



Big Era Five
Patterns of Interregional Unity
300-1500 CE



Landscape Teaching Unit 5.6
Spheres of Interaction in the Americas
300-1500 CE

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Why this unit?

Networks of trade and exchange have been an important feature of world history. This was true both in Afroeurasia and the Americas. People not only acquired goods they needed and wanted from outside their immediate region, but they also received technological, religious, and other ideas from the people with whom they had contact. In this unit, students will learn that by Big Era Five (300-1500 CE) indigenous peoples of the Americas had developed extensive networks of trade and exchange. They will also learn that they accomplished this even though they had no pack animals (except for llamas in the Andes), no wheels, and no carts.

We tend to think of our contemporary world as unique with regard to the web of connections we share with others around the globe. It is important for us to remember that connections between different human societies have always been a feature of world history. What is different today is only the complexity and speed of our interconnections.

Unit objectives

Upon completing this unit, students will be able to:

1. Identify and locate spheres of interregional exchange in the Americas.
2. List examples of goods exchanged within spheres.
3. Explain how goods were exchanged and transported over a wide geographic area.
4. Describe theories about which spheres might have been linked through trade.

Time and materials

- This lesson takes approximately 30-45 minutes.
- Materials need include an atlas, map, and the Student Handouts

Authors

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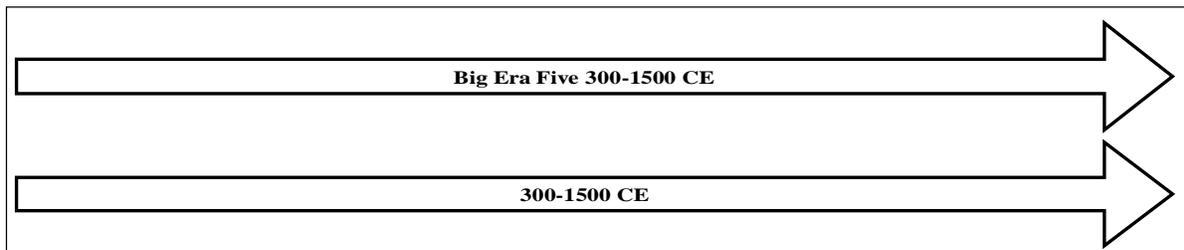
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The historical context

Implicit in the presentation of the arrival of Europeans in the Americas in most history texts is the idea that this encounter marked the first time that people of different societies came in contact in this world region. In fact, between 300 and 1500 CE, indigenous peoples of the Americas established complex networks of trade and exchange. Within North America, Mesoamerica, and the Andean regions, trade routes developed that carried food, minerals, manufactured goods, and ideas over long distances either by foot or water.

In North America, many zones of interconnection and interaction existed: the Northern and Eastern Woodlands, the Southeast and the Southwest, and the Pacific Northwest are examples. In Mesoamerica, peoples of the valley of central Mexico had trade contacts with peoples to the north of them and beyond to the desert regions of northern Mexico and the American southwest. They traded to the south, the Yucatan Peninsula, into Central America. In the Andean region of South America, peoples whose communities were strung along the mountain cordillera established networks of exchange with those to the north and south of them and with those lower or higher elevations. In addition, there is some speculation that peoples of the Ecuadorian region were intermediaries in systems of exchange between Mesoamericans and northern Andeans.

This unit in the Big Era time line



Lesson

Spheres of Interaction

Background Information for Teacher

This lesson is suitable for students in grades 6-12 with modifications. Archaeological research and analysis have yielded most of the information we have about networks of trade and exchange in pre-Columbian America. By examining changes in styles of art and architecture, materials used in manufacturing objects, and fossilized natural materials, archaeologists are able to speculate about likely networks of interactions

Trade vs. Economic Networks and Systems of Exchange: Since the word “trade” seems to conjure up contemporary images of buying and selling through specialized merchants on a one to one basis, it does not exactly describe what these early traders were doing. Goods often traveled over great distances and changed hands so many times that it would be difficult to trace the exact route of a particular item. Complex webs of exchange often meant that goods followed circuitous routes and passed through many hands from their point of origin to their final destination. Also, exchange might take the form of political tribute to rulers or gift-giving as an aspect of diplomacy.

Local vs. long distance trade: The basis of local exchanges was the household needs of ordinary people, while long distance trade tended to satisfy the desires of elites and rulers. Since local environments determined which plants, animals, and mineral resources were available, people began to exchange their local surpluses with people nearby for goods they wanted.

Local trade: It favored bulky and heavy items such as pottery, baskets, minerals, and wood, as well as farm products such as maize, beans, or fruits. It was feasible to transport bulky items over short distances but not over long ones. In local trade there tended to be a reciprocal exchange of goods of equal value, so one type of food might be bartered for another. Over longer distances there was usually a local “medium of value, for example, cacao shells or gold dust in quill containers in Mesoamerica, coca or maize in the Andes, and seashells or beaver pelts in parts of North America.

Long distance trade: This was mainly in luxuries and exotics for elites and rulers. Artisans working for them needed a wide range of raw materials that many times were not available in their local areas. For example, those in lowland regions had no local sources of minerals to be made into tools or weapons. Foods were specific to particular climates, so if people wanted to have a balanced diet or satisfy a taste they desired, they would have to acquire food from external areas outside of their region. Long distance trade items tended to be light in weight and valuable (such as feathers, jewels, or ornaments). Possessing exotic and valuable goods sanctioned elites’ rule by showing evidence of their status and worldliness.

Transportation: Goods were most often transported overland. In Mesoamerica, for example, porters might carry up to fifty pounds and cover fifteen miles a day through jungles, across steep

ravines, and up rugged mountains. The Andean region was the only one in the Americas that had a pack animal, the llama, which could carry only a moderate weight of up to about 100 pounds. In addition, coastal and river-dwelling peoples had various types of floats, boats, canoes, and rafts. In some cases specialized merchants employed caravans of porters to carry goods. In other cases individual traders made long trips.

Chocolate: In Mesoamerica cacao was highly valued because it was considered to be a stimulant, an intoxicant, a hallucinogen, and an aphrodisiac. The caffeine in chocolate certainly was a stimulant, and warriors used it for strength before a battle. When fermented it could be intoxicating. During religious festivals, hallucinations could be induced with fermented chocolate teamed with certain mushrooms. Rulers, like Montezuma, drank chocolate before making love to one of his many wives.

Raw chocolate is quite bitter. Mesoamericans mixed it with combinations of spices, peppery flowers, bitter almond-tasting seeds, and limewater. Maize was used to thicken chocolate.

Chocolate was rare. It grew in tropical lowlands and production was limited. It was therefore used as money throughout Mesoamerica. Records exist of counterfeit cacao beans. Individuals would empty cacao bean shells and then fill them with clay to pass them off as the real thing.

Procedures

1. Put Student Handout 1 (Spheres of Interaction in the Americas) on the overhead and ask students to identify the three major regions of intercommunication: Eastern North America, Mesoamerica, and the Andes.

Note to teachers: Point out to students that the Mesoamerican sphere included a chunk of the southwestern United States. The Eastern North American sphere extended from the Rockies to the Appalachians and from the Great Lakes to the Gulf of Mexico. The Andean sphere included the mountains and coastal plains of western South America, so that trade in this region was not only horizontal, but also “vertical.”

2. Put students into small groups.
 - a. Give each group a list of trade items for one of the three spheres (Eastern North American, Mesoamerican, or Andean). Ask students to organize the items into these categories: Food, Raw Materials, and Manufactured Items.
 - b. Have groups report and write a categorized list for each sphere on the board. Ask students to suggest how an archeologist might determine which of the items were likely to be locally produced and which would have come from some distance. List these suggestions on the board and discuss their validity. Possibilities might include:
 - Foods and animal products that could not be locally produced because the environment was too hot, too cold, too dry, too wet, or too high.

- Pottery and textiles that have designs on them do not always match the local designs. Such designs tend to be very localized due to the types of clays and coloring agents used on them (i.e., pigments and dyes).
 - Marine shells found inland.
 - Metals and stones were found far from their sources. Mesoamericans acquired turquoise from the area that is now known as New Mexico. Andeans obtained emeralds from the area that is now known as Ecuador.
3. Have each group examine its sphere in an atlas.
 - a. Make a list of the positive features of the area the group chose in terms of transport routes (e.g., navigable rivers) and obstacles (e.g., mountain ranges). Hypothesize about what obstacles, other than climate and topography, might pose problems to traders (e.g., local wars, diseases, etc.).
 - b. Hypothesize how goods could be moved from one place to another within the trade area. Have students report their answers by region.
 4. Put Student Handout 1 on the overhead again. Give each group copies of the information on the two spheres they did not work on. Each group should now have copies of items from all three spheres. Ask students to compare the items and consider the following questions:
 - a. Are there any items that might indicate trade between the spheres?
 - b. How would the items be transported from one place to another?
 - c. Would the exchange have been direct or might there have been an intermediary?

Note to teachers: One obvious interconnection among these three spheres is maize. Scientists have shown from genetic evidence that maize originated in Mesoamerica and from there spread to upper North America and to South America. Other connections are not as well documented, but there are a number of theories about them:

- a. Ecuador, located at the northern edge of the Andean sphere, acted as an intermediary between that region and the southern edge of the Mesoamerican sphere. Evidence includes the *Spondylus princeps* shell. (Go to an Internet search engine to find pictures of *Spondylus princeps* to show students what it looks like.) These were used in both Ecuador and western Mexico for religious purposes, and were traded from Ecuador south to people in the Andes. Shaft tombs of the same unusual design and figurines of people wearing similar clothing are found both in western Mexico and Ecuador.
- b. A connection is thought to exist between Mesoamerica and the North Eastern American sphere because of suggestive evidence from architecture. The temples of the Mississippian peoples were built on large earthen temple-mounds shaped like the stone temple-mounds of Mesoamerica. Students can look at the map and hypothesize the possible routes these exchanges might have taken.

Assessment

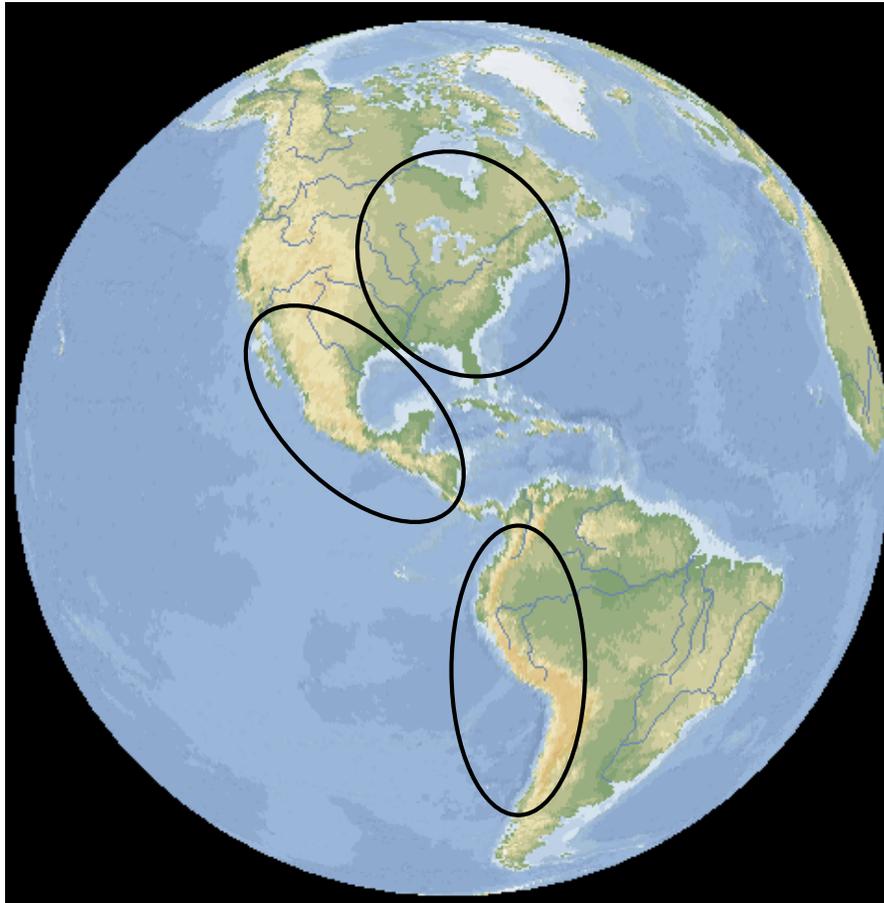
Students should locate on a map the three major spheres of interaction in the Western Hemisphere. They should be able to define local and long distance trade, provide examples of both, and explain how items would have been transported. Finally, students should cite an example of a possible regional exchange.

Extension Activities

- a. Ask students to measure the dimension of their region. How far would an item have to travel to get from one end of the region to the other? Note: These measurements might be saved for a later comparison of trade routes in Afroeurasia. Were these zones longer or shorter than those in Afroeurasia? Were the conditions similar or different? What kind of transportation was used and what items were traded?
- b. We know about the economic benefits of systems of exchange. Ask students to discuss the political, social, and cultural aspects as well.
- c. Ask students to research the mound-building societies of North America and try to determine whether or not they think these societies meet the criteria of a civilization as described in Big Era Three.

Student Handout 1

Map: Spheres of Interaction in the Americas: 300-1500 CE



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Student Handout 2***Andean Items of Exchange***

- **Monkeys**
- **Maize**
- **Silver ornaments**
- **Potato**
- **Quinoa**
- **Pottery**
- **Coca**
- **Manioc**
- **Tools (obsidian - points, knives, and scrapers)**
- **Peppers**
- **Dried Meat**
- **Gold ornaments**
- **Sweet Potatoes**
- **Yams**
- **Tropical fruits**
- **Beans**
- **Peanuts**
- **Feathers**
- **Tomatoes**
- **Dried fish**
- **Guinea pigs**
- **Shell beads**
- **Avocados**
- **Salt**
- **Textiles (wool, cotton)**
- ***Spondylus princeps* sea shells**

Student Handout 3

Mesoamerican Items of Exchange

- Fish
- Pottery
- Bird feathers [quetzal and macaw]
- Animal skins
- Stones: [jade, jadeite, turquoise, crystalline, Yellow topaz, obsidian]
- Flint
- Metals [gold and copper]
- *Spondylus princeps* sea shells
- Honey
- Combs
- Feathered head gear and shields
- Nose and ear rings
- Textiles
- Bells
- Needles
- Cochineal [insects that are used for red dye]
- Red ochre
- Herbs
- Slaves
- Copal [used for incense]
- Rubber
- Jaguar pelts
- Flint
- Honey
- Ear plugs
- Salt
- Fish
- Pottery
- Canoes
- Game
- Wooden statues of gods
- Maize

Student Handout 4***Eastern North American Items of Exchange***

- **Maize**
- **Beans (kidney, navy, pinto, pole, snap)**
- **Chert hoes and spades**
- **Marine shell spoons, dippers, and vessels**
- **Copper Ornaments**
- **Freshwater pearls**
- **Obsidian tools**
- **Mica**
- **Pottery**
- **Baskets**
- **Shell beads and pendants**
- **Furs**
- **Bone needles, awls**
- **Game**
- **Dried Fish**
- **Tobacco**
- **Stone pipes**
- **Leather garments**
- **Pigments**
- **Flint knives, scrapers, and drills**

This unit and the Three Essential Questions

	<p>Why do you think population in South America in Big Era Five was so heavily concentrated in the Andean region in contrast to relatively low populations in other parts of the continent, especially the great Amazon River basin?</p>
	<p>Why might peoples of the Americas have lacked incentives to invent the wheel, which we think of today as such a basic tool? How did American peoples compensate for the absence of wheels (except, it appears, as toys)? Did many different peoples in Afroeurasia invent the wheel, or did it happen independently only in one or a few places?</p>
	<p>The jaguar was a supernatural being in many Mesoamerican societies. What qualities and powers did the jaguar typically have? What was the range in time and space of the jaguar deity in Mesoamerican religion? What might the appearance of the jaguar deity in different societies tell us about human exchange networks in Mesoamerica?</p>

This unit and the seven Key Themes

This unit emphasizes:

Key Theme 2. Economic Networks and Exchange

Key Theme 7. Science, Technology, and the Environment.

This unit and the Standards in Historical Thinking

Historical Thinking Standard 1: Chronological Thinking

The student is able to (F) reconstruct patterns of historical succession and duration in which historical developments have unfolded, and apply them to explain historical continuity and change.

Historical Thinking Standard 2: Historical Comprehension

The student is able to (G) draw upon data in historical maps in order to obtain or clarify information on the geographic setting in which the historical event occurred, its relative and absolute location, the distances and directions involved, the natural and man-made features of the

place, and critical relationships in the spatial distributions of those features and historical event occurring there.

Historical Thinking Standard 3: Historical Analysis and Interpretation

The student is able to (D) draw comparisons across eras and regions in order to define enduring issues as well as large-scale or long-term developments that transcend regional and temporal boundaries.

Historical Thinking Standard 4: Historical Research Capabilities

The student is able to (C) interrogate historical data by uncovering the social, political, and economic context in which it was created; testing the data source for its credibility, authority, authenticity, internal consistency and completeness; and detecting and evaluating bias, distortion, and propaganda by omission, suppression, or invention of facts.

Historical Thinking Standard 5: Historical Issues-Analysis and Decision-Making

The student is able to (C) identify relevant historical antecedents and differentiate from those that are inappropriate and irrelevant to contemporary issues.

Resources

Instructional resources for teachers

Brown, James A., Richard A. Kerber and Howard Winters. "Trade and the Evolution of Exchange Relations at the Beginning of the Mississippian Period." In Bruce D. Smith, ed., *The Mississippian Emergence*. Washington, D.C. : Smithsonian Institution Press, 1990: 251-280.

Bruhns, Karen Olsen. *Ancient South America*. Cambridge: Cambridge University Press, 1994.

Guillero, A. Cock. "Inca Rescue." *National Geographic*. May, 2000, pp. 78-91. Several mummies from an Incan graveyard were found buried with items from other regions.

The Cambridge History of the Native Peoples of the Americas. 4 vols. Cambridge: Cambridge University Press, 2000.

Mayer, Enrique. *The Articulated Peasant: Household Economies in the Andes*. Boulder, CO: Westview Press, 2002.

Smith, Michael E. and Marilyn A. Masson, eds. *The Ancient Civilization of Mesoamerica: A*

Reader. Malden, MA: Blackwell, 2000.

Instructional Sources for Students

Guillero A. Cock. "Inca Rescue." *National Geographic*. May, 2000, pp. 78-91. Several mummies from an Incan graveyard are found buried with items from other regions.

Correlations to National and State Standards and to Textbooks

National Standards for World History

Era Five: Intensified Hemispheric Interactions, 6A: The student understands the development of complex societies and states in North America and Mesoamerica.

California: History-Social Science Content Standards

Grade Seven, 7.7.1: Study the locations, landforms, and climates of Mexico, Central America, and South America and their effects on Mayan, Aztec, and Incan economies, trade, and development of urban societies.

New York: Social Studies Resource Guide with Core Curriculum

Unit One: Ancient World – Civilizations and Religions (4000 BC – 500 AD), C. 5 Rise of agrarian civilization in Mesoamerica—Mayan (200 BC-900 AD). Unit Four: The First Global Age (1450-1770), D. The rise of Mesoamerican empires. Aztec and Incan empires before 1500.

Texas Essential Knowledge and Skills for Social Studies

113.33 World History Studies. (c) Knowledge and Skills. 6) History. The student understands the major developments of civilizations of sub-Saharan Africa, Mesoamerica, Andean South America, and Asia.

Virginia History and Social Studies Standards of Learning

World History and Geography to 1500 AD. Era IV: Regional Interactions, 1000-1500 A.D. WHI.11 The student will demonstrate knowledge of major civilizations of the Western Hemisphere, including the Mayan, Aztec, and Incan, by a) describing geographic relationship, with emphasis on patterns of development in terms of climate and physical features; b) describing cultural patterns and political and economic structures.

Textbooks

Across the Centuries (Houghton Mifflin). Chapter 16: Two American Empires. Lesson 1: The Aztec.

World History: Patterns of Interaction (McDougal Littell). Chapter 16: People and Empires in the Americas.

World History: The Human Experience (Glencoe McGraw-Hill). Chapter 15: The Americas. Lesson 3: The Aztec and Inca Empires.

Conceptual links to other teaching units

This teaching unit connects effectively to the Panorama Teaching Unit for Big Era Six, the period when the Americas and Afroeurasia became permanently linked. The Great World Convergence brought momentous changes to the Americas, for example, in the food products that people consumed and traded.