

The Development of Complex Society

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Both the Ubaid culture and the Olmecs appear to have sprung forth at a fairly complete stage from an unknown source, a fact that causes much discussion amongst today's archaeologists.

Environment and Resources

Although the environment of southern Mesopotamia and the Mesopotamian lowlands differed considerably, the Ubaid people and the Olmecs were challenged by remarkably similar lack of resources. Mesopotamia was tormented by extremes of temperature and a lack of plants and animals suitable for domestication. It entirely lacked natural resources such as wood, stone for building or carving, ore for metallurgy, and thus it was necessary for anything of the sort to be obtained via trade. The only place it was possible to perform agriculture was along the banks of the rivers; however, the rivers themselves posed a large threat, as they overflowed on a regular basis, flooding the surrounding areas. The rivers also had the characteristic of shifting course quickly and dramatically, so a previously dry area could suddenly be taken over by a river, or vice versa. For these reasons, none of the great Sumerian cities were built right along the river's edge. However, there were some benefits to the Mesopotamian environment: because only the area right next to the rivers was wet and suitable for agriculture, the dryer area farther from the river was fairly good for grazing stock. Additionally, there was an abundance of mud and rushes which proved useful for building, and the rivers themselves, although it was difficult to rely on them in their unaltered state, made it possible to practice irrigation agriculture and therefore gather a surplus of food. Thus it was possible for the Mesopotamian people to support themselves via a broad spectrum of activities.

The Mesoamerican lowlands, however, were entirely different, composed of lush, tropical forest and many swamps. Animals and gatherable food were in abundance, and it was possible for a settlement to hunt and gather all it needed without moving far at all. However, in these lush lowlands there was again a severe lack of resources such as wood, stone for building or carving, domesticatable animals. As in the case of the Mesopotamians, it was necessary for the Mesoamericans to import anything of the sort. The soil there was thin and poor, leached of nutrients by the abundance of rainfall and

biological activity. However, there were large amounts of land, permitting the Mesoamericans to support themselves via slash and burn agriculture without fearing that the fallow cycles would be too short. Again, there were plenty of rushes and mud to build with, and aquatic resources such as fish could also easily be found. The rivers, similar to the rivers in Mesopotamia, overflowed regularly, and then drained away only very slowly from the lowland areas. When they did this, a layer of very rich soil would be deposited on the banks or levee lands, a layer which could be used very successfully in cultivation of crops. The Mayans, later, also came up with the ridged field system which allowed them to extremely efficiently get around the problem of the flooded plains and actually produce a surplus of grown food.

Subsistence Practices

Once again, although the actual subsistence techniques practiced by the Ubaid people and the Olmecs differed substantially, the effects of them were approximately the same, and resulted in the same sort of useful surplus of agricultural goods for use in trade, which in turn, played an extremely important role in the development of both the Sumerian and Mayan civilizations. In Mesopotamia, trade was not so widespread until about the PPNB, The first Ubaid settlements were very dispersed and supported themselves via a wide range of activities – fishing, hunting, cultivation of plants along the riverbanks, and herding of animals on the plains. However, with the development of irrigation agriculture, all that changed. The use of irrigation agriculture proved invaluable; it allowed the people living in this difficult environment to produce huge amounts of food, more than what was necessary to support themselves. This extra food could in turn be traded for useful commodities such as stone and wood. Trade (as well as contact between Ubaid settlements) was additionally made fairly simple by the use of boats. In an extremely short period of time, the Mesopotamians went from being poor to being rich with imported goods and well-established in the trade world. However, given the intensive agricultural practices and extensive trade, it was necessary to form some sort of social order to administer the different activities and keep everything running smoothly. It was also necessary to have full-time specialists to work the imported goods once they were obtained. For this reason, the administrative temples were established, and along

with that came a distinct social order, as it led to the concentration of power and wealth in the hands of the temple authorities and people who directly controlled the irrigation system. As agriculture and trade developed, large amounts of people settled in the area, leading to a need for even more intensive agriculture and trade. It is not determined whether the population growth has to do with large numbers of nomadic people settling down, or people from rural area moving to more urban ones, but the fact remains that the population expanded greatly.

In Mesoamerica, it was also necessary for the people to develop some sort of agricultural practices in order to support themselves and participate in trade for necessary items like stone and wooden rafters. Irrigation was not possible in the lowlands: however, as settlements were small and land was abundant, slash and burn, as well as intercropping, initially proved an excellent method for farming. Fields could be used for about two years before they were left to regain nutrients for about eight. This cycle of returning to the same places over and over and planting the same crops resulted in the mutation of the commonly used plants – mutation such that they became increasingly convenient to handle and use. The abundance of grown and gathered food was put to good use in trade, for the highlands of Mexico, although rich in non-edible resources, were sadly lacking the means to produce sufficient food. Thus trade was an integral part of the Mesoamerican communities from the start. The lack of resources was also most likely the cause of the Olmecs' expansion throughout and beyond the Gulf Coast lowlands. Population greatly increased here as well, although once again it is not definite how or why. As the people got more practiced in agriculture, they developed the brilliant agricultural practice of ridged fields. This technique allowed the Mayans to much more efficiently use their land to produce food, and caused them to prosper, which in turn most likely encouraged even more people to settle in the area.

Settlement Patterns

Perhaps the most noticeable difference between the Ubaid and the Olmec is the changing arrangement and distribution of settlement patterns and the things which are indicated by such patterns. The Ubaid initially settled in smallish communities which were spread out over a wide area and maintained contact via boat. These communities had no centralizing

structure such as temples for some time, until trade became fairly used, and it was necessary to implement some sort of administration. Initially the temple was central in the settlement, with everyone else around it, but as wealth became more differentiated and craft specialization more intense, there was more of a specific distribution of the population based on class, with the elite living directly next to the temples and the peasants living somewhat farther away and producing agricultural products. As time went on, and the temples became more and more powerful, the actually physical temples also became larger and more elaborate. At two points in the development of Sumerian civilization attempted expansions took place: once in the Ubaid times, and again in the Uruk. Both times colonies of people set out to the far reaches of Mesopotamia and settled; however, in neither case did these colonies remain for longer than about 150 years. It is not known exactly why people expanded or why they disappeared, but it seems likely that the expansion was most likely an attempt to infiltrate and thus come to control the periphery, demonstrating the surprisingly deliberate actions of the pre-Sumerians: it almost appears as though they were aware that they were building one of the greatest empires of the time.

The Mesoamericans had an entirely different settlement pattern, based on the existence of 'vacant' temples, or ceremonial centers. The Olmecs sprang into being complete with a religion and temples to support it: however, the only people to live in the temples were a few priests or other such people. The peasants and others settled outside of the temple area, so that the temple was completely removed from the towns. This was an entirely different situation from the pre-Sumerians, who kept their temples integrated at the center of their towns. After a long period of time however, as the population sharply increased, the ceremonial centers began to become more like urban centers as more and more people settled nearby in order to participate in the religious activities. The Mayans additionally encouraged people to move in so that they had a greater labor force – more people to build temples, supply food, and make crafts. More and more people settled and the population drew closer and closer to the temples until finally the towns and temples were integrated, both part of the same urban center. Unfortunately, this growth proved too much for the Mayan cities – there was just not enough food produced, even with the intensive agricultural methods, to support the quickly growing cities. The

intensive settlement patterns eventually weakened the cities and led to their ultimate downfall.

Technology

The Ubaid and Olmec were both enabled to succeed and prosper due to important developments in the field of agriculture which led to a surplus required to establish and maintain the extensive trade which heavily influenced the development of true civilization. As discussed earlier, the pre-Sumerians developed irrigation agriculture, which was one of the strongest factors that allowed them to become a great civilization. Because of irrigation agriculture, they were able to create a surplus of food which could then be traded with other places for sorely needed necessities such as wood and stone. Had they not had such a useful trade item, it is likely that they would have only survived in the small well-dispersed settlements that made up the early Ubaid, never becoming the huge civilization that they eventually did. Irrigation agriculture, in addition to enabling extensive trade, also required some sort of administrative system to maintain it (along with maintaining trade). Someone needed to look after the irrigation, to assign tasks to different people, to maintain trading contacts, to redistribute food and trade items. These tasks automatically fell to the temple and associated people, and as both trade and agriculture became more and more intense, the temple gained a greater and greater amount of power. As wealth increased, its distribution fell in an uneven pattern, where the temples and elite became more and more wealthy while the peasants became poorer and poorer. This led to the invention of cylinder seals, used to keep track of ownership and private property. Also due to the quick intensification of stratified society was the invention of writing, which for many, many years was used solely for economic purposes – keeping track of land ownership, of sales, of workers. Irrigation agriculture was indeed the first and most important step in the transition from settlement to civilization.

Agricultural developments in the Mesoamerican lowlands also played a strong role in the development of the Mayan civilization. From an early time, food surplus was a necessity, as the peasants were forced to support not only themselves, but the ceremonial centers as well. For the Olmecs, who lived in fairly small communities, slash and burn agriculture worked just fine, as there was huge amounts of free land, and it was

easy for them to live a ways away from the ceremonial center and just bring in produce. However, as populations began to increase, more intensive agricultural production was required, agriculture that more efficiently used space. Therefore the development of the ridged field system was invaluable to these people. The ridged field system allowed the Mayans to support the continually growing population. Surplus food also made the Mayans valuable trading partners with the highlands, which contained all the building and jewelry necessities that the lowlands lacked. We now see a pattern much like the one earlier described in the case of the Sumerians: extensive trade required an administrative system, which, as in the case of the Sumerians, was taken by the temple and associated people: as people moved in and trade increased, there was more and more differentiation of wealth and social classes, and as wealth increased, there was more and more call for laborers and craftsmen to build better temples and create more beautiful objects for the elite. It was a self-propagating cycle, which finally broke down when the environment became severely over-used, resources were totally used up, and trade broke down.

Religion/Ideology

Although religion participated heavily in both cultures, it was used for somewhat different reasons, and was perhaps the most important differentiating factor, if not the most noticeable, between the cultures. During the Ubaid times, there was little religion, and what there was didn't play a strong part in the development of the Sumerian civilization. Although people had definite religious beliefs and shrines had been an integral part of their settlements for some time, it was not religion and shrine decoration that they were originally concerned about, but simply obtaining necessary resources in general. The awesome temple-palaces that were developed during the Uruk period give evidence that people were indeed highly religious, but it appears that their religion was more economical than spiritual. Large temples were originally designed in order that there be some entity or group responsible for administering and maintaining the fast-growing and complex communities, and later, people were organized by temple as well. The temple performed many important economic functions, and it seems that religion was really only a side effect. It was not a great motivational factor as it was with the Mesoamericans, as we shall shortly see.

With the Mesoamericans, it appears that religion provided the big kick that got people together and started the building of the great early civilizations. The Olmecs appeared in the lowlands complete with religion and ceremonial centers: as I stated earlier, these centers were ‘vacant’, and depended on the peasants from the surrounding areas to support them. At this early point, the peasants gained nothing tangible from this voluntary support – the centers played a purely spiritual role in peoples’ lives, it had no economic function whatsoever. The peasants worked simply for their own salvation: they worked with the hopes that they would please the gods and therefore secure their own well-being. This situation remained so for some time, into the time of the Mayans, when things began taking on a different face. With the Mayans, as population took a sharp upward rise and trade increased, temples began becoming more and more integrated into villages. It is obvious that the temple was the most important factor in Mesoamerican life: all the motivations for trade, population increase, and so forth, had to do with the temples. Mayans wished to increase their population in order to gain more craftspeople to create beautiful things to decorate the temples with, more laborers to build new temples, and more laborers to produce food for trade (and growing population) so that they might gain even more outside resources to be used for religious and temple belongings. Their method of attracting people to their centers was to make the temple even more elaborate and beautiful: this alone demonstrates how important religion and religious life was to them. I think one can safely say that, just as in the Sumerian situation with irrigation agriculture, religious life was the catalyst that set the civilization process into motion.

Thus we see that the rise of civilization in these entirely different areas had remarkably similar roots and motivations. The ingredients for civilization were exactly the same, and the recipes very similar, the only difference being the relative importance of factors such as religion or technology.