The Americas: Beyond the Mayans, Incas and Aztecs

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The Americas stretches from the Artic Tundra in the north, through the arid wastelands of the American Southwest, past the swamps and jungles of Central and South America and finally encountering colder weather down south. While people mainly focus on the Incas, Mayas and Aztecs when discussing the Americas, there is a staggering breadth and diversity of other cultures, many adapting their culture to their specific circumstances. Journeying from Canada down to South America, the history of cultures encountered along the way will be summarized. The Algonquin and Tehuelche peoples will be discussed in greater details, illustrating the variety of lifestyles, and accompanying architecture, that existed in the Americas.

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Introduction

The Americas followed a very different course than the Old World. Geography, climate and food all played a role in creating many distinct cultures. From the particulars of each regions grew a variety of architecture that fit the location and period—sacred cenotes grew from the gorgeous underwater caverns in the Yucatan while the Kiva was likely a manifestation of the Hisatsinom's need to collect rainwater in their barren environment. A journey will be taken from Canada to the American heartland and deserts, through central America and terminating at the tip of South America. This will be the history of the following cultures: Algonquin, Cahokia, Hisatsinom, Olmecs, Maya, Aztecs, Chavin, Inca, and Tehuelche (Fig. 1). The story of the Algonquin (modern-day east Canada) and Tehuelche (southern Chile/Argentina) peoples will be explored in more detail, possibly revealing how differences in climate shaped their cultures.*

Three Sisters

Among the most important aspect of New World culture is the three sisters: corn, squash and beans (Fig. 2a). These allowed for crop integration, a stable form of agriculture that causes the soil to be replenished as it is used. The verticality of the Americas also introduced the problem of climate, in constrast to the horizontal nature of the Euroasian continent. Corn arose from Teosinte, a plant with a few fruitcases and rather low yield to the massive corn cobs seen today. It would take several years to acclimate to a slightly different climate.

The three sisters are not the only aspect of food production that set the Americas apart. Compared to Europe, where pigs, sheep and cattle were domesticated, there was a dearth of pastoralism and instead game was hunted or a variety of other foods eaten. American Bison, guanacos, llamas and a variety of other animals provided food and transportation (Fig. 2c). They also did not need fences and roamed free. This would come to shape native American cultures until colonial times.

Algonquin

The Algonquin lived throughout eastern Canada and the American northeast. The Algonquin spoke several languages: ojibwa, around Lake Superior; algonquin, by the eastern Canadian tribes; cri, spoken near the Hudson; and lenape, near Delaware. Each dialect was spoken primarily by tribes in these different regions (y Gonzalez, 1892). Enlgish has borrowed several loan words from algonquin, namely *squash* and *tomahawk* (de Linguistica, 2012).

^{*}All material not cited in this essay is taken from lecture 15 or (Ching et al., 2010)

The Algonquin mainly hunted and fished around the Great Lakes. Much like the Mongolians in the steppes, the hunting culture enfused the Algonquin with a sense of mobility. They had a hunting ground tradition, which centered on each family owning an area within which they hunted game. If another family or person attempted to hunt game in this area, a quarrel would ensue (Cooper, 1939). They built canoes out of bark and spruce roots then sealed with resin and grease. They could also construct toboggans during the winter and babies were carried around on tikinagans. Some tribes borrowed argicultural techniques from tribes farther south and cultivated the three sisters.

They lived in birch bark (wikiwams) or wooden (mikiwams) houses (Fig. 3a). These structures were similar to tipis, but their frames were slightly bent to allow the wind to pass over and protect those within. They were made of tree saplings, which were in plentiful supply in the region (Cooper, 1939). After putting up the structure, they were surrounded by straw or other thatch and tightly bound to seal the struture from wind or rain. The houses were mobile and because the frame was easily constructed, families could just drag the straw mats around to new sites and quickly setup a new house (Prindle, 2000).

Their religion was called Midewiwin, which centered around a belief in manitok or spirits. It was similar to the kami seen in Japan; though, they didn't appear to make houses for their spirits like the Japanese. In this manner, the trees, vegtebales, animals and other parts of nature were infused with spirits that protected them. A shaman served as both a medicine man and directed religious ceremonies that involved dancing and singing with tamborines. One ceremony involved boys, aged twelve, who would be taken out into the forest and left alone. They would then have to be there, without food, until they saw a spirit in their dreams. They would then return to the village and this spirit would be their guardian and friend for life (Sultzman, 1999).

Cahokia

Moving into the American heartland, the Cahokia come into play; they came to prominence around 600-1400 A.D. in the Mississippi River Valley. A much more temperate region than the scorching Southwest or the frigid north, their lifestyle revolved around nuts, fish and various game in the area augemented by the three sisters when needed. The more earthy ground lead to construction of various mounds, such as the enormous Monks Mound at Cahokia Mounds near St. Louis (Fig. 3b). It was constructed in several layers and appears to have suffered the problem of retaining rainwater and thus having large sections fall off in landslides. If it had been built of more sturdy material, which seemed to be in short supply, it might have stood at its original height for longer. They also cleared much of the underbrush to create orchards, an easy way to gather surplus food since little effort was required beyond tending trees.

Hisatsinom

The Southwest United States was a dry, arid place that the three sisters did not immediately adapt to. This lead to a slightly different type of culture: chiefdoms (Fig. 3d) and heavier reliance on animals for food. The Hisatsinom lived here around 900-1400 A.D. and were known as the Anasazi, or 'the enemy', by the Navajo. They were considered to have a more egaltarian society in contrast to those in central America and developed buildings with solar and lunar orientations. This is manifest in Pueblo Bonito, located in Chaco Canyon in modern-day New Mexico (Fig. 3c). Pueblo Bonito contained many ceremonial houses, two central plazas and was partially surrounded by a multi-story building containing many rooms. These ceremonial houses, called kivas, that were slightly subtarranean and contained a bench around the edge. At the center was a fire hearth and ventillation shaft kept the place from smoking up. It was covered with a flat, adobe roof with a hole at the center. Trash was dumped in middens. Pueblo Bonito did not appear to be a place for people to live, but it was connected to other settlements by a series of roads that left along a solar axis, possibily indicating its use as a trade outpost or central religious site. Several other similar establisments can be found along Chaco Canyon.

Olmecs

While many cultures conformed to their geography, there are some that shaped it to their own liking. Moving into Central America, we see the emergence of the Olmecs, who arrived on the scene in modern-day Veracruz and Tabasco around 1,500 B.C. Originally, their homeland was a swamp and nearly uninhabitable. They rapidly converted it into ariable land and proceeded to plant crops, from rubber trees to corn. In Central America, we begin to see the recognition of corn's importance through it's representation in ritual head-dresses. Rituals were accentuated by the involvement of jade, in figurines and throughout other aspects. Jade was seen to be associated with life, likely due to its greenish hue.

The Olmecs had several main ritual centers: San Lorenzo and La Venta. San Lorenzo was built first and was situatied on several artificial islands that the Olmecs created after draining the swamps, an amazing engineering feet. Colossal monolithic heads were built here, possibly to represent their rulers. Most of the architecture was wood, but basaltic stone was used and most buildings had a north-south orientation. San Lorenzo declined around 900 B.C. and La Venta took over as the Olmec capital, located nearer to the Gulf of Mexico. We once again see the emergence of colossal heads in addition to altars and stelae (carved stone slab). They produced an unusual fluted pyramid that sat on a mound while a palace complex was situated at the nearby Acropolis (Fig. 4a). La Venta is also home to a ceremonial replica that shows several people circled around a central figure. Not much is known about their exact rituals.

Maya

The geography of the Yucatan played an important role in the development of the next civilization there. The Maya lived concurrently with the Olmecs, but reached their zenith during 250-900 A.D. They developed near the crater site of the asteroid that ended the Cretaceous period, which caused sinkholes to develop, called cenote (Fig. 2d). Due to the beauty, location and mystery of these caverns, they came to serve as sacred spaces. Chichen is an example of a city containing a sacred cenotes and was centered around El Castillo, a giant pyramid. While it might be assumed that such a construct could only have been built by a settled people with a stable food supply, we have seen the Cahokias run counter to this.

Remarkably, they developed detailed astronomy (small slits in the caracol (observatories) allowed observation of the stars) and a base 20 number system, both used by priest to guide rulers in their decisions. This knowledge also guided their architecture, El Castillo in Chichen would produce a beaituful snake-like shadow at the summer equinox. Perhaps due to the landscape or other reasons, no gridded cities developed like we would see later on with the Aztecs. The Maya represented corn in the form of a god, Yam Kaax, and played games with a rubber ball at the Ceremonial Ball Court, in which the winning team would die. The Maya loved turqoise and traded with the La Dueblin indians in the Southwest.

Aztecs

After the fall of the Maya, the Aztec rose to power around the 13th century and stayed so until the Spanish arrived. They were warlike and conquered the surrounding tribes and subjugated them. Nahuatl, their native tounge, united them and like other central American civilizations, the Aztecs had a corn god, named Centeotl or Chicomecoatl (Fig. 2b). They were particularly proficient in the arts, including crafts, astronomy and architecture. The Aztecs also built a series of canals to irrigate their farms.

Later on the Aztecs would inhabit Tenochitlan (Mexico City), an island city on Lake Texcoco (Fig. 4b). The city followed a grid-like arrangement: there were four zones (campan) that were composed of 20 subdivisions (capullis). The city was also divided by three main causeways. Each campan had a marketplace. At the center of the city was the Temple Mayor, a large pyramid with two staircases leading to two shrines dedicated to Huitzilopochtli and Tlaloc, the gods of war and agriculture, respectively. The building was enlarged over time until it reached its final form and is aligned to the cardinal directions. In addition to the temple, there was the *tlachtli*, a ball court where both ritualistic and professional games took place.

Amazon Basin

Unlike in central and north America, South America relied heavily on potatoes, largely because the jungle did not lend itself well to cultivating corn; though, they were able to grow cotton. Rain rarely fell along the Peruvian coast, effectively creating a desert. Many cultures relied soley on marine life to sustain themselves, some of the first cultures to do so. One of the first large civilizations to develop hear, did so inland where rivers could sustain life more stabily. They were the Norte Chico (Caral) civilization. At Caral, Peru they built a complex with several pyramids.

Around 900 B.C. we see the emergence of the Chavin. At Chavin de Huantar in Peru is found a central monument, with a C-shaped arrangement and solar alignment (Fig. 4c). The building contained an underground labryinth where it is thought new initiates would be brought after doing hallucinogenics. They would then wander the corridors, which were dark and only had little light streaming through skylights. At the end they would come across the Lazon, a cat-like divinity that would likely scare the initiates. The hidden passage-ways below the building also allowed priest to enter and appear on top of the building during rituals, much to the crowds astonishment and delight.

Tawantinsayo

The Tawantinsayo, or Incas, thrived from around 1200 to 1532 A.D. Their empire spanned from modern-day Ecuador to Chile. They were composed of four main cultures: Chinchansuyu, to the north; Cuntinsuyu, on the central coast; Antisuyu, in the central jungle; and Collasuyu, to the south. Due to the Andes and other geography, they built many roads and bridges to connect their empire and took advantage of llamas and alpacos to help negotiate the rough terrain. In addition, a group of trained runners also brought messages throughout the empire, known as Chaskis. They developed modern accounting using knots and colored braids that were woven into textiles (Fig. 4d). The influence of location can be seen in their city plans, such as the shape of Cuzco as a jaguar. They built temples as well, such as Qorikancha temple, where the Incas mastery of stone can be seen. It was originally gilded and the Spanish thought it one of the most amazing sights they'd yet encountered. The Incas did not use mortar, but instead constructed their buildings using brick with interlocking parts. This allowed them to fit together snuggly, but unliked mortar buildings, they wouldn't crumble when earthquakes occured.

Tehuelche

The Tehuelche arrived in southern Argentina around 9,000 B.C. Famous to Europeans for their size as the mythical Patagonians, they are originally part of the Mapuche, but

split off to form their own group (Online, 2012). They were composed of several different sub-cultures: Selknam and Mankenk (island people), Aonik'enk, Chehuache-kenk, and Guenena-kene (land people). Several languages are spoken by the tribes composing this group and Tehuelche was originally spoken before a transition to Mapudungun took place. They were a Chon language that has many sub-languages, as observed by Friedrich Hunziker and Jorge Claraz then placed in proper terminology by Roberto Lehmann Nitsche (Fabre, 2005).

They mainly hunted guanacos (like llamas) and Rheas (a type of bird). The guanacos were also used to keep warm during the winter by smearing their fat on oneself and by using their hides to make clothing and canopies (de Antropologia). This clothing was often painted. Thier hunting tradition stemmed from the inability to grow any significant crops in the southern tip of South America. They did gather fruits during the summer, but these augemented their normal diet rather than provide a steady source of food.

As a result of their more nomadic style of life, the Tehuelche were mobile people. However, unlike the Algonquin or plains indians who had a large expanse to roam about, the Tehuelche were more restricted and spent most of their time moving east to west and back again. At the end of each journey, they had semi-permenant sites where they setup camp, called aik(en) by the Tehuelche and tolderias (tents) by others. This could be in part because they didn't have the substantial, steady food supply needed to support a completely nomadic lifestyle. Interestingly, in contrast to the nearly completely territory-less cultures of the North Americans, but like the Algonquin, the different groups of Tehuelche agreed on ranges where they would hunt and they could only hunt in another groups area if they asked or won that area in a war (Nacuzzi, 2007).

The Tehuelche did not have a formal religious system, but had shamans and believed in myths. These shamans practiced medicine and also helped deal with the spirits. Some sub-groups believed in a creation story involving a god, Kooch, who was invited by the spirit Temaukel to create the world. After doing so, El-lal, the son of a giant named Nosjthej, created the Tehuelche and gave them bows and arrows. In addition, a spirit named Gualicho also played a role in some myths about the origin of the tribes as well as the Mapuche (N/A, 2012). Hence, we see a similar thread between the Algonquin and Tehuelche, even though they are vastly separated by space.

Conclusion

The Americas were home to numerous tribes and civilizations beyond the Aztecs, Mayas and Incas. Each was influenced by its geography and avaliable resources. In the north roamed the Algonquin who lived a life that involved both hunting and argiculture.

Into the American heartland we encounter the Cahokia and their massive Monks Mound. Journeying south one would have encountered the Hisatsinom and other native American tribes thriving in the American Southwest, building towns like Pueblo Bonito with its assortment of kivas and multi-tiered housing. Through modern-day Mexico, we encounter the home of the Olmecs, then the Mayans and finally the Aztecs, several great civilizations that constructed colossal heads, worshiped at sacred cenotes, and build gridded cities upon islands, respectively. Passing by the narrows of Panama into South America, we encounter the Chavin and their buildings with maze-like passageways to confuse new initiates. The Inca empire and their mastery of masonary and road-building are seen. Finally, we settle on the semi-nomadic Tehuelche people and their hunting of guanacos. And yet, even this wealth of cultures and histories only scratches the surface of the peoples residing in the Americas: the Eskimos in North America, the Navajo in the American Southwest or the Kanamari in the Amazon basin are all other examples. However, we see through all these cultures a thread: that the geography, climate and food avaliable to each civilization helped shape its progression. This influenced everything from religion, e.g. corn gods vs. spirits, to the architecture they could build, e.g. simple straw houses vs. massive stone temples. The rich diversity of the Americas should not be forgotten admist the focus on the more accomplished civilizations there.

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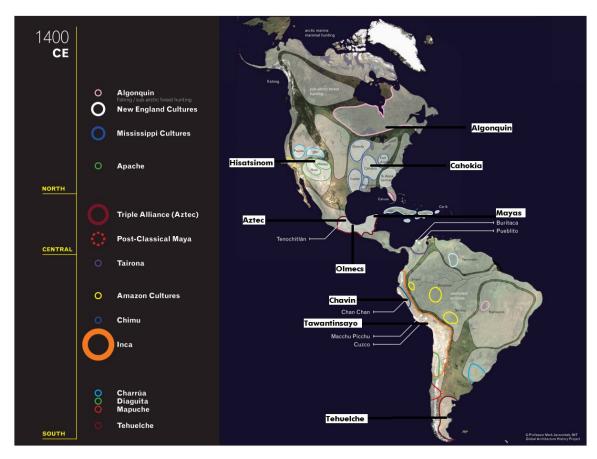


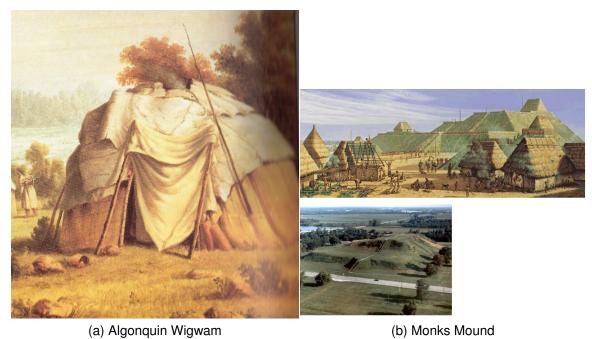
Figure 1 | Map of Civilizations Discussed

Image of the Americas with locations of the cultures discussed in the text. We start with the Algonquin and then discuss the Cahokia, Hisatsinom, Olmec, Maya, Aztec, Chavin, Inca, and Tehuelche.



Figure 2 | Early native American staples

a, the three sisters that enabled stable crop integration. b, the corn god of the Aztecs, recognizing the importance of the crop. c, the different type of game hunted in the Americas. d, the cenote, which were seen as sacred by the Maya.





(c) Pueblo Bonito

(d) Chiefdom vs. Empire

Figure 3 | Structures of North America

a, wigwams were Algonquin houses. b, Monks Mound was located near St. Louis and built by the Cahokia. c, Pueblo Bonito was built by the Hisatsinom and contained kivas. d, the different governance forms between North and Central America.

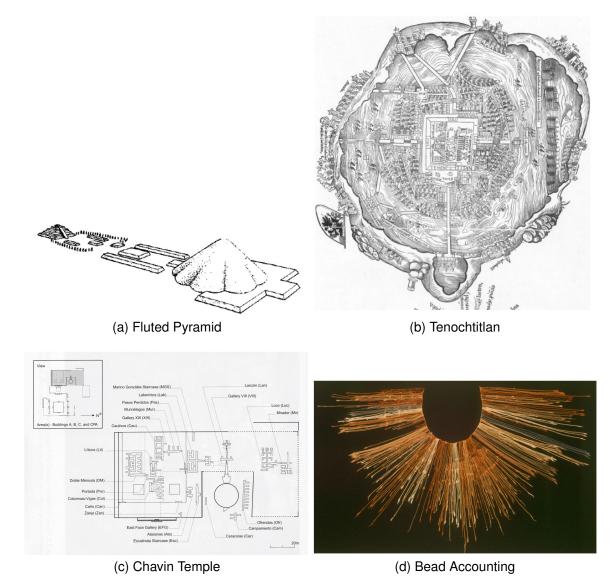


Figure 4 | Structures and Items of Central and South America

a, fluted pyramid of the Olmecs. b, Tenochitlan was the capital of the Aztecs built on an island and followed a grid-like pattern. c, the Chavin produced complex temples like this with underground passageways. d, the Incas did accounting using beads and nots.