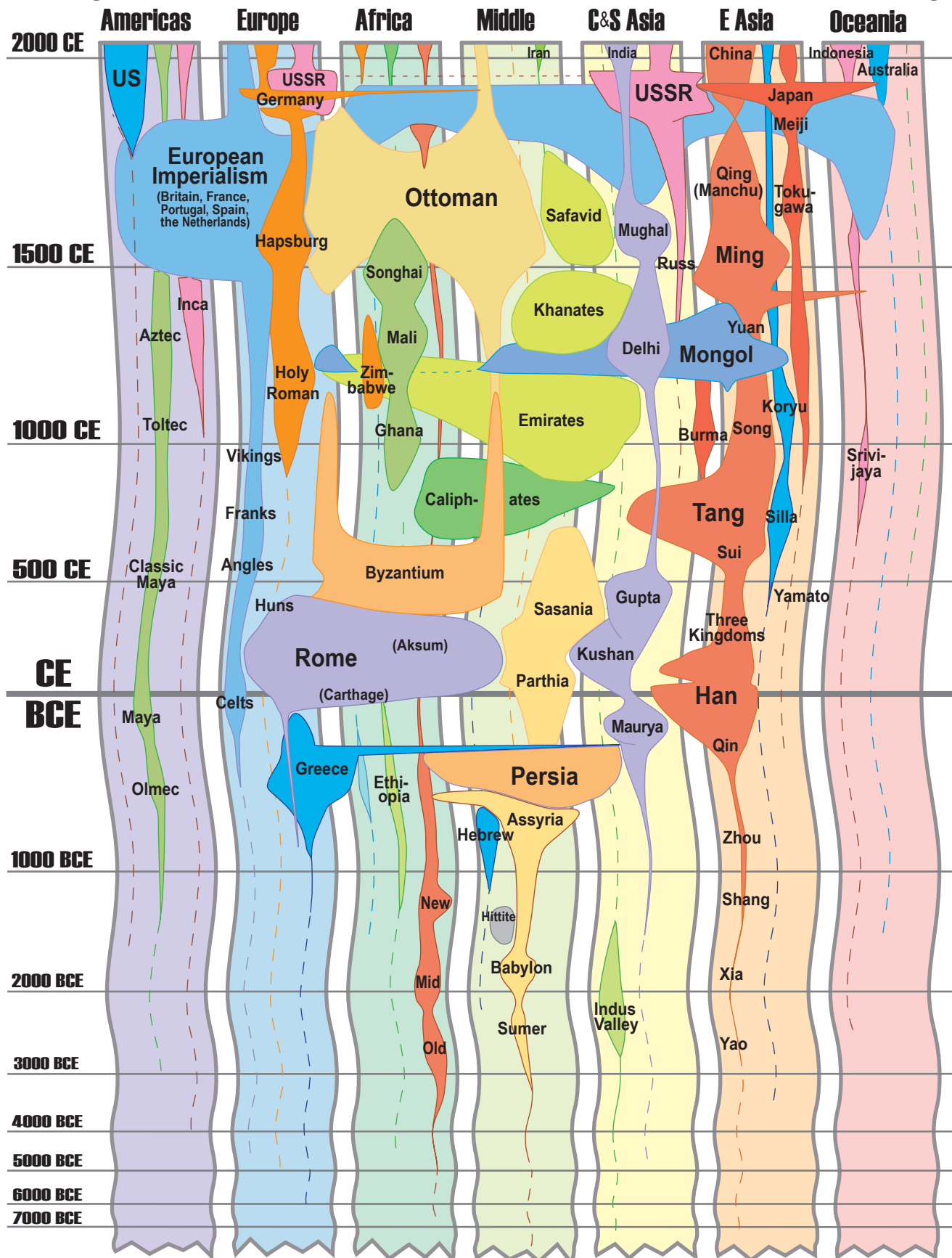


# World GeoHistogram™

WEST

EAST



## Basic Structure of the GeoHistoGram

A timeline is a way to visualize when and where something occurred. It can also tell you what else was going on in the world at the same time. Unfortunately, timelines in books often try to show too many details at once. To help us organize information, we will use a simple form to record different kinds of information at different times.

- The horizontal lines indicate dates. The oldest dates are near the bottom of the diagram. They are crowded together because we do not know as much about what happened way back then. The timeline "stretches" as we get closer to the present. That lets us show more of the details that still influence our lives today.
- The long vertical boxes show major world regions. They are arranged in rough geographical order from west to east. In the middle is an area in modern-day Iraq, Israel, Jordan, Lebanon, Syria, and Turkey. This area has been called the Fertile Crescent and the Crossroads of History. It is where farming first began, iron tools were first made, and cities were first built. It has also been an area of conflict for thousands of years, right up to the present day.

To give you a better idea how to use the GeoHistory Diagram, let us add eight key events.

1. People first began planting crops for food in the area that is now called Turkey and Iran. This happened about 8000 years BCE ("Before the Common Era," the "Year One" that people use for calendars). Draw a small oval to represent a wheat seed in the Middle column about 8000 years ago.
2. The idea of farming spread to southern Europe by 7000 BCE. Draw another small oval in the Europe column at that time. Later, you will add symbols to the timeline to show how farming spread to other regions of the world.
3. The Great Pyramids of Egypt were built about 2500 BCE. Draw a pyramid on the right-hand side of Africa column about 2500 BCE. Later, you will add other globally important buildings to the diagram.
4. A Roman fleet crossed the Mediterranean Sea in 125 BCE and captured Carthage in northern Africa. This was a key event in the spread of the Roman Empire. Draw a horizontal line from the Europe column to the Africa one, just below the BCE/CE line. Later, you will add other invasions to the diagram.
5. The Prophet Muhammad traveled to Mecca in the year 622CE. His trip marks the Year One in the Islamic calendar. Draw a crescent in the middle column at 622CE. Later, you will add other key religious dates to the diagram.
6. Gunpowder was invented in China about 850 CE. Draw a small explosion in the second column from the right, a little bit below the line for the year 1000. Later, you will add other important inventions to the diagram.
7. Columbus sailed from Spain to the Americas in 1492. Draw a line to show that "bridge" between continents. Later, you will add other important travels.
8. The United States became an independent country in 1776. Draw a star at the appropriate place in the Americas column to note that event.

## Wooden Clubs and Iron Swords

To appreciate the value of iron, you might think about trying to chop down a tree with a rock. Or picture yourself trying to cut a board with a sharpened bone. Or imagine that you have a wooden club, and someone attacks you with a long, sharp sword or a battle-axe.

In short, having iron is a big deal. It changed the way people did many things. Moreover, people who did not have iron usually lost if they got in a war with people who had iron tools and weapons. The arrival of iron-making technology in an area, therefore, usually marks a turning point in its history.

Here is a summary of the archaeological evidence about iron:

1550 BCE	The Hittites develop iron technology in what is now called Turkey.
1200 BCE	Iron spreads throughout Mesopotamia (present-day Iraq).
1100 BCE	People use iron in the Ganges Valley of northern India.
1000 BCE	People make iron tools and weapons in Greece (southeastern Europe).
750 BCE	Iron is used in the Nile Valley of Egypt (northeastern Africa).
700 BCE	Iron-making spreads throughout continental Europe.
600 BCE	Iron-making starts in west Africa, near what is now called Nigeria.
500 BCE	People make iron in Scandinavia (northwestern Europe).
400 BCE	People in south Africa have iron tools.
...	
1400s CE	First metal-working in the Andes Mountains of South America.

Part 1: Draw a thick capital letter I (**I**) at the appropriate time and place on your GeoHistoGram to indicate each of those archaeological records.

Part 2: Go to the world map, and:

1. put capital letter I (**I**) at each place noted on the table above.
2. write the date next to that map symbol
3. draw arrows to show the likely route of the spread of iron technology

Part 3: Write a paragraph to describe the changes that might have occurred when iron arrived in a particular part of the world. Remember that the technology may have spread quietly (as "your people" saw the value of iron and learned how to make it). On the other hand, it may have spread violently, if people who had iron weapons came and conquered "your" territory. You might think of your paragraph as the first pages of a novel or TV show which might go on to tell the story about how some people tried to cope with the changes that occurred as a result of the arrival of iron.

Somewhere in your paragraph, you might make a connection to the present day.

Here is one way to do that: suggest how some new invention today is like the arrival of iron in the past. For example, what happens when people in a particular place get cell phones or the Internet for the first time?

## Teacher's Guide: **Wooden Clubs and Iron Swords**

Overview: Students plot the approximate dates and locations of archaeological records that identify the first use of iron in different regions of the world. The pattern shows a gradual spread both east and west from the first site in Asia Minor, where the Hittite people lived. Students then write an essay describing the changes that might have occurred in a specific place due to the arrival of iron.

Grade: 7

Related Discipline: History

CC Standard: 7.W-2, 7.W-3, 7.W-6

Time: ½ to 2 class periods

**Setup:** Ask students to imagine what it must have felt like to be a farmer with a wooden rake when an army of mounted knights in steel armor invaded your territory. Emphasize that every time a culture that did not have iron weapons faced one that did, the ones without iron lost. For that reason, iron could be called a game-changing invention – something that instantly makes some places more valuable and others less so (at least until both sides get the same weapons and armor). This is a geographic “big idea” – *major inventions inevitably make some places better and others worse.*

**Procedure:** Hand out blank GeoHistoGrams and the directions for the Wooden Clubs activity. Encourage students to use markers to plot the locations of the archaeological evidence – that makes it easier to observe from a distance whether they are putting the symbols in the proper locations.

**Answers:** The arrangement of symbols is an example of what geographers call a “flying geese” pattern of diffusion (spread), in which an invention occurs at a specific place and then spreads in all directions, arriving later as you go farther from the original source. The result on the GeoHistoGram is a kind of V-shape pattern of symbols that resembles a flock of migrating birds.

Adding the outline of the Greek empire to the GeoHistoGram reveals that the first recorded use of iron in a place around the Mediterranean Sea often coincided with the arrival of Greek sailors, soldiers, and colonists.

The thousand-year delay in reaching the Americas is important, but easy to explain. For the first time in the history of iron, the invention had to cross a wide ocean rather than travel over land, and other inventions – sails, compasses, ways to store water, etc. – were also required before that trans-Atlantic travel could occur.

**Debrief:** EMPHASIZE: the arrival of a game-changing invention usually has significant effects on local economies, political structures, and cultures. Students should think about those effects and try to describe them in their essays. This is an important citizenship skill – disruptive inventions are quite common, and their effects can ripple through an economy. Note, for example, the effects of the recent invention of fracking technology, lithium-ion batteries, or high-efficiency wind generators.

**Vocabulary:** distance location invention diffusion (spread) technological change

**Extension:** Students can investigate other history-changing inventions – irrigation, compasses, gunpowder, railroad, telegraph, electricity, automobile, air-conditioning, hybrid seeds, internet – and explore how the invention spread and what happened when it arrived in particular places.

Students can add other empires to their iron-spread GeoHistoGram and see where the arrival of iron tools and weapons allowed an empire to start or spread (like some of the kingdoms around Timbuktu in West Africa) and where it contributed to the end of an empire (like the empire of the Incas in South America when the Spanish conquistadors arrived).

Students can also write fictional narratives, describing the events from the perspective of an imaginary individual caught up in the sweep of history. They can also read and discuss stories that relate to specific people caught in these “turning-point” moments. The specific stories should be chosen to fit goals in history or civics classes. Only a few minutes are then needed to add the geographic aspects, put the information on the GeoHistoGram, and thus help students form more durable memories of how the stories fit into their historic and geographic context.

## Cultural Leaders in History

A GeoHistory Diagram is a way to visualize when and where something occurred. It can also tell you what else was going on in the world at the same time. Understanding these relationships is especially important when you are trying to evaluate the contributions of individual people. It is hard to put the work of one person into perspective unless you know what happened before, and what else was happening about the same time.

Here is a list of some important people, with the approximate date and the world region where they were important. The list is one person's opinion. For that reason, there are some blank lines at the bottom of the list, where you can add other names if you wish.

Charlemagne	800 CE	France	Martin Luther King	1970 CE	USA
Confucius	500 BCE	China	Martin Luther	1525 CE	Germany
Gautama Buddha	500 BCE	S. Asia	Mohandas Gandhi	1940 CE	India
Hammurabi	1750 BCE	Babylon	Muhammad	622 CE	Arabia
Mansa Musa	1300 CE	W. Africa	Plato	400 BCE	Arabia
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Part 1. Look over the list and add any names of other people that you think are equally important (or even more important) than the names on the list. For each addition, write a brief reason on a separate piece of paper, so that you can defend your choice when asked.

Part 2. Look over the combined list and pick twelve individuals that you think had the most influence on history. Write your reasons on a separate piece of paper so that you can defend your choices.

Part 3. Write the initials of each of those 12 individuals in the appropriate position on the Geo-HistoGram. Compare this with other kinds of information on the diagram in order to put the individual into historical and geographical context. To start your comparison, you might ask yourself three questions:

What else was happening in other regions of the world at roughly the same time?

What happened in the same region just before your individual became important?

What happened in the general area just after your individual left the scene?

# World GeoHistogram

