

Man as Agriculturalist

Rivers

Traders

Feudal

Colonial

Pioneer

Rivers

■ The four river civilizations

- Egypt on the Nile
- Sumer on the Tigris and Euphrates in Mesopotamia
- India on the Indus
- China on the Yellow
- **3000 B.C.** Herdsmen in Egypt attempted domestication of animals
- **2700 B.C.** China—swine household scavengers
- **2500 B.C.** Crete—Bull prominent in culture; Indus Valley—poultry and cattle
- **2100 B.C.** Aryan invasion of India; sacred cow culture started
- **1730 B.C.** Hyksos invasion of Egypt; chariot horses brought to culture
- **1400 B.C.** Assyria—horses for hunting, cavalry, chariots
- **1200 B.C.** Mediterranean Basin-Phoenician horse traders
- **776 B.C.** Olympic games; chariot and horse races
- **753 B.C.** Rome—Equestrian Order began
- **650 B.C.** Settled cultures raided by mounted bowman and pastoralists from steppes
- **560 B.C.** Persia—horse-borne communication network

Why Agriculture?

- Exactly why man took up agriculture, which requires much effort, in exchange for the seemingly easier life of gathering, herding, and hunting is not fully known
 - Possibly due to climatic changes coupled with overpopulation
 - Surviving clans probably tried many ways to increase and assure food supply

Forest agriculture

- Shifting agriculture was tried in many forested areas
 - Clear trees by burning, plant crop among stumps and harvest crop until yield goes down (5 yrs) then start over in new area

Near East

- Man succeeded through exotic circumstances
 - Genetic accident of wild wheat crossing with goat grass produced Emmer
 - A fertile hybrid with 28 chromosomes; spread by wind, crosses with another goat grass and produced a larger hybrid with 42 chromosomes called bread wheat

Bread Wheat

- Bread wheat will not spread with wind to propagate because ear is too tight
 - Man and wheat became symbiotic
 - Man figured out how to exploit grain as a principle food
 - Store and protect it as well as protecting fields
 - Supplemented wheat and cereal diets with protein and fat from animal products
-
- Main source of food for Near East people was wheat and other cereal grains
 - Cereals had high carbohydrate but low protein and not enough salt
 - Trade was initiated for salt
 - Abraham's story of the Torah epitomizes this change from pastoral nomad to settled agriculturalist
 - Pastoral interest in bull and mythology of nomadic life, esp. animal sacrifice of these early cultures of the Fertile Crescent and later the entire Mediterranean Sea

Domestication

- Sheep and goats (8-10,000 years ago)
 - Goats ate leafy vegetation; helped clear land
 - Sheep furnished wool, meat, fat and milk
- Cattle
 - As climate became drier, lured them to river
 - Domestication resulted from this
 - Had to be controlled to protect grain fields
 - Castration used on humans was then used on cattle
 - Became versatile providing both power and food
- Swine
 - Prolific and excellent scavengers
- Ass and onager
 - Ass and camel served in caravans
 - Onager pulled Chariot in Mesopotamia
 - Horse domesticated by pastoralists of the steppes of Eurasia
- Chickens came from jungle fowl
 - Cockfighting brought them to Near East from Indus Valley

Agriculture

- Most powerful invention: plow
- Yoked oxen to scratch plow
- Meat preservation unknown, therefore consumption had to be immediate
 - Ritualization and animal sacrifice
 - First to the God to please them
 - Later for priests and religions to become more powerful
- Animal fat: important for cooking and reducing friction

- Wool: used to produce much of the clothing in early civilizations
 - Spinning developed
 - Loom was refined later

As development continued.....

- Settlements were along rivers
 - Lead to irrigation
 - Lead to cooperation among people
 - Development of Governments
 - Rigid control for forced cooperation led to semi-religious authoritarian monarchs; coupling temporal with religious power made very powerful governments
- Trade to exchange essential and desired items became common
- Ideas, slaves and livestock diffused over the known world
- Ass and camel were essential to the lumbering caravans

Currency

- Currency other than grain or mobile food was invented
- Lydia in Asia Minor, rich in mineral resources developed money
- Sheepskin was used to trap gold in the streams of Lydia; fleeces were dried and burned and the gold lay in the ash
- Greek myth “Golden Fleece”— sought by Jason and the Argonauts
- First western coin was the Lydian Stater which became imperial coinage from 550 BC onward

Beliefs

- Bull was important in Catalhuyuk; cattle were shown as tribute in Sumer
- Egypt: goddess Hathor was represented as a cow and the bull was worshipped at Memphis
- Zodiac: Taurus represents 1/12 of the sky
- Assyrian empire: 5 legged bull with the head of a man stood guard at the gates
- Babylonia at the gates of Ishtar
- Persian capital at Persepolis has bulls and lions battle in relief
- Greek mythology—The bull was the favorite guise of Zeus
- The list goes on.....

Wars

- Wars of imperial expansion or defense from invaders were common by 3000 B.C.
- Horse played a singular role
- Mesopotamia people yoked onager to 2-wheeled carts or battle wagons
- Horse was yoked to what became the chariot
 - Problem: onager could pull with its head lowered—did not choke from yoke; horse carried head high and choked down on rough terrain; chariot was only useful on level land (harness and collar comes later)

Cultures (6000 B.C. to 600 B.C.)

- Sumer culture began in valley of Tigris and Euphrates Rivers
 - Barley and wool were major products
- The rivers were subject to violent floods in the spring; this flood plain had no natural barriers around it so the history of Mesopotamia is one of continual invasion by developing groups of people who, in time, were absorbed into the agriculture and cultural activities of the settled people

After Sumer

- After Sumer came
 - Babylonians
 - Hittites with iron weapons and horses
 - Assyrians
 - Chaldeans
 - Then the Medes and Persians who formed a massive empire that covered most of the Near East and stretched towards India

Between the time of these empires and the Egyptian empire...

- Abraham led tribe out of Ur to Canaan
- While in search of food, went to Egypt
- Became slaves
- Moses led them out of bondage (Red Sea)
- Deuteronomy
 - Can eat ox, sheep, goat, hart, gazelle, roebuck, wild goat, ibex, antelope and mountain sheep
 - Swine is unclean because it parts the hoof but does not chew the cud
- Egyptian civilization developed along Nile River
- Nile River had predictable floods that left rich deposits of alluvial soil that made wheat growing easy
 - After flood, land was resurveyed, plowed, and broadcast with seed that was trampled into the ground by swine
 - Grain was harvested by being threshed on heated floors by cattle and was stored in national granaries.
- Lower and upper Egypt joined in 3100 B.C.
- 30 dynasties of pharaohs ruled Egypt until 332 B.C. when Alexander the Great conquered
 - Because Egypt was protected by natural barriers (Red Sea on east, desert on west) it developed a continuous culture save for one invasion: in 1730 the Hyksos, a Semitic tribe with horses and chariots conquered Egypt
 - Egypt quickly learned to use the horse
- Used the horse quite heavily for chariots
 - Had 70,000 chariot horses
 - What the Egyptian slaves ate when Ramses II stabled all these horses in the Nile valley remains a mystery
- Indian civilization along the Indus River
 - Goes back to 3000 BC
- Poultry were produced

- Cereal crops
- 1500 B.C. Aryans invaded with herds of cattle
 - Zebu cattle of India are now thought to be derivations of the same wild cattle from which non-humped cattle originated
- Introduced milking
- Caused India to protect cattle “sacred cow”
- Chinese history
 - Mixed with fact and legend
- Irrigated millet
 - Yellow River was the site of vast irrigation of millet long before the Shang Dynasty of 1760 BC
- Silkworm
- Pig production
 - Household scavenger
- Later came wet-rice cultivation
 - Southern areas
- Chinese rulers were obsessed with the horse
- Along with the 4 river civilizations, there were many pastoral societies moving in intricate patterns on the Steppes of Eurasia and Asia
 - Scythians were mounted bowmen who followed great herds of stock in these areas
 - By 650 BC they raided settled agriculture as far south as Syria and Palestine
 - Hoards of horsemen from the steppes of Eurasia were to influence the development of all civilizations until the 14th century AD.