

## **Earliest Human Societies Bingo**

The earliest modern humans, called *Homo sapiens*, began to appear in parts of Africa in approximately 200,000 BCE. It is believed that the earliest humans lived in the East African Rift Valley, in present-day Ethiopia. Fossils and evidence have been found that humans lived there as many as seven million years ago.

Early humans hunted and gathered for food and eventually migrated to nearly all areas of the world. They also formed communities, though these were very different from how we think of communities today. Early humans lived in nomadic cultures that traveled from place to place as they followed the movement of the animals they hunted. They did not have a formal government and instead, early peoples formed communities around strong leaders. Anthropologists believe that people formed these groups for purposes of protection and to make hunting easier and safer.

Following the end of the last ice age, animal herds started to move north as the glaciers retreated and the climate warmed. Around 40,000 years ago, sea levels were about 100 meters lower than they are today. During this time, a land bridge connected Australia to the islands of Southeast Asia. People also came to the Americas via the Bering Land Bridge, which connected present-day Russia with present-day Alaska. Eventually humans lived everywhere except for Antarctica.

Historians have many theories on why early humans first developed language. The development of language also allowed early humans to foster relationships and to resolve issues concerning the distribution of resources. The use of controlled fire was one important innovation of early humans. This development allowed people to cook food and heat shelters.

Mega fauna Extinctions were the extinction of many large animals that occurred around the same time that humans moved into the area and the climate changed. There is a lot of debate over what caused the extinction of so many large animals.

Human beings are unique creatures. While not the strongest, fastest or largest, they have found a way to dominate the planet. Use of language, fire and the creation of art are some of the things that make humans successful and unlike any other creature.

## **Early Agriculture**

The first evidence of agriculture has been found in the Middle East. It is believed that people in this region started farming around 8000 BCE. The area where agriculture started is known as the Fertile Crescent. People here started to deliberately plant and harvest certain crops such as wheat and barley. The temperate climate in many areas allowed the crops to grow, and people started planting more crops.

For most of history, humans lived in hunter/gather societies. This changed with the development of agriculture. Domestication, or the selective breeding of plants and animals allowed humans to develop food crops and herds of animals for meat, milk and clothing. For example, early humans would plant only the largest types of grains, though the first attempts at growing crops were done through trial and error.

The invention of agriculture led to the development of permanent settlements, often along large rivers. This is because people no longer needed to move from place to place to hunt food. By staying in one place, people could construct permanent buildings and form more structured communities.

Agricultural societies developed independently all over the world as humans discovered new ways to domesticate plants and animals. Nevertheless, agriculture is a recent development in human history.

Civilizations tend to be more complex than other types of societies. For example, civilizations usually have organized, institutional governments and a definite social hierarchy. A social hierarchy organizes people around leaders and followers. There is a division of labor where each worker is allowed to specialize in a particular task. Agriculture caused food surpluses, which meant fewer people were needed to farm. This allowed people to turn to other types of jobs and many developed specific crafts. People in hunter gather societies experience less division and more equality among men and women

Located in modern day Iraq, Sumer is considered one of the world's first civilizations. Most historians believe that they created the world's first writing system. This system was called cuneiform, and was made up of pictographs (picture symbols) written on clay tablets.

The Sumerians were some of the first people to live in towns and cities. They built huge temples called ziggurats. They did not live in one country but city-states, which are cities that are independent countries.

Another development attributed to Ancient Sumerians was a number system based on the number 60, also known as a sexagesimal numeral system. This system was very influential and still has many uses even in today's world. An example of a sexagesimal system is our system for measuring time on a clock, which divides a minute into 60 seconds and an hour into 60 minutes. Another is how we measure angles.

## Early Mesoamerican Civilizations – The Olmec Name\_\_\_\_\_

Mesoamerica's first known civilization builders were a people known as the **Olmec**. Their civilization began around 1200 B.C. in the Gulf Coast of southern Mexico. The Olmec influenced neighboring groups, as well as the later civilizations of the region. They often are called Mesoamerica's "mother culture" because they spread their civilization throughout central and southern Mexico (Mesoamerica).

On the surface, the Gulf Coast seemed an unlikely site for an advanced civilization to take root. The region was hot and humid and covered with swamps and jungle. Nevertheless archeologist uncovered an extraordinary stone sculpture in this area. It stood five feet tall and weighed an estimated eight tons. The sculpture was of an enormous head, wearing a headpiece. The head was carved in a strikingly realistic style, with thick lips, a flat nose, and large oval eyes. Archaeologists had never seen anything like it in the Americas.

The rivers that laced the region provided a means of transport and trade. Also the flood plains of these rivers provided fertile land for farming. There were abundant deposits of salt and tar, as well as fine clay used in making pottery. There was also wood and rubber from the rain forest. The rubber was used to make balls used in ritualistic ball games. The Olmec used their resources to build thriving communities.

At San Lorenzo archaeologists discovered earthen mounds, courtyards, and pyramids. They included columns, altars, and more colossal, sculpted heads, which may have represented particular Olmec rulers. These giant monuments weigh as much as 44 tons. To the east of San Lorenzo, another significant Olmec site, La Venta, rose around 900 B.C. Here, researchers discovered a 100-foot-high mound of earth and clay. This structure may have served as the tomb of a great Olmec ruler. Known as the Great Pyramid, the mound also may have been the center of the Olmec religion.

Experts believe the Olmec prayed to a variety of nature gods. Most of all, they probably worshiped the jaguar spirit. Numerous Olmec sculptures and carvings depict a half-human, half-jaguar creature. Some scholars believe that the jaguar represented a powerful rain god. Others contend that there were several jaguar gods, representing the earth, fertility, and maize.

While there is no clear evidence that the Olmec used a written language, it is possible that they were the first Americans to use Writing. Their descendants carved out stone symbols that may have influenced later glyph writing. Historians also believe that the Olmec might have been the first people in Mesoamerica to have a calendar.

Archaeologists once believed that sites such as La Venta were ceremonial centers where important rituals were performed but few people lived. In recent years, however, experts have begun to revise that view. The Olmec appear to have been a prosperous people who directed a large trading network throughout Mesoamerica and lived in cities. We also think they developed an important crop grown all over the world: corn (maize).

Around 400 B.C.E Olmec civilization declined for mysterious reasons, possibly climate change, over farming, deforestation, volcanoes or warfare. The Olmec is considered the "parent civilization" because several civilizations, such as the Maya, Toltec and Aztec continued after the Olmec civilization declined.

### **Mayan Civilization**

The Mayan people lived and still live in Southern Mexico and Central America. They were very sophisticated builders and artists and they contributed greatly to the fields of mathematics, astronomy and the calendar. They were very religious people and worshipped many different gods. The warm, humid climate allowed them to become an agricultural civilization, growing goods like maize and cacao.

They are thought to have traded with the Aztecs and indigenous cultures in South America. They lived in cities that had pyramids in their religious centers and also had palaces. The Maya people lived according to class, with royalty and nobles in the city and lower classes farther outside the city. Each city and its surrounding towns were a kingdom, having their own ruler.

Religious buildings were at the center of a city. Their religion was polytheistic, based on the nature of time (it is a cycle that repeats itself), the cycles of seasons, and the movement of planets. The Mayans worshipped the circle, gods of the sky, and the Maize God, among others. They sacrificed animals, and sometimes humans, to satisfy the gods. Maya kingdoms were constantly at war with each other

### **Cultural Achievements**

Art: included intricate carvings of stone and jade.

Architecture: stepped stone pyramids dedicated to deities were centers of cities

Writing system: similar to Egyptian hieroglyphics, inscriptions were made on art, buildings, and monuments

Mathematics: used a base 20 number system and developed the concept of zero by 357 A.D.

Astronomy: very accurate charts of the moon and planets without any tools

Calendar: based on a year length of exactly 365 days, similar to Aztec

### **What Happened to the Mayans – Collapse: different possible causes**

Foreign invasion

Peasant revolt, social turmoil

Collapse of trade routes

Epidemic diseases

Drought

Ecological collapse

Name \_\_\_\_\_ **Annotated note taking:** find 10 items throughout the **entire** text (ELL 6).

## **Industrial Revolution:**

<http://www.regentsprep.org/Regents/global/themes/change/ind.cfm>

**Background:** In 1750, most people in Europe lived on small farms and produced most of their needs by hand. A century later, many people lived in cities and most of their needs were produced by complex machines using steam power. The Industrial Revolution began in Great Britain and then spread to Belgium, France, Germany, the United States and Japan. It was a fundamental change in the way goods were produced, and it altered the way people lived. The Industrial Revolution is a major turning point in world history.

### **Causes**

The Industrial Revolution could not happen without changes to society. An agrarian revolution, the accumulation of capital (wealth) and advances in technology needed to happen first.

The Agrarian Revolution was a change in farming methods that modernized agriculture, allowing for a greater production of food. This revolution was fueled by the use of new farming technology such as the seed drill and improved fertilizers. The results of this revolution in farming was a population explosion due to better access to food.

In Great Britain there was a push to merge small farms into larger ones called the Enclosure Movement. The loss of small farms left many people jobless and homeless. These people would look for jobs in factories, providing the workforce of the Industrial Revolution.

**Geography:** The industrial revolution began in Great Britain. Why? Great Britain had an abundance of the natural resources needed for industrialization, such as iron ore and especially coal – an important energy source. Great Britain also had access to many navigable rivers and natural harbors which provided for the easy movement of goods both within the country, and overseas. Also because of the enclosure movement, there were many workers available to work in factories.

**Capital:** The British had a vast overseas empire of colonies that provided Great Britain with a strong economy. They had the capital (money) needed to build railroads, factories, and mines. This wealth was used to build machines, transportation and military power that was used to support the industrial system.

**Technology & Energy:** Britain experienced a revolution in energy use as they switched from animal power, to water power, to steam power in a few short years. The steam engine was the power source of the Industrial Revolution and it took advantage of the energy available from fossil fuels.

### **Effects of the Industrial Revolution**

**Mass Production:** The use of the factory system allowed for the production of a large amount of textiles (clothing) and other goods using machines that could make products that were identical. This shifted work from production at home to production in large factories in the cities. Mass production also allowed for lower prices on the goods produced because manufacturing was more efficient.

**Big Business:** As the Industrial Revolution grew, so did businesses. To meet the needs of this growth, business owners sold shares of their companies to stockholders who would either make or lose money (profit and loss). This influx of capital allowed business to grow into large and powerful corporations.

**Laissez-Faire Economics** (French for “*let us do*”): This is an economic philosophy begun by Adam Smith in his book, *Wealth of Nations*. Smith said that business and the economy would run best with less interference from the government. This economic system dominated most of the Industrial Revolution.

**Urbanization:** People moved to towns and cities to be closer to the factories. Conditions in the cities were very poor during the early part of the Industrial Revolution, as factory workers lived in overcrowded buildings, with no sewage or sanitation services. This resulted in widespread disease.

**Working Conditions:** Also factory workers worked very long hours, for little pay, under harsh conditions. Workers included children as young as 8, both male and female. Many people were injured or killed due to unsafe workplace environments.

### **New Social Class Structure**

**Upper Class:** Very rich industrial & business families. Old Noble class.

**Upper Middle Class:** Business people & professionals - lawyers & doctors.

**Lower Middle Class:** Other professionals - teachers, shop owners, and office workers.

**Working Class:** Factory workers and small farmers.

**Societal Changes:** New roles were defined for middle class men and women. Middle class men went to work in business, while middle class women worked from home and cared for the family. The higher standard of living for the middle class meant that their children received some form of formal education. Working Class families faced many hardships due to poor living and working conditions, and most working class children never received an education.

**Communism:** Karl Marx wrote in *The Communist Manifesto* (1848) that all of human history was based on the conflict between the bourgeoisie (factory owners) and the proletariat (factory workers). Marx predicted that the proletariat (workers) would rise up in a violent revolution to overthrow the bourgeoisie (owners). This working class revolution would create a society with an equal distribution of goods and services. This socialist theory would form the basis for the Russian, Chinese, and Cuban Revolutions in the 20th Century.

**Imperialism:** Africa, China, India, South East Asia, and other areas were controlled by Europeans in order to provide raw materials and new markets for European factories. This struggle to control other countries is known as imperialism. Imperialism had a negative effect on most of these cultures and usually only benefited the European nations.

The Industrial Revolution was a major turning point in world history as it resulted in a complete change in society on all levels. Effects of the Industrial Revolutions were long reaching, and influenced many other cultures both positively and negatively.

## **Green Revolution**

History and Overview of the Green Revolution

By Amanda Briney, Contributing Writer

The term Green Revolution refers to the renovation of agricultural practices beginning in Mexico in the 1940s. Because of its success in producing more agricultural products there, Green Revolution technologies spread worldwide in the 1950s and 1960s, significantly increasing the amount of calories produced per acre of agriculture.

### **History and Development of the Green Revolution**

The beginnings of the Green Revolution are often attributed to Norman Borlaug, an American scientist interested in agriculture. In the 1940s, he began conducting research in Mexico and developed new disease resistance high-yield varieties of wheat. By combining Borlaug's wheat varieties with new mechanized agricultural technologies, Mexico was able to produce more wheat than was needed by its own citizens, leading to its becoming an exporter of wheat by the 1960s. Prior to the use of these varieties, the country was importing almost half of its wheat supply.

Due to the success of the Green Revolution in Mexico, its technologies spread worldwide in the 1950s and 1960s. The United States for instance, imported about half of its wheat in the 1940s but after using Green Revolution technologies, it became self-sufficient in the 1950s and became an exporter by the 1960s.

In order to continue using Green Revolution technologies to produce more food for a growing population worldwide, the Rockefeller Foundation and the Ford Foundation, as well as many government agencies around the world funded increased research. In 1963 with the help of this funding, Mexico formed an international research institution called The International Maize and Wheat Improvement Center.

Countries all over the world in turn benefited from the Green Revolution work conducted by Borlaug and this research institution. India for example was on the brink of mass famine in the early 1960s because of its rapidly growing population. Borlaug and the Ford Foundation then implemented research there and they developed a new variety of rice, IR8, that produced more grain per plant when grown with irrigation and fertilizers. Today, India is one of the world's leading rice producers and IR8 rice usage spread throughout Asia in the decades following the rice's development in India.

### **Plant Technologies of the Green Revolution**

The crops developed during the Green Revolution were high yield varieties - meaning they were domesticated plants bred specifically to respond to fertilizers and produce an increased amount of grain per acre planted. During the Green Revolution, plants that had the largest seeds were selected to create the most production possible. After selectively breeding these plants, they evolved to all have the characteristic of larger seeds. These larger seeds then created more grain yield and a heavier above ground weight.

This larger above ground weight then led to an increased photosynthate allocation. By maximizing the seed or food portion of the plant, it was able to use photosynthesis more efficiently because the energy produced during this process went directly to the food portion of the plant.

Finally, by selectively breeding plants that were not sensitive to day length, researchers like Borlaug were able to double a crop's production because the plants were not limited to certain areas of the globe based solely on the amount of light available to them.

## **Impacts of the Green Revolution**

Since fertilizers are largely what made the Green Revolution possible, they forever changed agricultural practices because the high yield varieties developed during this time cannot grow successfully without the help of fertilizers.

Irrigation also played a large role in the Green Revolution and this forever changed the areas where various crops can be grown. For instance before the Green Revolution, agriculture was severely limited to areas with a significant amount of rainfall, but by using irrigation, water can be stored and sent to drier areas, putting more land into agricultural production - thus increasing nationwide crop yields.

In addition, the development of high yield varieties meant that only a few species of say, rice started being grown. In India for example there were about 30,000 rice varieties prior to the Green Revolution, today there are around ten - all the most productive types. By having this increased crop homogeneity though the types were more prone to disease and pests because there were not enough varieties to fight them off. In order to protect these few varieties then, pesticide use grew as well.

Finally, the use of Green Revolution technologies exponentially increased the amount of food production worldwide. Places like India and China that once feared famine have not experienced it since implementing the use of IR8 rice and other food varieties.

## **Criticism of the Green Revolution**

Along with the benefits gained from the Green Revolution, there have been several criticisms. The first is that the increased amount of food production has led to overpopulation worldwide.

The second major criticism is that places like Africa have not significantly benefited from the Green Revolution. The major problems surrounding the use of these technologies here though are a lack of infrastructure, governmental corruption, and insecurity in nations.

Despite these criticisms though, the Green Revolution has forever changed the way agriculture is conducted worldwide, benefiting the people of many nations in need of increased food production.