

The Neolithic Revolution

- **Neolithic Revolution**—agricultural revolution, began about 10,000 years ago
- Nomadic women scattered seeds, then discovered crops growing
- Shift from food-gathering to food-production great breakthrough



Causes of the Agricultural Revolution

- Rising temperatures probably a key reason
- Longer growing season, drier land for wild grasses
- Constant supply of food led to population growth

Food from the land

In this scene, you can see these early farmers working on the land. This year's crop is ripe, so Illa and the women harvest it to eat or store.

Daily bread

Their most important food is bread. The women grind the grain between heavy stones to make flour. Then they add water and shape the mixture into round, flat loaves, which they bake in clay ovens.

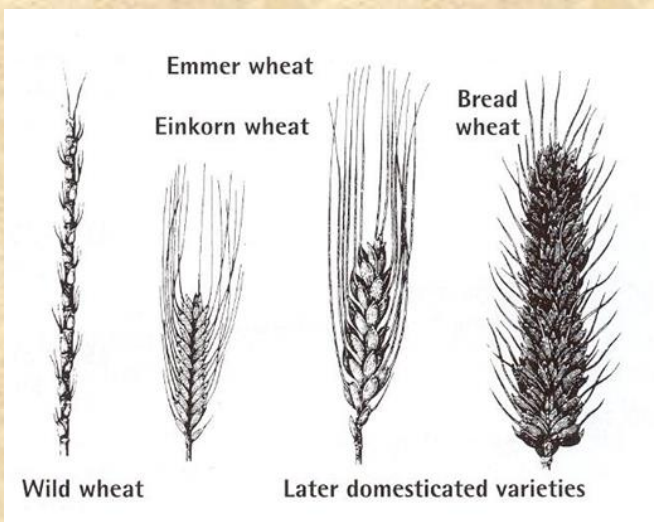
Harvest home

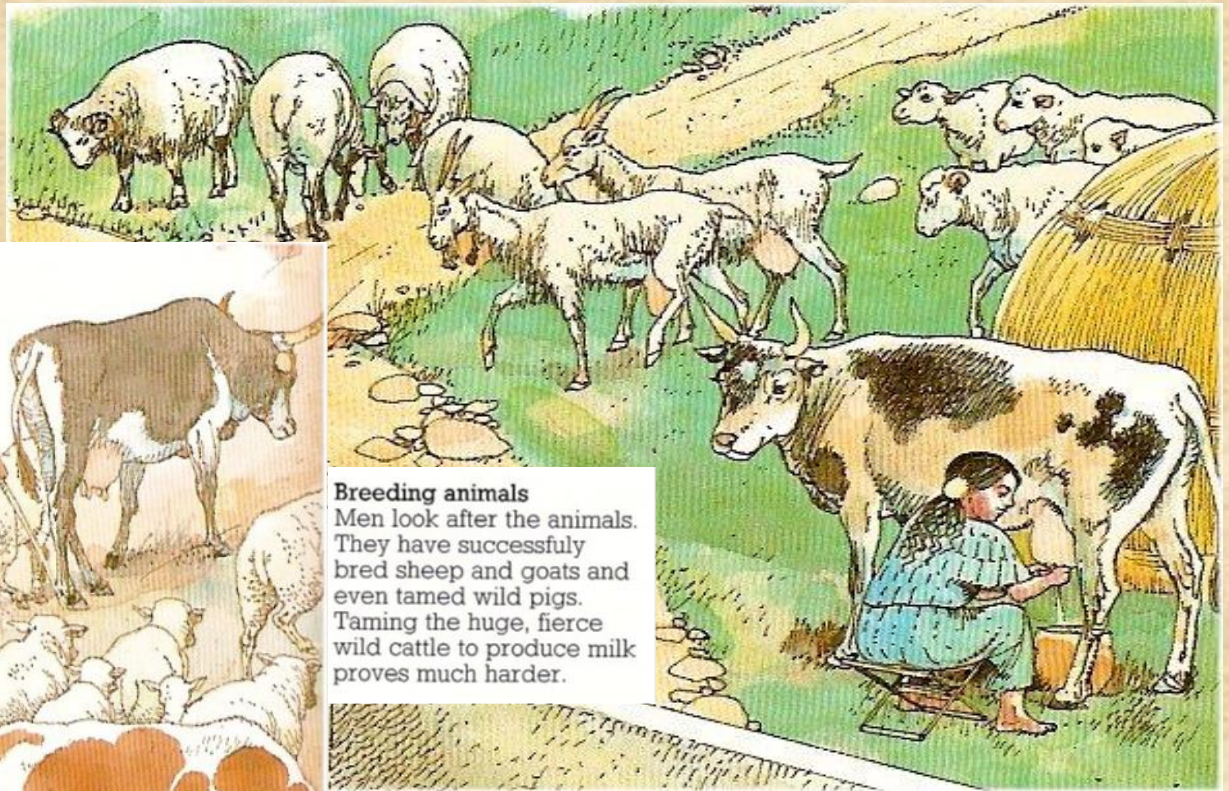
The women harvest the crop using sickles made of sharp flint blades set in wooden handles. Illa gathers ears of wheat to take to the village.



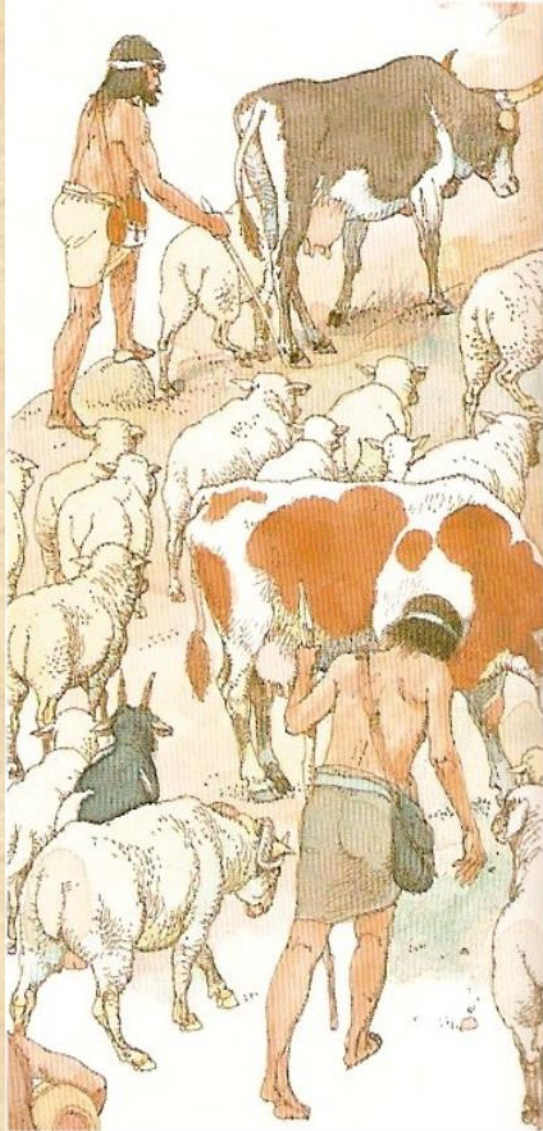
Thrown to the wind

In the village, they *winnow* the grain by tossing it into the air so that the *chaff* (the outer coating) blows away. They then hide it in pits lined with clay or reeds to discourage theft.





Breeding animals
Men look after the animals. They have successfully bred sheep and goats and even tamed wild pigs. Taming the huge, fierce wild cattle to produce milk proves much harder.



The Ancient Species of Big Herbivorous Domestic Mammals

The Major Five

1. Sheep. Wild ancestor: the Asiatic mouflon sheep of West and Central Asia. Now worldwide.
2. Goat. Wild ancestor: the bezoar goat of West Asia. Now worldwide.
3. Cow, alias ox or cattle. Wild ancestor: the now extinct aurochs, formerly distributed over Eurasia and North Africa. Now worldwide.
4. Pig. Wild ancestor: the wild boar, distributed over Eurasia and North Africa. Now worldwide. Actually an omnivore (regularly eats both animal and plant food), whereas the other 13 of the Ancient Fourteen are more strictly herbivores.
5. Horse. Wild ancestor: now extinct wild horses of southern Russia; a different subspecies of the same species survived in the wild to modern times as Przewalski's horse of Mongolia. Now worldwide places.



Approximate Dates of First Evidence for Domestication of Large Mammal Species, Date (BC), Place



Dog
10,000
Southwest Asia, China,
North America



Sheep
8,000
Southwest Asia



Goat
8,000
Southwest Asia



Pig
8,000
China, Southwest Asia



Cow
6,000
Southwest Asia, India,
(?)North Africa



Horse
4,000
Ukraine

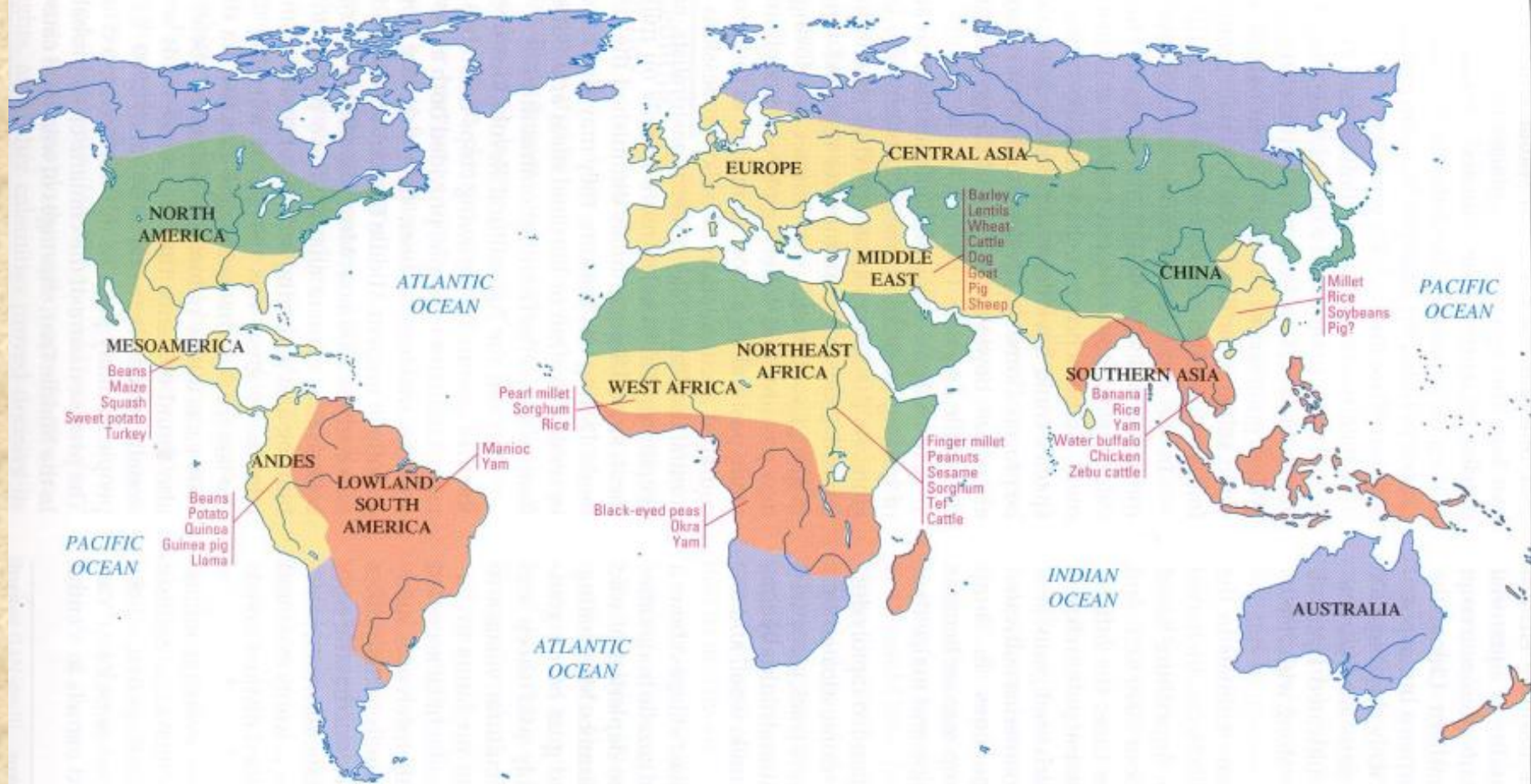
Donkey
4,000
Egypt

Water buffalo
4,000
China?

Llama / alpaca
3,500
Andes

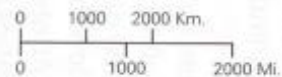
Bactrian camel
2,500
Central Asia

Arabian camel
2,500
Arabia



Economic Regions

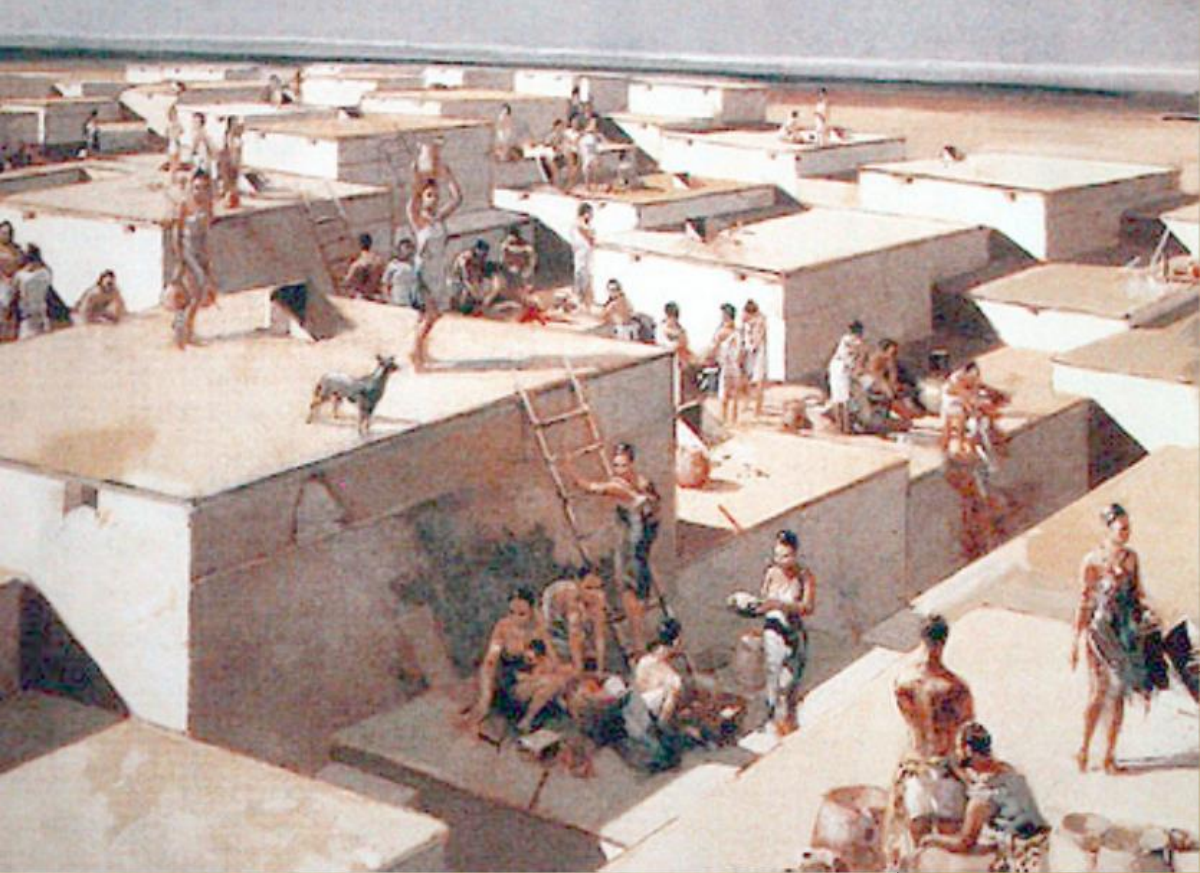
- Cereal farming
- Pastoralism and hunting
- Root farming
- Foraging



After hunting/gathering, but before
Civilizations there were...

Neolithic Farming Villages (8000-5000 B.C.)

1. Developed all around the world next to rivers
2. Permanent farming settlements
-- the oldest ones were
 - Catal Huyuk
 - Jericho



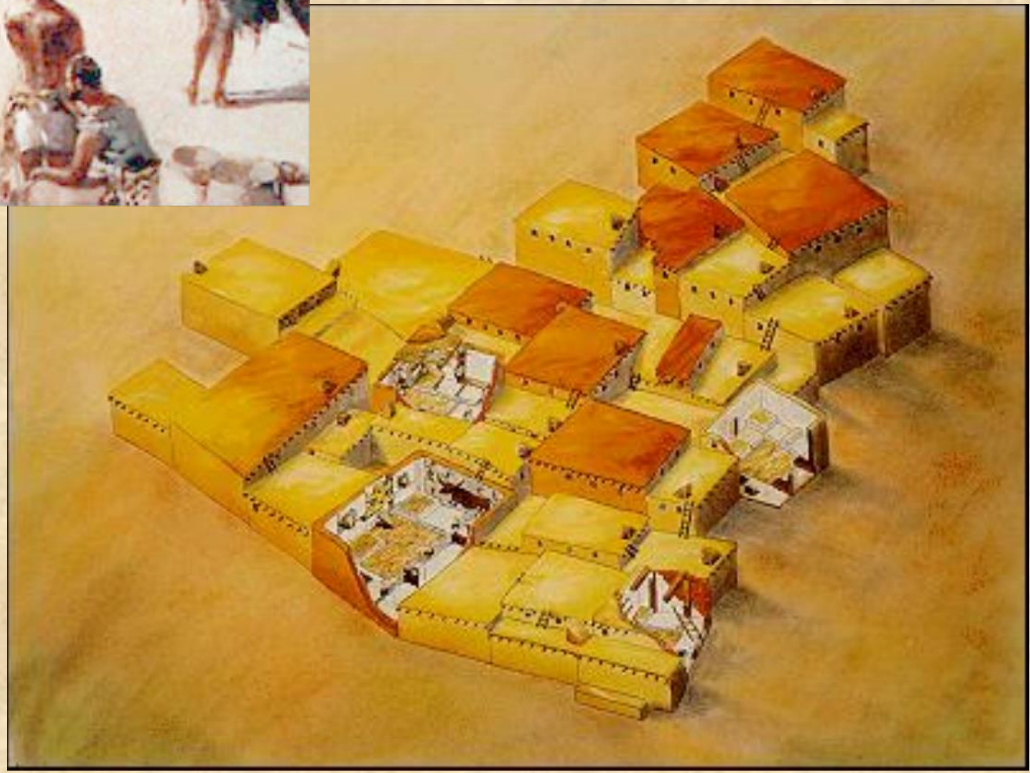
Çatal Hüyük

8,000 BCE

The largest early settlement

8,000 inhabitants in 2000 houses

It's pronounced chatal hoo-yook



Catal Huyuk had 18 Levels of habitation



Excavation under a roof today

Only 4% of the site has been excavated.

Catal Huyuk was once next to a river that has since dried up

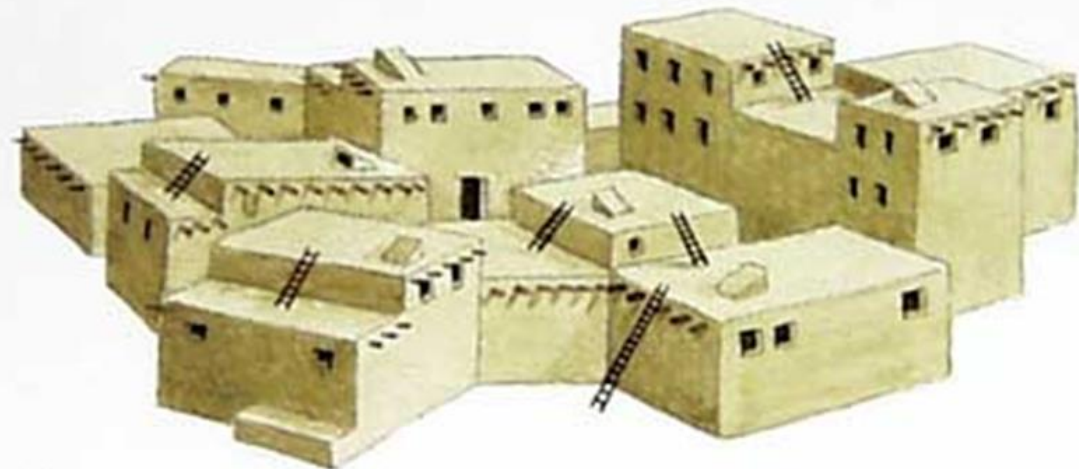


Located in Asia Minor (Modern Turkey)



Catal Huyuk was built on 26 Acres (approximately 24 football fields)

With no streets

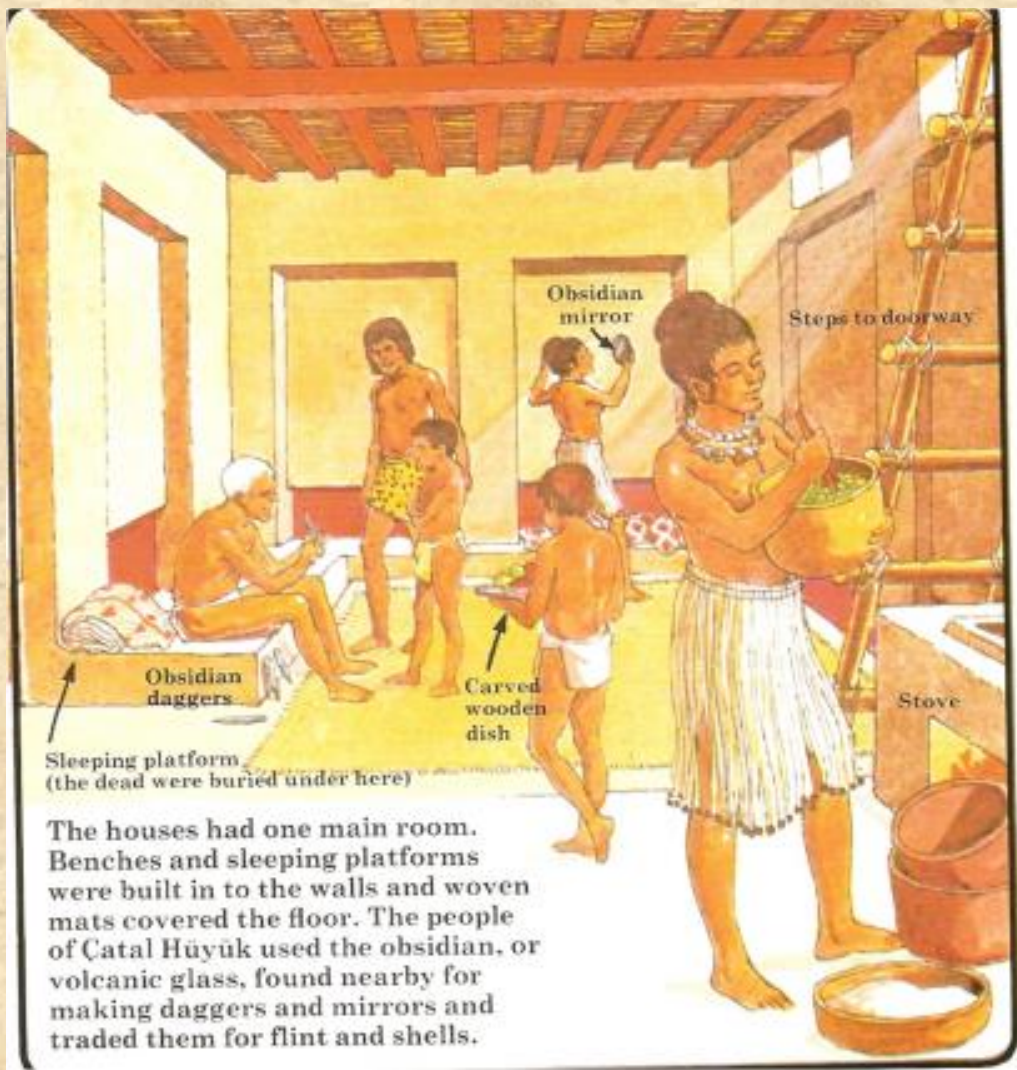


People walked on the roofs of their houses.

And used ladders to climb down into their houses.



Because they were farmers they had leisure time to create art and tools



Painting of hunters surrounding an auroch or Large wild extinct ancestor of the cow.



An obsidian dagger

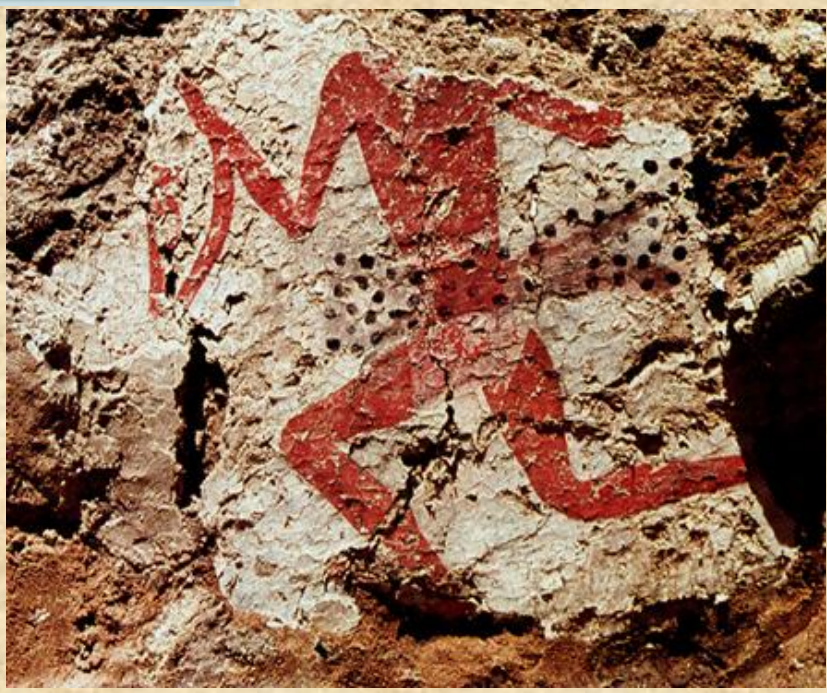


Wall painting of a dancing hunter

Painting of men hunting a deer

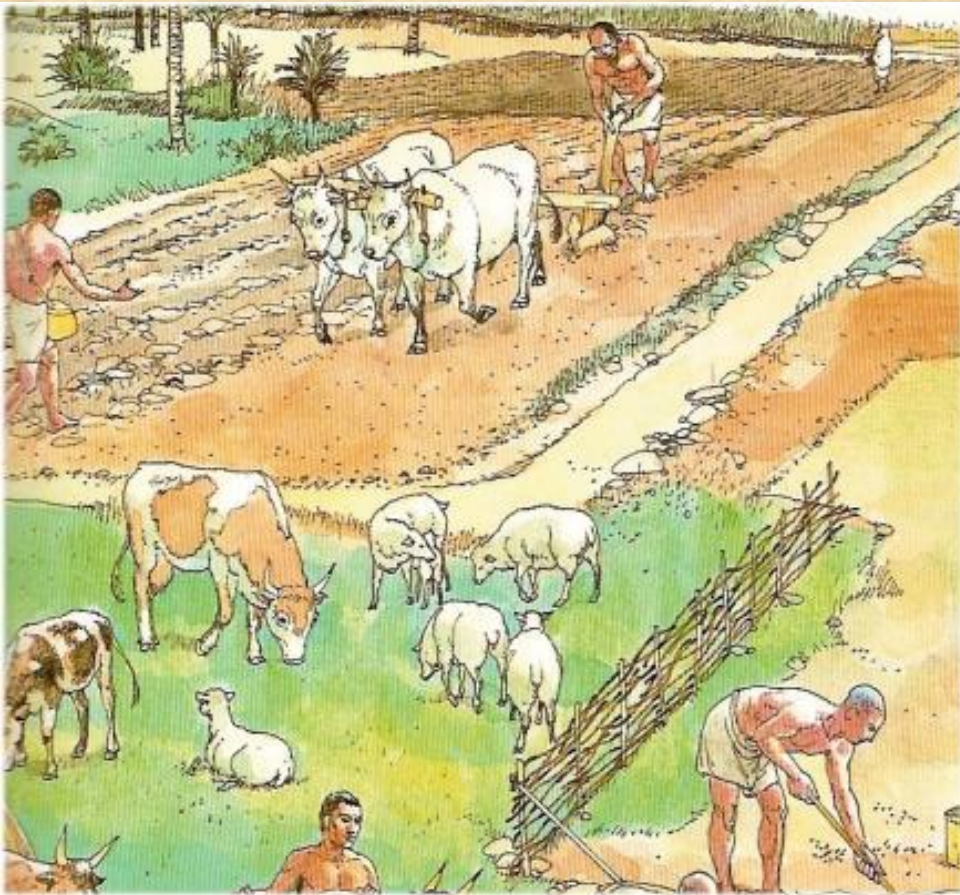


imprint of basket



And engaged in trade

They cultivated crops

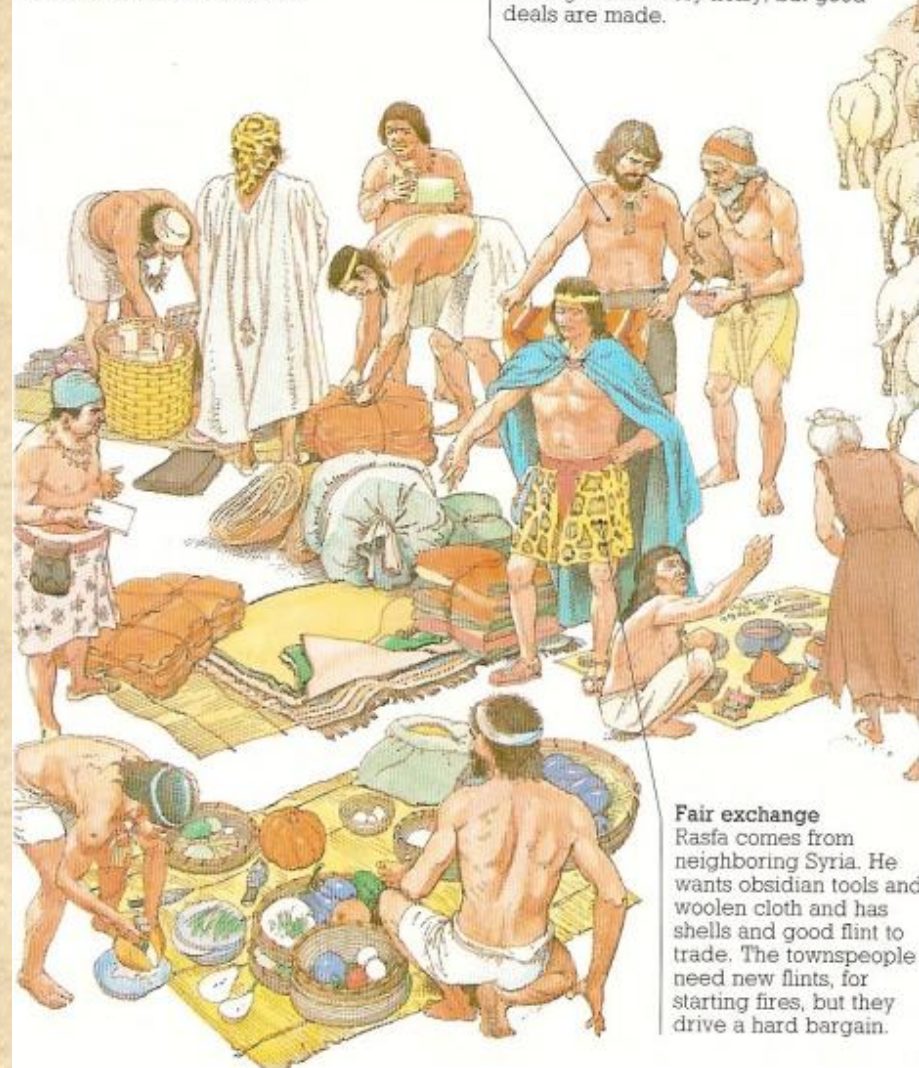


A town without streets

As you can see, the houses touch each other and there are no streets. There are also no doors; to get inside, people climb a ladder and drop in through a hole in the roof. Nearby, Rasfa is busy trading with the villagers.

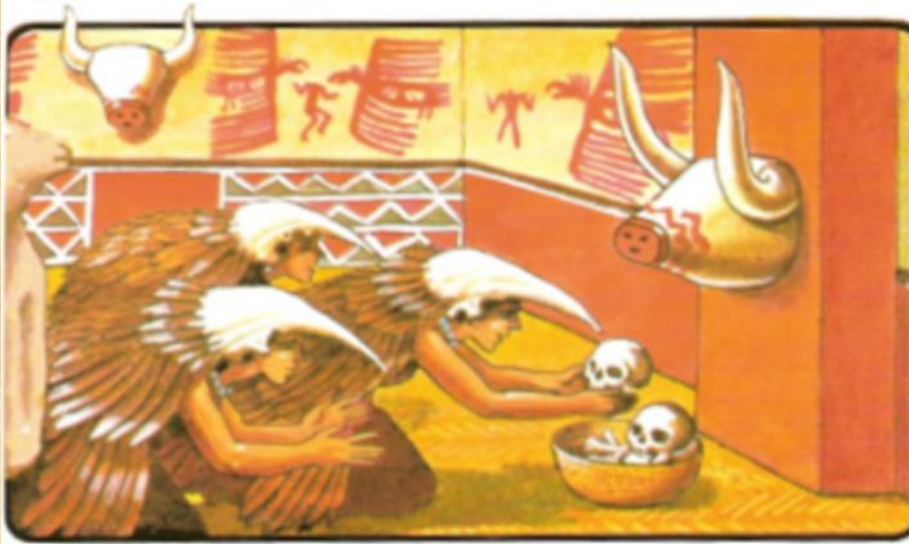
Give and take

Money has not been invented yet, so people barter. This means that a person who wants a bowl has to offer something in exchange, perhaps a tool, that the bowl's owner agrees is of the same value. The trading can be very noisy, but good deals are made.



Fair exchange

Rasfa comes from neighboring Syria. He wants obsidian tools and woolen cloth and has shells and good flint to trade. The townspeople need new flints, for starting fires, but they drive a hard bargain.



Many shrines have been found at Catal Hüyük. Their walls were brightly painted with religious scenes and decorated with plaster bulls' heads with real horns.

Wall paintings suggest that some priestesses dressed as vultures and conducted rituals. Skulls were found in baskets below the bulls' heads.

They had organized religion:
Some worshipped bulls





And others worshipped fertility goddesses

The Mother Goddess

Clay statue was found in a grain bin

May have been placed to increase fertility of crops

Shows the importance of women in the culture

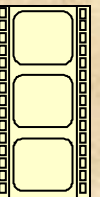
It stands 6.5 inches high



Burial Practices



- Men and women were buried equally.
- They were buried in the same rooms.
- Some bodies were found without their heads.
- Platforms were also found that may have been used for burial rites.
- Children were usually buried on their sides often placed in a basket under the floor.

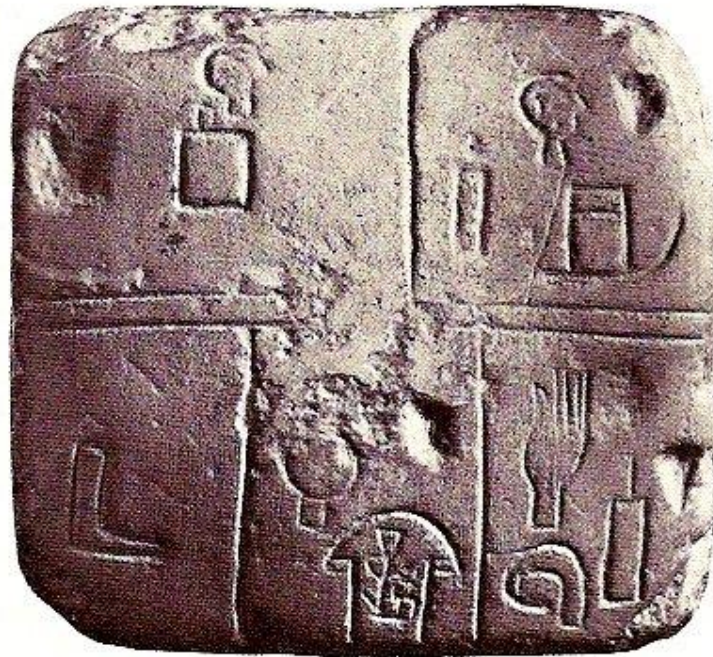


- Skeletons were buried in a fetal position, many under raised platforms, which the archaeologists believe were covered with reed mats and used as beds.



- "...the burial I am working on has turned up five bone rings associated with the left hand - it appears as if one was around the thumb and there were two on each of the first and second fingers."

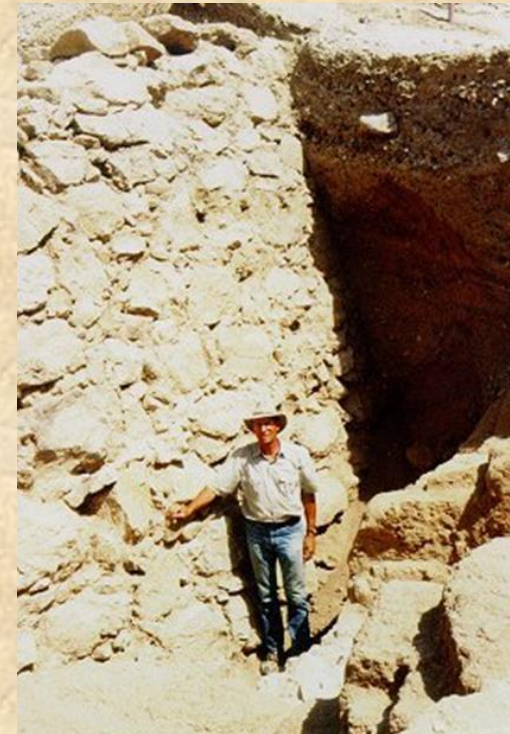




This stone tablet, shown actual size, is one of the oldest examples of pictographic writing. The achievement of an urban civilization that flourished in the Mesopotamian city of Kish about 5,300 years ago, the tablet is inscribed on both sides with simply drawn pictures. Except for a foot, a hand and two heads, however, few of the symbols are recognizable, and their meanings can only be surmised. Scholars believe the foot in the lower left rectangle could mean either “go” or “come”; the profiled heads at the top could signify “man” or “slave.”

Jericho

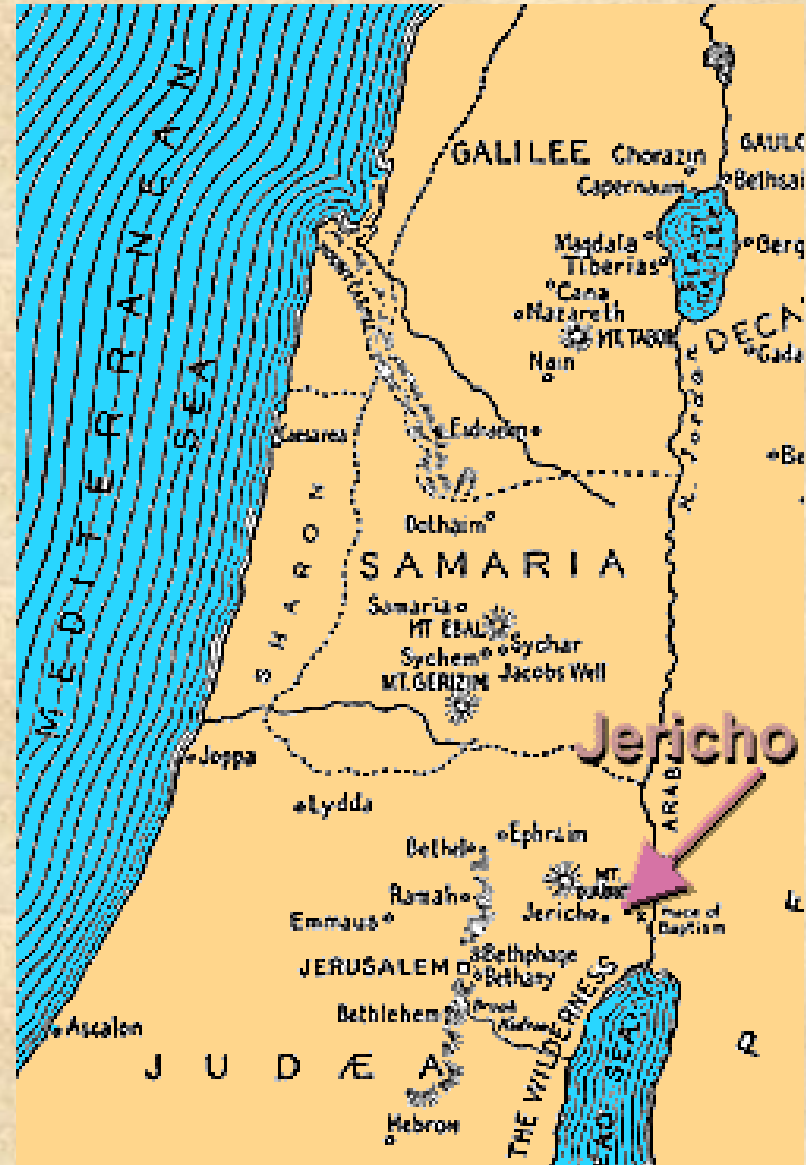
- Jericho (Ariha in Arabic) is the oldest inhabited town in the world dating back 10,000 years.
- It is 853ft below sea level.
- It is also the lowest town on earth.
- It is the site of the Israelite conquest around 1400 B.C. (Joshua-Jericho)



Jericho



- Jericho is located near the Jordan river and the Dead Sea.
- It is 36km from Jerusalem on the road to Galilee.

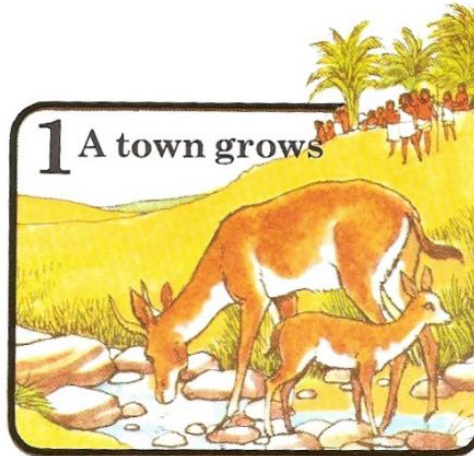
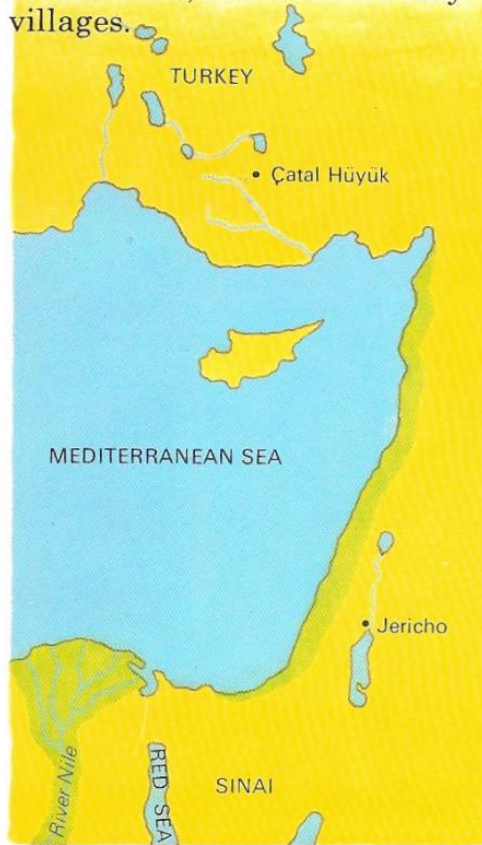


Aerial
view of
the
Jericho
site



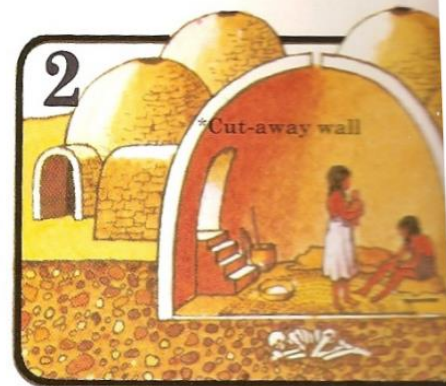
Jericho

Near the modern city of Jericho lie the remains of one of the oldest towns in the world. Archaeologists have found some other very old sites in the Middle East, but these are only villages.



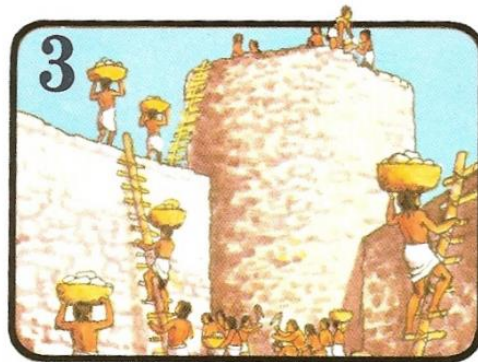
1 A town grows

Some time after 10,000BC a group of hunters, attracted by a good supply of food and water, settled on the site which was to become the town of Jericho.



2

By about 8000 BC, they were living in a village and had probably begun to farm, though they had not learned how to make pottery. They buried their dead under their houses.



3

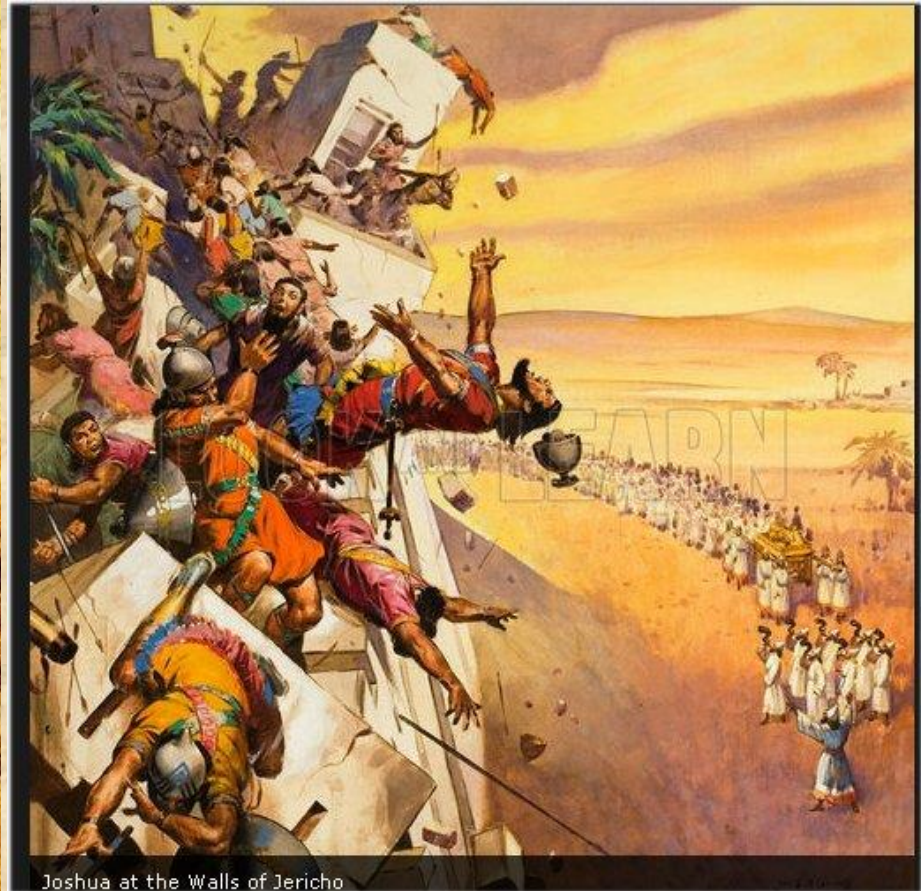
As they became more wealthy, their village grew into a town. To protect themselves against jealous neighbours, they built a stone wall with towers and a ditch round it.



4

Jericho's wealth must have come from trade. Local goods such as salt and bitumen were traded for obsidian from Turkey, cowrie shells from the Red Sea and turquoise from Sinai.

It is the site of the Israelite conquest around 1400 B.C. (Joshua-Jericho)



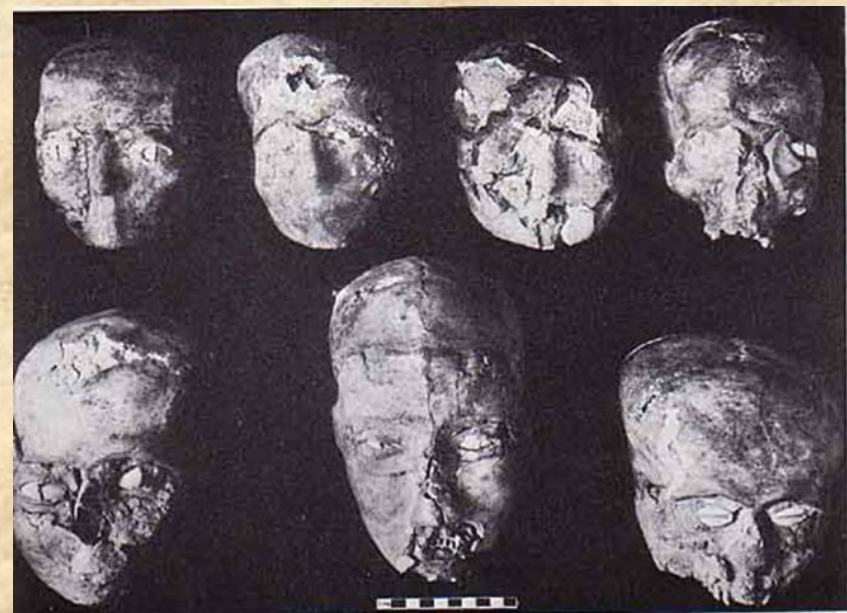
Joshua at the Walls of Jericho

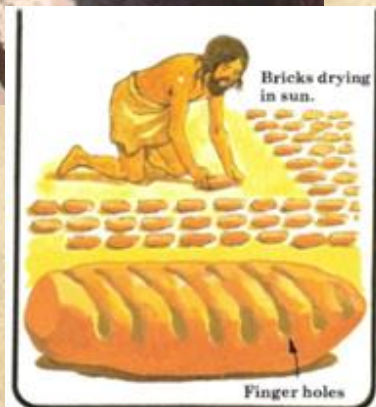
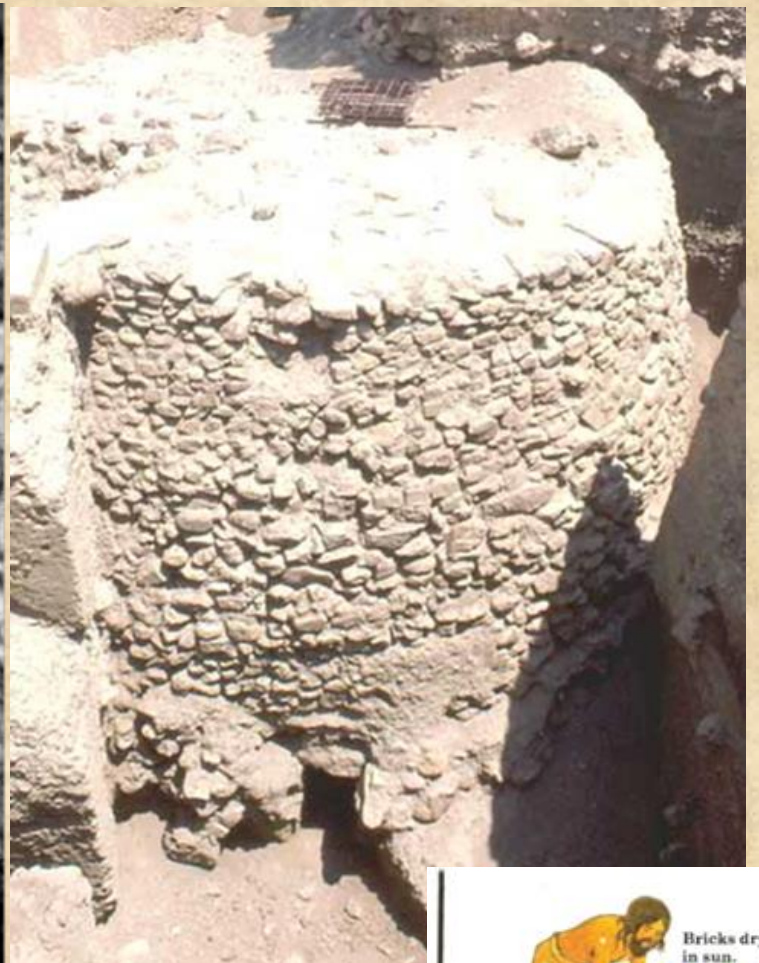
Jericho pottery





Skulls like these, with faces modelled in plaster and shell eyes, were dug up at Jericho. Scholars suggest people made them to show respect for their dead ancestors.





Bricks drying in sun.

Finger holes

The houses in Jericho were built of mud bricks. These were moulded by hand and left to dry in the sun. This kind of brick is still used in dry places.



The Great Well

THE FIRST FARMERS



About 10,000 years ago, people learned how to grow crops, and to rear animals for their meat, milk, and skins. Instead of finding food by hunting wild animals and

gathering nuts, berries, and roots, people found they could grow enough food on a small patch of land. They began to settle in one place and build permanent homes. They were the first farmers.

EARLY FARM LIFE

Life on a farm in Europe around 3000 B.C. was hard work. Farmers dug the ground with deer antlers. They planted seeds from wild plants and harvested the crops with stone sickles.

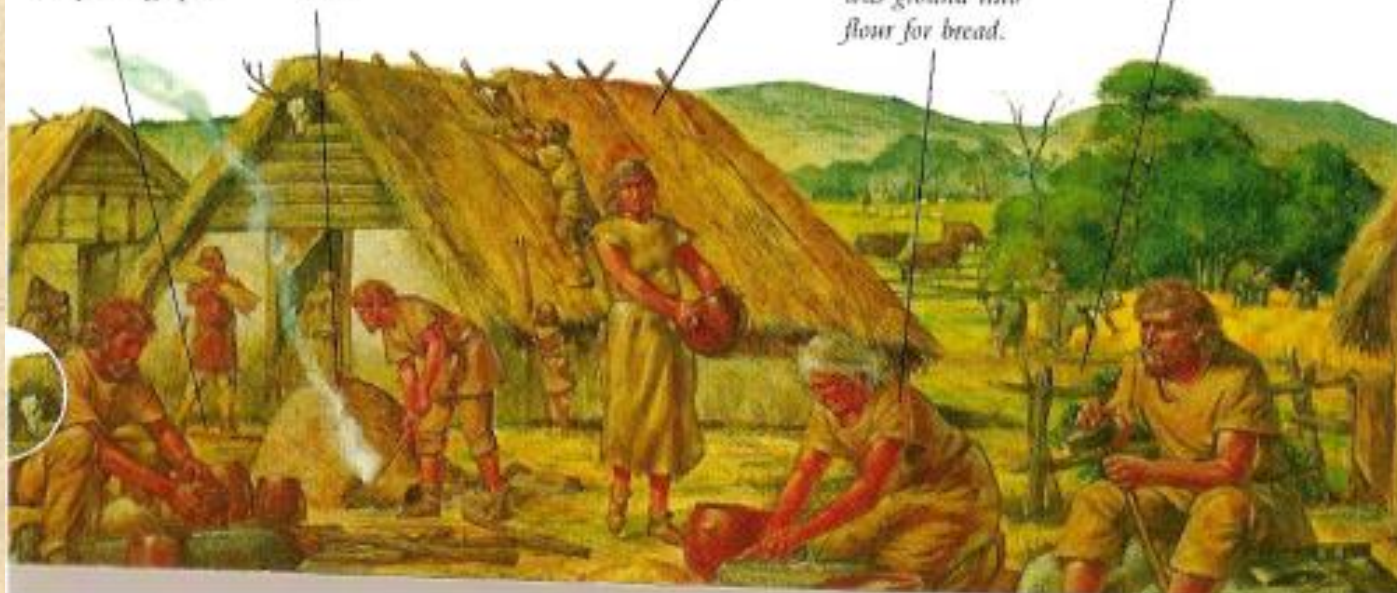
Farmers started to build permanent homes.

Stone axes were used to fell trees and clear ground.

The harvested grain was ground into flour for bread.

Clay storage pots

Kiln



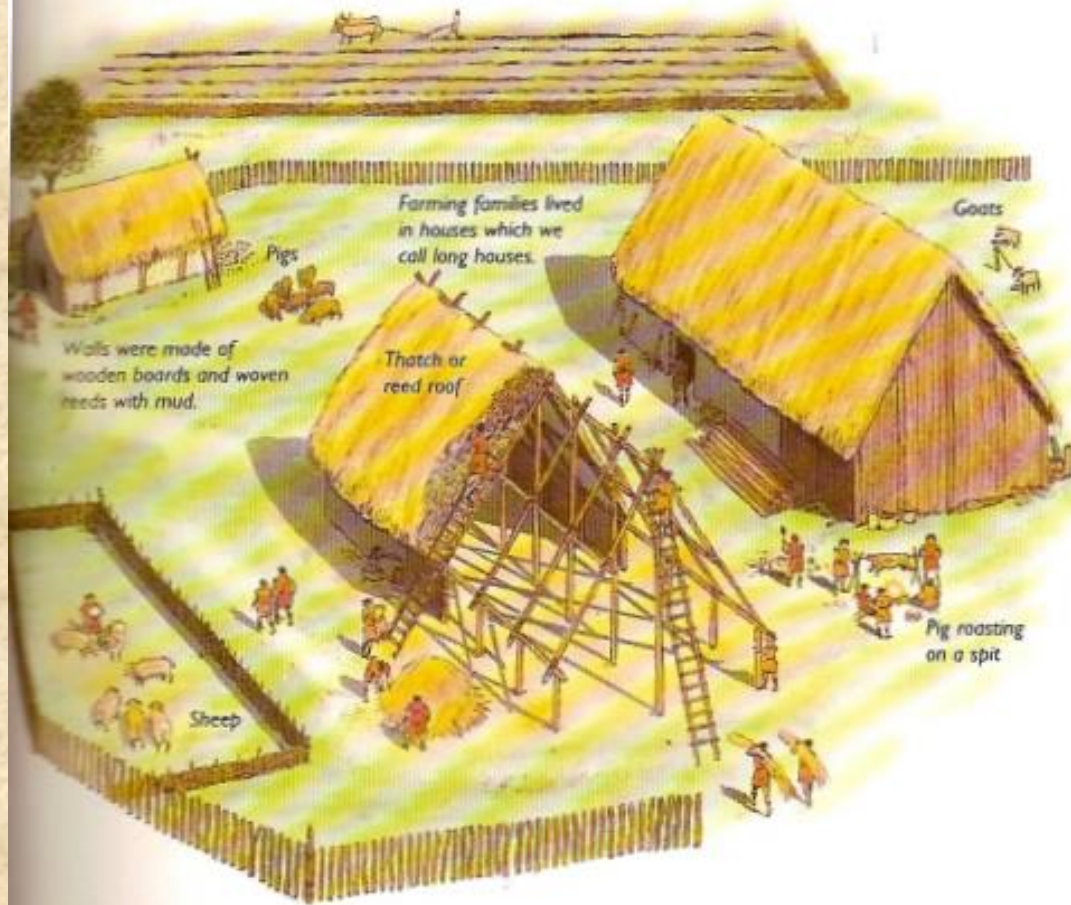
THE FARMING REVOLUTION

The introduction of farming marks the beginning of the Neolithic Age. It first developed in the Middle East between 10000 and 7000BC, and spread west into Europe in about 6000BC. Farming brought with it enormous changes which

had a profound effect on everyday life. People discovered that instead of having to adapt themselves to their environment, they could change their environment to suit themselves. The first step was to learn to domesticate animals (sheep and goats) and to keep them in flocks. Once hunters had become

herdsmen, people no longer had to travel over long distances to find food. Later, plants were also brought under control, as farmers began to sow seeds and harvest crops. This new farming way of life meant that people had to stay in one place, so the first permanent communities, or villages, grew up.

Construction of an early farming settlement c.5000BC



THE AGE OF METALS

After the Stone Age came the Bronze Age and then the Iron Age. Europeans learned, again from the people of the Middle East, how to extract metal from minerals and to use it to make tools and weapons. By 1000BC, metal had replaced stone as the main material for tools. This meant that farming equipment improved, so more food was produced. As people had more to eat, the population grew. This led to competition for farming land and the outbreak of fighting between rival communities. Knowledge of metalwork was used to make stronger, deadlier weapons, and communities began to build fortified settlements to keep out hostile intruders.

Scandinavian bronze figure c.1250BC

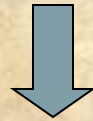


The metal ages also led to the development of new sophisticated forms of art.

End of Neolithic Age: 4000-3000 B.C.

USE OF METALS!!

COPPER



Copper + tin = BRONZE

Bronze Age: 3000-1200 B.C.



IRON

Iron Age: after 1000 B.C.



Neolithic Agricultural Revolution was the change from nomadic to farming life.

8,000B.C.

Paleolithic Age PEOPLE BEFORE (Nature over Man)	Neolithic Age PEOPLE AFTER (Man over Nature)
<ul style="list-style-type: none">• Relied on hunting and gathering.• Nomads lived in small hunting and food-gathering groups.• Waited for migrating animals to return each year.• Stone tools	<ul style="list-style-type: none">• Learned to farm and were able to produce their own food.• Settled into permanent villages.• Learned to domesticate, or tame, animals. This provided a dependable source of meat.• Use of metals

This led to the development of civilizations...

Beginnings of Civilization

- **How did the first cities emerge?**
- **What are the basic features of civilizations?**
- **How do cultures spread and change?**

What Are the Basic Features of Civilizations?

Neolithic man began domesticating animals and growing plants along the river valleys. This produced a surplus of food.

The plentiful food helped populations expand and gave them free time to develop **art**, make tools out of metal, develop a **writing** system and practice **religion**.

As populations grew, some villages became **cities**. This led to more laws, **government**, and a more complex **social structure** with kings and priests on top and merchants, farmers, and slaves below.

What Are The Basic Features of Civilizations?

A **civilization** is a complex, highly organized social order.

Historians distinguish six basic features found in most early civilizations:

- 1. Cities – Settlements near the farms, wells and rivers.**
- 2. Government – Laws, judges, and rulers with armies.**
- 3. Social Structure - Specialized workers.**
 - **rulers, priests, soldiers**
 - **farmers, merchants, metalworkers**
 - **slaves**
 - **led to social classes**
- 4. Religion – Priests perform ceremonies for burials and marriages**
Polytheism – belief in many Gods
- 5. Art – Painting, sculpture, pottery, jewelry, temples.**
- 6. Writing - Record Keeping first, letters and words later.**

Otzi the Iceman -



The Iceman was discovered high in the Austrian/Italian Alps
Preserved in frozen ice for 5,300 years since 3300BC
(The Egyptian pyramids are younger, built in 2600BC)
Here the scientists are removing him from the ice in 1991.



Otzi the Iceman

6-foot longbow
and 14 arrows.

Hat made of
brown bear fur

Waterproof cape
(used as a blanket
at night)

Axe with
copper head

Stomach remains
of deer meat
and cereals
(Otzi's last meal)

Clothes made of leather
and animal fur

Animal-skin shoes
stuffed with grass







Ötzi playing dead

Image 4 of 16

[<< Previous Image](#) [Next Image >>](#) [Stop Slideshow](#)

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Ötzi shot while fleeing

Image 2 of 16

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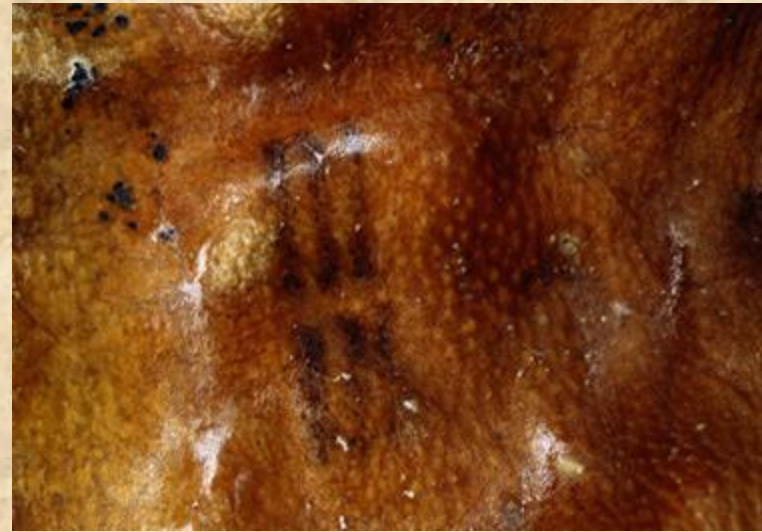
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The equipment and clothing of the Iceman are a virtual time-capsule of everyday life – over 70 objects were found associated with him.











1. Paleolithic mudrings for armbands. 2. Green edge as natural & wash shifter.
 3. Camouflage net made for grassy mountains. 4. Arrow with bear skin scales & deer hair tip.
 5. Tarses of grass and stone. 6. Small stone and bone tools (200 blades, scales and awl).
 7. Deer horns and bones. 8. Mouth for fish and small tools (see #10).
 9. Lengths of bear skin. Cleverest corner as Native American (see 10th Century).
 10. Skin made of bear horn. 11. New second bow - later than the arrow. 12. Arrow.
 13. First dagger and spear. 14. Reindeer horn. 15. OTZ (the KEMAN (see #10) scale).
 16. Small marble amulet with (purple) beads (Culterite). 17. Wizard caused by arrow.

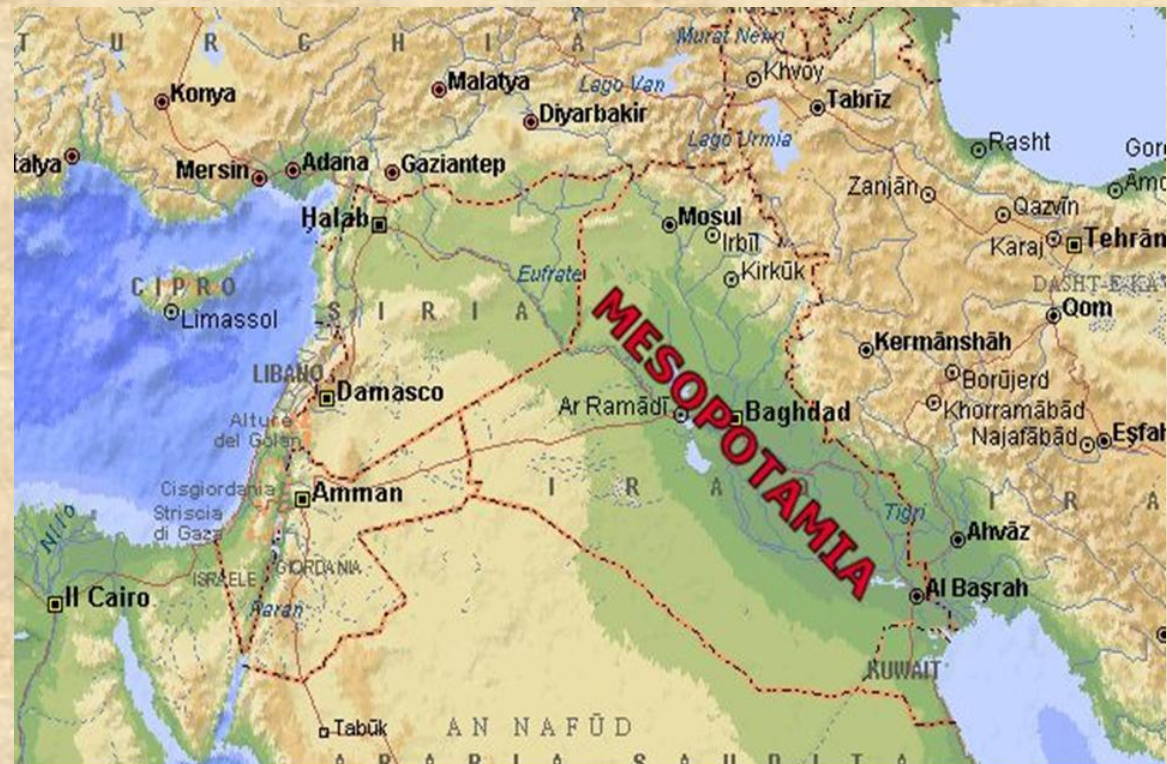
18. Bonechisel (see #10, also American). 19. Copper axe, nearly same as one from Texas.
 20. Arrow shaft (piled) - jet back. (Arrowhead remained inside the body).
 21. Reconstructing foot of figure, stone blades. 22. KEMAN (made with factory of therapy).
 23. Bark of bonechisel. 24. Grain called ZTU by Sargu and ZHTO by Sore.
 25. Quiver with arrows. 26. Hammered barkpad. 27. Large fish scale bucket.
 28. Copper axe. 29. Saw (made by vibration). 30. Small fish bark bucket for hot coals.
 31. Fowler's net. 32. Box for and wooden case. 33. Patch called TXAPLATA by Sargu and ZAPLATA by Sore.



Chapter 2

- Our next chapter will include our first civilizations in river valleys.
- Mesopotamia: the land between two rivers; the Tigris and Euphrates Rivers.

Mesopotamia



A contemporary map of Iraq and the surrounding region showing Mesopotamia (literally, "between rivers").