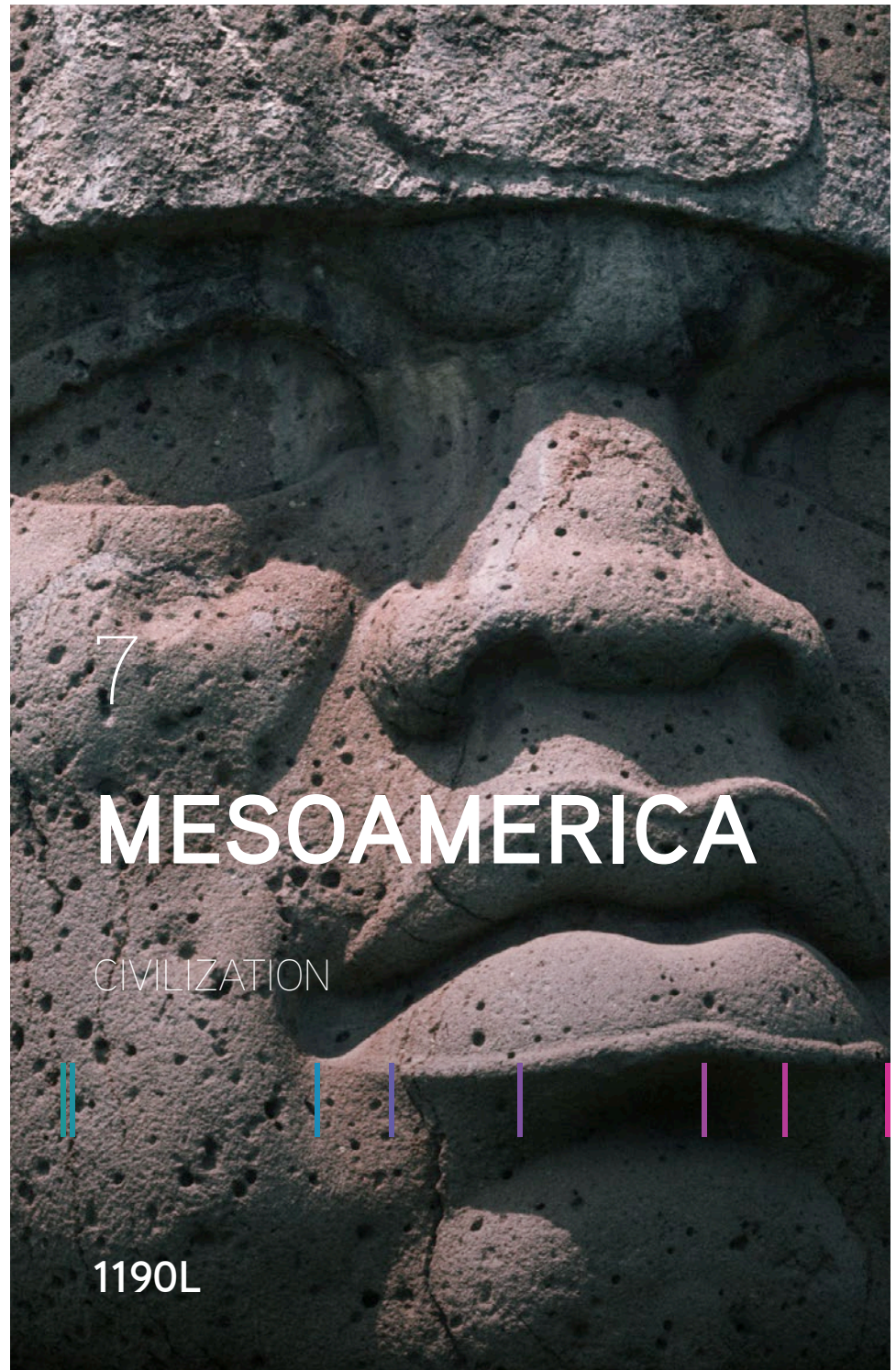




BIG HISTORY PROJECT



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MESOAMERICA

CIVILIZATION

1190L

MESOAMERICA

REPEATED
REINVENTIONS

By Cynthia Stokes Brown

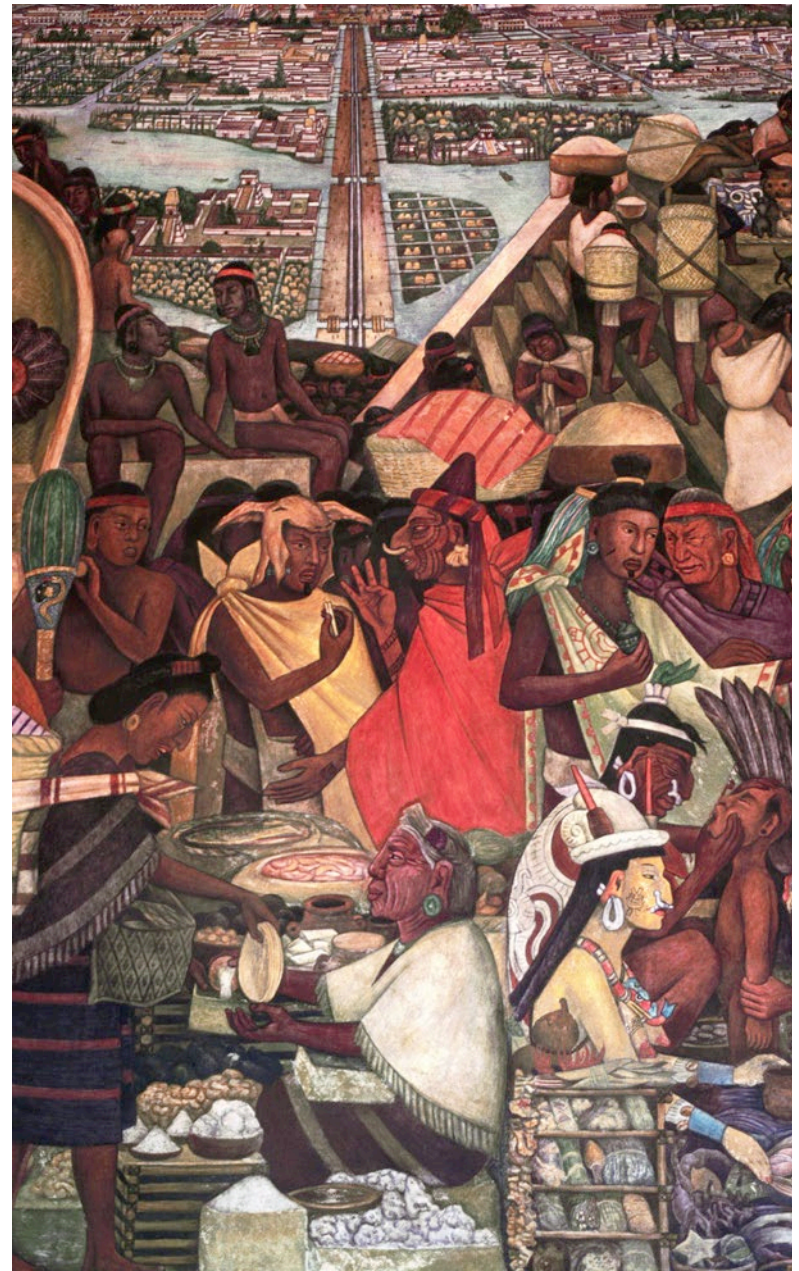
Civilization in Mesoamerica flourished and crashed repeatedly, giving rise to a distinctive worldview and some remaining mysteries.

The geography of the Americas

The Americas constitute one of the world's four geographical zones. Each of these belts is a large area of the world that developed almost entirely separately from the others during the eras of hunting and gathering and of early agriculture. The four world zones are the Afro-Eurasian zone, the Americas, the Australasian zone, and the Pacific islands.

About 245 million years ago, when all the continents on Earth were fused into one continent called Pangaea, North and South America were more closely packed together. The current shape of Mesoamerica (Middle America) began to emerge as Pangaea broke up, and North and South America separated, not to be rejoined again until about 3 million years ago. This reconnection happened as two tectonic plates moved against each other, causing volcanoes to erupt, which created islands. Sediment gradually filled in among the islands. This had an enormous impact on Earth's climate, because it reconfigured the ocean currents. Since the Atlantic current could no longer flow into the Pacific Ocean, it turned north up the coast of North America and over to Europe, carrying warm water from the Caribbean that raised temperatures in Europe.

Today the land joining the two continents, called the Isthmus of Panama, is only 40 miles wide and 400 miles long. (Isthmus comes from the Greek word isthmos and means a narrow strip of land connecting two larger land areas, with water on either side.) The areas in which civilization developed in Mesoamerica include Mexico and neighboring parts of Central America, all just north of the Isthmus of Panama.





Early developments in Mesoamerica

People in the Americas developed an entirely different menu of foods than those in Mesopotamia for the simple reason that the indigenous plants and animals were different than those in the Fertile Crescent. Instead of wild grains, goats, and sheep, people in the highlands of Mexico had corn (sometimes called maize), beans, peppers, tomatoes, and squash as their staple foods. The ancestor of modern corn, called “teosinte,” has cobs about the size of a human thumb. It took people about 5,000 years, until 2000 BCE, to domesticate teosinte and breed corncobs large enough to support city life. They also cultivated peanuts and cotton. The only animals that could be domesticated were dogs and turkeys.

The Olmecs

The founding culture of Mesoamerica appeared along the southwestern curve of the Gulf of Mexico, near the present-day city of Veracruz. This culture emerged in a series of river valleys, as Uruk did in Mesopotamia. Called the

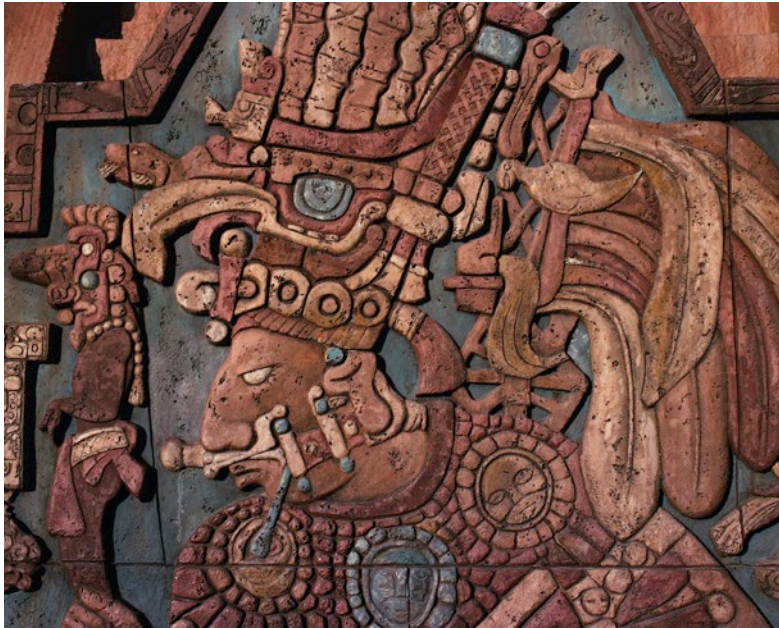
Olmecs (the “rubber people”), this culture lasted from about 1400 BCE to 100 BCE. It produced nearly imperishable art, notably large carved heads of volcanic rock, the largest weighing some 20 tons and standing about 10 feet tall. Monumental sculptures or tombs are typically indicative of a civilization with powerful leaders, but this culture probably ranks more as a chiefdom than as a state with extensive coercive power. The last Olmec site, Tres Zapotes, declined by about 100 BCE for unknown reasons. Was it volcanic eruptions? A shift in the flow of rivers? Scholars believe that the Olmecs may have deliberately destroyed their capital. Was there civil unrest? Class strife? No one knows.

The Maya

As the Olmecs declined, their neighbors to the east — the Maya — prospered in an area the size of Colorado or Great Britain. This area, around the curve of the Gulf of Mexico on the Yucatan Peninsula and south into present-day Guatemala, had poor, infertile soil and no large rivers, not what one would expect for a flourishing civilization. Yet its people built terraces to trap silt from the small rivers and grew corn, beans, squash, peppers, cassava, and cacao (chocolate). With no beasts of burden, their luxury goods were portable by humans — feathers, jade, gold, and shells.

The Maya organized themselves into small city-states instead of one big empire. The largest was Tikal, which by 750 CE, had about 40,000 inhabitants, in specialized occupations and ruled by elites. The city-states fought each other frequently with the main purpose being to capture their enemies to sacrifice them to the Mayan gods.

We know about the Maya because they developed the most elaborate and sophisticated writing system of the several different ones used in Mesoamerica. Mayan writing included both pictographs and symbols for syllables. Since the 1980s, scholars have made great strides in deciphering this script. Many carved inscriptions have survived, but only a few accordion books on bark or deerskin remain.



Maya shamans or priests worked out remarkable systems of cosmology and mathematics. They devised three kinds of calendars. A calendar of the solar year of 365 days governed the agricultural cycle, and a calendar of the ritual year of 260 days dictated daily affairs; these two calendars coincided every 52 years. A third calendar, called the Long Count calendar, extended back to the date August 13, 3114 BCE (on the Gregorian calendar), to record the large-scale passage of time. The Maya calculated a solar year as 365.242 days, about 17 seconds shorter than the figures of modern astronomers. They also introduced the concept of zero; the first evidence of zero as a number dates from 357 BCE, but it may go back further, to Olmec times. In Afro-Eurasia, Hindu scholars first represented zero in the 800s CE.

Mayan cosmology included the idea that the world had come to an end four times already and that the Maya were living in the Fifth Sun (the fifth world), whose persistence depended on the life energy of sacrificial blood. Remember in the Mayan creation story, the *Popol Vuh*, that the gods created people out of their own genius and sacrifice, nothing else. The Maya believed that the gods set the Sun burning by sacrificing themselves to start it. Since

they believed that the Sun's energy would continue only with the life-giving energy found in human blood to replenish it, they practiced ritual blood-letting achieved by using cactus or bone spines to pierce their earlobes, hands, or penises. They also carried out some ritual sacrifice of human victims. The Maya may have inherited their calendar and sacrificial rituals from the Olmecs.

Certainly the Maya inherited from the Olmecs a ball game played with a rubber ball about 8 inches (20 centimeters) in diameter. The object was to put the ball through a high ring without using hands (no-handed basketball!). Sometimes the game was played for simple sport, but sometimes high-ranking captives were forced to play for their lives. The losers were sacrificed to the gods, and their heads were displayed on racks alongside some ball courts.

Between 800 and 925 CE, Mayan society experienced a rapid transition. The world of cities ended as populations moved back into the countryside. Historians debate the possible causes of the change — civil revolts, invasions, erosion, earthquakes, disease, drought. Likely some combination of these brought on an unusually rapid fading of a once-vibrant civilization. The Maya didn't just disappear; several million descendants are still alive today.

Teotihuacan

Meanwhile, back in the center of Mexico at about the same time, another amazing city developed: Teotihuacan (tay-oh-tee-wa-KAHN). Its site was in the highlands of Mexico, more than a mile (some 2 kilometers) above sea level, in a place where water flowing from surrounding mountains created several large lakes. Teotihuacan began as an agricultural village located about 31 miles (50 kilometers) north of present-day Mexico City. By 500 CE, it had an estimated 100,000 to 200,000 people, to rank as one of the six largest cities in the world. Not much is understood about its government; its art portrays deities rather than royalty. Its people expanded Olmec graphic symbols, but all its books were destroyed about 750 CE, when it seems that unknown invaders burned the city.



Tenochtitlan

The city that carried Mesoamerican civilization to its height proved to be Tenochtitlan (the-noch-tee-TLAHN), or “place of the cactus fruit” in their language, Nahuatl. Its people, called the Mexica (me-SHI-ka), came from northern Mexico looking for a place to settle. All the desirable places were already inhabited, except an island in a large lake in the Valley of Mexico, where they settled in 1325. They were given the name Aztecs by the German explorer and naturalist Alexander von Humboldt in the early nineteenth century.

The Mexica/Aztecs built up their food production by creating floating islands of soil, called chinampas, held together by willow trees. Their men hired themselves out as paid soldiers to other towns until they became strong enough to conquer others on their own. In 1428, they allied themselves with two other neighboring cities to form the so-called Triple Alliance and set out to conquer other cities to provide tribute that could support the Alliance’s expanding population. The conquests would also provide sacrificial victims for their religious rituals, carried down from the Olmecs, Maya, and Teotihuacans.

By the early 1500s, the Aztecs had conquered most of Mesoamerica and had imposed their rule on an estimated 11 million to 12 million people. The annual tribute they received in corn alone amounted to 7,000 tons. They also received 2 million cotton cloaks, as well as jewelry, obsidian knives, rubber balls, jaguar skins, parrot feathers, jade, emeralds, seashells, vanilla beans, and chocolate. Without money, everyone was paid in food and goods. Their population had grown to at least 200,000 to 300,000 in the capital, several times the size of the contemporary London of King Henry VIII.

The Aztecs bestowed great honor to their warriors, building their society around a military elite. A council of the most successful warriors chose the ruler. Warriors could wear fine cotton cloth and feathers instead of clothing made from the fibers of an agave-like plant; they were believed to go straight to the paradise of the Sun God if they died in battle. (This also applied to women who died in childbirth with their first child.) Priests also ranked among the elite. Most people were commoners who cultivated land and a large number of slaves worked mostly as domestic servants.

The Aztecs adopted traditions that dated back to the Olmecs. They played the same ball game and kept a sophisticated calendar. They adopted traditional religious beliefs, holding that the gods had set the world in motion by their individual acts of sacrifice. Priests practiced bloodletting on themselves and believed that ritual sacrifice of humans was essential to prevent the destruction of the Fifth Sun by earthquakes or famine. The god of war, Huitzilopochli (we-tsee-loh-POCK-tee), came to be the prevailing god in Tenochtitlan, and his priests placed more emphasis on human sacrifice than did earlier traditions. Priests laid the victims — mostly captives of war — over a curved stone high on a pyramid and cut open the chest with an obsidian blade to fling the still-beating heart into a ceremonial basin, while the desired blood flowed down the pyramid.

Aztec society provided universal schooling for both boys and girls between 15 and 20 years of age. It's likely they were the only people in the world to do this in the early sixteenth century. Commoner boys learned to be warriors; girls learned songs, dances, and household skills. A third kind of school provided lessons in administration, ideology, and literacy for elite boys.

At the same time that the elites supported warfare, they also devoted themselves to poetry, which they considered the highest art. One of the rulers of another city in the Triple Alliance, Nezahualcoyotl ("Hungry Coyote"), composed this poem in the early 1400s, revealing the Aztec sense of the fleeting world:

Truly do we live on earth?
Not forever on earth; only a little while here.
Be it jade, it shatters.
Be it gold, it breaks.
Be it quetzal feathers, it tears apart.
Not forever on earth; only a little while here.
Like a painting, we will be erased.
Like a flower, we will dry up here on earth,
Like plumed vestments of the precious bird,
That precious bird with an agile neck,
We will come to an end.
The fall of the Aztecs

In 1520, just as the Aztec civilization of the Fifth Sun was flourishing, it was destroyed — by a small group of Spanish conquistadors and their Mexican allies, under the command of Hernán Cortés. After many battles in which the Spanish used their horses, guns, and steel swords to their advantage, they surrounded Tenochtitlan and starved its inhabitants; many Aztecs died of smallpox, to which they had no immunity since it was a disease that originated in cows. When the Aztecs surrendered, only one-fifth of their initial population remained. Within 10 years, the Spanish controlled all of Mexico, easily overwhelming the traumatized survivors of the deadly disease.

How do we know this? The Aztecs had a system of writing, although it was not as expressive as that of the Maya. The Spanish conquerors destroyed the books of the Aztecs, in an attempt to eradicate their religious beliefs; only a few books, and many inscriptions, remain. But a Franciscan priest, Bernardino de Sahagun (1499 — 1590), learned the Aztec language, Nahuatl, and interviewed many Aztec survivors to produce a 12-volume encyclopedia of their customs and beliefs. Nahuatl is still a living language for hundreds of thousands of Mexicans. It has given English such important words as chocolate, tomato, coyote, and tamale.

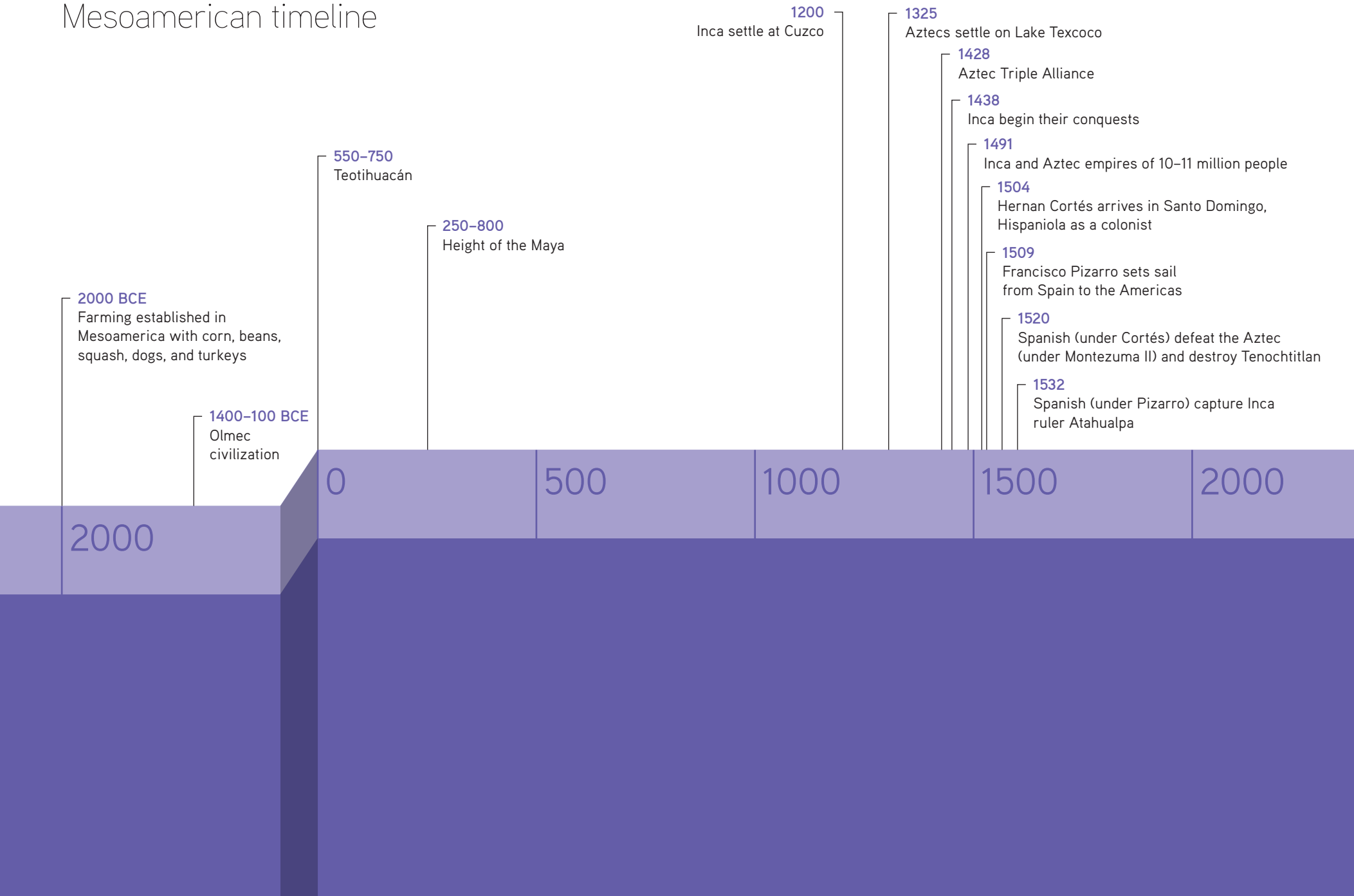
Comparing Tenochtitlan to Uruk, we can say that there are remarkable similarities. Both cities had social and occupational hierarchies with elite rulers, some slaves, lots of warfare, coerced tribute, monumental buildings, powerful religious rituals, and fantastic art and literature. The differences are also striking: Tenochtitlan's emphasis on human sacrifice, its anxiety about the world coming to an end, and its emergence thousands of years later than that of Uruk's.

Comparing the Americas to Afro-Eurasia

To compare the Americas with Afro-Eurasia, let's look around the Americas a bit. We have seen agrarian civilization develop in Mesoamerica; can we find it anywhere else?

In South America, civilization developed along the lengthy coastline on the western side of the continent. Plate tectonics formed a unique landscape with high mountains near the ocean as the Nazca plate slid beneath the South American plate. Early states developed along the coastline, but they could not overcome the frequent floods, earthquakes, and torrential rains to continue their development and increase their populations. Finally, in the fifteenth century, the Incas built a state high in the mountains with its capital at Cuzco, at 13,000 feet. At its height, the Inca Empire controlled 10 million to 11 million people, covering lands from present-day Quito, Ecuador, all the

Mesoamerican timeline



way to Santiago, Chile. Strikingly, this civilization had no written language; it used knots tied into ropes as a system of writing called quipu. But smallpox spread to this area even before the Spanish soldiers arrived, and by 1527, the Spanish conquistadors under Francisco Pizarro had used their technological advantage to conquer a vast Inca civilization compromised by disease.

Nowhere else in the Americas did civilization, as we have defined it, emerge. Many wonderful cultures and chiefdoms arose, but none achieved the surplus of food necessary for highly dense populations. The cultivation of tobacco and corn spread widely. Even the basin of the Amazon River may have been more densely populated than previously suspected. People farmed, but everywhere they needed to supplement their agriculture with hunting and gathering.

The Americas did not develop many of the technological innovations present in Afro-Eurasia. For example, Americans did not use wheels (except the Maya, who put them on toys), probably because they had no large domestic animals to pull wheeled devices. Americans did not melt iron or steel; they used obsidian (glassy volcanic rock that can be sharpened to a thinness of one molecule) for blades. They had no swords or guns. They had no horses, which had evolved in the Americas but became extinct at the end of the last ice age, about when humans were arriving in the Americas.

How much long-distance trade and travel occurred in the Americas? Not as much as in Afro-Eurasia, which stretched out east to west so that people could travel at approximately the same latitude (the distance from the equator) in similar climates. The Americas stretched north and south, with huge changes in climate. Crops could not be carried or exchanged because they would not grow at different latitudes without time to adapt. Americans built large canoes but not sailing vessels, and they stayed close to the shore and in calm waters. They made north-south connections, but these were less frequent than the east-west connections of Afro-Eurasia.

As a result of these factors, states and civilizations arose somewhat later in the Americas than they did in Afro-Eurasia. Once American civilizations emerged, they were not able to connect with each other, share their innovations, or learn collectively to the same extent as their counterparts in Afro-Eurasia. The civilizations created were similar in all their basic characteristics to those in Afro-Eurasia and seemed likely to continue their development if they had not been prematurely cut down by Europeans.

Most historians believe that the difference in disease immunity made the biggest impact when the people of the two hemispheres connected in 1492. Many common diseases in Afro-Eurasia — measles, smallpox, influenza, diphtheria, and bubonic plague — had originated in domestic animals and then passed to humans, who are closely enough related that some of the same bacteria and viruses are harmful. Since Afro-Euradians had frequent contact with domestic animals, they developed some immunity to the diseases by being exposed to mild forms of the dangerous microorganisms as children. Disease exchanges along the Silk Roads spread these immunities. This could not happen in the Americas without domestic animals; when Africans and Europeans brought these “bugs” to the Americas, plus malaria and yellow fever from tropical Africa, wholesale disease and death overtook the Americans.

Historical and geographical contingencies gave Europeans the edge in conquering the people of the Americas, while many Africans were swept into prevailing events as valuable slave commodities. It is a disturbing story, but it is the one that helped create the modern world.

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Teosinte: corn's ancestor,
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