chocolate in Mesoamerica	(2) Chocolate in Europe	(3) Large-Scale Cacao Production	(4) Cacao Today
<i>What role did chocolate play in people's lives?</i>				
<i>How were people's lives affected by chocolate?</i>				
<i>To what extent has chocolate been harmful or beneficial to society?</i>				

FUR

FROM MARK OF NOBILITY
TO SYNTHETIC CHIC

INTRODUCTION

Throughout history, animals have been used by man as a source of food, clothing, and shelter. Bone tools, tents made from hides, and warm clothing are just some of the many ways that man has utilized the resources around him. In colder regions, fur is necessary for survival. Correspondingly, the fur of animals from northern areas tends to be thicker and warmer than the fur of animals from southern, warmer areas, and so it is more highly sought. In addition, several northern animals change their color in the winter to white to blend in with their snowy surroundings. Thus the white fur of animals such as ermine and arctic fox can only be found in certain areas, such as Siberia.

In cold, sparsely populated areas of northern Russia where animals were plentiful, trapping was a traditional activity and fur clothing was common. Closer to towns and cities where land had been cleared and animals were more scarce, fur became a luxury item. A network of trade developed, bringing pelts from remote areas where members of native tribes trapped the animals, through a series of traders in small outposts or towns to Russia's major cities. At each stage the price increased as traders added their profit, so by the time a supply of fur was received in Moscow, the finest pelts could command a small fortune.

SECTION I: THE PRESTIGE OF FUR

Source 1: Portrait of Catherine the Great, before 1773

In this portrait of Catherine the Great, the Empress is depicted upon her throne. In her right hand Catherine is holding a bejeweled scepter which she has just picked up from a red pillow decorated with gold embroidery and gold tassels. Two other symbols of royalty, a crown and an orb, rest on the pillow.

Her narrow-waisted silken gown with golden double-headed eagles embroidered on its skirt is partially concealed by an ermine mantle made of four thousand ermine skins and brocade covered with similar embroidered black and red double-headed eagles.



Alexei Petrovich Antropov, *Portrait of Catherine II.*

Source 2: Description of robes worn by members of the British nobility, 1856

The ermine is produced in most countries, but the best is from Russia, Sweden, and Norway, and is killed in winter when the fur is pure white (except the tail, with its jet black tip), it being in that season in its greatest perfection; in summer and spring it is gray, and of little or no value. The ermine is the royal fur of Russia, Germany, Spain, Portugal, Italy, etc.

In England at the coronation of the sovereign, the minever, as the ermine is styled in heraldic language, is used, being powdered, that is studded with black spots. The spots or powdered bars on the minever capes of the peers [nobles] and peeresses being in rows, and the number of rows or bars denoting their various degrees of rank; the sovereign alone and the blood royal having the minever of the coronation robes powdered all over, a black spot being inserted in about every square inch of the cur, crimson velvet being used on that occasion. The crown is also adorned with a band of minever, with a single row of spots. ... The black spots are made of the black Astracan lamb.

On state occasions in the House of Lords, the peers are arrayed in their robes of state, of scarlet cloth and gold lace, with bars or rows of pure minever, more or less according to their degrees of rank, the sovereign alone wearing the royal minever powdered all over. The judges in their robes of office are clad in scarlet and pure ermine. The ermine, with the tail of the animal inserted therein, is used as articles of dress for ladies in every variety of shape and form, according to the dictates of fashion, and also as cloak linings.

The minever can only be worn on state occasions by those who by their rank are entitled to its use, but as an article of fashion for ladies' wear there is no prohibition in force. In the reign of Edward III [1327–1377], furs of ermine were strictly forbidden to be worn by any but the royal family, and its general use is prohibited in Austria at the present time. In mercantile transactions, the ermine is always sold by the timber, which consists of forty skins.

Andrew Ure, *A Dictionary of Arts, Manufactures, and Mines; Containing A Clear Exposition of Their Principles and Practice* (New York: D. Appleton & Company, 1856), 67.

Comprehension Exercises:

1. What was Catherine the Great trying to convey by having her portrait painted?
2. What important symbols did she chose to include to represent her authority?
3. How did kings and queens distinguish themselves from other nobles who also wore ermine?
4. In addition to the fact that ermine could denote rank among British nobility, it could also be used in ladies' fashions. What can you guess about the cost of ladies' dresses trimmed with ermine?

Source 3: Excerpt from Nikolai Gogol's "The Overcoat," 1842

Akakiy Akakievitch, the main character of Nikolai Gogol's short story "The Overcoat," is a poor Russian clerk in St. Petersburg. His cloth coat becomes so threadbare that he must have a new coat made, so he goes to the tailor, Petrovitch. After much bargaining and then six months of scrimping and saving, at last he can afford to order the coat.

On the first possible day, he went shopping in company with Petrovitch. They bought some very good cloth, and at a reasonable rate too, for they had been considering the matter for six months, and rarely let a month pass without their visiting the shops to inquire prices. Petrovitch himself said that no better cloth could be had. For lining, they selected a cotton stuff, but so firm and thick that Petrovitch declared it to be better than silk, and even prettier and more glossy. They did not buy the marten fur [for the collar], because it was, in fact, dear [expensive], but in its stead, they picked out the very best of cat-skin which could be found in the shop, and which might, indeed, be taken for marten at a distance.

Once Akakiy Akakievitch has his fine new coat, one of his co-workers invites him to a party in a fancy neighborhood.

This much is certain, that the official lived in the best part of the city; and therefore it must have been anything but near to Akakiy Akakievitch's residence. Akakiy Akakievitch was first obliged to traverse a kind of wilderness of deserted, dimly-lighted streets; but in proportion as he approached the official's quarter of the city, the streets became more lively, more populous, and more brilliantly illuminated. Pedestrians began to appear; handsomely dressed ladies were more frequently encountered; the men had otter skin collars to their coats; peasant waggoners, with their grate-like sledges stuck over with brass-headed nails, became rarer; whilst on the other hand, more and more drivers in red velvet caps, lacquered sledges and bear-skin coats began to appear, and carriages with rich hammer-cloths flew swiftly through the streets, their wheels scrunching the snow. Akakiy Akakievitch gazed upon all this as upon a novel sight. He had not been in the streets during the evening for years.

Nikolai Gogol, *The Overcoat* (1842), <http://etext.library.adelaide.edu.au/g/gogol/nikolai/g61cl/> (accessed October 7, 2007).

Comprehension Exercises:

5. What kind of fur does Akakiy Akakievitch get for the collar of his new coat?
6. How does this compare with the fur on the coats of men in the "best part of the city"?
7. Based on your interpretation of the reading, how did fur reflect the social standing of a person in Russian society? How important was fur in the lives of average Russians?

SECTION 2: THE SIBERIAN "SOFT GOLD" RUSH

The quest for more and varied sources of fur played an important role in Russia's eastward expansion to the Pacific Ocean. In the 1500s, the Tsar of Russia ruled a large European territory. To the east, across the Ural Mountains, the vast expanse now known as Siberia was controlled by "Khans," descendants of the rulers of the Golden Horde.¹ These Khans loosely ruled areas where numerous native tribes, both settled and nomadic, lived.

In the mid-1500s, in an effort to expand Russia's territory, Tsar Ivan IV granted the Stroganov family the right to control trade across the Urals and to explore new lands. The Stroganovs set up outposts east of the Urals where they traded European goods to the natives in exchange for furs. While most exchanges were peaceful, relations with the native populations and the Khan were not always smooth, and in the 1580s the Stroganov family enlisted the aid of a band of Cossacks to protect their interests. Cossacks were loosely knit military groups with a mixed Slavic heritage.

These Cossacks, led by Yermak Timofeev, confronted the armies of the Khan of Sibir in 1581-82. With their superior weapons, they defeated the Khan's forces and opened Siberia to further exploration and exploitation. Bands of Cossacks built forts at strategic points as they plunged further into the wilderness. Tiumen was the first Russian town built in Siberia, in 1586. Forts were garrisoned and tribute (*yasak*), primarily sable pelts, was demanded of the natives. Refusal to pay tribute was cruelly punished, and family members were often taken as hostages to ensure that no one resisted. *Promyshlenniki* (tradesmen) also exploited the fur resources above and beyond the government quotas until the animal population was decimated.

Just as the "gold rush" in America led prospectors west to California in the mid-1800s, so, too, did Russian frontiersmen spread east across Siberia in the 1600s in search of the "soft gold" of fur. As forts were established, tradesmen and peasants followed, slowly colonizing the sparsely populated territory. Orthodox priests followed as well, and churches sprang up in the wilderness. Most new towns were situated on riverbanks, as rivers were the most reliable routes of transportation in that inhospitable land. By 1632, Cossack forces had built a fort on the Lena River, and by 1649, had established a fort on the Pacific coast at Okhotsk, collecting furs for Moscow along the way.

¹ The Golden Horde was the collective name of the groups of rulers who divided the Mongolian Empire after the death of Genghis Khan. At its peak the Golden Horde's territory included most of European Russia from the Urals to the Carpathian Mountains, extending east deep into Siberia. On the south the Horde's lands bordered on the Black Sea, the Caucasus Mountains, and the territories of the Mongol Dynasty known as the Il-Khans.

Source 1: Land charter granted by Tsar Ivan IV to the Stroganov family, 1558

I, Tsar and Grand Prince of All Russia Ivan Vasilevich, have bestowed my favor upon Grigorii, son of Anika Stroganov, [and] have allowed him to found a settlement in that uninhabited region eighty-eight *versty* below Perm the Great along the Kama River ... on the state forest land downstream on both banks of the Kama to the Chusovaia River, wherever there is a strong and safe place; and I have ordered him to place cannon and harquebuses in the settlement, and to install cannoneers, harquebusiers, and gate sentries for protection against the [Tatars] and against other hordes, and to cut down the forest near that settlement along the rivers and around the lakes and up to the sources [of the rivers], and to plow the land around that settlement, and to establish homesteads, and to invite into that settlement such men as are not listed in the registry books and who do not bear the *tiaglo*.¹

If any men should come to that settlement from our state or from other lands with money or with goods, to buy salt or fish or other goods, these men shall be free to sell their goods here and to buy from them without any imposts.

If any salt deposits should be found in this region, he shall establish salterns there and boil salt. And they may catch fish in the rivers and lakes of this region without paying a tax. And if silver or copper or lead deposits should be found anywhere, Grigorii shall straightway report to our treasurers about these deposits, and he shall not work these deposits himself without our knowledge.

I have granted him [these] privileges for twenty years.

¹ *Tiaglo* was a tax on townsmen registered in, and bound to, a particular town.

Wayne Dowler, "Russian Heritage: Land, People and Culture," 1997, <https://tspace.library.utoronto.ca/citd/RussianHeritage/10.EMP/10.L/6.VII.10.html>.

Comprehension Exercises:

1. How did the arrival of Russian traders change the landscape of the territory beyond the Urals?
2. What sort of economic benefits to Russia did the Tsar anticipate from opening the new lands?
3. Why were fur pelts not mentioned as one of the items that the Tsar required from Grigorii Stroganov?

Source 2: Map of Tartary labelling areas of native population, 1706



Guillaume de L'Isle, *Carte de Tartarie*.

Source 3: Description of Siberian fur trade

Siberian luxury fur, particularly sable, was the most prominent item Kazan' received from Tiumen'. Tiumen in turn obtained its fur supplies from its Voguly and Ostiaki tributaries on the Ob' river. Cordial relations, which included the exchange of grain and weapons for sable, were maintained between these tribes and Tiumen'. The sable, ermine, fox and other luxury pelts the Ugric tribes sold came into their possession not only through their own hunting, but also through their trade with their own northern Samoed neighbors, the Nentsy. Some of the Ostiaki tribes in particular traded with the Nentsy at specified outposts, exchanging dried fish, fish oil, and deer for sable pelts.

Janet Martin, *Treasure in the Land of Darkness: The Fur Trade and its Significance for Medieval Russia* (Cambridge: University Press, 1986), 94.

Comprehension Exercises:

9. Compare Source 2 to a modern map of Russia. With the aid of a modern map, find the towns and nationalities mentioned in Sources 1 and 3, including: Tiumen, Yakutsk, the rivers Ob and Lena, the nationalities Voguly, Samoed, Nentsy.
10. Siberia often has the reputation of being a "vast wasteland" because of its severe climate. How might these circumstances help or hinder those traveling across Siberia?
11. From observing the map, does it appear that the land was unpopulated in the 1700s?

Source 4: The Cossacks

The word "Cossack" is derived from the Turkic term *kazak* that means "free man" or "adventurer." They consisted of semi-independent Tartar groups—a Turkic-speaking people who lived in west-central Russia—or peasants escaping serfdom in Poland and Russia. The Cossacks united in the 15th century as a self-governing warrior organization that was loyal only to the Russian Czar. They settled in six different areas: the Don, the Greben in Caucasia, the Yaik, near the Ural River, the Volga, the Dnieper and the Zaporozhian, west of the Dnieper. The Cossacks accepted anyone who was considered a worthy warrior, but the new members had to believe in Christ. It is believed that most were of Slavic descent. ...

One of the greatest triumphs in Cossack history was the annexation of Siberia. A merchant family, the Stroganovs, settled people in various territories, including Siberia, and expanded the fur and lumber trades. In the mid-1550s, Tartar leader Kuchum Khan took over the area in Siberia. The Stroganovs wanted to protect their lands and trade from the Tartars and called upon the Cossacks and their leader Yermak Timofeyevich. In September 1581, Timofeyevich led 840 troops to wrest the Siberian city of Sibir from Tartar control. With the use of firearms, the Cossacks easily defeated Kuchum's forces. The Cossacks lost a subsequent 1584 battle against Kuchum, but despite the loss, Siberia came under complete control of the Russian Empire in 1586.

Suzanne Rent, "The Cossacks," *History Magazine* (Oct-Nov 2001), <http://www.history-magazine.com/cossacks.html>.

Source 5: Print from the *Remezov Chronicle* (pub. 1700) depicting the conquest of Siberia by Yermak's Cossacks in 1582



Yermak's Campaign in Siberia: A selection of documents translated from the Russian by Tatiana Minorsky and David Wileman (London: Hakluyt Society, 1974).

Comprehension Exercises:

12. Using both of these documents, what do you know about the Cossacks?
13. Based on what you know of the history of Siberia, what do you think is taking place in the drawing from the *Remezov Chronicle*?

Source 6: Description of early Russian relations with the native Siberians

Originally, the collection of fur tribute as well as profits from trade were controlled from Moscow. It was unlawful to exterminate or abuse the pacified "unbaptized" tribes, as they were useful fur producers. The *voyevodas* [local governors] were instructed to collect a certain amount of furs and send most of it back to Moscow, where even a few sable or ermine pelts were worth a small fortune on the European market. Soon, however, greedy *voyevodas* began to extort more furs from the natives than was the proper government quota; the extra was kept and smuggled into Europe to be traded at a handsome profit. *Voyevodas* fought over the right to take extra tribute from the natives. They also accepted bribes from ambitious Cossacks and other service men who also wanted a share in the illegal fur collection.

Natives who rebelled against this arbitrary treatment were treated harshly; sometimes members from the family of a tribal chief were taken to the Russian fort as hostages to insure that the furs demanded would be brought in every season. These hostages were often subjected to all sorts of abuses, as were the native women in general. Many Cossacks took native women from their villages back to the fort as common law wives. This economic exploitation of the hunters and sexual exploitation of the women caused many native tribes to become destitute.

Edward J. Vajda, "Early Russian/Native Siberian relations (1582-1620)," http://pandora.cii.wvu.edu/vajda/ea210/rus_native.htm.

Source 7: Description of the peculiarities of sable hunting in the Vitim River basin, ca. 1740

The Vitim River basin was the source of Siberia's best (blackest and glossiest) sable pelts. The account's author, Stepan Petrovich Krasheninnikov (1711–1755), served Vitus Bering's Second Kamchatka Expedition (1733–1742) as a student naturalist.

To anyone who has not participated in a sable hunt and has frequented none but inhabited places, it is difficult, if not impossible, to describe all of the noteworthy circumstances of the catching of sables, for they do not live near settlements but in remote places, on high mountains, and in dense forests; they flee from people, so that in many places where they were once numerous not a trace of them is found on account of human settlement. Before the land of Siberia had been brought under Russian rule, and only pagans [non-Orthodox natives] controlled it, sables abounded throughout Siberia and especially along the Lena River, as confirmed by longtime residents there; particularly in the pine forest that begins at the mouth of the Olyokma River and continues 20 miles down the Lena to the Agara [Namana?] River were so many sables bagged at the beginning of Russian control that consequently this area to this day is called a rich floodplain. But now both here and all along the Lena River there is already no sable hunting whatsoever, and this can be said of all of Siberia's inhabited places.

S. P. Krasheninnikov, "A Description of the Land of Kamchatka," trans. James R. Gibson. *Polar Geography* 28: 2 (April-June 2004).

Source 8: Watercolor painting of native Siberians paying tribute to the Russians, 19th century



NN Kazarin, *Title Unknown*.

Source 9: Lithograph of Chukchi natives, Siberia, ca. 1827



Seniavin Lithograph Series, 1829.

Comprehension Exercises:

- 14. What was the main form of travel for the Cossack explorers?
- 15. How did the Cossacks ensure that their demands were met?
- 16. What is happening in Source 8?
- 17. What does Source 9 say about the role of fur in the lives of Siberian natives?
- 18. How much power did the Moscow government have to control local situations like the treatment of natives?
- 19. What activities and conditions caused the decline in sable pelts by 1740?

SECTION 3: RUSSIAN ALASKA

In 1741, Vitus Bering “discovered” the Aleutian Islands and the coast of Alaska. The discovery, too, of the Pacific sea otter, whose fur became even more prized for its beauty than the sable, led to a new rush of exploitation. Hunting outposts were established in Alaska and natives were pressed into service. In 1784, the first permanent Russian settlement was founded on Kodiak Island.

However, fur hunters were faced with a new challenge—sea-based hunting rather than land-based hunting. The Russians quickly realized that they could increase their productivity (and thus their profits) by enlisting the aid of the native populations, who were already adept at hunting otters. In many cases, the locals were pressed into service through the taking of family members as hostages.

Among the many difficulties the Russians faced in their expansion to Alaska was the adequate provisioning of the outposts. In 1812, Russia took the bold step of establishing a permanent fort on the coast of California, Fort Ross, just 80 miles north of the Spanish settlement of San Francisco. The Russians hoped to grow crops and support livestock in the milder climate of California so as to provide a reliable source of food for their Alaskan forts. Despite these efforts, as the sea otter population declined due to overhunting, maintaining these far-flung outposts became too costly. In 1841, Fort Ross was sold to a Swiss-German merchant, John Sutter, and in 1867, Alaska itself was sold to the United States.

Source 1: Botanist and zoologist George Wilhelm Steller describing sea otters in his journal, 1741–1742

The skin, which lies loose on the flesh as in dogs and shakes everywhere while the animal is running, is so far superior in length, beauty, blackness, and gloss of hair to the river otters' pelts that these can scarcely be compared with it. The best pelts are sold in Kamchatka for 20 rubles, in Yakutsk for 30, in Irkutsk for 40, and at the Chinese border, in exchange for their wares, for from 80 to 100 rubles.

George Wilhelm Steller, *Journal of a Voyage with Bering, 1741-1742* (Palo Alto: Stanford University Press, 1988), 147.

Source 2: Explorer Ferdinand Von Wrangell describing hunting, 1835

Of all hunts, the sea otter hunt requires the most experience, skill, and patience. Fur seals, sea lions, and walrus, despite their strength and size, are caught more easily and more quickly.

“Harriman Expedition Retraced: Exploration and Settlement on the Alaska Coast,” <http://www.pbs.org/harriman/1899/exploration.html>.

Source 3: Excerpt from a register of goods exported from the Aleutian Islands, 1803–1805

Quantity	Source	Value per unit (rubles)	Total value (rubles)
19,171	Sea Otter, female and young	75	1,437,825
1,106	Nursling otter	7	7,742
19,252	Sea otter tails	5	96,260
7,985	River otter	11	87,835
3,764	Otter	16	60,224
3,872	Black fox	20	77,440
5,534	Grey fox	9	49,806
7,953	Red fox	5	39,765
7,230	Sable	2	14,460
813	Lynx	8	6,504
23	Wolf	8	184
470	Mink	1	470
372	Black bear	30	11,160
151	Red bear	5	755
1,752	Arctic fox	10	17,520
279,944	Seal	1.50	419,916
Total			2,332,785

The Gennadii V. Yudin Collection of Russian-American Company Papers, “Meeting of Frontiers,” Library of Congress.

Source 4: Military salary in 1806 (yearly pay in rubles)

Colonel	900
Lieutenant-Colonal	680
Major	500
Captain	300
Lieutenant	300
Ensign [2nd Lieutenant]	240
Private of Infantry	3.30
Private of Calvary	4
Private of Artillery	4.20

Robert Ker Porter, *Traveling Sketches in Russia and Sweden: During the Years 1805, 1806, 1807, 1808* (Philadelphia: Hopkins and Earle, 1809), 136–137.

Comprehension Exercises:

1. What traits make sea otters difficult or easy to hunt?
2. What was the most valuable fur exported by the Russian-American Company in 1805?
3. What fur was collected the most?
4. Considering the salary of an average Russian soldier in 1806, how valuable were individual fur pelts?
5. What elements might be involved in the value of a pelt?
6. How important was the fur trade to the Russian government?

SECTION 4: NECESSITY OR LUXURY?

It is estimated that between 500,000 and 1,000,000 otters were killed between 1741 and 1911, by which time only approximately 2,000 sea otters remained. In a 1911 treaty between Russia, Japan, Great Britain, and the United States, sea otters were finally protected under Article V of the Fur Seal Treaty. Sea otter populations have rebounded since that time, but not to pre-hunt levels.

Source 1: Nineteenth-century naturalist Edward Nelson on the sea otter population in the Aleutian Islands

When Bering and his party first explored the Aleutian Islands, they found the Sea Otters so numerous that the Aleuts wore long mantles made of their skins and a scrap of old iron was enough to secure the finest skin. In 1840 Veniaminov wrote that the Sea Otters in these islands are distinguished above everything on account of their great value and small numbers. There was a time when they were killed in thousands, now only by hundreds. There are plenty of places where before there were great numbers of Sea Otters; now not one is to be seen or found. The reason for this is most evident; every year hunted without rest they have fled to places unknown and without danger.

When the Fur Seal Islands were discovered the sea otters there were very numerous, and two sailors killed five thousand there the first year. The next year less than one thousand were killed, and from the end of the next six years to the present day the Sea Otter has been unknown there. From the Aleutian Islands south to Oregon the Russians found these otters so numerous that they were obtained in numbers running from two to three thousand kills per year. This great increase in the catch during the later years is entirely due to the greater vigor with which the animal has been hunted, and the introduction of fine long-range rifles. Good rifles now replace to a great extent, the primitive spears.

There is little doubt that in the course of a few years under the present regulations and mode of hunting, this valuable animal will be exterminated, and in place of affording the Aleuts a livelihood will leave them dependent upon the Government.

Smithsonian Institute, "The Arctic Studies Center: Sea Otters," http://www.mnh.si.edu/ARCTIC/html/sea_otter.html.

Source 2: Fur Seal Treaty between the United States, Great Britain, Russia, and Japan, 1911

ARTICLE V.

Each of the High Contracting Parties agrees that it will not permit its citizens or subjects or their vessels to kill, capture or pursue beyond the distance of three miles from the shorn line of its territories sea otters in any part of the waters mentioned in Article I of this Convention.

Tufts University, Edwin Finn Library Multilaterals Project, "Convention Between the United States, Great Britain, Russia and Japan for the Preservation and Protection of Fur Seals," <http://fletcher.tufts.edu/multi/sealtreaty.html>.

Comprehension Exercises:

1. How did the fur industry affect the native population of the Aleutian Islands?
2. Why were so many countries involved in the 1911 Fur Seal Treaty?

Sources 3 and 4: Advertisements for fur coats from American magazines, 1920s

Modern Mechanix, "Grow 'ERMINE' Coats in Back Yard Rabbit Hutch," <http://blog.modernmechanix.com/2006/11/30/grow-ermine-coats-in-back-yard-rabbit-hutch/>.

Source 5: Excerpt from an article, "How To Select Your Furs," 1924

Unless one is certain of her own knowledge of furs, she should patronize only that shop whose reputation is one of reliability and whose guarantee is always to "stand behind all goods sold." This is more essential in the purchase of furs than of any other article of apparel, for there are too many easy ways of passing off furs which are really inferior.

The mode and temperament of today have often been spoken of as barbaric. This is suggested by the weird and pagan ornaments women love to wear, and probably by the eagerness with which we have seized upon jazz as a music and as a novelty in dancing. Perhaps another evidence of a barbaric complex may be found in the almost passionate abandon with which women are draping their slim bodies in the skins of animals, by which we mean furs.

The common and cheaper furs are often treated in manufacturing so that they resemble rarer and costlier ones ... Assembling is done with marvelous skill so as to produce uniform depth and pleasing color effects. Clippings and cuttings are used for various purposes so as to lower the price of scarfs or garments and yet give the effect of the more expensive. The twentieth century will go down in the History of Costume with this description, "An unprecedented and lavish use of furs characterized this era." After all, it is but a "throw back" to a stone-age period.

One's choice in furs should be decided by their suitability for certain occasions. The same good taste that would prevent one from wearing a chiffon gown for mountain climbing or a tailored suit to a formal dance should be relied upon. Nothing is more flattering than fur if one knows how to choose it aright. Not only must it bring out the "hidden beauty," but it should suit and emphasize the woman's individuality as well.

Old and Sold Antiques Digest, "How to Select Your Furs," <http://www.oldandsold.com/articles23/dressing-well-71.shtml>.

Source 6: From *Modern Mechanix and Inventions* magazine, 1932

Furriers pay rabbit growers in United States over \$30,000,000 a year for pelts, from which are made fur coats selling from \$300 to \$5,000 each. This article tells you how you set up in rabbit raising as a backyard pastime and reap the biggest profits from smallest outlay of cash.

by H. H. DUNN

MARY PALMER, who teaches school for \$1,500 a year at San Diego, California, came out of the winter of 1930–31, with the determination to have a fur coat for the next winter.

“If I start saving now, and go in debt a little in the fall, I can get myself one of those \$300 coats for a Christmas present,” she told her father.

“If you will give me an hour of your time every day, from now until next October,” replied her father, “I will give you a fur coat that you cannot buy for five times \$300 and it will cost not more than \$30, probably half that amount.”

As a matter of fact, for this is a true story, Mary’s father produced the fur coat on the date promised, and Mary sold it for \$650 to a furrier, who, in turn, sold it for \$1575. Then Mary’s father gave her another just like it. The total cost of the coats to Mr. Palmer was less than \$15 each, and, with their trimmings, they represented an actual outlay of not more than \$35 each.

This is how the coats were produced from the back half of the city lot on which stands the Palmer home: In the spring of 1930, Mr. Palmer bought three rabbits, rather small, weighing only six or seven pounds each, with short, thick, rather light brown fur, of the density and “pile” of good plush. This particular variety of domestic rabbit is called Castor Rex, and it is bred in solid colors of brown, black, white, blue and the so-called “red” of rabbit fanciers, in reality a rather dark roan.

Mr. Palmer chose the brown variety because of the difficulty he had had in clipping and dyeing the pelts of white rabbits, which now furnish 86 varieties of fur—from “ermine” to “seal”—to the trade of this country.

Modern Mechanix, “Grow ‘ERMINE’ Coats in Back Yard Rabbit Hutch,” <http://blog.modernmechanix.com/2006/11/30/grow-ermine-coats-in-back-yard-rabbit-hutch/>.

Comprehension Exercises:

3. How is fur perceived in America—as a luxury or a necessity?
4. How is the “egalitarian” society of America reflected in the American attitude toward fur? How is this different from the attitude in Europe?
5. Based on your perceptions, how have attitudes toward fur changed in our time?

Fake Fur vs. Real Fur

Because of the high cost of real fur, in 1929 the first “faux fur” was created. Made from the shorn fur of the alpaca (i.e., the animal was not killed, but the hair was cut off), it was attached to a backing to create the semblance of an animal hide. In the 1940s, a different kind of fake fur was created from synthetic (man-made) polymers. This improved the quality of fake fur by imitating more closely the colors, feel, and warmth of natural fur. However, the availability of fake fur did not immediately affect the international fur industry. It did make “fur” products available to the general population, as the cost of a faux fur garment is significantly lower than that of real fur. It has also stirred up controversy.

Source 7: Canada Online Blog “Fake Fur for the Mounties?” 2003

The Canadian Mounties are testing synthetic alternatives to muskrat in an attempt to find a substitute for their winter caps. CanWest News Service reports that the RCMP is under pressure from anti-fur activists to find a more suitable material for its winter headgear. The flap-eared muskrat cap has been standard issue since 1933, and an RCMP spokesman said they won't give it up until they find something as durable and resistant to winter wind and weather.

“Fake Fur for the Mounties?” <http://canadaonline.about.com/b/a/028339.htm>.

Source 8: CNN news report “Humane Society: ‘Faux fur’ often animal hair,” 2007

Many fur or fur-trimmed jackets sold in the United States as having “faux fur”—or not labeled at all—are actually made, at least in part, from dog fur, the Humane Society of the United States said at a Capitol Hill news conference Wednesday.

Out of 25 jackets that it tested, the group said, 24 were incorrectly labeled. In many cases, it said, tests showed the fur came from raccoon dogs, fox-like nocturnal residents of Asian and northern European forests that bear a remarkable resemblance to raccoons.

Raccoon dogs are part of the canine family.

CNN, “Humane Society: ‘Faux fur’ often animal hair,” February 7, 2007, <http://www.cnn.com/2007/POLITICS/02/07/dog.fur/index.html>.

Source 9: Press release from the International Fur Trade Federation, 2007**Global Fur Sales Up for Eighth Straight Year**

Newly released global sales figures show that fashion-savvy consumers invested a massive US\$13.49 billion in fur for their wardrobes in 2006.

The latest data, covering retail sales of full fur garments, trim and accessories for the 2005/06 season, shows a 5.6% increase on the previous year's results, reports the International Fur Trade Federation.

International Fur Trade Federation, “Press Release: Global Fur Sales Up for Eighth Straight Year,” March 9, 2007, <http://www.furcommission.com/news/newsF09y.htm>.

Comprehension Exercises:

6. Why was fake fur originally created? What are some ethical and financial factors that might have inspired its creation?
7. What impact has the fake fur industry had on fur sales?
8. What do you think the future of the fur industry might be? Would you expect sales to go up or down? Justify your answer citing evidence from the documents in this case study.

GRAPHIC ORGANIZER I

Fill in the following chart for each stop along fur's progress from Siberia to world luxury item. How did it move from one stop to the next?

	<i>Where is fur found?</i>	<i>With whom did it arrive?</i>	<i>When did it arrive?</i>	<i>How was it used?</i>
(1) The Prestige of Fur				
(2) The Siberian "Soft Gold" Rush				
(3) Russian Alaska				
(4) Luxury or Necessity				

GRAPHIC ORGANIZER 2

Fill in the following chart for each stop along fur's progress from Siberia to world luxury item.

<p><i>To what extent has fur been harmful or beneficial to society?</i></p>	<p><i>How were people's lives affected by fur?</i></p>	<p><i>What role did fur play in people's lives?</i></p>	
			<p>(1) The Prestige of Fur</p>
			<p>(2) The Siberian "Soft Gold" Rush</p>
			<p>(3) Russian Alaska</p>
			<p>(4) Luxury or Necessity</p>

The background of the entire page is a soft-focus photograph of pink flowers and green leaves. The flowers are in various stages of bloom, with some showing distinct pink and white petals. The leaves are elongated and have a slightly serrated edge. The overall color palette is muted and natural, with a light green and pinkish hue.

INDIGO

FROM THE DEVIL'S DYE
TO DENIM

INTRODUCTION

Indigo plants originate from different parts of the world and produce a colorfast, deep blue dye. The plant was first domesticated in India during the Indus Valley period between the fourth and the second millennium B.C.E. Many varieties of the indigo plant exist throughout the world. One species originates in east and southern Africa, another from tropical America. This unit focuses on *Indigofera tinctoria*, believed to be native to Asia and now widely distributed and naturalized all over the tropics. *I. tinctoria* is the species that was first domesticated in India and predominantly cultivated over the centuries for commerce.

Indigo is mentioned in manuscripts dating as far back as the fourth century B.C.E. The historical record of indigo is patchy, but references were made by Marco Polo, who saw indigo during a visit to the southern tip of India in 1298. Around this time, Arab traders introduced indigo to the Mediterranean region, where it became available in small quantities. The cultivation of indigo on a large scale started in the sixteenth century in India, particularly in the north.

During the Middle Ages indigo moved through established caravan routes, like other valuable articles of trade, primarily overland from India through Baghdad into Europe. By the sixteenth century the Portuguese, and later the Dutch, had established trade routes by sea to India, making indigo much more accessible to the average European. By 1516, the Portuguese were importing large quantities of indigo (along with spices and other valuable goods from eastern ports) by ship into Europe.

Source: Description of indigo processing

As part of their preparation, the leaves of indigo must go through a process of fermentation and then oxidation to yield the blue dye. Traditionally fermentation is carried out naturally by bacteria. The harvested plants are packed into tanks and covered with water. After a few hours, the leaves become saturated and fermentation begins. A thick layer of bubbles and scum forms at the top of the tank. The process can be so vigorous that planks are placed on top of the vat to keep the plants in. This process can take up to a day and a half to complete, but must be finely timed. The indigo makers will smell and taste the fluid to check. Even an hour too long could ruin it. As soon as the liquid tastes sweet and is a dark blue colour, it is siphoned into another vat at a lower level, leaving the plants behind. The liquid now contains indoxyl.

The liquid is then stirred continuously for several hours because it needs oxygen from the air to stimulate oxidation of the indoxyl. Alternatively people will get into the vats and tread up and down to stir it up. Eventually the liquid turns a yellow-brown colour with floating dark blue patches. The solution is left to rest and the insoluble indigo settles to the bottom of the tank as a blueish sludge. The water is drained and filtered to remove impurities and to stop the enzyme reaction which made the indigo. The sludge is dried to produce indigo 'cake' which is cut into cubes or made into balls.

Plant Cultures: Exploring Plants and People, <http://www.plantcultures.org/index.html>.

Comprehension Exercise:

1. Describe the process of making dye from indigo plants. Do you think it is an easy or complicated process? Explain your answer citing the text.

SECTION I: INDIGO ARRIVES IN EUROPE BY SEA TRADE

Soon after its appearance in European ports, the trade of indigo was inhibited by powerful guilds in many European countries. Until indigo, the primary European source for dye was the indigenous woad plant. Woad had been cultivated extensively in France, Germany, and England since the Roman Empire. European woad growers and merchants saw indigo as serious competition, since it was a better dye producing deeper, more colorfast blues.

Nevertheless, bans did not stop the flow indigo into Europe. Soon after the establishment of Portuguese trade routes, Spain began cultivating indigo in its new world colonies in response, first setting up plantations in the mid-1500s along the Pacific coast of Central America. By the close of the seventeenth century, indigo was moving into Europe from the east—traded by the Portuguese, Dutch, and English—and the west—imported by the Spanish. At this time, the French joined the fray with the establishment of indigo plantations on the eastern part of modern day Haiti in 1697. When the German woad industry eventually collapsed, a large population, whose livelihood depended on woad, was plunged into abject poverty.

Source 1: Prohibition against the use of indigo and other exotic dyes in England by Queen Elizabeth I, 1581

Whereas of late years there hath been brought into this Realm of England, from beyond the seas, [indigo] ... and the colors made from the said stuff is false and deceitful, and are not onely sold and uttered to the great deceit of the Queens loving subjects, within this realm of England, but also beyond the Seas, to the great discredit and slander ... of the Merchants, as the Dyers of this Realm ... be it ordained, enacted, and established, that all such [indigo] in whose hands soever shall be found ... shall be forfeited, and openly burned by the authority of the Mayor ... and upon pain that the Dyer of every thing so dyed, shall forfeit the value of the thing so dyed ... and the party offending ... to remain in prison without bail ... till he have satisfied the same value.

Jamieson Hurry, *The Woad Plant and Its Dye* (London: Oxford University Press, 1930), 259–61.

Source 2: A decree issued in Dresden, 1650

By the Grace of God ... it is known to each and all of you that our province of Thuringia has been blessed by the Almighty above all other countries and provinces with the Woad Plant ... Cloths and other fabrics of good quality were dyed [in woad], everyone being satisfied with both their quality and durability. On the other hand there is clear proof that indigo not only readily loses its colour but also corrodes clothes and other fabrics, thus causing serious loss to many worthy persons ... We therefore command you ... to prohibit under pain of confiscation, the sale of any cloths and other similar articles which are not dyed with Woad, but other injurious dyes ... We also publish this express Commination that, if any person shall deal in such deceptive dyes or other similar wares or import the same, we shall severely punish him. ...

Jamieson Hurry, *The Woad Plant and Its Dye* (London: Oxford University Press, 1930), 268–71.

Comprehension Exercises:

1. What was the general attitude toward indigo in Europe at this time? Explain your answer citing the texts in this section.
2. Make a list of the qualities attributed to indigo in these passages.

Source 3: John Parkinson, English botanist, *The Theatre of Plants*, 1640

Although Nil or Indico be not in forme like Woade, yet for the rich blew colour sake I think good to mention of it here, not only to show you what it is, and how made, but to incite some of our nation to be as industrious therein as they have beene with the former Woade, seeing no doubt that it would bee more profitable.

John Parkinson, *The Theater of Plants* (London, 1640), 600–601.

Source 4: Timelines of indigo prohibitions in Europe*France*

- 1598 Importation of indigo banned
- 1609 King Henry VI's edict sentencing to death any person found using "the deceitful and injurious dye called inde (indigo)"
- 1737 French dyers officially free to use imported indigo

Germany

- 1557 First prohibition banning indigo "the devil's dye" on grounds that it was "pernicious, deceitful, eating and corrosive"
- 1650 Dresden decree against indigo
- 1661 Prohibition of "corrosive" dyes, especially indigo
- 1664 Prohibition of indigo by the government of the Duchy of Wurtemberg
- 1700 Nuremberg magistrates still forcing dyers to swear annually, under oath, not to use indigo under threat of the death penalty
- 1800 Nuremberg edict rescinded

Britain

- 1532 Imported indigo denounced as "food for the devil" and subject to various prohibitions
- 1581 Queen Elizabeth I authorizes use of indigo only in addition to woad. Indigo used for other purposes is to be confiscated and burned. Soon after, indigo is declared to be poisonous, and any use of it is forbidden
- 1640 Dyers are encouraged to switch to indigo, as it is believed to produce a better dye than woad
- 1660 Ban forbidding use of indigo lifted
- 1664–94 During this period, the British export 1,241,967 lbs. of indigo from Bombay and Surat alone through the English East India Company

Comprehension Exercises:

3. How do the attitudes of France, Britain, and Germany toward indigo differ during this time period? Explain your answer citing the documents in this section.
4. How do attitudes toward indigo change over time? Consider factors that might account for differences and changes in attitudes. Explain your answer citing the documents in this section.

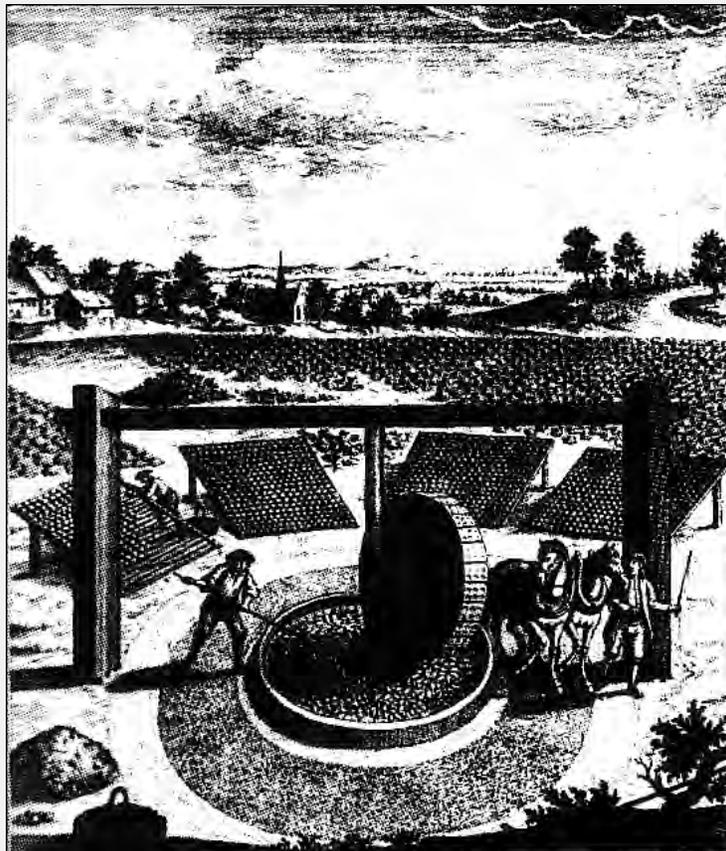
Source 5: Engraving depicting indigo production in the French West Indies, 1667



Captions underneath are linked to numbers in the illustration. Equipment and procedures used in indigo production are shown (6, 7, 8, 9, 13, 14). Also depicted are plants (1, 4, 12 [indigo]) and trees (2, 5); the dye plant annatto (rocou) is being crushed in a mortar (3).

Jean Baptiste DuTertre, *Histoire Générale des Antilles Habitées par les Francois* (Paris, 1667), 2:107.

Source 6: Illustration of a German woad mill in Thuringia, 1752



Published by German botanist Daniel Gottfried Schreber in his book on woad in 1752.

Jenny Balfour-Paul, *Indigo* (London: British Museum Press, 1998), 56.

Comprehension Exercises:

5. Compare and contrast the two images depicting indigo production and woad production. What similarities and differences can you glean from the images about the way these two dyes are made?
6. Who is doing the labor for producing each dye? What differences can you find in the depiction of people and their relationship to each other within each industry?

SECTION 2: INDIGO PLANTATIONS IN THE NEW WORLD

By the late 1600s indigo was marketed legally in most European countries. Until this time, India was the main source of indigo for the British, who resented the monopoly on the dye held by Indian traders and merchants. The British faced difficulties ensuring a regular supply of indigo and controlling quality. The price of indigo also fluctuated drastically. Britain soon joined Spain and France, who were already cultivating indigo on plantations in the new world. The British first established indigo plantations in their West Indian territories (Jamaica) and then in their colonies in North America, most notably in South Carolina, as a new source for the dye. Producing indigo was labor intensive and, in the West Indies and American colonies, only possible through a system of slavery. Contemporary accounts indicate that when prices were high, indigo dyestuff could be exchanged for slaves; it is said that a planter in South Carolina could fill his bags with indigo and ride to Charleston to buy a slave with the contents, “exchanging indigo pound for pound of negro weighed naked.”

Source 1: Indigo exports from South Carolina, 1745–1775

Year	Pounds
1745	5,000
1748	134,118
1750	120,030
1754	216,000
1755	193,803
1756	232,100
1757	894,500
1760	475,725
1765	467,725
1770	483,094
1773	794,150
1775	1,107,660

(By 1850 indigo had disappeared from the lists of exports of Charleston and was replaced by cotton.)

Jean M. West, “The Devil’s Blue Dye: Indigo and Slavery,” http://www.slaveryinamerica.org/history/hs_es_indigo.htm.

Source 2: Price of indigo in South Carolina, 1747–1775

Year	Price per pound in shillings
1747	2.4
1750	2.75
1755	4.4
1760	3
1765	3.3
1770	3.75
1772	5.5
1775	4.4

Jean M. West, “The Devil’s Blue Dye: Indigo and Slavery,” http://www.slaveryinamerica.org/history/hs_es_indigo.htm.

Comprehension Exercises:

1. Analyze the information in the two charts above. What years were most productive for the indigo industry in South Carolina 1745–1775? Least productive?
2. What were the most profitable years? Least profitable?
3. What factors might account for the changes in productivity and profitability from year to year?

Source 3: Excerpt from Voltaire, “Essay on Morals and Customs,” 1756

One hundred thousand slaves, Black or mulatto, work in sugar mills, indigo and cocoa plantations, sacrificing their lives to gratify our newly acquired appetites for ... things unknown to our ancestors.

Source 4: Excerpt from James Glen, Governor, “A Description of South Carolina,” 1761

An acre of good land may produce about eighty pounds weight of good indigo, and one slave may manage two acres and upwards, and raise provisions besides, and have all the winter months to saw lumber and be otherwise employed in. ...

But I cannot leave this subject without observing how conveniently and profitably, as to the charge of labour, both indigo and rice may be managed by the same persons; for the labour attending indigo being over in the summer months, those who were employed in it may afterwards manufacture rice in the ensuing part of the year, when it becomes most laborious; and after doing all this they will have some time to spare for sawing lumber, and making hogshead and other staves to supply the Sugar Colonies.

Chapman J. Milling (ed.), *Colonial South Carolina: Two Contemporary Descriptions by Governor James Glen and Doctor George Milligen-Johnston* (South Carolina Sesquicentennial Series, No. I [Columbia, S.C.: 1951]).

Source 5: African-American soldier James Roberts in his autobiography, 1858

Jack Gillespie went to the eastern shore of Maryland, to buy up more slaves, leaving his brother James Gillespie to take care of the plantation till he returned, Mr. Coonrood being the overseer. Jack Gillespie gave Coonrood orders not to whip Joe, his waiting servant. On the Sabbath morning after Gillespie went away, Coonrood ordered all the hands to the lower plantation, to work in the rice and indigo. He there commenced to whip Joe early in the morning, and whipped him all day, every few hours. ...

From fifty to sixty hands work in the indigo factory; and such is the effect of the indigo upon the lungs of the laborers, that they never live over seven years. Every one that runs away, and is caught is put in the indigo fields, which are hedged all around, so that they cannot escape again.

James Roberts, *The narrative of James Roberts a Soldier under Gen. Washington in the Revolutionary War, and Under Gen. Jackson at the Battle of New Orleans, in the War of 1812: “a Battle Which Cost Me a Limb, Some Blood, and Almost My Life”* (Chicago, 1858), 24, 28.

Comprehension Exercises:

4. Describe the lives of slaves who worked on indigo plantations, citing documents in this section to support your description.
5. How does the relationship between slaves and indigo differ from that of Europeans/American colonists and indigo?

Source 6: Engraving of an indigo plantation in the French West Indies, 1760s



This engraving shows slaves engaged in various jobs associated with indigo production. The steps are identified by number in the engraving: number 8 is a slave who carries the indigo plants into the storage tank or steeping trough; number 9 depicts slaves who agitate/stir the indigo plants in the steeping trough with baskets attached to the ends of poles; and number 10 is a plot of indigo plants.

M. Chambon, *Le commerce de l'Amérique par Marseille* (Avignon, 1764), I:365.

Source 7: Illustration depicting indigo production in South Carolina, 1757



This illustration shows in the background two male slaves skimming off water from an indigo vat, leaving the remaining indigo to thicken into a paste that will be later removed and dried in blocks; in the foreground, a slave is dividing the indigo into blocks or cubes for shipment in barrels, also seen in the illustration.

William DeBrahm, *A Map of South Carolina and a Part of Georgia*, 1757.

Comprehension Exercises:

- Compare the images in this section, dated from the 1760s, with Source 5 in Section 1, which dates from 1667. What technological advances, if any, have changed indigo production during that time?

Source 8: Excerpt from a letter by Eliza Pinckney, owner of an indigo plantation in South Carolina, 1778

Eliza Lucas Pinckney is credited with making indigo the largest export crop in South Carolina during the mid-1700s. At age eighteen, Eliza moved from the West Indies to South Carolina to manage the family estate on her own. Soon after arriving, she asked her father, then Governor of Antigua, to send indigo seed and a slave to set up the farming of indigo plants and oversee the manufacture of indigo dye. After a few years of unsuccessful crops, Eliza harvested a good crop seed in 1744, which she gave to other planters in South Carolina. This excerpt comes later in her career as an indigo planter in South Carolina, from an edited collection of her letters.

To find you alive and well, my dear Madam, gave me great pleasure, a Sensation I have been little acquainted with of late as you will perceive when I tell you I have been robbed and deserted by my slaves; my property pulled to pieces, burnt and destroyed, my money of no value, my Children sick and prisoners. ...

Such is the deplorable state of our Country from two armies being in it for nearly two years; the plantations have been some quite nearly, ruined—and all with very few exceptions great sufferers—their Crops, stocks, boats, Carts gone, taken or destroyed; and the Crops made this year must be very small by the desertion of the Negros in planting and hoeing time. Besides their losses the Country must be greatly impoverished by the death of slaves, as small pox with in the British camp.

Elise Pinckney (ed.), *The Letterbook of Eliza Lucas Pinckney 1739–1762* (Chapel Hill: University of North Carolina Press, 1972), xxiii.

Comprehension Exercises:

7. How did the American Revolution impact indigo cultivation and trade in South Carolina? Explain your answer citing the documents in this section.

SECTION 3: BACK TO INDIA

Soon after the loss of the American colonies and the drying up of French supplies of indigo, Britain pressed for a return to India as a source. However, this time they sought to control production. In the nineteenth century, Bengal in northeastern India became the world's main source of indigo, by then in great demand to supply the textile industries of the Industrial Revolution and to dye many European service uniforms.

Throughout the century natural indigo was far more valuable than any other dyestuff and Bengal's indigo production far outweighed that of the rest of the world. During the earlier part of the nineteenth century it may be fair to say that the industry created gainful employment for Indians. But, after the first quarter of the nineteenth century, Indians were generally forced to cultivate indigo on their best land and faced exploitation and cruel maltreatment by British planters.

Source 1: Timeline of the establishment of indigo plantations in Bengal, India

1751	Clive conquers vast territories of Bengal, which come under British control
1782	The East India Company imports 25,000 pounds of indigo into London from Asia
1788	The East India Company brings indigo planters from the West Indies to Bengal to establish factories. The quality of Bengali indigo soon equals the finest West Indian product
1795	The East India Company imports 4,368,000 lbs. of indigo into London, the bulk of it from Bengal
1802	The East India Company withdraws from direct control over factories
1815	Bengal alone exports 7,650,000 lbs (more than 3,500 tons) of indigo (valued at 6 shillings/lb.)
1829	The Governor-General of Bengal recommends that planters be allowed to take long leases on land in their own names
1834	Beginning of most prosperous years for indigo industry in Bengal when consumption of indigo in Britain and America doubled and indigo accounted for almost half the value of all goods exported from Calcutta
1847	Sharp declines in indigo market
1851	Formation of the Indigo Planters' Association
1854	Start of five years of bad weather, which reduced yields so that peasants were unable to recoup their advances on indigo
1859	Peasant uprisings in Bengal with demonstrations protesting Planter's unfair treatment of peasants

Jenny Balfour-Paul, *Indigo* (London: British Museum Press, 1998), 70-73.

Source 2: Sources of the supply of indigo, 1846

Bengal provinces	34,500 chests or 9,000,000 lbs
Other countries, including Guatemala and Madras	8,500 chests

Jenny Balfour-Paul, *Indigo* (London: British Museum Press, 1998), 72.

Source 3: Consumption of indigo, 1846

United Kingdom	11,500 chests
France	8,000 chests
Germany and the rest of Europe	13,500 chests
Persia	3,500 chests
India	2,500 chests
United States	2,000 chests
Other countries	2,000 chests
Total	43,000 chests or more than 11,000,000 lbs

Jenny Balfour-Paul, *Indigo* (London: British Museum Press, 1998), 72.

Comprehension Exercises:

1. Which country produced the greatest amount of indigo? Which countries consumed the most indigo?
2. Based on the documents, what predictions can you make about the fate of the indigo industry in Bengal, India?

Source 4: E. De-Latour of the Bengal Civil Service, Magistrate of Faridpur, giving evidence before an enquiry committee, 1848

Not a chest of indigo reached England without being stained with human blood ... I have seen several Indian peasants sent unto me as a magistrate, who have been speared through the body. I have had Indian peasants before me who have been shot down by the planters. I have put on record how others have been first speared and then kidnapped; and such a system of carrying on indigo, I consider a system of bloodshed.

Source 5: Testimony of missionary Reverend James Long on “Baap re Baap! Nikarer ki Atyachar” (“What and Oppression of the Indigo Planters”), a pamphlet published in Bengali and submitted to the Indigo Commission in 1860

It contains songs, which have been sung far and wide among the natives set to music. The drift of some of those songs is the following: that the interest of the planter’s advances accumulates for three generations; that the people sell their leases, they do not get free from the planters [even in death]; that when the planter first applies the Indian peasant to sow indigo, he becomes like a beggar, but at last he makes grass grow on the Indian peasants’ bones; the indigo planters come in like a needle and go out like a plough, and are desolating Bengal like flocks of locusts; the king looks on while the subjects are drowned; all is gone; to whom shall we apply but to Almighty God; should we shut our eyes at night, we see the white faces before us, and, through fear, our lives fly away like a bird; our souls are burning in the strong flames of pain.

Sanka Sen Gupta, “Introduction,” in Dinabandhu Mitra, Sankar Sen Gupta, trans., *Nil Darpan or The Indigo Planting Mirror* (Calcutta: Indian Publications, 1972), 11 and 54 lxxix.

Source 6: An excerpt from “Brahmins and Pariahs: An Appeal by the Indigo Manufacturers of Bengal to the British Government, Parliament, and People,” 1861

Two of the principal staples which India produces for exportation are opium and indigo. In one respect, and in one respect only, opium and indigo resemble each other. They are both cultivated by a system of advances, which presents some features absolutely identical.

In all other respects these vegetable products can only be compared to be contrasted. Opium is a drug which is grown for traffic with China, and is that “foreign medicine” which now passes through the Chinese custom houses at a settled duty; indigo is a harmless dye, which is very welcome at Manchester, and exercises only beneficial effects upon our relations with the rest of the world.

Opium is the result of “a system of poppy cultivation under a Government monopoly.” Indigo is produced by independent “British settlers, in whose future increase lies the only permanent prosperity of British India.” Opium is produced under a coercive system of such an unrelaxing character that the remuneration to the [Indian peasant] has in a quarter of a century scarcely varied, while the remuneration for indigo has kept pace with the increased value of labour, which it has itself tended to create, and is now three times the amount which was thirty-five years ago.

Indigo has cleared the jungle and turned the wilderness into corn-fields, and the lair of the wild beast into villages; while opium has only covered rich arable lands with poppies, and fixed a system of forced labour akin to slavery upon the people.

Brahmins and Pariahs: An Appeal by the Indigo Manufacturers of Bengal to the British Government, Parliament, and People (London, 1861), 3–4.

Source 7: Excerpt from Colonel J.E. Gastrol, *Report on the Districts of Jessore, Fureedpore and Backergunge*, 1868

The numerous indigo ... factories ... impart an air of civilization to and greatly enliven the scenery whenever they appear ... There is an appearance of solid and unmistakable comfort about them generally, that is exceedingly refreshing and delightful. Always built in the most open spots, they stand boldly out after and offer striking contrast to the neighboring Bengalee habitations, which are so buried in jungle as to be barely visible until arriving within a few yards of them.

Colonel J.E. Gastrol, *Report on the Districts of Jessore, Fureedpore and Backergunge* (Calcutta, 1868), 7.

Comprehension Exercises:

3. Describe the attitudes of the British toward the indigo industry in India. Do the British all share the same attitude? Explain your answer citing the sources.

Source 8: Excerpt from *Nil Darpan, or, The Indigo Planting Mirror*, a satirical Bengali play, 1861

Bengal's indigo industry was plagued by many abuses. European planters were forbidden to lease or buy land next to their factories, and instead offered advance money, thru corrupt middlemen to reluctant local peasants to grow indigo. The system was deeply unpopular with Indian peasants, who rarely benefited from growing indigo, as it reduced their rice cultivation. Furthermore, the advances, forced upon them by the planters, often put them into permanent debt. In theory the Indian peasants were free, but in practice there were locked into a system akin to slavery—one British governor even compared their situation with that of Carolina slaves. By the 1860s, the indigo issue had become headline news in London. This was partially due to a socio-political Bengali play called Nil Durpan, or, The Indigo planting Mirror, which satirized the bad behavior of the planters and their wives and gave voice to the new Western-educated Indian rural middle-class which was sympathetic to the plight of the peasants. This excerpt comes from the play, written in Bengali by an Indian author and first published in 1861. Protestant missionary James Long (quoted in Source 5 above) championed the play, which resulted in his indictment for disseminating a “libelous work.” The high profile trial ended in his temporary imprisonment. The play was later banned by the British through Lord Lytton’s Dramatic Performances Act of 1876.

Goluck: O, my son, what has been done?

Nobin: Sir, does the cobra shrink from biting the little child on the lap of its mother on account of the sorrow of the mother? I flattered him much, but he understood nothing by that. He kept to his word and said, “Give us sixty bighas, secured by written documents, and take 50 rupees, then we shall close the two years’ account at once.”

Goluk: Then, if we are to give sixty bighas for the cultivation of the Indigo, we cannot engage in any other cultivation whatever, then we shall die without rice crops.

Nobin: I said, “Saheb, as you engage all our men, our ploughs, and our kine, everything in the indigo field, only give us every year through, our food. WE don’t want to hire.” On which he laughed ...

Sadhu: Those whose only pay is a bellyful of food are, I think, happier than we are.

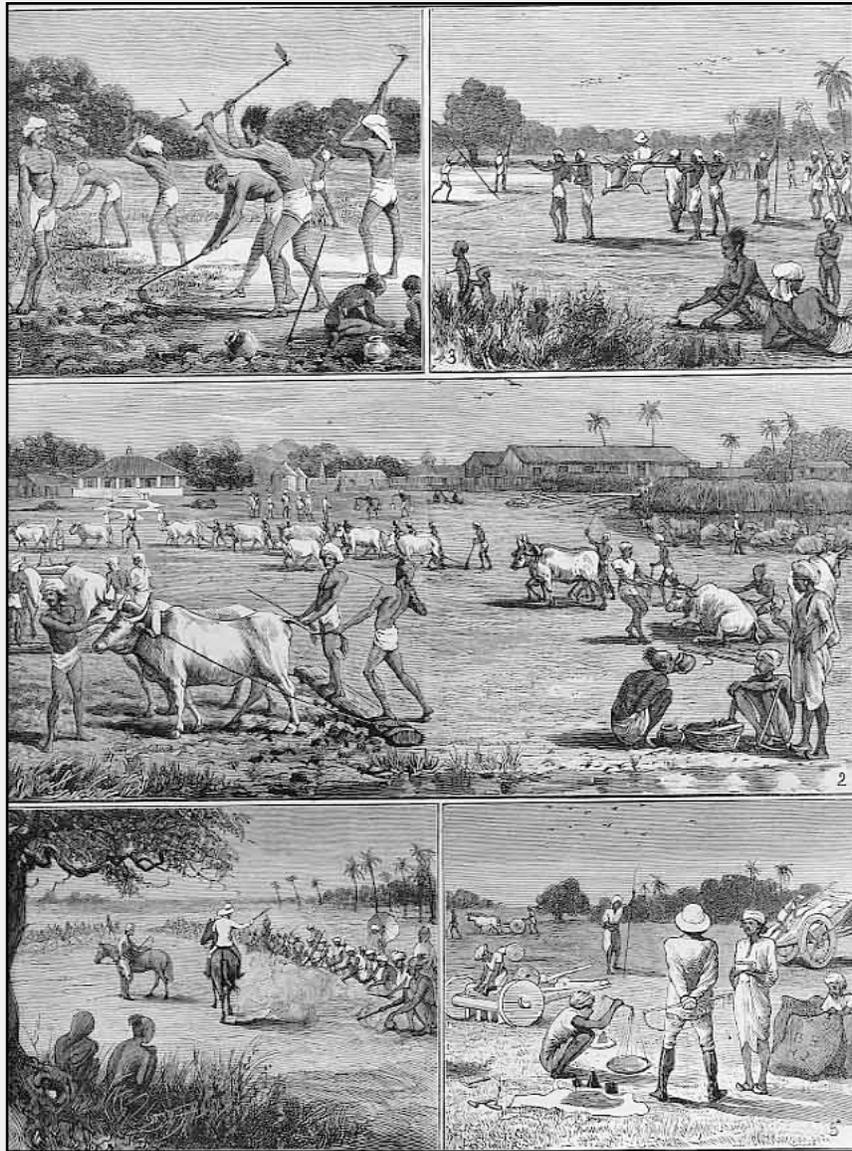
Goluk: We have nearly abandoned all the ploughs; still we have to cultivate Indigo. We have no chance in a dispute with the Sahebs. They bind and beat us, it is for us to suffer. We are consequently obliged to work.

Later in the play....

Planter Rogue: To speak to me is throwing pearls at the hog’s feet. Ha, ha, ha, we Indigo Planters, are become the companions of Death. Right in our presence our men have burnt down villages. Women died in the fire with babies at their breasts. Have we ever shown any compassion? Can our factories remain, if we have pity? By nature, we are not bad; our evil disposition has increased by indigo cultivation. Before, we felt sorry in beating one man; now, we can beat ten women with the leather strap, making them senseless; and immediately after, we can, with great laughter, take our dinner.

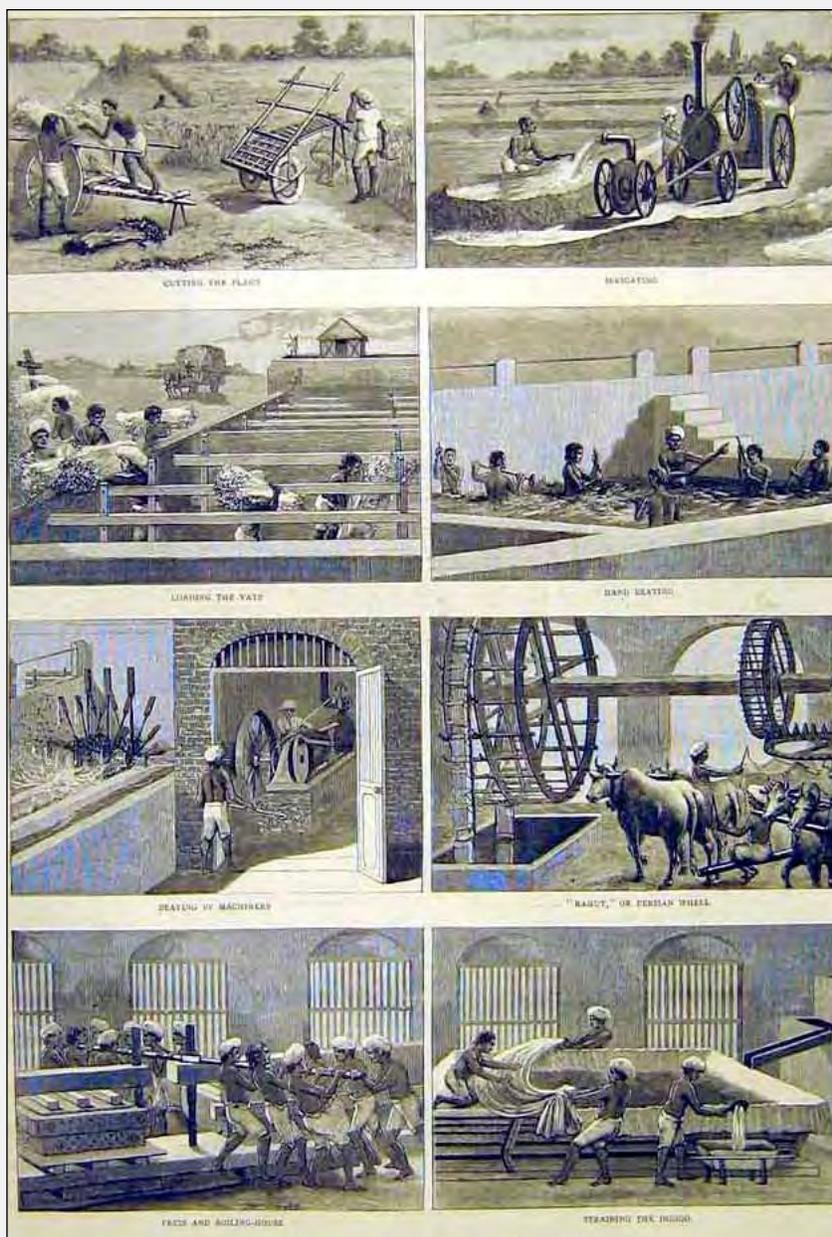
Dinabandhu Mitra, Sankar Sen Gupta, trans. *Nil Darpan, or, The Indigo Planting Mirror* (Calcutta: Indian Publications, 1972), 11, 54.

Source 9: Illustration from *The Graphic* depicting indigo cultivation in Bengal, 1881



“Views from the *Illustrated London News* and *The Graphic*,” South Asia study resources compiled by Frances Pritchett, http://www.columbia.edu/itc/meacac/pritchett/00routesdata/1800_1899/dailylife_drawings/ilnviews/ilnviews.html.

Source 10: “Indigo Manufacture in India,” from *The Graphic*, 1887



“Views from the *Illustrated London News* and *The Graphic*,” South Asia study resources compiled by Frances Pritchett, http://www.columbia.edu/itc/meacac/pritchett/00routesdata/1800_1899/dailylife_drawings/ilnviews/ilnviews.html.

Comprehension Exercises:

4. Use the documents in this section to describe the experiences of plantation workers in 19th-century India. Explain your answer citing the sources in this section. Compare the experiences of Indian peasants with the slaves of Carolina from a century earlier.
5. Describe the impact of the indigo industry on the relations between colonial British planters and Indian peasants. Cite evidents from the sources to support your answer.
6. Compare the images in this section, dated from the 1880s, with those in Section 2, which date from the 1760s. What technological advances, if any, have changed indigo production during that time?

SECTION 4: DENIM AND THE INVENTION OF SYNTHETIC INDIGO

Starting in the 16th century, India began to export the earliest known precursor to jeans, a thick cotton cloth dyed in indigo, in the 16th century, known as dungaree. Sailors of the time frequently used the fabric to make clothing. For the past century, almost all indigo used in denim manufacturing has been man-made. Synthetic indigo was first produced for commercial use in 1897, when the German chemical company BASF (Badische Anilin und Soda Fabrik) introduced a dye based on the findings of the Berlin chemist Adolf von Baeyer. BASF called its new product “indigo pure.” Soon other European companies, including dyeworks in France and Switzerland, began producing their own synthetic indigo, and natural indigo entered its final irreversible decline on the international market. The situation of the peasants of India grew even worse with the chemical replication of indigo. The pressures on the “planters” (British estate owners) to make a profit and survive in these circumstances increased the pressure on those involved in indigo cultivation, extraction, and processing.

Source 1: Indigo exports from India

Year	Weight in Tons	Value in British Pounds
1895–1896	9,366	3,566,700
1910–1911	846	233,500

Jenny Balfour-Paul, *Indigo* (London: British Museum Press, 1998), 82.

Source 2: Number of indigo factories in Bihar, India

1890 2,800 large factories / 6,000 smaller works producing Indigo
 1911 121 total remaining factories

Jenny Balfour-Paul, *Indigo* (London: British Museum Press, 1998), 84.

Source 3: Excerpt from “The Rise and Fall of the Indigo Industry in India,” 1912

The modern indigo industry was created by the East India Company. It was fostered and developed by the Company’s servants, and attained the zenith of its prosperity under the management and care of British capitalists, planters, and traders. Many of the planters attained great wealth, owned large estates, and settled down to live the lives of country gentlemen in the tropics. They rode hounds, kept racing studs, reveled in pig-sticking, and entertained their friends on a princely scale. They were splendid riders, and formed the smartest volunteer corps in Upper India. For nearly a century they had almost the monopoly of the production of one of the most valuable and essential dyes known to commerce.

Towards the end of the nineteenth century the monopoly was challenged by the invention of a German chemist, who placed synthetic indigo on the world’s markets. Since that date the indigo industry of India has rapidly declined, and the export trade has shrunk to such small dimensions that its complete extinction seems likely, if not inevitable. With its extinction the British planters must find new fields for their energies, or develop new industries on its ruins. Some of them have already begun to do so. Others have left the country or drifted into the towns ... and the country districts...are poorer owing to the departure of so many sporting planters, who upheld British prestige in places remote from great towns.

“The Rise and Fall of the Indigo Industry in India,” *The Economic Journal*, Asiaticus 1912, 237.

Source 4: Excerpt from H.E. Schunk's presidential address to the Society of Chemical Industry, 1897

This critique of the industrialization of indigo dye production compares the production of natural indigo on farms in India with the manufacture of a chemical version of the dye in factories in Europe.

To replace a manufacture depending on an interesting organic process carried on under healthy conditions in the open air, a manufacture which brings wealth into poor districts, and introduces system and order and civilization among uncultured people, by one carried on perchance in some dingy sepulchral cave in a chemical works by some fixed and unalterable process, might ... be a doubtful advantage.

Jenny Balfour-Paul, *Indigo* (London: British Museum Press, 1998), 81.

Source 5: Excerpt from Christopher Rawson's writings in the *Journal of the Society of Chemical Industry*, 1899

From a scientific point of view, the production of artificial indigo is undoubtedly a grand achievement, but if it can be produced in large quantities at such a price as to render indigo planting altogether unprofitable it can only be regarded as a national calamity.

Philip Ball, *Bright Earth: Art and the Invention of Color* (Chicago: University of Chicago Press, 2003), 226.

Comprehension Exercise:

1. How did the introduction of synthetic indigo impact the indigo industry in India? Support your answer citing data from the documents in this section.
2. How did the introduction of synthetic indigo change the lives of British planters? How might it have changed the lives of Indian peasants? Explain your answers citing the sources in this section.
3. Compare the feelings of 19th-century British indigo planters in India at the advent of synthetic indigo to those of 17th-century woad producers in Europe when indigo first began appearing in Europe in greater quantities. Explain your answer citing documents in Sections 1 and 4.
4. Make a chart comparing the similarities and differences in claims about the three dye products (woad, natural indigo, synthetic indigo). Explain your answer citing sources in Sections 1 and 4.

Source 6: Beating wheel at an indigo factory in Bengal, 1900



Christopher Rawson

Source 7: Workers in the BASF indigo factory wearing denim work clothes, 1930s



Jenny Balfour-Paul, *Indigo* (London: British Museum Press, 1998), 85.

Comprehension Exercises:

5. Compare the images of indigo production in this section with those in Section 3. Do the photographs reveal things that the drawings do not?
6. Compare the photograph of the production of natural indigo in an Indian factory with the photograph of the production of synthetic indigo in a German factory. Do you notice any changes in the technology of the two industries? Describe differences in the people who are doing the labor.

Source 8: Advertisement for Levi's overalls, 1910s



Iain Finalyson, *Denim: An American Legend* (New York: Fireside, 1990), 13.

Source 9: Advertisement for Levi's overalls, *McCall's* magazine, 1917



McCall's, 1917, <http://www.fabrics.net/joan1003.asp>.

Comprehension Exercise:

7. Who was able to wear indigo dyed fabric in the 1910s? How did the introduction of synthetic indigo affect who was able to afford fabric dyed with it?

GRAPHIC ORGANIZER I

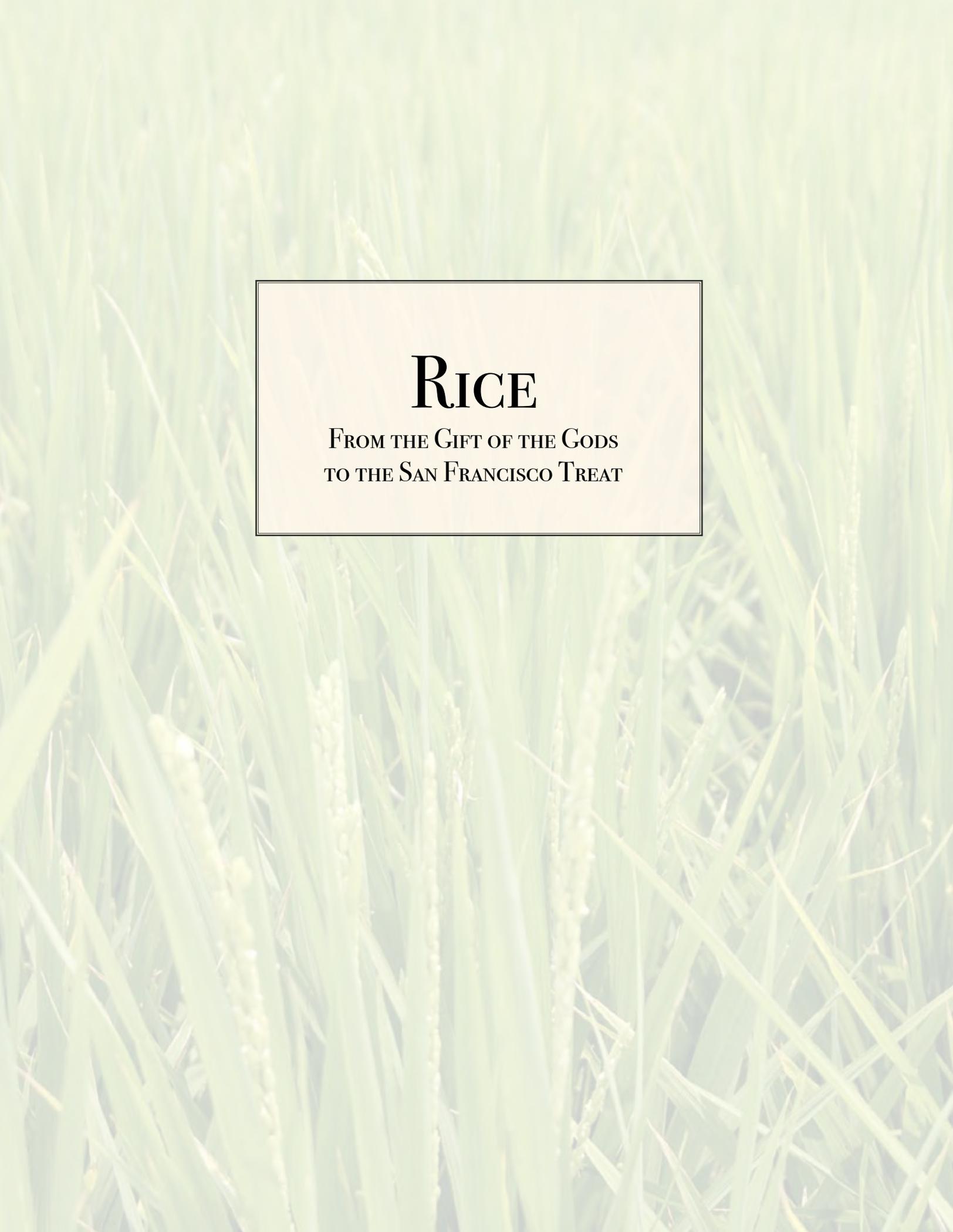
Fill in the following chart for each stop along indigo's route from India to global trade. How did indigo move from one stop to the next?

	<i>Where is indigo found?</i>	<i>With whom did it arrive?</i>	<i>When did it arrive?</i>	<i>How was it used?</i>
(1) Indigo in 17th-Century Europe				
(2) Indigo in 18th-Century South Carolina				
(3) Indigo in 19th-Century India				
(4) Advent of Synthetic Indigo				

GRAPHIC ORGANIZER 2

Fill in the following chart for each stop along indigo's route out of India and into global trade.

	(1) Indigo in 17th- Century Europe	(2) Indigo in 18th- Century South Carolina	(3) Indigo in 19th- Century India	(4) Advent of Synthetic Indigo
<i>What role did indigo play in people's lives?</i>				
<i>How were people's lives affected by indigo?</i>				
<i>To what extent has indigo been harmful or beneficial to society?</i>				



RICE

FROM THE GIFT OF THE GODS
TO THE SAN FRANCISCO TREAT

INTRODUCTION

Archaeological evidence indicates that rice has been cultivated for many thousands of years. In the Spirit Cave, a late neolithic site in northern Thailand, ten-thousand-year-old containers have been found that once held rice as offerings for the spirits of the dead. Although the Yangtze River valley was long believed to have been the site of the first rice cultivations, it is now believed that rice originated in an area extending from the foothills of the Himalayas in eastern India, through Burma (Myanmar) and Thailand, and into northern Vietnam and southern China.

Source: On the Trail of Rice

In the area where it was originally cultivated, rice became the people's food. From there, it began to spread throughout the world, from the mouth of the Yangtze to the islands to the south. Rice arrived in Indonesia and the Philippines in the third millennium B.C., presumably with emigrants from the north, and quickly spread throughout the islands north and south of the Equator, where there was fertile land, jungles, sufficient moisture, an equitable climate and temperature all year around—in short, paradise. In India, the oldest literary sources, written in Sanskrit, refer to various species of rice around 2400 B.C.: dark rice was offered to Agni, the god of fire; a fast-ripening strain was dedicated to Savitar, the sun god; and a large-grained one given to Indra, both the king of gods and the god of storms in the Vedic tradition. ...

In spite of the great importance of rice in the diets and lives of Asian peoples for many thousands of years not a single printed word about it can be found in China before the first century B.C. Rice is not mentioned in the Bible, nor on the bas reliefs or papyrus of ancient Egypt.

Christian Teubner, *The Rice Bible*, trans. Debra Nicol (New York: Viking, 1999), 7.

Comprehension Exercises:

1. Where did the cultivation of rice originate? Where had it spread by the time that writing became widespread?
2. What was the climate like in the areas where rice was first cultivated?
3. Why do you think that rice is not mentioned in the Chinese records before 100 B.C., even though it had clearly been cultivated there for several thousand years?
4. Although there is no hard evidence about the beginnings of rice cultivation, what sorts of documents about the origins of rice might exist? Why?

SECTION I: THE ORIGINS OF RICE

Source 1: Rice origin myth from the Dayak tribes of Sarawak (Indonesia)

Once upon a time, mankind ate nothing but mushrooms, roots, fruits and seeds they collected, and animals they trapped.

One day, a young man named Se Juru and some of his friends went sailing on the sea. The wind drove them far out to sea until they came to a place where they could hear the roar of surf. There they saw a large *sibau* tree growing upside down with its roots in the sky and its branches, loaded with fruit, were touching the water.

Se Juru climbed up in the branches and began gathering fruit. After a while, his friends called for him to come back to the boat, but Se Juru kept climbing higher and higher. Eventually, his friends got tired of waiting and decided to sail on without him.

Se Juru kept climbing, however, determined to see what was at the end of the tree's trunk and what it was rooted upon. He climbed and climbed, and finally came to a new and wonderful place high in the sky: the Pleiades, the Seven Stars. As he gazed around himself in wonder and admiration, he met Se Kera, who took him to his house. Se Kera set a cooking pot on the fire. After a while, the contents of the pot poured onto a dish, and a mass of soft white grains appeared.

"Eat," said Se Kera.

"Eat what?" asked Se Juru.

"What's in the dish," replied Se Kera.

"What, those maggots?"

"Don't be a fool. Those aren't maggots, it's boiled rice!"

Se Kera explained to Se Juru how to plant and harvest rice, how to pound it, and how to cook it for food. Just then, Se Kera's wife went out to get some water and Se Juru looked into the empty water jug on the table. To his wonder, he could see through the jar as if it were a telescope. He saw his family gathered together, talking. Se Juru became homesick and lost his appetite.

Se Kera told him not to worry. First, he instructed Se Juru in all the mysteries of farming, told him how to clear land, and how to harvest and store the rice. After giving Se Juru three different kinds of rice, Se Kera lowered him down to earth on a long rope to rejoin his village and his family.

Ever since that time, the Dayak people farm according to the way that was shown to Se Juru by Se Kera.

H. Ling Roth, *The Natives of Sarawak and British North Borneo* (London: Truslove & Hanson, 1896).

Source 2: Rice origin myth from Java

The god Batara Guru was given a jewel named *Retna Dumilah* (“The Glowing Jewel”). It was shaped like an egg, and of incomparable beauty. One day, while admiring the jewel, Batara Guru heard scratching noises from inside the jewel, and so he broke it open. To his surprise, a girl was born from the jewel, and he named her Tisnawati. Tisnawati was a beautiful young girl, and all were heartbroken when she died as a young woman. Sorrowful, the weeping gods buried her in the earth.

Some time later, the king of the country where Tisnawati was buried was out riding in the forest. As he came near the site of her grave, he saw a beautiful light shining from it. As he came closer, he found that from her head had come the coconut palm, and from her body sprang a sugar palm and rice plants.

P.E. de Josselin de Jong, “An Interpretation of Agricultural Rites in Southeast Asia, with a Demonstration of Use of Data from Both Continental and Insular Areas,” *Journal of Asian Studies* 24 no. 2 (Feb 1965): 284–85.

Source 3: One of the origin myths of the Malayan people

On his great journey through the lands of the East, Raja Iskander [Alexander the Great] came to India and married the daughter of an Indian king. From this union sprang a long line of rulers. One of these, Raja Chulan, set out to conquer the whole world. When he had almost fulfilled his ambition, he had a glass case made and in it descended to the bottom of the sea. He found these nether regions to be inhabited, married the daughter of the ruler, and by her had children who remained under the sea after Raja Chulan himself had eventually returned to dry land.

Meanwhile, in Palembang (on the east coast of Sumatra), two widows, Wan Empok and Wan Malini, one night saw a mysterious glow over their rice field. The next morning they set out to investigate, and they found that their padi had golden grain, leaves of silver, and stems of gold alloy. Struck with astonishment, they saw three beautifully dressed young men appear, one of them riding on a white cow. The youths announced that they were descendants of Raja Chulan, from the land under the sea, and that the miracle of the growing, golden rice was their work. Shortly afterward, foam fell from the mouth of the silvery white cow that bore one of the young men, and out of this foam appeared a spirit who immediately recited a magical formula bestowing the title of King upon the young man seated on the cow.

He was to be the first of the Kings of Malaya; the man who was born from the foam that dropped from the cow’s mouth became the ancestor of the heralds of the royal court, and between them and their descendents they brought order and justice to the land. At the time that these legends were first written, the heralds still bore the family name Muntah Lembu, “Cow’s Vomit.”

P.E. de Josselin de Jong, “An Interpretation of Agricultural Rites in Southeast Asia, with a Demonstration of Use of Data from Both Continental and Insular Areas,” *Journal of Asian Studies* 24 no. 2 (Feb 1965): 284–85.

Source 4: One of the rice origin legends from China

Once upon a time before the unification of the Chinese Empire, there was a village of hardworking people that suffered from many floods. The people of the village had to leave their homes and climb into the hills because the water rose to cover even the highest trees and rooftops. There they remained as flood after flood washed through the land, until they became filled with despair and worry about whether they would ever be able to return home.

Finally the floods ended and the waters drained away. The people came down from the hills only to discover that their homes were gone and that all of the plants were destroyed. There were few animals left, and the people grew hungry and began to fear that they would starve to death.

One day, the people of the village saw a dog walking across a barren field. Hanging from the dog's tail were bunches of long, yellow seeds. The people planted these seeds and from them sprang the first rice plants. Since that time, as long as there has been rice, the people will not go hungry.

Even today in China, people say that “the precious things are not pearls and jade but the *fan*, or “the noble grains”: rice, millet, wheat, and barley. Those who eat of the *fan* are true Chinese. Those who do not are barbarians.

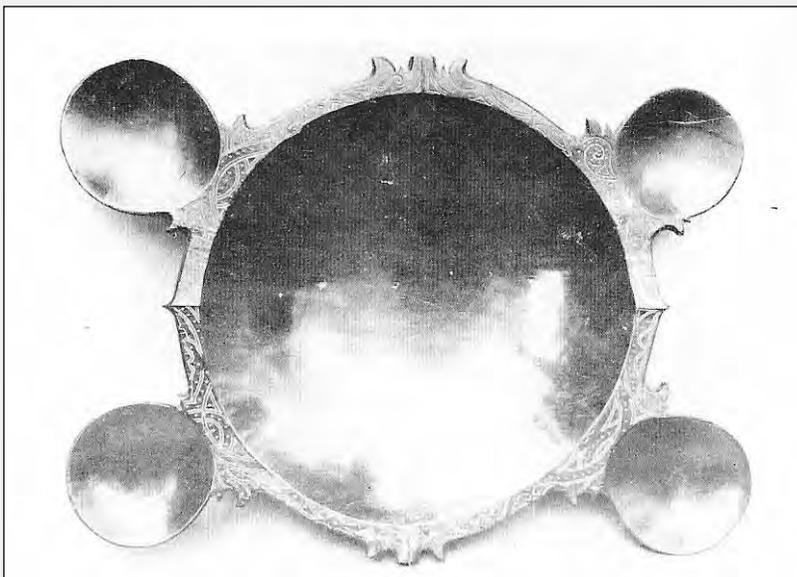
Christian Teubner, *The Rice Bible*, trans. Debra Nicol (New York: Viking, 1999), 7.

Comprehension Exercises:

1. What is a myth? Two of these documents contain myths, and two do not. Briefly describe each of the four documents and explain why it is or why it is not a myth.
2. What does this collection of stories say about the importance of rice in these societies? Explain your answer citing the documents.
3. What theme is common to the origin of rice in Source 1 and 2?
4. Source 3 does not explain the origin of rice, but rice plays an important role in the story. What is it?
5. What is the common theme between the stories told in Source 3 and 4?

SECTION 2: FROM STAPLE FOOD TO HIGH CUISINE

Source 1: Family rice dish of wood, Kayan tribes, Borneo



C. Hose and W. McDougal, *The Pagan Tribes of Borneo* (London: Macmillan & Co., 1912).

Source 2: Silver and horn rice server, Kelantan, Malaysia



Denis Robinson, in Jacqueline M. Piper, *Rice in South-East Asia: Cultures and Landscapes* (Oxford: University Press, 1993), 23.

Source 3: A *sufurtas*—a four-tiered lunch box for rice, stew, salad, and sweets, Iraq



Nawal Nasrallah, *Delights from the Garden of Eden: A Cookbook and a History of the Iraqi Cuisine* (1stBooks Library, 2003), 232.

Comprehension Exercises:

1. Compare the various serving implements pictured in Source 1, 2, and 3. Compare and contrast the eating styles demonstrated by each of the dishes and utensils. Do they seem to represent a communal eating style or an individual eating style? Explain your answer by analyzing the images.
2. Based on these illustrations, do you think that rice was an ingredient, a side dish, a main dish, or the only main dish? Explain your answer by analyzing the images.

Source 4: 13th-century recipe for Isfanakhiya from the ‘Abbassid Court, Baghdad

Take fatty meat and cut it into medium-sized pieces. Slice the fresh tail and dissolve, and remove the solids. Put the meat into this oil and stir until browned. Then cover with water that has been heated separately. Add a little salt, boil and remove the foam.

Throw in a handful of chickpeas that have been soaked and peeled. Take fresh spinach, wash, remove the stems, and cut with a knife into finger-lengths. Pound it in a stone mortar and add it to the saucepan.

When nearly cooked, add dry coriander, cumin, ground pepper, mastic, small pieces of cinnamon bark and a little garlic crushed fine. Now fill with water as required, letting the water be lukewarm. When it has boiled awhile, add clean washed rice as required placing it over the fire until it is set firm and smooth. Then leave over a small flame for an hour and remove.

Meanwhile prepare red meat minced fine and make into kabobs and fry these in oil with the usual seasonings. When the concoction is ladled out, strew over it this fried meat, together with the oil as required, sprinkle with fine-ground cinnamon and serve.

—Muhammad ibn al-Hasan ibn Muhammad ibn al-Karim al-Katib al-Baghdadi, *Kītab al-Tabikh*, 1226.

David Waines, *In a Caliph's Kitchen* (London: Riad El-Rayyes Books, 1989), 47.

Source 5: Lord Curzon describes the Persian dish “pullo,” 1681

The [Pullo] of Persia, which is a triumph of cookery, comes in the form of a whole pyramid of steamed rice, every grain of which is dry outside, but inside is full of juice, and is served with a large number of entrees ...

To make Pullo, the Meat is first Boiled to Rags, and the Broth or Liquor being stranded, it is left to drain, while they Boil the Rice in the same; which being tender, and the aqueous parts evaporating, the Juice and Gravy incorporates with the Rice, which is Boiled almost dry; then they put in the Meat again with Spice, and at last as much Butter as necessary, so that it becomes not too Greasy or Offensive, either to the Sight or Taste; and it is then Boiled enough when it is fit to be made into Gobbets, not slabby, but each Corn of Rice is swelled and filled, not burst into Pulp.

John Fryer, *A New Account of East India and Persia, Being Nine Years' Travels, 1672-1681* (London: Hakluyt Society, 1909), 105.

Source 6: Two Syrian proverbs

“What do the people of paradise eat?”

— “Rice with butter.”

“Good living is with rice, and let the burghul wheat go hang itself.”

Source 7: A 14th-century French recipe for *Blanc Mangier*

If you wish to make *blanc mangier*, take the wings and feet of *gelines* [quail or cornish hens] and put them to cook in water; then take a little rice and soak it in that water, then let it cook on a low fire, then cut the meat into thin strips, and set it to cook [with the rice] with a little sugar. . . . And if you wish, use whole rice [that is, instead of pounded rice] in the bouillon, or almond milk; it is then called *angoulée*.

Jérôme Pichin and Georges Vicaire, eds., *Le Viandier du Guillaume Tirel Dit Taillement* (Paris: Se vend chez Techener, 1892), 200.

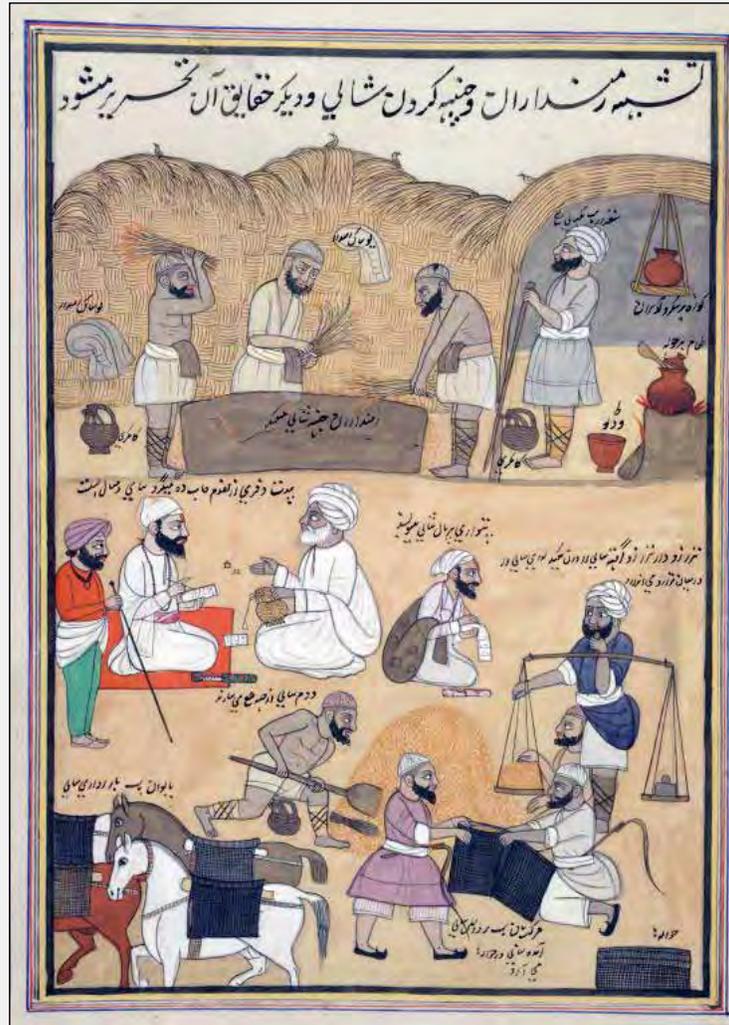
Comprehension Exercises:

3. Summarize this collection of documents. What geographic locations are mentioned?
4. Do the recipes mentioned in Source 4, 5, and 7 seem simple or complex? How much time does it take to prepare them? Based on this, do you think that these are dishes that would be served in the home of the average person, or in the homes of those rich enough to afford a cooking staff? (Hint: think about the fact that these are *written* recipes. Who is able to read in 13th-century Baghdad and 14th-century France?)
5. Based on your answer to #2, what do you think Arab, Persian, and French attitudes toward rice were like? Was rice as important in these places as it was elsewhere?

Source 9: Miniature painting in the Persian style, Kashmir, India, 1850s

In this anonymous painting several registers are used to depict various groups at task in the threshing, weighing, and packing of the rice harvest.

The top register shows a heap of freshly harvested sheaves of rice being pecked at by birds, while bare-chested laborers beat it to separate the rice grains from the chaff. The bottom register shows rice being weighed before being packed into twin-chambered saddlebags for carrying to the market on horseback. The laborers in these scenes are wearing traditional Kashmiri Muslim headgear. The middle register depicts a Hindu holy man being consulted by a farmer, possibly to read astrological signs in order to predict future harvests.

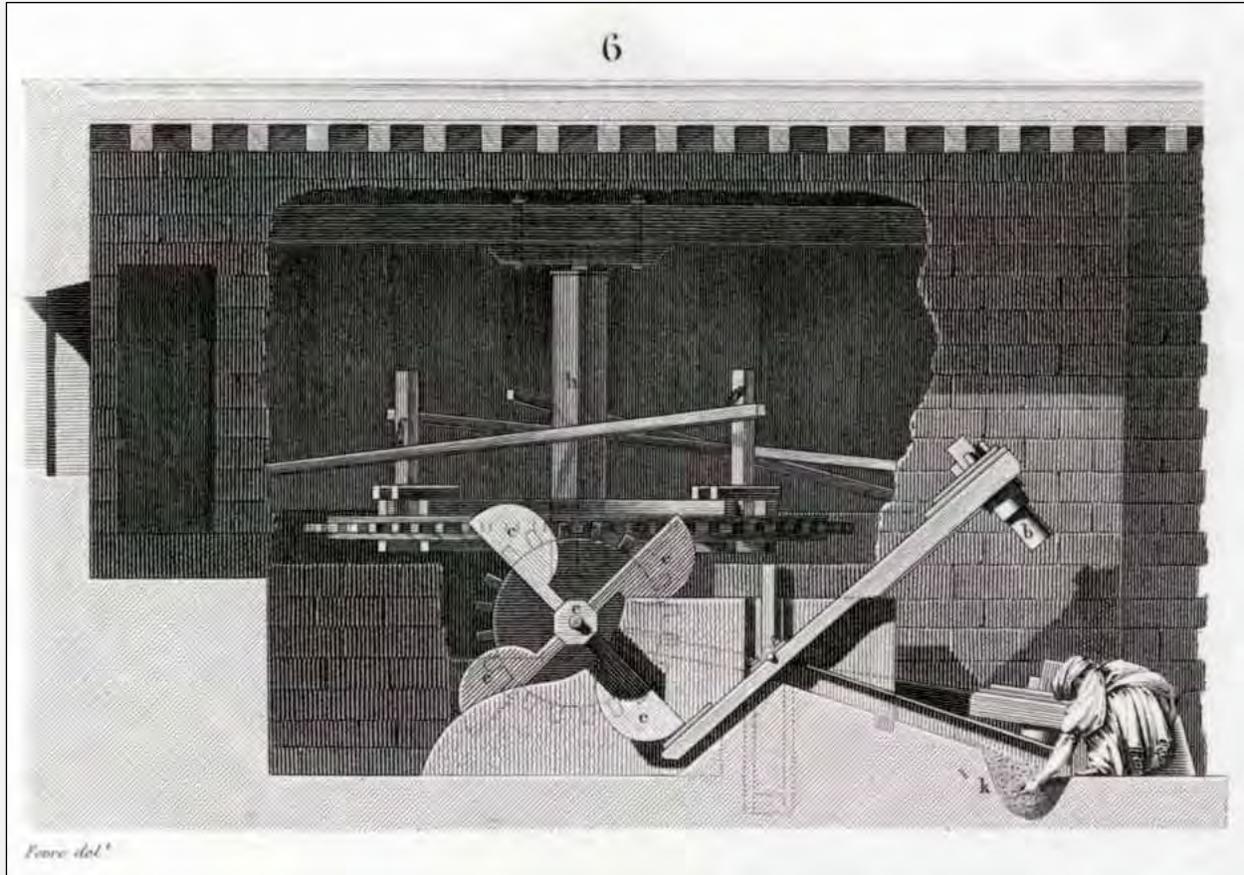


Source 10: Filipino work song, recorded in the 1960s

Planting rice is never fun;
 Bent from morn till set of sun;
 Cannot stand and cannot sit;
 Cannot rest for a little bit.
 Oh, my back is like to break,
 Oh, my bones with dampness ache,
 And my legs are numb and set
 From the soaking in the wet.

Edith Fowke and Joe Glazer, eds., *Songs of Work and Protest* (New York, 1973), 102–03.

Source 11: French engraving of a machine for bleaching and separating rice, Egypt, late 18th century



This machine used water power from the Nile to separate and bleach rice for distribution.

Description de l'Égypte, Vol 8: État Modern II (Paris: Institut de l'Égypte, 1818), IX.

Comprehension Exercises:

6. What kind of picture do these sources (8–11) give of the life of a rice farmer?
7. Write out the series of steps in the planting, harvesting, and production of rice described in these documents. Does it seem like there are steps missing? Based on this, is rice farming a labor-intensive process? Cite evidence from the documents to support your answer.
8. Do you think these rice farmers are subsistence farmers (those who grow enough for themselves), commercial farmers (those who grow vast quantities to sell at a profit), or contract farmers (those who lease land from a landowner)? Examine each source in turn and cite evidence from them to support your answer.

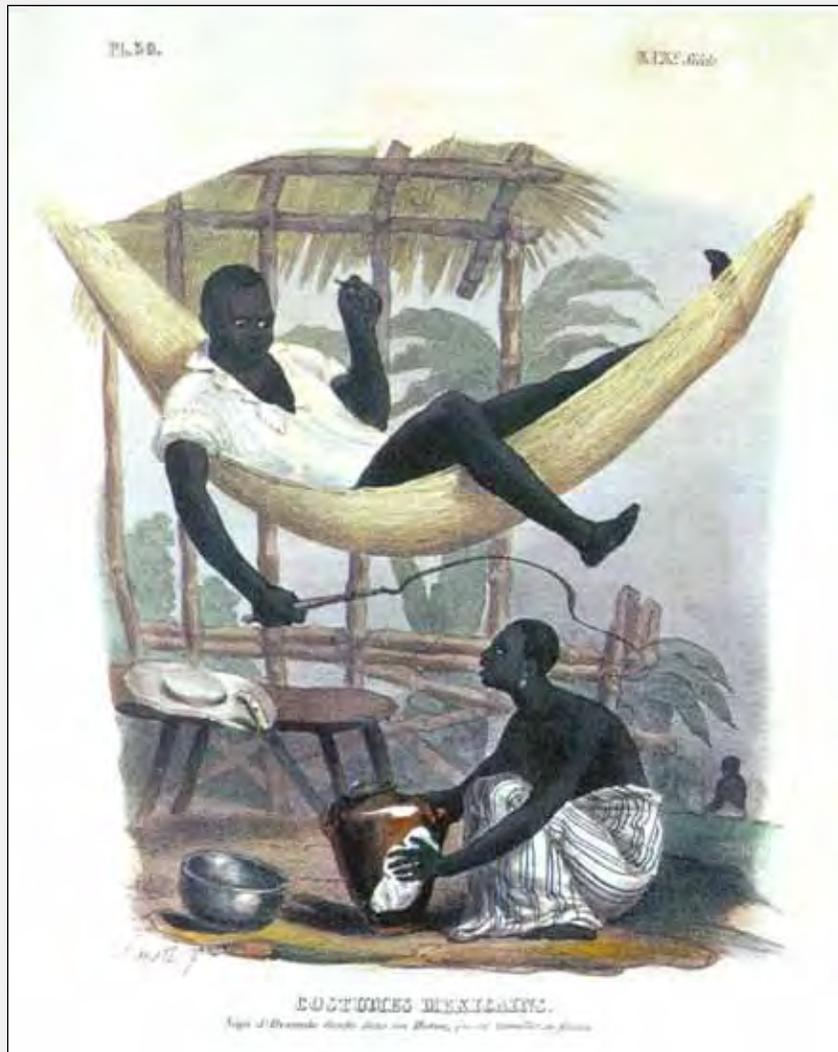
SECTION 3: RICE COMES TO THE NEW WORLD

Source 1: Anthropologist Judith Carney describing connections between West Africa and Mexico's Gulf Coast

On a research trip along the Gulf Coast (of Mexico) in 1998, I came across a road sign south of Veracruz that caused me nearly to veer off the road. The name of the approaching hamlet was Mandinga, the same as that of the rice-growing ethnic group with whom I worked in the Gambia. A stop in the village revealed a Mexican population of mixed African descent and the presence of some abandoned rice fields.

Only in 1993 ... I discovered that rice formed the basis of the plantation system in coastal South Carolina. The argument of historians ... that Africans brought with them skills crucial to the making of the Carolina rice economy proved a revelation to me. ...

Judith Carney, *Black Rice: The African Origins of Rice Cultivations in the Americas* (Cambridge, MA: Harvard University Press, 2001), xi-xii.

Source 2: French lithograph of African-Mexican field workers, 1828

Claudio Linati, *Costumes civils, Militaires et Religieux du Mexique, Dessines d'apres nature*, 1828. Collection of Museo de Arte del Estado de Veracruz.

Source 3: Notice of slaves for sale, Charleston *Evening Gazette*, July 11, 1785

Just arrived in the Danish ship Gen, Keith, Captain Kopperholt, and to be sold, on Friday, the 15th instant, on board the vessel at Prioleau's wharf, a choice cargo of windward and gold coast negroes, who have been accustomed to the planting of rice. The appearance of the negroes will sufficiently quiet a report which has been circulated of their being much infected with scurvy.

(Charleston, S.C.) *Evening Gazette*, July 11, 1785.

Source 4: Gullah slave song from the South Carolina Low Country, recorded in 1862

This song is in Gullah, the language that developed among the slave population in the coastal regions and offshore islands of South Carolina. The language is a creole—linguistic mixture—of English and at least forty different African languages reflecting the wide swath of the continent from which slaves were brought. Only since the mid-twentieth century has Gullah been recognized as a language in its own right, instead of, as was often assumed, a poorly phrased and grammatically incorrect version of English.

Come listen, all you darkies, come listen to my song,
It am about ole Massa, who use me bery wrong:
In de cole, frosty morning', it an't so bery nice,
Wid de water to de middle to de hoe among de rice

Edmund Kirke, *Among the Pines; or, South in Secession-Time* (New York, 1862), 22.

Comprehension Exercises:

1. Summarize this collection of documents. How was rice cultivation brought to the New World?
2. What is the significance of Source 3? What do you think the relative value of this group of slaves would be in relation to other groups of slaves? Cite evidence from these documents to support your answer.
3. Although it is not described in this case study, use what you know about world history to “fill in the gaps” between Section 2 and Section 3 and surmise how rice might have been brought to West Africa.

Source 5: A Gullah woman describes a typical meal at home, 1930s

And speaking of rice. I was sixteen years old before I knew that everyone didn't eat rice every day. Us being Geechees* we had rice every day. When you said what you were eating for dinner, you always assumed the rice was there. That was one of my jobs too. To cook the rice. A source of pride to me was that I cooked rice like a grown person. I could cook it till every grain stood by itself.

* *Geechee is another term for Gullah (see Source 4).*

Vertamae Smart-Grosvenor, in *Vibration Cooking, or The Travel Notes of a Geechee Girl* (New York: 1970), cited in Karen Hess, *The Carolina Rice Kitchen: The African Connection* (Columbia: University of South Carolina Press, 1992), 1.

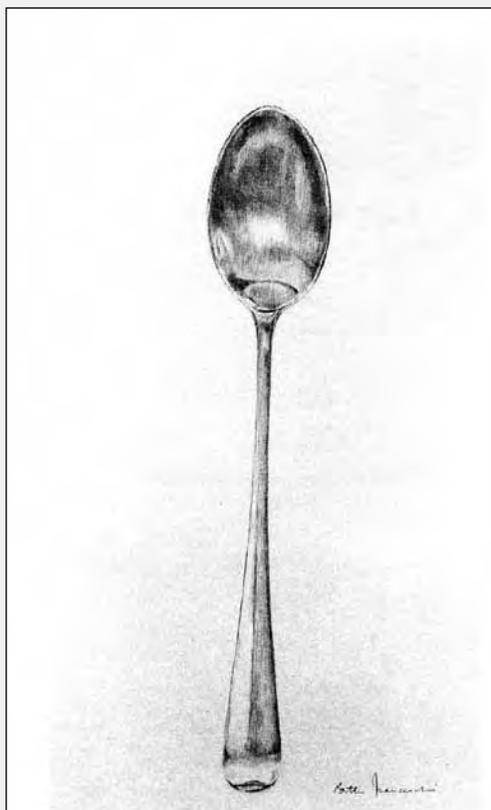
Source 6: Samuel Gaillard Stoney describes a meal in Charleston, South Carolina, 1932

Figure 1: The Charleston Rice Spoon, as depicted by Betti Franceschi.

On Every proper Charleston dinner table [there is] a spoon that is peculiar to the town. Of massive silver, about fifteen inches long and broad in proportions, it is laid on the cloth with something of the reverential distinction that surrounds the mace in the House of Commons at Westminster. ... If you take away the rice spoon from the Charleston dinner table, the meal that follows is not really a meal.

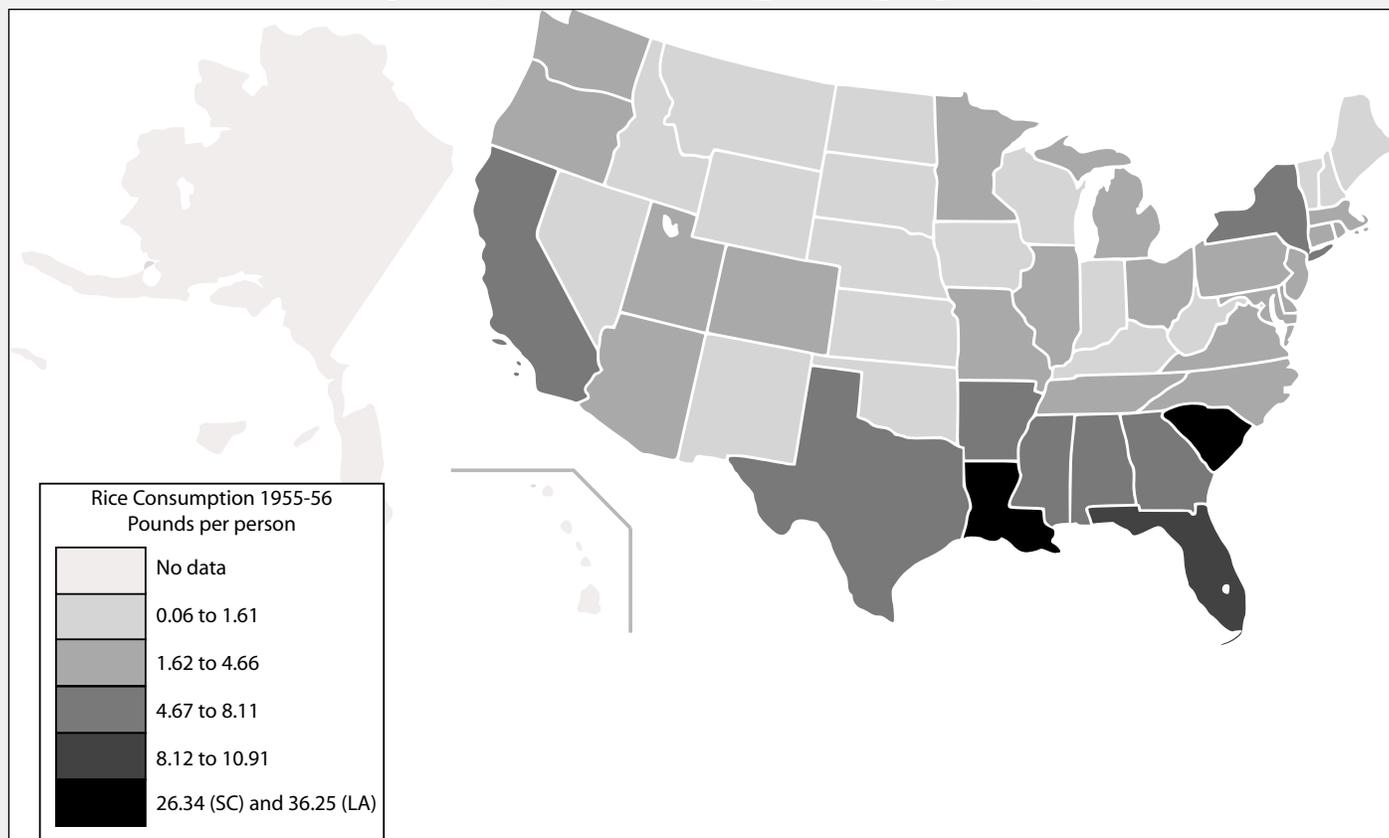
Samuel Gaillard Stoney, in *Charleston: Azaleas and Old Bricks* (New York: 1937), cited in Karen Hess, *The Carolina Rice Kitchen: The African Connection* (Columbia: University of South Carolina Press, 1992), 1.

Comprehension Exercises:

4. Are Source 5 and 6 reminiscent of other documents in this case study? Which ones? Why?
5. Is there a difference between the way rice was produced and consumed in the United States and other examples shown in this case study? If so, what is it?

SECTION 4: FEEDING A HUNGRY PLANET

Source 1: U.S. rice consumption by state in 1955–56 (pounds per person)



James R. Shortridge and Barbara G. Shortridge, "Patterns of American Rice Consumption 1955 and 1980," *Geographical Review* 73:4 (October 1983) 419.

Comprehension Exercises:

1. Use the data in Source 1 to make some generalizations about the consumption of rice in the U.S. in 1955–56. Which regions have the highest rice consumption? Which regions have the lowest?
2. Use the documents in Section 3 and what you know about U.S. history in the late 19th and early 20th centuries to identify some reasons why rice consumption is highest in the regions indicated.
3. How do you think consumption in the United States may have changed since the 1950s? Think of the rice products available and how they are marketed. Would you expect rice consumption to go up or down? Would a map of rice consumption in 2000 be more evenly distributed or less? Why?

Source 2: The top ten rice producing countries, 2001

Country	Amount (metric tons)
China	179,303,895
India	136,580,992
Brazil	69,115,552
Indonesia	50,096,000
Bangladesh	38,500,000
Viet Nam	31,970,100
Thailand	26,954,068
Burma (Myanmar)	20,600,000
Philippines	12,954,900
Japan	11,320,000
Total World Production	595,267,724

U.S. Department of Agriculture, Economic Research Service, <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1229>.

Source 3: The highest rice-consuming countries, 2003–04

Country	Rank by total consumption	Rank by per-capita consumption	Consumption (in thousand metric tons)
China	1	7	135,000
India	2	9	85,250
Indonesia	3	5	36,950
Bangladesh	4	3	26,400
Viet Nam	5	2	17,700
Thailand	6	4	10,200
Burma (Myanmar)	7	1	10,200
Philippines	8	6	9,700
Japan	9	11	8,658
Brazil	10	14	8,100
South Korea	11	8	5,016
United States	12	17	3,882
Egypt	13	15	3,300
Iran	14	13	3,100
North Korea	15	10	1,640
Taiwan Taioyuan	16	12	1,150
South Africa	17	16	675
TOTAL			366,921
Average			21,583.6

U.S. Department of Agriculture, Economic Research Service, <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1229>.

Comprehension Exercises:

4. On your world map, label and underline the biggest rice producers (Source 2). In a different color, label the countries that consume the most rice by total consumption. Then create a new chart that reorders the top rice-consuming countries according to per-capita consumption. Are the rice producers and rice consumers the same? Why do you think rice has become popular in these countries? Think about what you know about food trends and what you have observed.
5. Based on these documents and information that you already know, can you make any observations about how the cultivation of rice has changed since its origins? Where is it grown? How have consumption patterns changed over the past 50 years?
6. Considering this case study as a whole, as well as your knowledge of rice in the United States, how has the cultivation and consumption of rice changed since its earliest uses? Chart its progress on a timeline with at least 5 stops.

GRAPHIC ORGANIZER I

Fill in the following chart for each stop along the rice trail from its mystical origins to world foodstuff. How did rice move from one stop to the next?

	(1) The Origins of Rice	(2) From Staple Food to High Cuisine	(3) Rice Comes to the New World	(4) Feeding a Hungry Planet
<i>Where is rice cultivated?</i>				
<i>Who were the primary consumers?</i>				
<i>Who were the primary producers?</i>				
<i>Was rice a luxury item or a primary foodstuff?</i>				

GRAPHIC ORGANIZER 2

Fill in the following chart for each stop along the rice trail from its mystical origins to worldwide commodity?

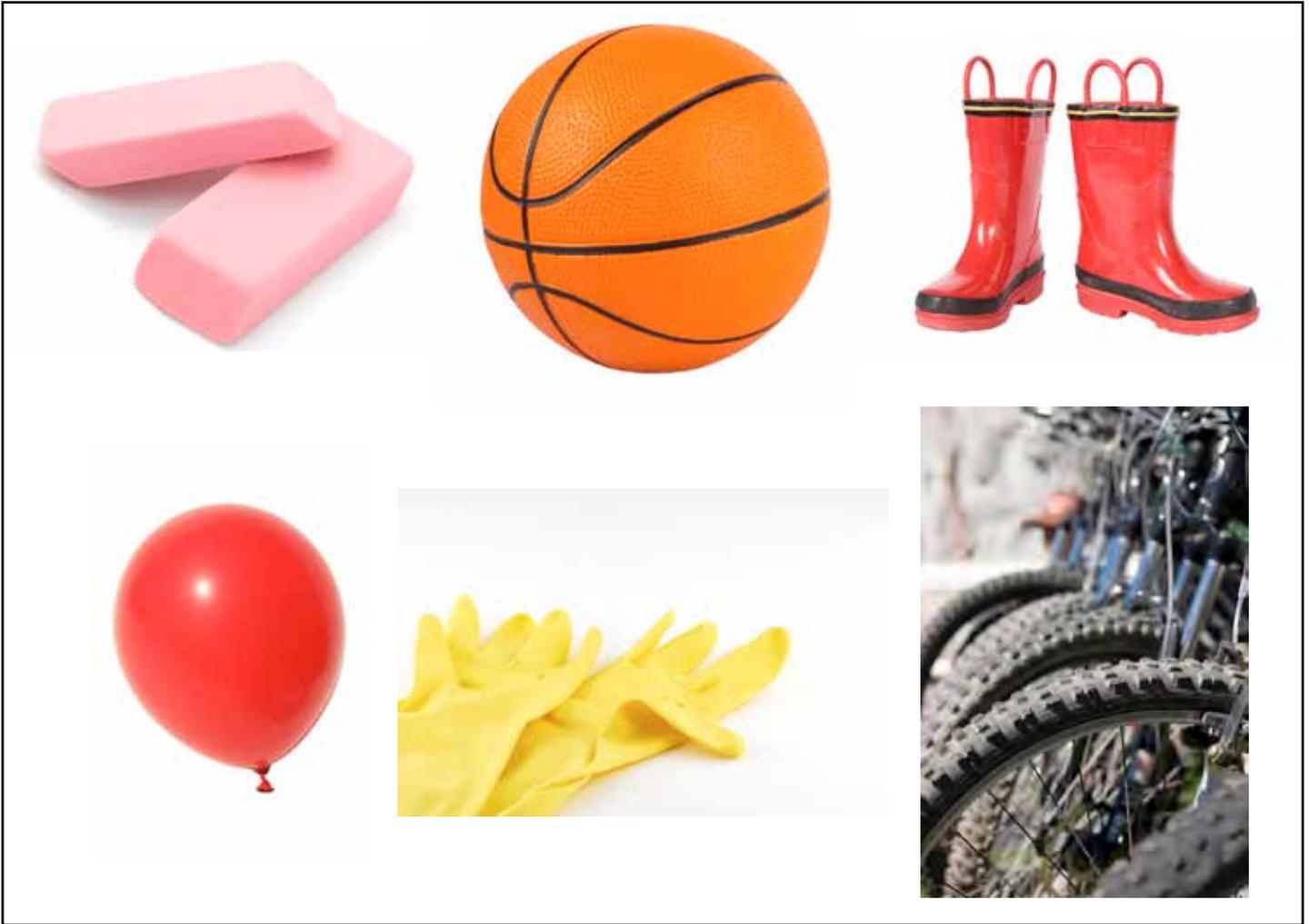
<p><i>To what extent has rice been harmful or beneficial to society?</i></p>	<p><i>How were people's lives affected by rice?</i></p>	<p><i>What role did rice play in people's lives?</i></p>	
			<p>(1) The Origins of Rice</p>
			<p>(2) From Staple Food to High Cuisine</p>
			<p>(3) Rice Comes to the New World</p>
			<p>(4) Feeding a Hungry Planet</p>



RUBBER

FROM FIRST BALL GAME TO
MODERN TRANSPORTATION

INTRODUCTION



Comprehension Exercises:

1. Identify each of the items listed above and discuss how each one is used (for what? by whom?).
2. What primary material are they all made of?
3. What kinds of properties does the material have that makes it appropriate for each of these items (for example, why would it be used to make boots)?
4. List at least five other items made from this material.

SECTION I: EARLY RUBBER: MESOAMERICAN BALL GAME

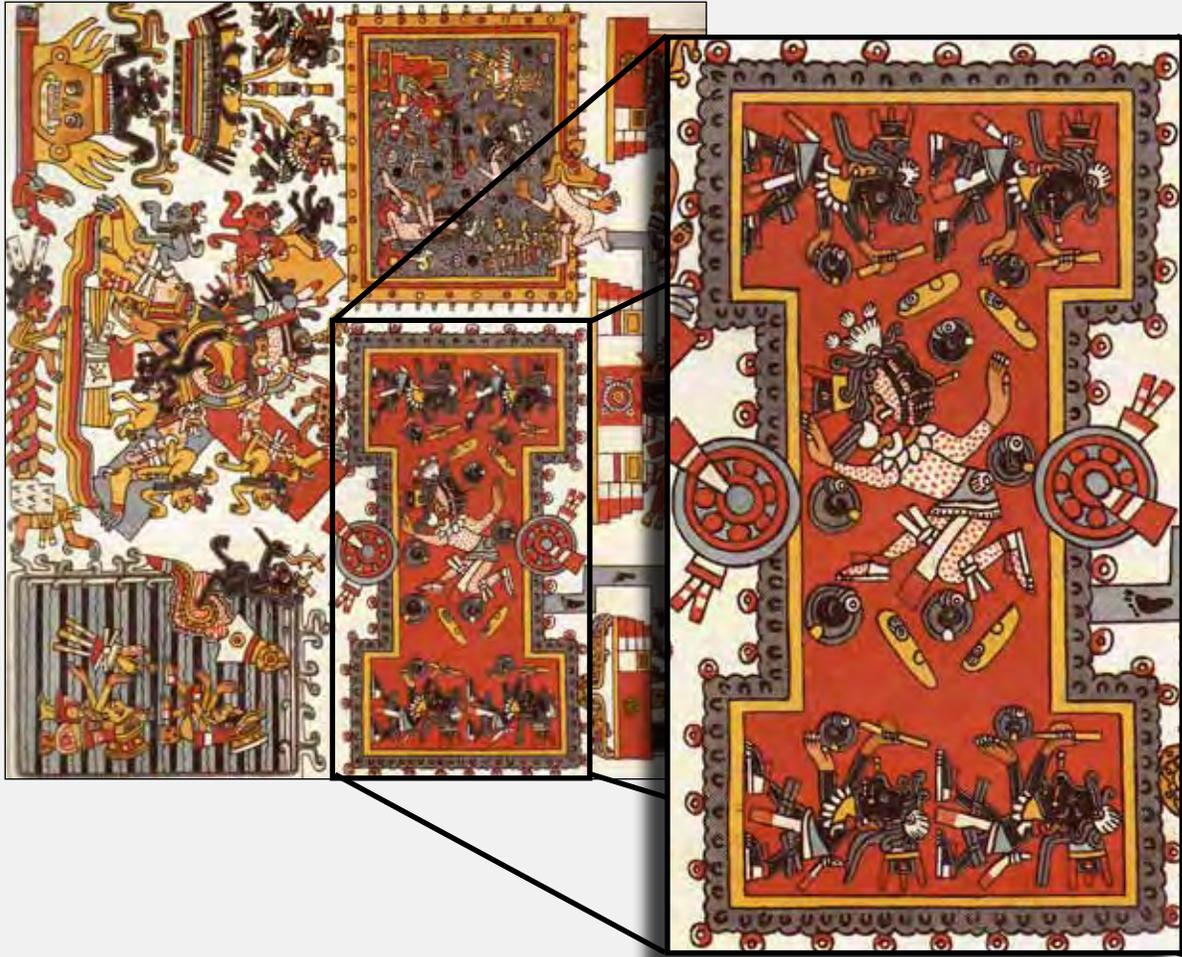
The use of rubber goes back at least 3,500 years, to groups that lived in Mesoamerica and used it for the first organized sport in history: the ball game. The ball game had different variations in different cultures: the ball was kept in play by bouncing it off walls and players' bodies in ancient times, and was tossed through stone rings in the Mayan and Aztec era. Archaeologists have found ruins of I-shaped ball courts throughout the region, and written documents from pre-Columbian civilizations refer to the ball game. When Spanish explorers arrived in the Americas, they were amazed by the ball's bounce and thought it might be possessed by evil.

Source 1: Photo of ball court, Monte Albán (500 B.C.E.–500 C.E.), Mexico



Natalie Arsenault, 2006.

Source 2: Detail from the *Codex Borgia*, a manuscript (ca. 1400 C.E.) describing religion and ritual in Mesoamerica



Gisele Díaz and Alan Rodgers, eds., *The Codex Borgia: A Full-Color Restoration of the Ancient Mexican Manuscript* (NY: Dover Publications, Inc., 1993), 36.

Source 3: From the *Popol Vuh*, creation myth of the Maya

According to the Popol Vuh, some of the first humans were ball players who angered and then were killed by the gods (the Lords of Xib'alb'a).

Jun Junajpu and Wuqub' Junajpu spent all their time playing ball every single day. One day Jun Kame and Wuqub' Kame, the Lords of Xib'alb'a who were napping in the Underworld, heard them playing ball.

“What’s going on up there on earth?” they called out angrily. “Who’s responsible for this racket? Have them brought here and we’ll challenge them to a ball game. They’ve lost respect for us and are making too much noise above our heads.”

The Lords of Xib'alb'a gathered in council to decide what to do ... They all came together to torture and punish Jun Junajpu and Wuqub' Junajpu.

Victor Montejo, *Popol Vuh: Sacred Book of the Maya*, trans. David Unger (Toronto: Groundwood Books/Douglas & McIntyre, 1999), 32.

Source 4: Italian chronicler Peter Martyr d'Anghiera in *De Orbe Novo*, 1511–1530

... [B]ut the most popular game amongst them, as amongst the people of our own islands [Spanish-held islands in the Caribbean], is a game of tennis. Their balls are made of the juice of a vine that clammers over the trees ... They cook the juice of these plants until it hardens in the fire, after which each one shapes the mass as he pleases, giving it the form he chooses. It is alleged that the roots of this herb when cooked give them their weight; at all events I do not understand how these heavy balls are so elastic that when they touch the ground, even though lightly thrown, they spring into the air with the most incredible leaps. The natives are most skilful players at this exercise, catching the ball on their shoulders, elbows, heads, rarely their hands, and sometimes their hips, if their opponents throw when their backs are turned. ...

Austin Coates, *The Commerce in Rubber: The First 250 Years* (Oxford: Oxford University Press, 1987), 4.

Comprehension Exercises:

1. What role did rubber play in the lives of Mesoamericans?
2. How well established was the ball game in Mesoamerica by the time the Europeans arrived? Explain your answer citing the documents.
3. Did rubber have a religious significance in Mesoamerica? Explain your answer citing the documents.

SECTION 2: RUBBER TAKES OFF

Europeans who came to the Americas also found rubber in South America. Indigenous people in the Amazon used it to make waterproof cloaks, hoods, and boots, very useful items in the misty, wet rain forest. They had found that, as the sap of the *hevea* tree begins to harden, it can be stretched to many times its length, but always returns to the same dimensions (nothing else in nature is so elastic). At this stage, rubber can be molded and shaped. The Europeans were immediately intrigued and started to experiment with rubber—rubber began to be used in simple ways, and eventually came to be used for tires, bumpers, insulation, and more.

Source 1: French naturalist Charles Marie de la Condamine in South America, 1736

In the forests of Esmeraldas province a tree grows which the natives of the country call Hhévé; simply by an incision it lets flow a white resin like milk; it is collected at the foot of the tree on leaves specially spread out for it; it is then exposed to the sun, whereupon it hardens and turns brown, first outside, and then inside. Since my arrival at Quito I have learned that the tree which discharges this substance grows also along the banks of the *Amazon* river, and that the Maïnas Indians call it *Caoutchouc*; moulds of earth in the shape of a bottle are covered with it; they break the mould when the resin is hardened; these bottles are lighter than if they were of glass, and are in nowise subject to breakage.

Austin Coates, *The Commerce in Rubber: The First 250 Years* (Oxford: Oxford University Press, 1987), 6–7.

Source 2: Scientist Joseph Priestley in the introduction to *Familiar Introduction to the Theory of Practice of Perspective*, 1770

Since this work was printed off, I have seen a substance excellently adapted to the purpose of wiping off from paper the marks of black lead pencil. It must therefore be of singular use to those who practice drawing. It is sold by Mr. Nairne, mathematical instrument maker, opposite the Royal Exchange. He sells a cubical piece of about half an inch for three shillings, and he says it will last several years.

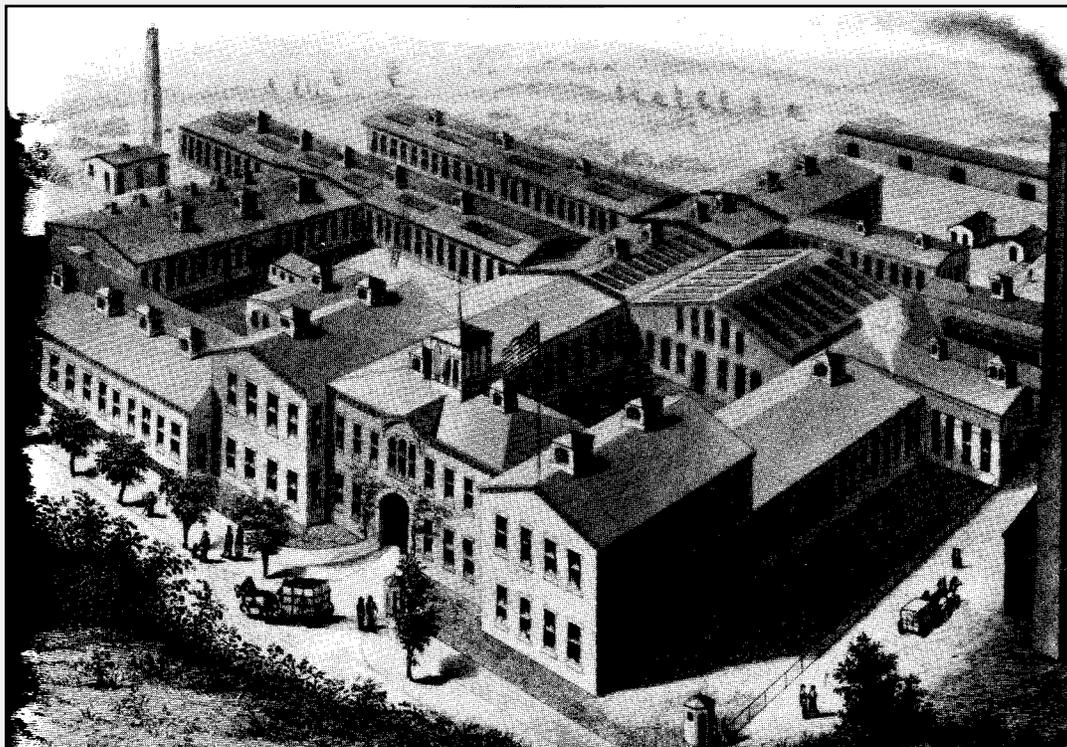
Austin Coates, *The Commerce in Rubber: The First 250 Years* (Oxford: Oxford University Press, 1987), 15.

Source 3: Charles Goodyear (1800–1860), father of the U.S. rubber industry

The most remarkable quality of this gum is its wonderful elasticity...There is probably no other inert substance, the properties of which excite in the human mind, when first called on to examine it, an equal amount of curiosity, surprise and admiration. Who can examine, and reflect upon this property of Gum-elastic, without adoring the wisdom of the Creator?

Austin Coates, *The Commerce in Rubber: The First 250 Years* (Oxford: Oxford University Press, 1987), 42.

Source 4: Drawing of the National Rubber Company, Bristol, Rhode Island, 1837



Austin Coates, *The Commerce in Rubber: The First 250 Years* (Oxford: Oxford University Press, 1987).

Comprehension Exercises:

1. What were the attitudes of Europeans and Americans towards rubber?
2. What was rubber's earliest use in Europe? Based on the documents, when do you think the use of rubber expanded?
3. Do you think that rubber played a major role in Europe and the United States? Explain your answer citing the documents.

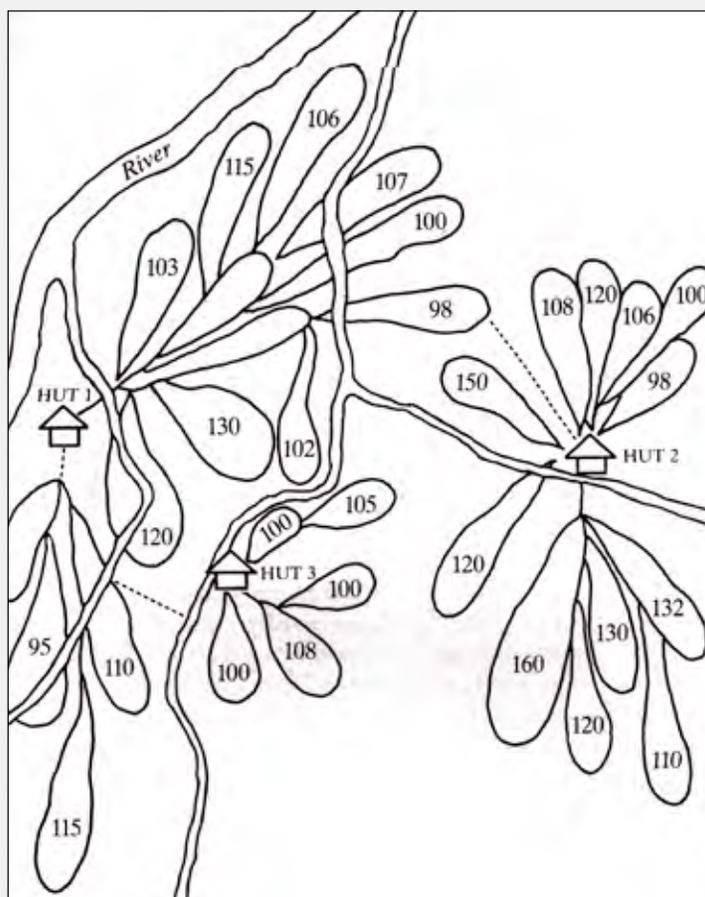
SECTION 3: RUBBER AND THE DEVELOPMENT OF THE AMAZON

Rubber trees grow naturally in the Amazon, where they did not grow in clusters but were spread out over large tracts of land among other trees. Traditionally, rubber tappers would make an incision in a rubber tree and attach a bucket to collect the sap; one tapper would cover a certain number of trees and go from tree to tree throughout the day to slice and collect. The tappers then sold the rubber to those who owned the land or to middlemen—both of whom bought it cheaply and in turn sold the tappers goods that they needed. The landowners—or rubber barons—made the most money, quickly turning the Amazon wilderness into cities like Manaus that rivaled Paris in terms of wealth and opulence. For many years, Brazil was the chief supplier of rubber to the world market.

Source 1: Traveler Franz Keller on the city of Manaus, 1875

[Manaus] is but an insignificant little town of about 3,000 inhabitants. Unpaved and badly leveled streets, low houses, and cottages of most primitive construction, without any attempt at architectural beauty...fail to give an imposing ensemble.

E. Bradford Burns, "Manaus, 1910: Portrait of a Boom Town," *Journal of Inter-American Studies* 7:3 (1965): 412.

Source 2: Layout of an Amazonian rubber estate from *India Rubber World*, ca. 1900

The tear-shaped loops are trails, and the numbers show how many trees make up each trail. Hut 1 houses 7 rubber tappers; hut 2 houses 6; and hut 3 houses 2. The total number of trees is just over 3,500 covering an area of about 50 square miles.

Barbara Weinstein, *The Amazon Rubber Boom, 1850–1920* (Palo Alto, CA: Stanford University Press, 1983), 17.

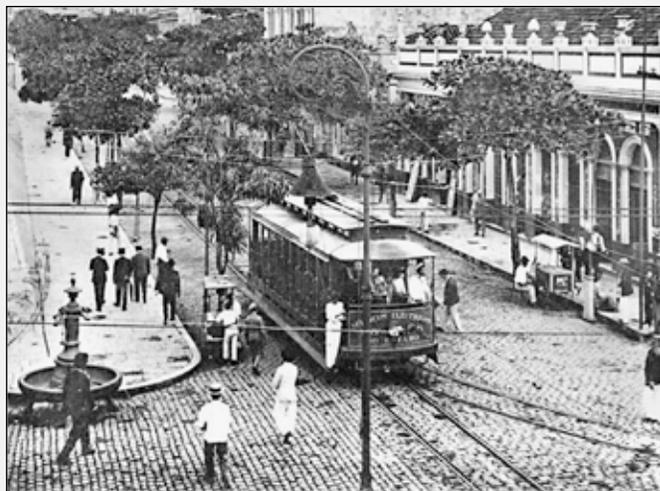
Source 3: Theodore Roosevelt in *Through the Brazilian Wilderness*, 1914

Rubber dazzled them [the rubber hunters], as gold and diamonds have dazzled other men and driven them forth to wander through the wide waste spaces of the world. Searching for rubber they made highways of rivers the very existence of which was unknown to the governmental authorities, or to any map-makers. Whether they succeeded or failed, they everywhere left behind them settlers, who toiled, married, and brought up children. Settlement began; the conquest of the wilderness entered on its first stage.

Theodore Roosevelt, *Through the Brazilian Wilderness* (NY: Charles Scribner's Sons, 1914), 334, www.bartleby.com/174/ (accessed October 30, 2007).

Source 4: Photos of Amazonas Theater (completed 1896) and streetcars, Manaus

During the rubber boom, Manaus was modernized: it had some of the first electric streetlights in the world and residents had piped gas and water. Said Eduardo Gonçalves Ribeiro, governor of Amazonas state from 1892–1896, "I found a village. I made of it a modern city."



Manaus Antiga, <http://bbs.keyhole.com/ubb/printthread.php/Cat/0/Board/EarthTourism/main/948008/type/thread>.

Source 5: Geographer A. Lange on rubber workers in the Amazon, 1911

It is the custom on some of the largest and best regulated rubber estates for the workers to assemble every Saturday night at the office, at headquarters, to report the amount of rubber collected and smoked during the week. The amount varies greatly. Many different factors influence the weekly output, such as the poor health of the worker or, as is often the case, his disinclination to work. Weather conditions also play an important role in the tapping of the milk. Few workers report a full week of labor. An average working week taken from the reports of eighty-seven men proved to be four days. One or two days with fever or some other disease, or two days with continuous rain and the average of four days is reached. In one camp I observed that the worker, who was a powerful Indian, had made some marks on a piece of board with a burnt stick. He informed me that every time he put in a day's work he made a mark. There were in all forty-eight marks. This was July 5, and he began work on January 1.

A. Lange, "The Rubber Workers of the Amazon," *Bulletin of the American Geographical Society* 43:1 (1911): 34.

Comprehension Exercises:

1. What role did rubber play in the history of the city of Manaus? Support your answer citing evidence from the documents.
2. What was the nature of the rubber industry in the Amazon? (For example: did it cover a lot of land, require a lot of labor and money?) Support your answer citing the documents.
3. What were the positive and negative aspects of the Amazonian rubber industry? Based on this list, what do you think the future of Amazonian rubber might be?

SECTION 4: STOLEN!: RUBBER LEAVES BRAZIL BEHIND

The world was growing more and more dependent on rubber. While Brazil was able to keep up with the demand with rubber from wild trees, Europeans grew concerned over what would happen if the supply were to stop. Scientists knew that many of the *hevea* trees were being killed in the process of extracting rubber: the hatchets that rubber tappers used for speed and efficiency often sliced through the bark into wood of the trees, causing the delicate trees to die. The British decided to act: they smuggled enough *hevea* seeds out of Brazil so that they could set up plantations in other parts of the world and grow rubber on a large scale.

Source 1: British geographer Clements Markham in a letter to a friend, 1871

Owing to the enormous demand for [rubber], the most reckless felling is going on in all the tropical forests which yield this valuable product. The time has come when plantations must be formed...in order to prevent their eventual destruction, and to provide for a permanent supply.

The increase in the demand for india-rubber is very remarkable, and the enormous number of uses to which this product is now put, renders the consideration of measures for its cultivation, and for securing the permanency of an adequate supply, a question of great moment.

When it is considered that every steam vessel afloat, every train, and every factory on shore employing steam power, must of necessity use india-rubber, it is hardly possible to overrate the importance of securing a permanent supply...

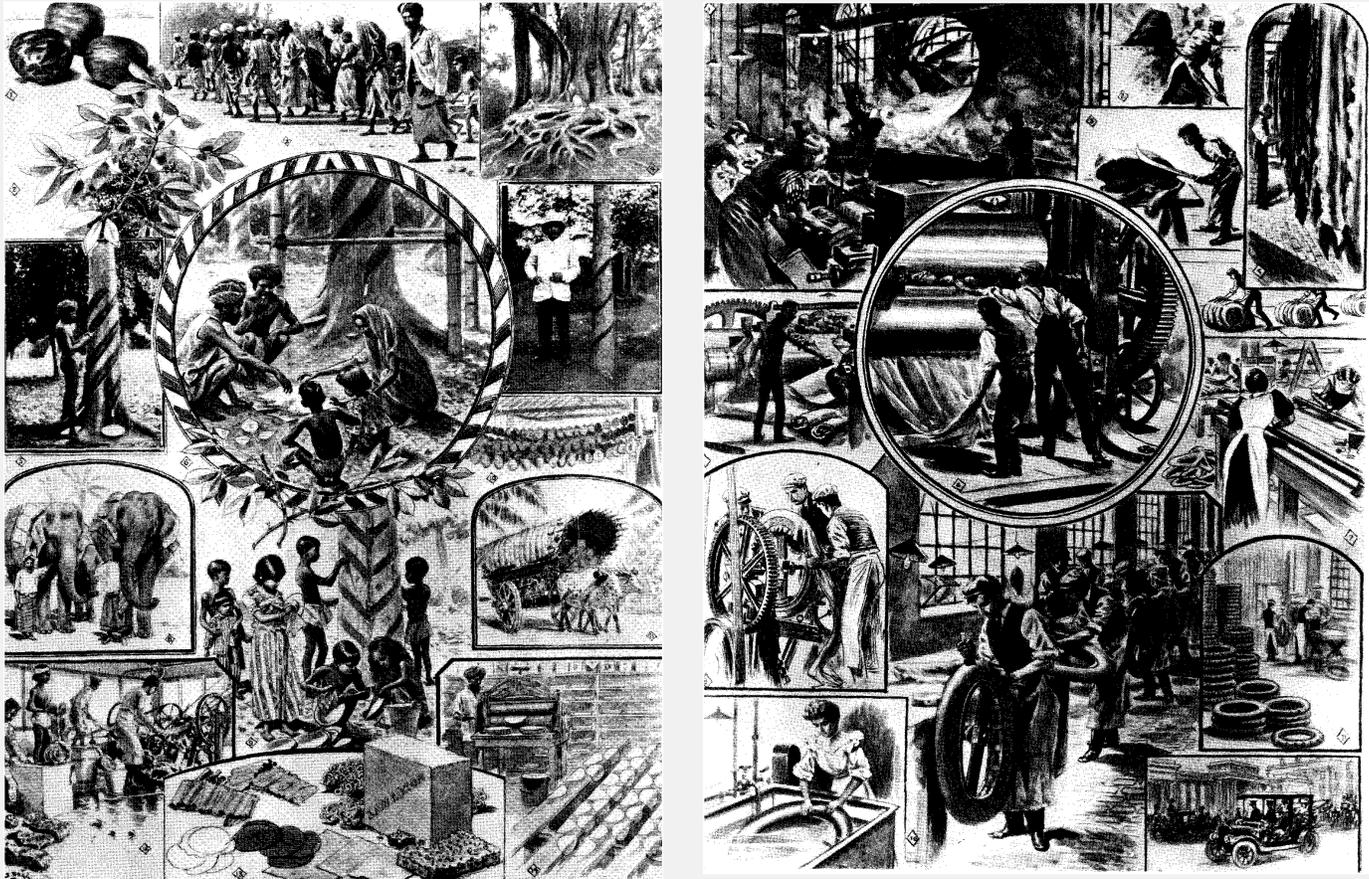
Austin Coates, *The Commerce in Rubber: The First 250 Years* (Oxford: Oxford University Press, 1987), 61–62.

Source 2: Henry Wickham's statement to the Brazilian authorities about his collection of rubber seeds, 1876

All we have are exceedingly delicate botanical specimens specially designate for delivery to her Britannic Majesty's own Royal gardens of Kew.

Richard Collier, *The River That God Forgot: The Story of the Amazon Rubber Boom* (London: Collins, 1968), 34.

Source 3: "From Tree to Tire," showing a rubber plantation in Ceylon and factories in Britain, *Illustrated London News*, 1907



Austin Coates, *The Commerce in Rubber: The First 250 Years* (Oxford: Oxford University Press, 1987).

Source 4: World production of rubber, 1900–1919

Year	Brazil	Africa and Central America ^a	Asia ^b	Total
1900	26,750	27,180	3	53,933
1901	30,290	24,549	4	54,843
1902	28,700	23,640	7	52,347
1903	31,095	24,830	19	55,944
1904	30,650	32,080	41	62,771
1905	35,000	27,000	171	62,171
1906	36,000	29,700	615	66,315
1907	38,000	30,170	1,323	69,493
1908	38,860	24,600	2,014	65,474
1909	42,000	24,000	3,685	69,685
1910	40,800	21,900	8,753	71,453
1911	37,730	23,000	15,800	76,530
1912	43,370	28,000	28,194	99,564
1913	39,560	21,450	47,618	108,628
1914	36,700	12,000	71,380	120,080
1915	37,220	13,635	107,867	158,722
1916	37,000	12,450	152,650	202,100
1917	39,370	13,258	204,251	256,879
1918	30,700	9,929	241,579	282,208
1919	34,285	7,350	381,860	423,495

^aMainly wild, low-grade, non-hevea rubber.

^bMainly plantation rubber.

Barbara Weinstein, *The Amazon Rubber Boom, 1850–1920* (Palo Alto, CA: Stanford University Press, 1983), 218.

Comprehension Exercises:

1. By the end of the nineteenth century, what role did rubber play in Europe?
2. Why do you think Henry Wickham lied to Brazilian authorities? What role did he play in the history of rubber production? Support your answer citing evidence from the documents in both this and the previous sections.
3. By the early twentieth century, what did rubber production look like? Describe the growing process and its geographic distribution, as well as the manufacturing side.
4. Create a bar graph showing rubber production in Brazil and Asia (these were the sources of the best rubber and competed with one another). What happened to the amount of rubber produced during this time? Were there major changes in the amount of rubber Brazil was producing? Were there major changes in the amount of rubber produced in Asia? Why was Brazil no longer a major player in the rubber market?

GRAPHIC ORGANIZER I

Fill in the following chart for each stop along rubber's route from the New World to global trade. How did rubber move from one stop to the next?

	(1) Early Rubber: Mesoamerican Ball Game	(2) Rubber Takes Off	(3) Rubber and the Development of the Amazon	(4) Stolen! Rubber Leaves Brazil Behind
<i>Where is rubber found?</i>				
<i>With whom did it arrive?</i>				
<i>When did it arrive?</i>				
<i>How was it used?</i>				

GRAPHIC ORGANIZER 2

Fill in the following chart for each stop along rubber's route from the New World to global trade.

	(1) Early Rubber: Mesoamerican Ball Game	(2) Rubber Takes Off	(3) Rubber and the Development of the Amazon	(4) Stolen! Rubber Leaves Brazil Behind
<i>To what extent has rubber been harmful or beneficial to society?</i>				
<i>How were people's lives affected by rubber?</i>				
<i>What role did rubber play in people's lives?</i>				

SALT

FROM EDIBLE ROCK TO
WORTH ITS WEIGHT IN GOLD

INTRODUCTION: THE WAR BETWEEN THE SALTS

Salt is a mineral composed primarily of the chemical compound sodium chloride (NaCl). As a mineral, salt is the most commonly eaten rock in the world. Human and animal life is dependent on a reliable supply of salt, and ensuring access to salt was a key objective in the development of civilization and ensuring the preservation of empires and kingdoms until the present day. Although many people today are unaware of the importance of salt to sustain life, in many parts of the world salt continues to be a prized possession.

The importance of salt can be seen in examples from American history. During the U.S. Civil War, the price of salt fluctuated wildly in the breakaway Confederate States of America. When the war began in 1861, the average price of a bag of salt in New Orleans was fifty cents. By 1865, the average price had risen to twenty dollars.

Source: A clerk in the Confederate War Department writing about the loss of the Kanawha (now West Virginia) salt works to Union troops, 1862

November 9th.—It is too true that Charleston, Va., and the great Kanawha salt works have been abandoned by Gen. Echols for the want of an adequate force to hold them. If the President had only take Gen. Lee's advice a month ago, and ordered a few thousand more men there, under the command of Gen. Ed. Johnson, we should have kept possession of the works.

The President may seem to be a good nation-maker in the eyes of distant statesmen, but he does not seem to be a good salt-maker for the nation. The works he has just relinquished to the enemy manufacture 7000 bushels of salt per day—two million and a half per year—an ample supply for the entire population of the Confederacy, is an object adequate to the maintenance of an army of 50,000 in that valley ... A Caesar, Napoleon, a Pitt, and a Washington, all great nation-makers, would have deemed this work worthy of their attention.

John Beauchamp Jones, *A Rebel War Clerk's Diary at the Confederate States' Capital* (Philadelphia: J.B. Lippincott & Co., 1866), 185.

Comprehension Exercises:

1. What does this paragraph describe? Why is the author unhappy?
2. Why was the Kanawha salt works important? What would it have allowed the Confederacy to do?
3. What does this source tell you about the importance of salt?

SECTION I: THE INCREDIBLE EDIBLE ROCK

Many ancient civilizations held salt in great esteem—many common words of ancient origin demonstrate the importance of salt. In ancient Greece, slaves could be purchased for salt, which led to the expression, “He’s not worth his salt.” The use of salt as currency also can be seen in the word “salary,” which is based on the Latin word *sal*, or salt. Soldiers in the Roman army were often paid in salt in addition to—and sometimes instead of—gold. The word “sauce,” from the Latin *salsum* (also the origin of the Spanish word *salsa*), was the generic term for a number of salty concoctions spread on food. Dipping vegetables and breads in various *salsi* was an easy way for cooks to put salt on the table.

Salt’s fundamental importance to life could not be ignored, and the quest for salt led to many different methods of producing it.

Source 1: Salt formations on the Dead Sea



The Dead Sea, now on the borders of Israel, Jordan, and the Palestinian Authority, has been a source of salt since the times of the ancient Israelite kingdoms and Roman administration of the Palestina colony. The Egyptian Pharaoh Cleopatra VII commanded the construction of cosmetic and pharmaceutical factories in the area. Later, the Nabateans discovered the value of bitumen extracted from the Dead Sea which was used by the Egyptians for embalming their mummies.

Saudi Aramco / PADIA.

Source 2: 2nd-century B.C.E. description of the Arabian city of Gerrha

Gerrha was located approximately 50 km southeast of the modern Saudi Arabian city of Dhahran, along the Persian Gulf coast.

After sailing along the coast of Arabia for a distance of two thousand four hundred *stadia*, one comes to Gerrha, a city situated on a deep Gulf. It is inhabited by Chaldaeans, exiles from Babylon.

The soil contains salt and the people live in houses made of salt; and flakes of salt continually scale off owing to the scorching heat of the rays of the sun and fall away. The people frequently sprinkle the houses with water and thus keep the walls firm.

Strabo, *The Geography of Strabo*, Vol III, *The Loeb Classical Library*, trans. Horace Leonard Jones (New York: G.O. Putnam's Sons, 1917), 271.

Source 3: Marco Polo describes the process of making salt in China, 13th century

Leaving Ho-kien-fu, we travel southwards for three days and reach another city called Changlu. ... You must know that a great quantity of salt is produced here by the following process. Men take a sort of earth, which is very saline, and of this they make great mounds. Over these they pour a lot of water, so that it trickles down through it and becomes briny owing to the property of the earth. Then they collect this water by means of pipes and put it in big vats and big iron cauldrons not more than four fingers deep and boil it thoroughly. The salt thus produced is very pure and white and fine-grained. And I assure you that it is exported into many countries round about and is a great source of wealth to the inhabitants and of revenue to the Great Khan.

Marco Polo, *The Travels of Marco Polo* (Harmondsworth: Penguin, 1958), 165–166.

Source 4: Medieval traveller Leo Africanus describes the types of salt available in “Africa,” 1550

Leo Africanus was born Hasan bin Muhammad al-Wazzan al-Fasi in Granada, capital of the Moorish kingdom of al-Andalus, around 1470. He traveled through much of north, west, and central Africa before migrating to Italy and converting to Christianity. At the request of Pope Leo X, he wrote the Description of Africa for the Vatican, which was eventually published in 1550.

In the greater part of Africa, there is no other salt but that obtained from the mines by digging underground galleries ... There is grey salt, white salt and red salt. In Barbary, it is found in large quantities; in Numidia [the northern Sahara] it is rather rare, but sufficient, while it is altogether absent in the Sudan [a generic term for all of sub-Saharan Africa], particularly in inner Ethiopia [the southern part of West Africa and Central Africa] where a pound of salt costs half a *ducat*. That is why the people of that country do not put it into salt cellars set on the table, but when eating bread they hold a piece of salt in the hand and lick it so as not to use too much.

Leo Africanus, *Descrizione dell’Africa* (Venice, 1550), in Tadeusz Lewicki, *West African Food in the Middle Ages* (Cambridge: University Press, 1974), 116–117.

Source 5: A Swedish traveler describes the salt mines of Wieliczka, Poland, 1528

There are mountains in which the salt goes down very deep, particularly at Wieliczka and Bochnia. Here on the fifth of January, 1528, I climbed down fifty ladders in order to see for myself and there in the depths observed workers, naked because of the heat from these inexhaustible mines, as if it had been gold and silver.

Olaus Magnus, *A Description of the Northern Peoples*, 1555.

Source 6: Swedish engraving showing sea water being evaporated over coals to make salt, 1555



Olaus Magnus, *A Description of the Northern Peoples*, 1555.

Source 7: Solar evaporation pools in San Francisco Bay, 20th century



Comprehension Exercises:

1. Use these sources to list at least three different ways that salt is obtained.
2. Which methods of obtaining salt seem to be the least labor-intensive? Which would seem to be the most labor-intensive?
3. How valuable was salt? Was it profitable to export salt? Cite evidence from the source documents to support your answers.

SECTION 2: MUMMIES AND HERRING AND HAM (OH MY!)

In addition to salt's ready use as a seasoning in food, which was appreciated by the ancient Egyptians and Romans, salt's ability to dry out and cure food so that it could then be transported over long distances and rehydrated for consumption played a significant role in aiding long-distance travel and exploration. Methods using various salts as well as brine (a solution of salt and water) were quickly developed.

When Basque mariners discovered the cod-rich waters of the mid-Atlantic and observed that the fish's low fat content made it ideal for packing in salt and curing, a new industry was born. The Vikings soon discovered that herring, plentiful in the waters of the Baltic Sea, had similar properties that could sustain large populations through the frozen winter months.

Source 1: Greek historian Herodotus describes how to make a mummy, 5th century B.C.E.

Natron is a kind of salt found in grainy deposits and dunes in a valley to the northwest of modern-day Cairo. The valley is still known as Wadi Natrun, or "valley of natron."

People employ themselves as preparers of the dead, often inheriting their professions. Whenever a corpse is brought to them, they show the family wooden models depicting the different methods of embalming. There are three methods ranging from the best, and most expensive, to the simplest, and least expensive. After they have agreed on a price, the bereaved depart, and the embalmers get to work.

The most perfect process is thus: First with a crooked iron tool they draw out the brain through the nostrils, extracting it partly and partly by pouring in drugs. After this with a sharp stone of Ethiopia [flint] they make a cut along the side and take out the whole contents of the belly, and when they have cleared out the cavity and cleansed it with palm-wine they cleanse it again with ground spices. Next they fill the belly with pure myrrh, cassia and other aromatic spices, except frankincense, and sew it together again. Having so done they keep it for embalming covered up in natron for seventy days—never longer.

When the seventy days are past, they wash the corpse and roll its whole body up in fine linen cut into bands, smearing these beneath with gum, which the Egyptians use generally instead of glue. The family then receives the body back from the embalmers and have a wooden casket made into which it is put. They store it then in a sepulchral chamber, setting it to stand upright against the wall.

Herodotus, *The Histories, Vol. I*, ed. and trans. G.C. Macaulay (New York: MacMillan and Co., 1890), <http://www.gutenberg.org/dirs/etext01/1hofh10.txt> (accessed November 26, 2007).

Source 2: Roman statesman Cato describes the procedure for making ham, 2nd century B.C.E.

A noted statesman and landowner, Cato's manuscript on farming methods and administration was used for centuries.

After buying legs of pork cut off the feet. 1/2 peck ground Roman salt per ham. Spread the salt in the base of a vat or jar, then place a ham with the skin facing downwards. Cover completely with salt. Then place another above it and cover in the same way. Be careful not to let meat touch meat. Cover them all in the same way. When all are arranged, cover the top with salt so that no meat is seen, and level it off.

After standing in salt for five days, take all hams out with the salt. Put those that were above below, and so rearrange and replace. After a total of twelve days take out the hams, clean off the salt and hang in the fresh air for two days. On the third day clean off with a sponge, rub all over with oil, hang in smoke for two days. On the third day take down, rub all over with a mixture of oil and vinegar and hang in the meat store. Neither moths nor worms will attack it.

Cato, *De agricultura* 162, trans. W.D. Hooper and H.B. Ash (Loeb Classical Library, 1934).

Source 3: Entry from *The Cook and Housekeepers Complete and Universal Dictionary*, 1822

ANCHOVIES: These delicate fish are preserved in barrels with bay salt [to create brine—a liquid salt/water mixture], and no other of the finny tribe has so fine a flavor. Choose those which look red and mellow, and the bones must be oily. They should be high flavored, and have a fine smell; but beware of their being mixed with red paint to improve their colour and appearance.

Mary Eaton, *The Cook and Housekeepers Complete and Universal Dictionary* (Bungay, U.K., 1822).

Source 4: Alexandre Dumas on the potential effect of the French Revolution on the British herring industry

Protestant countries like England and the Lutheran Nordic nations of Scandinavia made significant profit off of selling locally produced fish to Catholic countries during the Lenten season.

At the time when Pope Pius VII had to leave Rome, which had been conquered by revolutionary French, the committee of the Chamber of Commerce was considering the herring fishery. One member of the committee observed that, since the Pope had been forced to leave Rome, Italy was probably going to become a Protestant country.

“Heaven help us,” cried another member.

“What,” responded the first, “would you be upset to see the number of good Protestants increase?”

“No,” the other answered, “it isn’t that, but suppose there are no more Catholics. What shall we do with our herring?”

Alexandre Dumas, *Poissons*, vol. 3 of *Le grand dictionnaire de cuisine* (1873; reprint Paris: Payré, 1995).

Comprehension Exercises:

1. What is the primary use of salt in these documents? What is the advantage of using salt for this purpose?
2. How much salt is required for these processes? What can you infer about the demand for salt as a result? What might this do to the cost of salt?
3. Do you think that products such as those described in Sources 3, 4, and 5 are inexpensive or expensive? Why or why not?

SECTION 3: WORTH ITS WEIGHT IN GOLD

Source 1: Roman senator Cassiodorus describes Venice, 523 C.E.

Rich and poor live together in equality. The same food and similar houses are shared by all; wherefore they cannot envy each other's hearths, and so they are free from the vices that rule the world. All your emulation centers on the saltworks; instead of ploughs and scythes, you work rollers [for salt production] whence comes all your gain. Upon your industry all other products depend, for although there may be someone who does not seek gold, there never yet lived the man who does not desire salt, which makes every food even more savory.

Cassiodorus, "Senator, Praetorian Praefect, to the Tribunes of the Maritime Population," *The Letters of Cassiodorus*, trans. Thomas Hodgkin (London: Henry Frowde, 1886), 517.

Source 2: Arab traveler Ibn Battuta describes the Saharan mining town of Taghaza, 1352

1st Muharram 753 in the Islamic calendar was February 14, 1352. A mithqal was a gold coin used as currency. A quintar was a unit of gold equivalent to a hundredweight of mithqals. Taghaza is located in present-day Mali.

On the first day of God's month of Muharram in the year 'fifty-three, I set out in a caravan with a number of merchants from Sijilmasah and other places. After twenty-five days we reached Taghaza. It is a village with no attractions. A strange thing about it is that its houses and mosque are built of blocks of salt and roofed with camel skins. There are no trees, only sand in which is a salt mine. They dig the ground and thick slabs are found in it, lying on each other as if they had been cut and stacked under the ground. A camel carries two slabs.

The only people living there are the slaves of the Massufah, who dig for the salt. The Blacks come from their country to Taghaza and take away the salt. A load of it is sold at Iwalatan for eight to ten *mithqals*, and in the city of Malli for twenty to thirty, sometimes forty. The Blacks trade with salt as others trade with gold and silver; they cut it in pieces and buy and sell with these. For all its squalor, *quintars* of *quintars* of gold dust are traded in Taghaza.

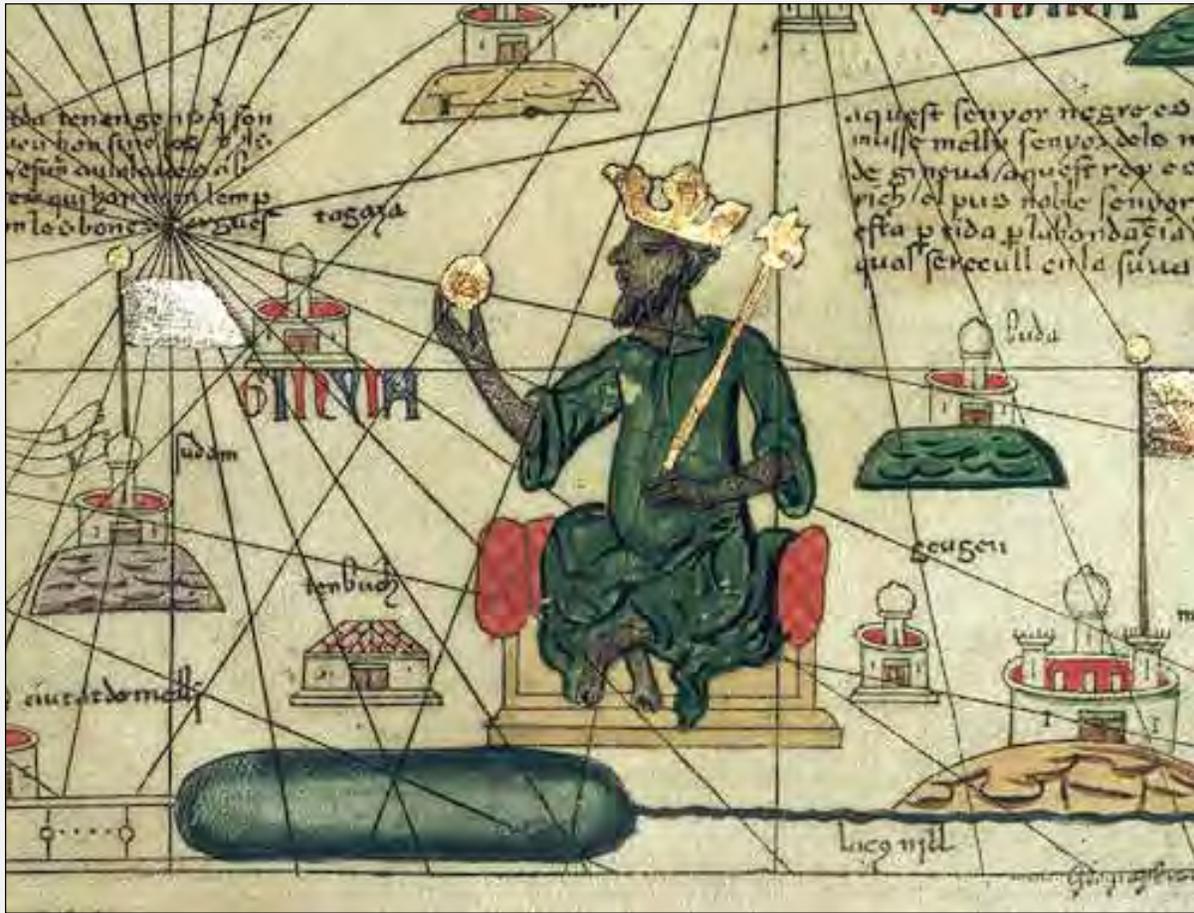
The Travels of Ibn Battutah, ed. Tim Mackintosh-Smith (London: Picador, 2002), 281.

Source 3: Venetian explorer Alvise Cadamosto on the "silent trade" along the Niger River, mid-15th century

So that each man carries one piece, and thus they form a great army of men on foot who transport it a great distance ... until they reach certain waters ... Having reached these waters with the salt, they proceed in this fashion: all those who have the salt pile it in rows, each marking his own. Having made these piles, the whole caravan retires half a day's journey. Then there come another race of blacks who do not wish to be seen or to speak. They arrive in large boats, from which it appears that they come from islands, and disembark. Seeing the salt, they place a quantity of gold opposite each pile, and then turn back leaving salt and gold ... In this way, by long and ancient custom, they carry on their trade without seeing or speaking to each other. Although it is difficult to believe this, I can testify that I have had this information from many merchants, Arab as well as [Sanhaja], and also from persons in whom faith can be placed.

Alvise Cadamosto, *Voyages*, ed. and trans. G. R. Crone (London: Hakluyt Society, 1937), 21-23.

Source 4: Depiction of the Mansa of Mali in the *Catalan Atlas* of 1375



Abraham Cresques, *Atlas Català de la Corona de Catalunya i Aragó* (1375).

Comprehension Exercises:

1. According to these sources, how important was the production, trade, and sale of salt? Cite evidence from the sources to support your answer.
2. How do the descriptions given by Ibn Battuta and Cadamosto, and the illustration from the *Catalan Atlas* differ from Cassiodorus's description of Venice? What is different about the distribution of wealth from the salt industry? What effect has this had on Saharan society? Cite evidence from the sources to support your answer.

Source 5: Slave laborers stack slabs of salt, Taoudenni, Mali, around 1950



Hulton-Deutsch Collection/CORBIS.

Source 6: French colonial report describing slaves in the Kawar oasis, Niger, 1924

Though legally free since our occupation, most of them remain in the families of their masters and they are the ones who ensure the relative prosperity of the country by providing the labour necessary for cultivation and for the exploitation of the salt fields.

A. Prévôt, in Pierre Gentil, *Confins libyens. Lac Tchad Fleuve Niger* (Paris, 1946), 23.

Source 7: Description of the Wieliczka (Poland) salt mine from a 19th-century French primary school science textbook

It is a string of enormous underground chambers, an immense town with its own streets and public squares. The huts for the miners, and stables for the necessary work horses, are carved out of salt. There is a large population there, and hundreds of workers are born there, and die there without ever having left their underground chambers, without ever having seen the sun's light. There are chapels for worship services and many of the galleries are loftier and broader than churches. A great number of lamps are always kept burning there, and their flame, reflected in every direction upon the salt walls, makes the walls look at times clear and sparkling like crystal, and at other times shine with the most beautiful colors.

Jules Conan, *Trésor scientifique des écoles primaires* (Paris: Delagrave, 1880), 130.

Comprehension Exercises:

3. Describe what is depicted in the photo in Source 5. What, if anything, about this photo surprises you?
4. How have the lives of the Saharan salt workers described in Sources 6 and 7 changed from Ibn Battuta's description in 1352 (Source 2)? How are they similar?
5. Compare the description of the salt mines at Wieliczka in Source 7 with the description of the Saharan salt mines in Source 2. How are they similar? How are they different?
6. How do the lives of the salt workers in Poland differ from those of the salt workers in the Sahara? How are they similar?

SECTION 4: GOOD SALT, BAD SALT

Source 1: The basic needs of humankind as recorded in *Ecclesiasticus*

The Book of Ben Sira, or Ecclesiasticus, is part of the Biblical Apocrypha, and was written around 180 B.C.E.

The principal things for the whole use of man's life are water, fire, iron and salt, flour of wheat, honey, milk and the blood of the grape, and oil and clothing.

Ecclesiasticus, King James Version, 39.26.

Source 2: British journalist Charles Johnston describes the importance of salt in Abyssinia, 1845

Whilst speaking of this article of food, it may be as well to observe, that its use appears to have been dictated by the situation of the Abyssinians. As an easy illustration by analogy, it may be safely supposed that salt is a more indispensable necessary of life, and far more expensive in that country than the purest white sugar is in Europe.

Children stand around the mother whilst engaged in any manner in which salt is employed, as in England little silent gazers are attracted around mamma when making sweetened dishes. Good housekeeping, with the Abyssinians consists chiefly in the economical management of their stock of salt; and among other notable modes of making a little do duty for a considerable quantity, besides affording an additional stimulant to the palate, is the system of combining it with pepper.

An old Dutch method of executing criminals was confining them solely to the use of bread in which no salt was contained, and which ultimately occasioned death by the worms that were thus allowed to generate in the intestines. Many children in England have I seen who have certainly fallen victims to the foolish fear that they would eat too much salt; and I believe that disposition to *scrofula*, the national disease, is chiefly owing to the vegetable diet of our children not being sufficiently attended to in the matter of this simple condiment.

Be that as it may, the Abyssinians suffer considerably in their health from the difficulty of obtaining salt.

Charles Johnston, "Salt in Abyssinia," *Littell's Living Age* 4:34 (January 4, 1845).

Source 3: Advertisement for Morton's Iodized Salt, 1922



Morton International, 1967.

Comprehension Exercises:

1. According to these sources, why is salt important?
2. What are some of the problems associated with lack of salt?
3. What are some of the benefits of salt consumption? Cite evidence from the sources in this section and in previous sections to support your answer.

Source 4: Article from the U.S. Food and Drug Administration on the health effects of high salt intake, 1997

The National Research Council of the National Academy of Sciences in Washington, D.C., has determined that the recommended safe minimum daily amount is about 500 milligrams of sodium with an upper limit of 2,400 milligrams. However, the council has said that lowering sodium intake to 1,800 milligrams would probably be healthier.

Many Americans are consuming even higher amounts of salt, up to 6,000 milligrams a day, points out Moag-Stahlberg, with possible harmful effects. “Many people argue that a healthy kidney can get rid of it [the excess], but in many cases, that happens at the expense of losing calcium,” she says. It’s possible that the habitual high intake of salt produces physiological changes in the kidney, which increases the risk of high blood pressure. For women, as some studies now suggest, this habitual lack of calcium may eventually be linked to the bone disease of old age, osteoporosis, in which long-term calcium loss causes bones to weaken and break easily.

Our ancestors, often living in salt-poor environments, were not faced with these modern-day health problems. Jeremiah Stamler, M.D., professor emeritus of Preventive Medicine, Northwestern University Medical School, Chicago, says that humans are adapted to low-salt intake “with the kidneys and the gastrointestinal tract functioning efficiently for preserving sodium” ...

For Americans today, eating preserved and processed foods has become a way of life. According to Regina Hildwine, technical regulatory affairs, the National Food Processors Association, Washington, D.C., it is almost impossible to prepare a meal without using some processed food.

But some scientists are concerned about the amount of salt in processed foods. “Seventy-five percent of the sodium consumed is in processed foods,” says Anderson. “What the food industry includes during processing, we can’t take out.”

Stamler agrees. “If we reduce our salt intake [at the table],” he says, “that won’t solve the problem. There’s salt in bread, processed meat, cheese, canned vegetables—these are all hidden sources of salt.” Fortunately, FDA’s food labeling helps consumers monitor their sodium intake in processed foods. But, says Anderson, in restaurant foods, and that includes fast-food chains and Chinese restaurants, the “sodium levels can be very high.”

U.S. Food and Drug Administration, “A Pinch of Controversy Shakes Up Dietary Salt,” *FDA Consumer Magazine*, November-December 1997, http://www.fda.gov/fdac/features/1997/797_salt.html.

Source 5: Billboard ad from the British Food Standards Agency's salt awareness campaign featuring "Sid the Slug," 2004



Food Standards Agency, 2007.

Source 6: "Salt and your health" notice from the British Food Standards Agency, 2007

Most people in the UK eat too much salt. This means that most people would benefit from cutting down on the amount of salt they eat.

Eating too much salt can raise your blood pressure. It's possible to develop high blood pressure at any age. In England, a third of people (31.7% of men and 29.5% of women) have high blood pressure, also called hypertension.

Eating too much salt can raise your blood pressure, which triples your risk of developing heart disease, whatever your age.

Eating too much salt can raise your blood pressure, which triples your risk of having a stroke, whatever your age. Stroke causes about 50,000 deaths in England each year. More than 130,000 people every year in England and Wales have their first stroke. About 10,000 of these people are under retirement age.

"Salt and your health," Food Standards Agency, 2007, http://www.salt.gov.uk/salt_and_your_health.html.

Comprehension Exercises:

4. What are some of the negative effects of salt consumption? Why do you think that this has become a particular concern in recent years?
5. What effect do you think that concerns about health might have on the production of salt? Is salt still valuable? Why or why not?

GRAPHIC ORGANIZER I

Fill in the following chart for each stop along salt's journey from the ancient world until today. How did salt move from one stop to the next?

<i>Who produced it?</i>	<i>Who benefitted from it?</i>	<i>How was it used?</i>	<i>Where is salt found?</i>	
				(1) The Incredible Edible Rock
				(2) Mummies and Herring and Ham (Oh My!)
				(3) Worth its Weight in Gold
				(4) Good Salt, Bad Salt

GRAPHIC ORGANIZER 2

Fill in the following chart for each stop along salt's journey through history.

<p><i>To what extent has salt been harmful or beneficial to society?</i></p>	<p><i>How were people's lives affected by salt?</i></p>	<p><i>What role did salt play in people's lives?</i></p>	
			<p>(1) The Incredible Edible Rock</p>
			<p>(2) Mummies and Herring and Ham (Oh My!)</p>
			<p>(3) Worth its Weight in Gold</p>
			<p>(4) Good Salt, Bad Salt</p>

A background image of a tea plantation with green leaves and stems. A semi-transparent white rectangular box with a thin black border is centered on the page, containing the title and subtitle. The text is in a classic serif font.

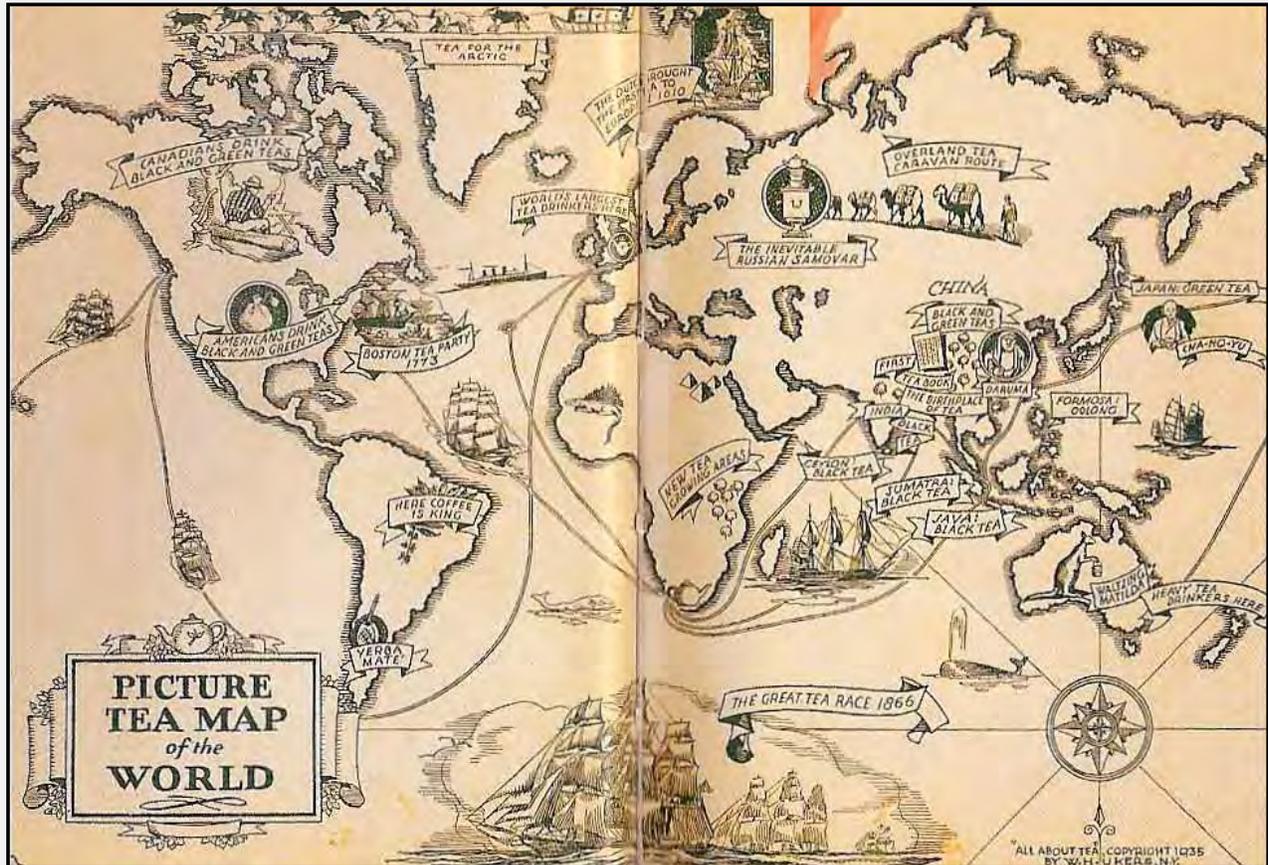
TEA

FROM MEDICINAL MAGIC
TO ECONOMIC POWERHOUSE

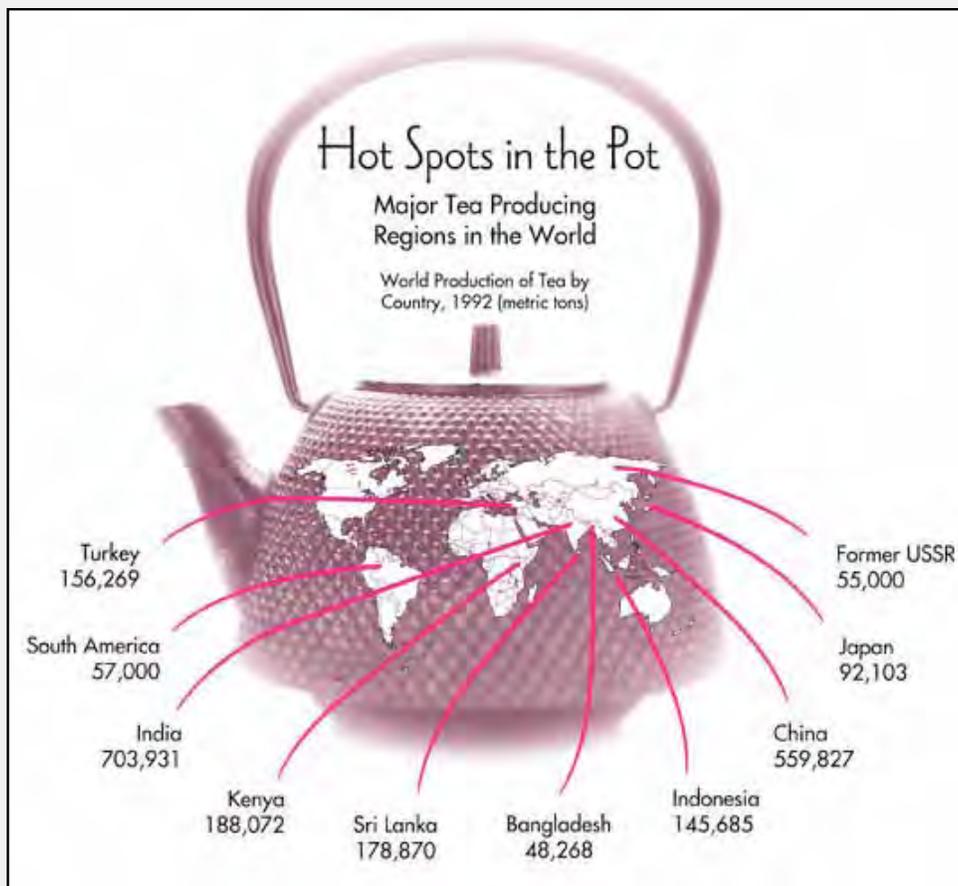
INTRODUCTION: TEA

Tea is a bush grown for a hot drink made from its leaves. Asia is by far the biggest producer supplying 80–90% of all tea, mainly from India, China, Sri Lanka, and Indonesia. India is the largest individual tea-producing country, growing nearly 30% of the world's tea. Tea was introduced to East Africa at the beginning of the twentieth century. It has become an important crop there, particularly in the highlands of Kenya. The U.S. population is drinking its fair share of the brew: in 1994, Americans drank 2.25 billion gallons of tea.

Source 1: “Tea Map of the World” from classic encyclopedia about tea, 1935



W.H. Ukers, *All about Tea* (1935), inside leaf.

Source 2: Map of tea production from *FDA Consumer*, 1992

Marian Segal, "A Story of Serendipity," *FDA Consumer*, March 1996, http://www.agapetea.com/store/images/common/serendipity_teamap.jpg.

Comprehension Exercises:

1. Compare the two maps. What kind of information is provided on each map? How do they differ?
2. What do the maps tell you about the importance of tea around the world? Which places grow tea? Which places drink it? Do the maps indicate any changes in where tea is produced between 1935 and 1992?
3. Where is tea not an important drink? Does the map provide a reason why tea is not popular in certain places? Identify historical events and cultural rituals associated with tea on the first map.

SECTION I: THE ORIGINS OF TEA

The origin of tea is not clear. One kind of tea plant is believed to be native to China, while another is believed to come from the warmer parts of Assam (in northeastern India) and Burma. ‘Wild’ tea plants can be found growing in forests, but these may be remnants from past farming. Burma and then China are thought to be the first places where tea was drunk. Later, its use spread to surrounding areas in Asia before European contact. Tea became popular with Europeans after traders and explorers arrived in China in the seventeenth century.

Source 1: Retelling of Chinese legend of the discovery of tea

According to Chinese legend, tea was first discovered by the Emperor Shen Nung—a scholar and herbalist who, for the sake of hygiene, drank only boiled water. It is said that one day, in the year 2737 B.C., when Shen Nung was resting under a wild tea tree, a slight breeze stirred the branches and caused a few leaves to drift gently down into the simmering water that he was preparing. He found the resulting brew deliciously refreshing and revitalizing, and so, tea was “discovered.”

It is impossible to know if Shen Nung really existed or whether he is simply a myth of ancient China. Certainly, China was not joined as an empire until the third century B.C. and it is therefore unlikely that an emperor existed as far back as 2737 B.C. But, whatever the origins of the beverage, it is an accepted fact among scholars that tea was indeed popular in China all those years ago. There is, however, no written reference to tea until the third century B.C., when a famous Chinese doctor recommended it for increasing concentration and alertness.

Jane Pettigrew, *The Tea Companion* (New York: Macmillan, 1997), 8.

Source 2: Engraving of Chinese Emperor Shen Nung, 1607–09

Shen Nung, engraving from San-ts'ai t'u-hui (1607–09), Collection of the University of Hong Kong, <http://original.britannica.com/eb/art-7374/Shen-Nung-engraving-from-San-tsai-tu-hui-in-the>.

Source 3: Retelling of another Chinese legend of the discovery of tea

According to another legend, tea was discovered by a poor woodcutter who was chopping trees in the hills when he saw several monkeys plucking leaves off a tree and chewing them. He tasted some of the leaves, liked it and brought some back to the village. He told others of his discovery and soon, everyone was adding leaves from the tree to their drinks.

From ancient times to today, tea has been an indispensable part of the life of a Chinese. A Chinese saying identifies the seven basic daily necessities as fuel, rice, oil, salt, soy sauce, vinegar, and tea. The custom of drinking tea is deeply ingrained in almost all Chinese and has been for over a thousand years. During the mid-Tang Dynasty (618–907 AD), a man named Lu Yu entered the Buddhist monkhood early in life but returned when older, to secular life. He was later best known for summarizing the knowledge and experience of his predecessors and contemporaries into the first compendium in the world on tea—the Tea Classic (Cha Jing). This work helped to popularize the art of tea drinking all across China, making avid tea drinkers of everyone from emperor and minister to street hawker and soldier. Even neighboring countries—Korea, Japan and Southeast Asia came to adopt the tea drinking custom.

Regent Tour China, “Chinese Tea,” <http://www.regenttour.com/china/tea/index2.htm>.

Source 4: Recounting of an Indian myth about the origin of tea

In India, it is believed that it was Daruma, an Indian monk who resided in China, who discovered tea in the sixth century CE. In order to prevent himself from falling asleep while meditating, the monk tore off his eyelids. The first tea plant grew in the place where his eyelids fell to the ground. When the monk tasted it, he was granted enlightenment. His followers were the first drinkers of tea and in India.

Ed S. Milton, *Tea: A Cultural History from Around the World* (Israel: Astrolog, 2003), 13.

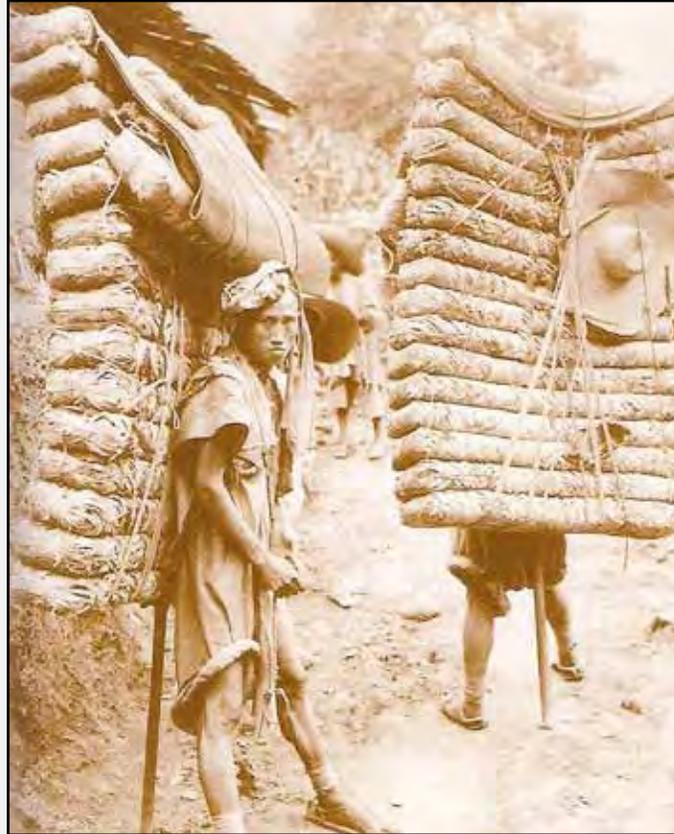
Comprehension Exercises:

1. What are the differences in the stories about the origin of tea? What do they have in common? Explain your answer citing the documents.
2. Which account seems the most likely origin of tea? Explain your answer.
3. What do these stories tell you about the importance of tea in the cultures they come from? Explain your answer citing the documents.

SECTION 2: TEA IN TIBET AND THE HIMALAYAS

The drinking of tea in Tibet goes back to the 7th century. The first record of tea being imported into Tibet is found in the Chinese annals of the Tang dynasty. From the late eleventh to early fifteenth century, tea was bartered by the Chinese government for Tibetan warhorses. Five main grades of tea were historically available in Tibet. The nobility and prosperous merchants drank the two best grades, which were largely pure tea. Most people drank the third and fourth grades, which were mixtures of tea and chopped twigs of bushes and small trees. The lowest grade, called “wood tea” due to its being largely if not wholly chopped twigs, was drunk by the poor. The importance of tea in Tibet led to its use as a form of money. Tea could be bartered against practically anything, and workmen and servants were even paid with tea.

Source 1: Photograph of tea porters near Tibetan border, 1908



E.H. Wilson, (1908), reprinted, courtesy of the Royal Geographical Society, in John Clarke, “Tibet and The Himalayas” in *Tea East and West*, ed. Rupert Faulkner (London: V&A Publications, 2003), 61.

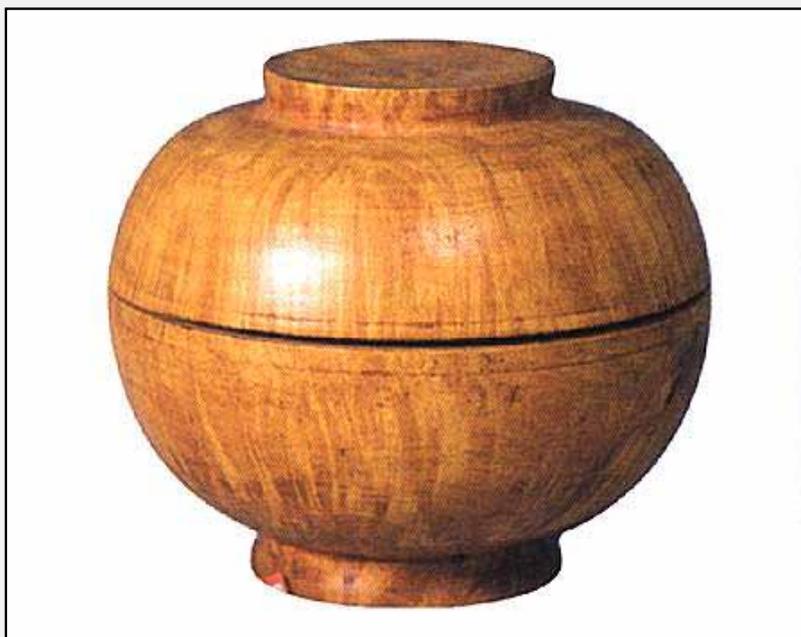
Source 2: Traditional Tibetan song sung while churning butter tea

Although not the only way tea is drunk in Tibet, butter tea is the most popular form. Butter and salt are added and the mixture is churned with a long plunger until it is blended. Repetitive work of this kind is usually accompanied by song in Tibet.

From the Chinese Country comes the tea flower beautiful.
 From the northern plain comes the small white salt.
 From the Tibetan country comes the yak butter like gold.
 The birthplace and dwelling place are not the same.
 But they all meet together in the little belted churn.

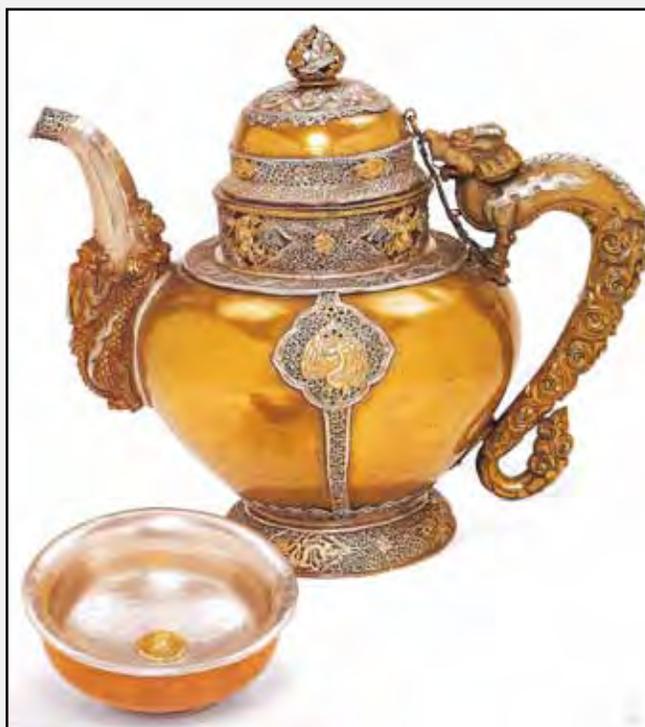
E. Olson, *Catalogue of the Tibetan Collection in the Newark Museum*, Vol. 5 (Newark: 1971), 3.

Source 3: Wooden Tibetan tea bowl



China Tibet Information Center, "Tibetan Tea Culture," <http://zt.tibet.cn/tibetzt-en/xzcwh/index.htm>.

Source 4: Silver-gilt Tibetan tea pot and drinking bowl



John Clarke, "Tibet and The Himalayas" in *Tea East and West*, ed. Rupert Faulkner (London: V&A Publications, 2003), 66.

Comprehension Exercises:

1. What role does tea play in the lives of Tibetans? Explain your answer citing the documents.
2. How can the drinking of tea indicate differences in classes of people or social relationships? Which grade of tea did the porters in the photograph in Source 1 most likely drink? Which kinds of people most likely used the wooden tea bowl in Source 3 and the tea pot and drinking bowl in Source 4? Explain your answer citing the documents.

Source 5: A Japanese traveler describes butter tea in Tibet, 1909

To make the best butter-tea, the tea is first boiled for half a day, till it gets dark brown. After being skimmed, it is shaken several times in the cylinder with some fresh yak butter and salt. This makes the best tea... Tea-pots, or jars, are made of clay in the shape of ordinary Japanese tea pots. I could not at first drink the tea, when I saw that it looked like thick oil. It is usually mixed with what is called tsu and baked flour. The tsu is a hardened mixture of cheese, butter and white sugar. The Tibetan puts this substance into his tea.

Ekai Kawaguchi, *Three Years in Tibet* (1909; reprint Delhi: Book Book Faith India), 325–326.

Source 6: A British traveler describes tea drinking in Tibet, 1940

We rushed around visiting and drinking Tibetan tea. Any good Tibetan drinks fifty or sixty cups of tea every day of his life. The leaves are boiled for several hours, then the tea is poured into a section of hollow bamboo, where it is churned up with a plunger, together with a handful of salt, a pinch of soda, and a good lump of butter. The result is a purplish liquid of unusual taste for tea, but as soup excellent. The moment you put the cup down, even if you have only taken a sip, it is filled up by a servant who stands ready with a silver or earthenware teapot. Custom demands that one drinks at least twice, but however much one has, the cup is always left full. To eat, we were offered dried apricots, sweets, and biscuits.

F. Spencer Chapman, *Lhasa the Holy City* (London: Readers Union Ltd., 1940), 52–53.

Source 7: Description of Tibetan tea bowls in a Chinese newspaper, 2004

Although jade and porcelain bowls are now common in Tibetan households, Tibetans still like to drink their buttered tea from wooden bowls. Wooden bowls are in fact an inseparable part of Tibetan life. When serving buttered tea, Tibetans always place two wooden bowls on the main tea table in the sitting room, a big one and a small one.

The big one is for the father and the small one for the mother. In well-to-do families, each wooden bowl has a silver lid, on which are carved patterns symbolizing good luck. In even wealthier families, every wooden bowl is inlaid with silver and carved with patterns, with only a spot the width of a finger left in the centre of the bowl to show its wooden base. Each bowl has a lid and a tray as well, both made of silver. The lid is shaped like a tower and inlaid with silver and gold, on the top of which is a red agate serving as a handle.

Zhang Zongxian and Jin Zhiguo, "Tibetan buttered tea best in wooden bowls," *China Daily*, June 19, 2004.

Comprehension Exercises:

3. According to these early twentieth century travel accounts, how well established was tea drinking in Tibet? Explain your answer citing the documents.
4. According to these foreign accounts, how important was tea in the lives of average Tibetans? Explain your answer citing the documents.

SECTION 3: "BOSTON HARBOR A TEAPOT TONIGHT"

Victory in the French and Indian War was expensive for the British. At the end of the war in 1763, King George III and his government began to tax the American colonies to gain back their war costs. The Crown's attempt to tax tea spurred the colonists to action and laid the groundwork for the American Revolution. Tea was a staple of colonial life—it was assumed that the colonists would rather pay the tax than deny themselves the pleasure of a cup of tea. But the colonists were not fooled. When the East India Company sent shipments of tea to Philadelphia and New York the ships were not allowed to land. In Boston, the arrival of three tea ships ignited a furious reaction. The crisis came to a head on December 16, 1773 when a group of 200 men disguised as Indians assembled on the wharf, descended upon the three ships, and dumped their cargos of tea into the harbor waters. It took the men three hours to throw 340 chests of tea overboard.

Source 1: The Boston Tea Party, 1773

A hand-colored print showing the "Boston Boys" in Native American dress, throwing chests of tea into the Charles River.



Jane Pettigrew, *A Social History of Tea* (London: National Trust Enterprises London, 2001), 50.

Source 2: Song sung by members of the Boston Tea Party

James Warren and Paul Revere were prominent members of the opposition to British taxes.

Our Warrens here, and brave Revere,
with hands to do and words to cheer for liberty and laws;
our countries 'braves' and true defenders
shall ne'er be left by the North Enders
fighting freedom's cause!
Then rally, boys, and hasten on
to meet our chiefs at the Green Dragon!

Jane Pettigrew, *A Social History of Tea* (London: National Trust Enterprises London, 2001), 50.

Source 3: George Hewes's account of participation in the Boston Tea Party, 1834

It was now evening, and I immediately dressed myself in the costume of an Indian, equipped with a small hatchet, which I and my associates denominated the tomahawk, with which, and a club, after having painted my face and hands with coal dust in the shop of a blacksmith, I repaired to Griffin's wharf, where the ships lay that contained the tea. When I first appeared in the street after being thus disguised, I fell in with many who were dressed, equipped and painted as I was, and who fell in with me and marched in order to the place of our destination.

EyeWitness to History, "The Boston Tea Party, 1773," <http://www.eyewitnesstohistory.com>.

Source 4: Newspaper article from the *Boston Gazette*, December 20, 1773

A number of brave & resolute men, determined to do all in their power to save their country from the ruin which their enemies had plotted, in less than four hours, emptied every chest of tea on board the three ships commanded by the captains Hall, Bruce, and Coffin, amounting to 342 chests, into the sea!! without the least damage done to the ships or any other property. The matters and owners are well pleas'd that their ships are thus clear'd; and the people are almost universally congratulating each other on this happy event.

Boston Tea Party Historical Society, <http://www.boston-tea-party.org/>.

Comprehension Exercises:

1. How did colonists react to the British tax on tea? Explain your answer citing the documents.
2. How was the Boston Tea Party portrayed by participants and fellow colonists? Explain your answer citing the documents?

Source 5: Pledge made by women of Boston, 1773

We the daughters of those patriots who have, and do now appear for the public interest, and in that principally regard their posterity, as such do with pleasure engage with them in denying ourselves the drinking of foreign tea, in hopes to frustrate a plan that tends to deprive a whole community of all that is valuable to life.

Jane Pettigrew, *A Social History of Tea* (London: National Trust Enterprises London, 2001), 51.

Source 6: Encyclopedia entry on the women's protest, Edenton, North Carolina, 1774

In response to the Tea Act of 1773, North Carolina resolved to boycott all British tea and cloth. On October 25, 1774, Mrs. Penelope Barker organized, at the home of Mrs. Elizabeth King, fifty-one women in Edenton, North Carolina. Together they formed an alliance wholeheartedly supporting the American cause against "taxation without representation."

In response to the Tea Act of 1773, the Provincial Deputies of North Carolina resolved to boycott all British tea and cloth received after September 10, 1774. The women of Edenton signed an agreement saying they were "determined to give memorable proof of their patriotism" and could not be "indifferent on any occasion that appears nearly to affect the peace and happiness of our country ... it is a duty that we owe, not only to our near and dear connections ... but to ourselves."

The custom of drinking tea was a long-standing social English tradition. Social gatherings were defined by the amount and quality of tea provided. Boycotting a substance that was consumed on a daily basis, and that was so highly regarded in society, demonstrated the colonists strong disapproval of the 1773 Tea Act. The Boston Tea Party, in December 1773, resulted in Parliament passing the "Intolerable Acts." It was proof of the Crown's absolute authority. Following the example of their Boston patriots, the women of Edenton boldly protested Britain's what they considered unjust laws.

News of the Edenton Tea Party quickly reached Britain. During the 1770s, political resistance was common. But an organized women's movement was not. So, the Edenton Tea Party shocked the Western world. From England, in January 1775, Arthur Iredell wrote his brother, James Iredell, describing England's reaction to the Edenton Tea Party. According to Arthur Iredell, the incident was not taken seriously because it was led by women. He sarcastically remarked, "The only security on our side ... is the probability that there are but few places in America which possess so much female artillery as Edenton."

North Carolina History Project, "Edenton Tea Party," <http://www.northcarolinahistory.org/encyclopedia/50/entry>.

Source 7: British Cartoon making fun of the Edenton ladies' Tea Party," 1775



Sara Day, "With Peace and Freedom Blest!" Woman As Symbol In America, 1590–1800" in *American Women* (Library of Congress, 2001), <http://memory.loc.gov/ammem/awhhtml/aw05e/aw05e.html> (accessed September 18, 2008).

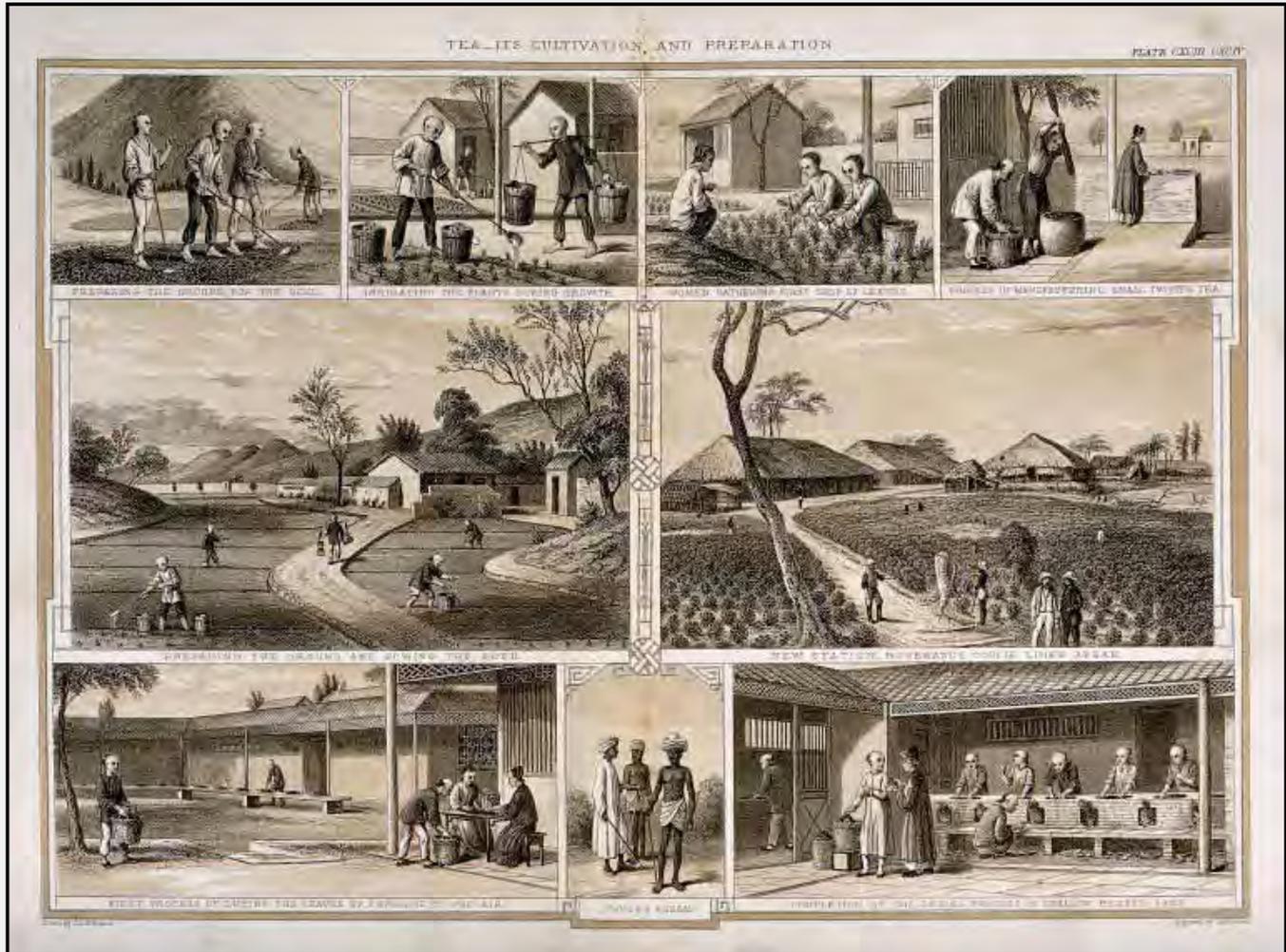
Comprehension Exercises:

3. Compare roles of men and women. How are women portrayed in the different sources? How are men portrayed? What are the differences? What are the similarities? Explain your answer citing the documents.

SECTION 4: TEA PRODUCTION AND TRADE

Tea grows best on hillsides. The bushes are carefully trimmed back and plucked to keep them at the correct density, and to encourage the growth of new leaf-bearing shoots which are produced every 7–21 days. These shoots are ‘plucked’ by hand and put into baskets carried on pickers’ backs. Experienced pickers can gather up to 35 kg (approximately 75 pounds) of leaves each day. The harvested leaves then go through two drying stages to stop the fermentation process and remove moisture so that the tea will not spoil during transit.

Source 1: Engraving showing the production of tea in Assam, India, 1850



Joseph Lionel Williams after Thomas Brown (London: Wellcome Library, 1850), http://www.plantcultures.org/plants/tea_landing.html.

Source 2: Elephant train on its way to tea estate in Ceylon (Sri Lanka), 1890s

Jane Pettigrew, *A Social History of Tea* (London: National Trust Enterprises London, 2001), 88.

Source 3: Description of tea pluckers from colonial newspaper, India, 1887

To pluck, the nail of the thumb must be applied to the top of the forefinger, and the stalk or leaf cut through. However, in practice, it will be found that pluckers, if not properly looked after, will nip the stalk or leaf between the thumb and slightly curved forefinger, and with a sharp pinching twist take off the stalk clean through by hooking the forefinger round the stalk and with an upward motion tearing off leaves and axis. It will be obvious to the reader that if such a vile lazy practice be allowed, the loss of new growth on the tea plant would simply be enormous.

Tea Cyclopedia. Collated from the Indian Tea Gazette (Calcutta, 1887), 116.

Source 4: Description of plantation overseer from tea plantation owner's journal, Assam, India, 1884

He parades up and down between the rows of tea bushes armed with a small stick...in and out amongst the pluckers, yelling at the top of his voice...deriding or swearing at them...always inciting them to make has and move faster.

George Barker, *A Tea Planter's Life in Assam* (Calcutta, 1884), 106.

Comprehension Exercises:

1. Describe the work of picking tea? Does it seem like hard work or easy work? Explain your answer citing the documents.
2. Describe the relationships between the people that own and manage tea plantations and those who work on the plantations. Explain your answer citing the documents.

Source 5: Contemporary photograph of women working on a tea plantation



Jane Pettigrew, *The Tea Companion* (New York: Macmillan, 1997), 29.

Source 6: Song sung by women laborers on tea plantation, North Bengal, India, 1990s

Here are the new workers, give them the pruning knife,
Cut, cut the bush exactly to measure.
Here are the new workers, give them the pruning knife
Cut, cut the bush exactly to measure.

Here is the waist stick, here is the finger stick,
Cut, cut the bush exactly to measure.
Cut up or cut down, the [boss] will take your pay,
Cut, cut the bush, exactly to measure

Piya Chatterjee, *A Time for Tea: Women Labor, and Post/Colonial Politics on an Indian Plantation* (Durham: Duke University Press, 2001), 201.

Source 7: Article from environmental news Web site on fair trade tea, 2006

Colonial authorities and entrepreneurs established the first tea estates in India in the nineteenth century. The estates were worlds unto themselves, remote colonies-within-a-colony with no nearby settlements. Plantation owners provided housing and provisions, and managers lived on-site, in picturesque bungalows overlooking impossibly rolling vistas covered with the profitable crop. They took tea from silver trays offered by white-uniformed Indian butlers.

After independence, in 1947, new labor laws required estates to provide schools, housing, and medical clinics. Though this improved the prospects for workers' children, it didn't make a life of plucking tea much easier: even today, the hours are endless, the slopes steep, the sun blinding. Workers spend at least nine hours a day, six days a week traversing these hills. For this they earn a base pay of less than two dollars a day, which puts them at the top end of agricultural laborers in India. A class of Indian managers has moved seamlessly into the bungalows vacated by the British, giving these estates the feel of a land out of time—a forgotten eddy of history.

Nina Luttinger and Gregory Dicum, "Tea Here Now: In India, fair trade is changing a centuries-old industry," *Grist: Environmental News and Commentary*, January 5, 2006, <http://www.grist.org/news/maindish/2006/01/05/luttinger-dicum/>.

Comprehension Exercises:

3. Has the work on plantations that grow and process tea changed from colonial times to the present day? If yes, how so? Explain your answer citing the documents.

GRAPHIC ORGANIZER I

Fill in the following chart for each stop along tea's route from its origins to the world's cup. How did tea move from one stop to the next?

	<i>Where is tea found?</i>	<i>With whom did it arrive?</i>	<i>When did it arrive?</i>	<i>How was it used?</i>
(1) The Origins of Tea				
(2) Tea in Tibet and the Himalayas				
(3) "Boston Harbor a Teapot Tonight"				
(4) Tea Production and Trade				

GRAPHIC ORGANIZER 2

Fill in the following chart for each stop along tea's route from its origins to the world's cup.

<p><i>To what extent has tea been harmful or beneficial to society?</i></p>	<p><i>How were people's lives affected by tea?</i></p>	<p><i>What role did tea play in people's lives?</i></p>	
			<p>(1) The Origins of Tea</p>
			<p>(2) Tea in Tibet and the Himalayas</p>
			<p>(3) "Boston Harbor a Teapot Tonight"</p>
			<p>(4) Tea Production and Trade</p>

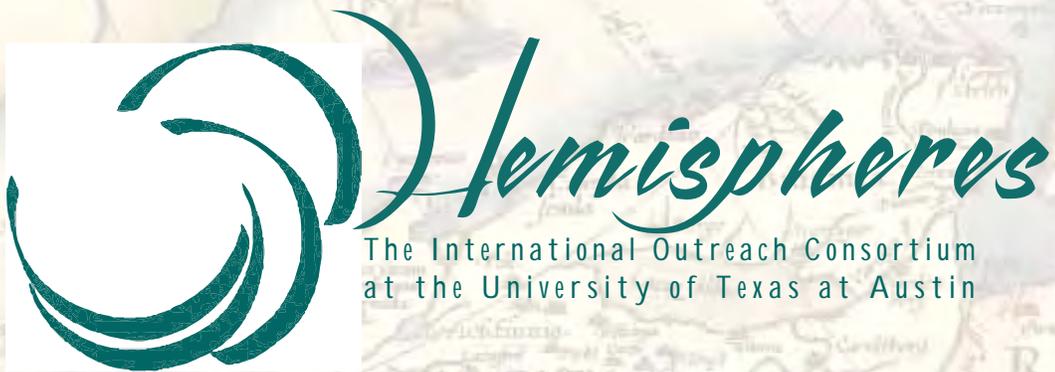
About Hemispheres

Created in 1996, Hemispheres is the international outreach consortium at the University of Texas at Austin. Hemispheres utilizes University resources to promote and assist with world studies education for K–12 and postsecondary schools, businesses, civic and non-profit organizations, the media, governmental agencies, and the general public.

Comprised of UT's four federally funded National Resource Centers (NRCs) dedicated to the study and teaching of Latin America; the Middle East; Russia, East Europe & Eurasia; and South Asia, Hemispheres offers a variety of free and low-cost services to these groups and more. Each center coordinates its own outreach programming, including management of its lending library, speakers bureau, public lectures, and conferences, all of which are reinforced by collaborative promotion of our resources to an ever-widening audience in the educational community and beyond.

Hemispheres fulfills its mission through: coordination of pre-service and in-service training and resource workshops for educators; promotion of outreach resources and activities via exhibits at appropriate state- and nation-wide educator conferences; participation in public outreach events as organized by the consortium as well as by other organizations; and consultation on appropriate methods for implementing world studies content in school, business, and community initiatives.

For more information, visit the Hemispheres Web site at:
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