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WHERE AND WHY DID THE FIRST CITIES APPEAR?

In this three-part video David Christian explains how the rise of agriculture led to the formation of the world's first large-scale civilizations. Fueled by surplus crops, people living in those civilizations were able to specialize in jobs other than farming, which introduced new roles into society, as well as new forms of hierarchy. At the end of this lecture, you should be able to explain how agriculture enabled the rise of civilizations, how civilizations were similar and different, and what civilization made possible.

Key questions

- 1 What factors contributed to the rise of the first cities and states?
- 2 What emerged from the first civilizations?

Transcript: Part 1

We crossed the seventh major threshold of complexity in this course, agriculture.

0:11-0:49

We saw how from about 10,000 years ago small agriculture villages began to spread in many different parts of the world. These were in fact some of the most important human communities that have ever existed.

SMALL FARMING VILLAGES

Now, at first that may seem surprising because when we think of human history we often think first of the great agrarian civilizations. We think of Rome and its empire. Or we think of the great Han empire. But without the slow spread of simple farming villages, those **agrarian civilizations** could never have existed.

The real key to understanding agrarian civilizations is increasing complexity. Complexity seems to increase as populations increase, but to support larger populations, you need to be able to get more resources from a given area, particularly more food resources. That's where **farming** comes in.

0:49-1:56

COMPLEXITY INCREASES AS POPULATION INCREASES

Thanks to farming, between 10,000 and 5,000 years ago human populations seem to have increased from about 5 million to 10 times as much — to about 50 million. A lot of those humans still lived as **foragers**, but probably by 5,000 years ago the vast majority of them lived as peasant farmers.

FARMING LEADS TO POPULATION GROWTH

Now, within each agrarian area, villages began to bud off, both within the core regions and at their edges. So villages began to spread. At the same time farmers began to develop new and more productive ways of farming. They began to farm areas they couldn't farm before. They developed new crops and they began to develop new and more productive technologies of farming.

1:56-3:01

DOMESTICATING
ANIMALS = AN ENERGY
REVOLUTION

From about 6,000 years ago, some communities began to find more productive ways of using their **domestic animals**. Instead of just using them for their meat or skin, which you can only do when you slaughter them, they began to use them for products they develop while they're still alive, such as their fur or their milk or their draft power. Now, that was a real **energy revolution**. A human can deliver perhaps 75 watts of power, but a horse or an ox can deliver almost 10 times as much.

Using that power to pull plows, some communities began to farm lands that you couldn't possibly farm using just ordinary hand-held hoes. Using that power you could also carry goods in a way that was impossible just for human porters. Finally, these more productive ways of using animals made it possible for so-called pastoral nomads to settle the arid steppe lands of Eurasia traveling nomadically with their herds of livestock.

But an even more productive innovation was **irrigation**. Irrigation is used to farm areas where there's not enough rainfall. If those areas have fertile soils, which a lot of them do, then you can get huge crops through irrigation, particularly if you introduce large-scale, sophisticated irrigation systems with canals and ditches that require a lot of organization.

3:01-3:28

IRRIGATION

Transcript: Part 2

3:32-4:08 As farming technologies became more complex and more productive, they eventually allowed the creation of larger, more populous, and more complex societies. The societies we call agrarian civilizations.

MESOPOTAMIA & THE NILE RIVER VALLEY This transition seems to have happened first in **Mesopotamia**, in the lands south of the Fertile Crescent. Also at about the same time along the **Nile Valley**. In these regions as villages spread and farming became more productive, eventually there appeared the first really large villages and then towns and cities.

4:08-5:05 In the lands between the great rivers, the Tigris and Euphrates in Mesopotamia, irrigation systems emerged that produced huge crops and supported large populations.

SUMER: POPULATION 50,000 And then from about 5,000 years ago, there appeared in the south of Mesopotamia, in the region called **Sumer**, the first real cities. These had populations up to 50,000 people. They had wall gardens. They had fortifications around them. They had temples, they had palaces, and they had complex irrigation systems. We even have a map of one of them, Nippur. That map was carved in clay about 3,500 years ago.

These are the most complex human societies that had ever existed so far. The real key to the creation of cities seems to be the tiny surpluses that peasant farmers produce, particularly as their farming became more productive.

FOOD SURPLUSES
= CITIES

What this meant was that it was no longer necessary for everyone to be a farmer. **Specialists** began to appear. Potters and merchants and priests and soldiers. Now, something happened that was a bit like something that had happened already 500 or 600 million years earlier with the appearance of the first multicelled organisms.

5:05-5:59
SPECIALIZATION
MEANS NOT
EVERYONE HAS
TO FARM

Individuals got so dependent on each other that they began to need some sort of coordinating mechanism. So potters, for example, needed markets to sell their goods on. Soldiers needed governments that could hire their services. Merchants needed courts to settle disputes. Town dwellers and farmers needed someone to maintain the huge irrigations on which they depended. Everyone, frankly, needed someone to organize all these increasingly complex relationships.

PEOPLE BECOME
INTERDEPENDENT

5:59-6:35

GOVERNMENT EMERGES

As a result, in response to these needs, a class of power brokers appeared. Most of these were men and what they did is they began to take on the role of coordinating society. In villages they were probably chosen by those they led who needed someone to do this job, but as power brokers became more powerful and had more resources, eventually they began to hire paid enforcers who could impose their will by force. Now, for the first time we have true states and true governments.

6:35-7:18

SOCIAL HIERARCHY

We also have something else. There has appeared a new type of **food chain** within human society. Farmers extract resources from the environment; from the biosphere. But above them there's now a new layer of elite groups who extract resources from the farmers by the threat of force.

So now societies have developed a whole **hierarchy**. At the top there's a small minority of people who are very rich and very powerful who extract resources from the vast majority of peasants, who may make up 90 percent of society. In addition, there's always, we find, a small class of menials or slaves at the very bottom of the heap.

Transcript: Part 3

Agrarian civilizations appeared in many different parts of the world. There were important differences between them.

They had different languages, different religious traditions, different artistic traditions, but they were also hugely important similarities.

All of them, for example, had big cities. Those cities had what we call monumental architecture. Temples, pyramids, palaces. They also had rulers. They had hierarchies. They had tax systems. They had armies. And supporting the whole thing was a large population of peasants, most of whom lived outside of the major cities.

Agrarian civilizations also had writing; all of them, and this is really important because it seems to have accelerated collective learning.

Writing probably originated as a system of accounting as those elites and power brokers who were accumulating more and more resources tried to keep track of their resources. But eventually the symbols used for accounting could be used to convey all the nuances of everyday languages and generate literatures and history — proper writing.

7:22-8:03

SIMILARITIES OF AGRARIAN CIVILIZATIONS

8:03-8:59

WRITING

AGRICULTURE Agrarian civilizations appeared wherever agricul-
SPREADS, WITH ture flourished. So this means it appeared in all the
EXCEPTIONS core regions of agriculture with some interesting
exceptions.

It didn't appear in Papua New Guinea, probably because the root crops that were grown there could not be stored and agriculture was not quite productive enough to generate surpluses and support specialists.

8:59-10:07

CIVILIZATIONS
AROUND THE WORLD

As we've seen, the first real agrarian civilizations seem to have appeared in Mesopotamia and along the Nile Valley about 5,000 years ago. Some of these consisted of really little more than cities with surrounding villages, but some were huge, including the first Egyptian state, which covered a vast area along the Nile. By about 4,000 years ago we have evidence of agrarian civilizations in China and other parts of Asia, including Korea, which is where this folk village is.

We get evidence of cities also appearing in other regions such as central Asia and in Pakistan along the river Indus. Then about 3,000 years ago, we get evidence of huge empires such as the Assyrian empire. We get evidence of huge empires in China and also in Egypt. The first real agrarian civilizations in the Americas seem to have appeared about 2,000 years ago...just over 2,000 years ago. By 500 years ago, when Europeans first reached the Americas, the Inca and the Aztec empires covered a colossal territory.

Agrarian civilizations, like the agrarian technologies on which they were based, slowly evolved, spread, developed, got more complex, got more populous over 4,000 years. By 1,000 years ago, it's probable that most humans living on Earth lived within agrarian civilizations and almost all of them would have been farmers.

10:07-10:35