

Farming, Herding and the Neolithic Revolution

Focus Questions

- WHY ARE settled foragers better off than farmers?
- WHAT KINDS of environments are suited to herding?
- WHAT KINDS of environments were suited to early agriculture?
- WHERE DID farming start, and what were the first crops?
- HOW DID the development of agriculture affect people's health?
- HOW DID the development of agriculture affect social equality?
- GIVEN THE disadvantages, why did people farm?



Preagricultural Settlements in the Middle East

- forest
- grassland
- TURKEY** modern-day country
- preagricultural settlement described on page 35
- other preagricultural settlements
- ancient coastlines

Preagricultural Settlements in the Middle East

Chukchi hunters, Siberia



Animal and Plant Husbandry

- Mastery of stone tools, technology in Paleolithic
 - Hand-axes, pottery, sickle blades, stone mortars
- Paleolithic communal dwellings
- Domestication of animals: dogs, cattle, sheep
- New interdependence: animals, plants, humans
- Plusses and minuses
 - Regular supply of food
 - Nutrition and variety in diet
 - Labor involved
 - “bad for health”: Jared Diamond’s “worst mistake” argument

Agriculture's Effect on Society

- Community growth, social stratification
 - Development of occupational specialists, new types of elites
- Vulnerability of settled communities to raids, conquest
 - Need for defensive fortification, organization
 - Creation of trading relationships with herders
- Increasing gender divide
 - New focus on women's fertility
 - Evidence of inequality
- Towns and cities vulnerable to parasites, infectious disease
 - Dense populations sustain bacterial, viral infections
- Parallels between Microparasites (disease organisms) and Macroparasites (political & military state builders, organizations, tax collectors, etc.)
 - Need for increased community size, wealth
 - Immunization function (stimulating antibodies)

Agriculture's Effect on Society

- Universal question: When to plant?
 - New importance of calculating time, developing calendars
 - New class of ritual experts, familiar with astrology, moon phases
 - Eventual development of priests
 - Worship of sun, moon
- Tools and Technology
 - Development of plow, about 5,000 years BP--before present
 - Plow and other tools important in Middle East, Europe, Indian agriculture
- Seeking stability, humans accelerate the pace of change in agricultural societies
 - Relatively quick rise and collapse of communities, larger groups
 - Causative factors

Neolithic Settlement, Orkney islands



Who has it better: hunter-gatherers or farmers?

- **Competing Factors;**
 - Diet, health, lifestyle, social /gender equality
- **Why did farming catch on? Theories include:**
 - Population pressure
 - Outcome of abundance
 - Political coercion
 - Cult
 - Climate change
 - Accident
 - Outcome from procurement techniques

Where did farming begin in different regions?

What types of agriculture developed in these areas?

■ Europe

- Migrants from Asia: grains (around 6,000 years ago)
- Scythian herders: horse (around 7,000 to 6,000 years ago)

■ Asia

- Diffusion from Southern Anatolia and Jordan valley by around 9,000 years ago: grain
- Indus valley: rice around 8,000 years ago
- Yangtze valley: rice around 7,000 years ago

■ Americas

- Diffusion from Mesoamerica: beans (starting around 9,000 years ago), squash, and maize (starting around 6,000 years ago)
- Diffusion throughout South America: potatoes (beginning around 12,000 to 7,000 years ago)

■ Africa

- Diffusion from Jordan valley to Nile; diffusion from West Africa to the east and to the south of yams and sorghum from about 5,000 years ago

■ Pacific Islands

- Probable diffusion from New Guinea starting around 9,000 to 8,000 years ago: taro root

Upland agriculture, Andes Mtns. Peru



Bali, terrace agriculture



Teff, staple grain, early Ethiopia



Einkorn, early Mideast grain, tough husk



What was life like in an early agricultural town such as Çatalhöyük (7000-5000 B.C.E.)?

- 32 acres of apartment-style houses
 - Entry through roof, no windows
 - Long-distance trade and fine arts and crafts
 - Religious artifacts
 - Sanitation and disease
 - Evidence for hunting and gathering alongside farming and animal domestication

Çatalhüyük



Çatalhöyük, interior restoration



Neolithic toolkit: flint dagger, copper axe c. 5,000 BP



Discussion Question

Has agriculture predisposed modern people to obesity?

Consider

- Agriculture caused more restricted, more heavily starchy diets.
 - Agriculture built regular cycles of plenty and scarcity into the yearly cycle.
 - Agriculture is more subject to catastrophic shortages than hunting and gathering.
 - Modern food processing eliminates shortages but emphasizes starch and fats.
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- Has a tendency towards obesity been bred into us by these characteristics of agriculture, which would have favored people who could put on fat quickly to weather times of shortage?
 - If so, what can we do about it?