Early Humans and the Prehistoric Record: Human–Plant Interaction

Dating the Past

Hominid fossils and tools date to 1.8 million years ago.
There is some evidence of tools in Europe as early as 1.2 million years ago.
An explosion of hominid remains appears in Europe about 500,000 years ago.

Source: A. Gibbons, Science 291:1722 (March 2, 2001)

Human Fossils & Tools

Africa: The Source of Human Evolution

The dates above are the generally accepted dates but recent evidence indicates initiation considerably earlier.

Source: Time Magazine, Feb. 15, 1985
Paleolithic Humans

Old Stone Age 750,000–15,000 years ago
Archaic *Homo sapiens* (*Homo heidelbergensis*) 500,000 years ago
Neandertals 250,000 years ago
   Developed in Europe
   Brawny, short arms, broad trunk
   Hunting skills, weapons
Cro-Magnon 200,000 years ago
   Up to 6 ft. tall, large cranial capacity
   Developed in Asia
   Dominated Ice Age Europe 40,000 years ago
Contact in Europe—200,000 years ago
Neandertals disappear 25–30,000 years ago

Dispersal of Human Species over Space and Time

Cultural Diversity Changes

Cultural diversity changes as Cro-Magnons and their sophisticated tools arise from Asia (red),
Tools of Neandertals (black) persist in Europe & Asia.
Transitional tools made by both groups in blue.

Source: Science 291:1724 (March 2, 2001)
Source: Science 291:1725 (March 2, 2001)
Early Humans as Hunters

Portion of the “Hall of Bulls” in the Lascaux caves, France, showing drawings of bulls, horses, and stags.

Bison and Horses

Speared bison with extruded entrails
Note the male figure with bird-like head
History of Horticulture: Lecture 2

Hunting of stags with bow and arrow

Source: Singer, 1954
Cueva de los Caballos, Albucar, Castellon, Spain

Pottery from Tejpe Sialk, Iran, 7,000 years ago

Lascaux
Paleolithic scratched image on reindeer horn

Pottery from Tejpe Sialk, Iran, 7,000 years ago

The Venus of Willendorf, Austria, dated 30,000 years ago showing a snood-like cap

Plants as Clothing
"Venuses"

Source: New York Times
Arcy-sur-Cure, Dep. Yonne, France (Singer 1958, Fig. 66)
A woven halter

A grass skirt from a stunning figure found in Lespugue, France (facsimile sold in the Lourve)

Reconstructed figure of the Iceman
Remains of grass cloak

Plant derived artifacts of the Ice Man, dated about 5000 years ago, found in the Southern Alps, 1991 dated 5300 years ago showing uses of plant products.
Woven grass net (left) found inside leather shoe (right)

Leather quiver and wooden arrows

Wooden handle of dagger (top) and tool "retoucher" (bottom) used to sharpen flints

Birch bark container used to carry embers

Birch fungus attached to a leather thong used as a medicinal

Sloe berry
History of Horticulture: Lecture 2

Gatherers and Herders

Paleolithic representation of honey gathering
Domesticated cattle Tassili n’Ajjer
Cave painting of women gathering grain, 5000–6000 years ago. Tassili n’Ajjer, Algeria

(Source: Bruce 1995).

Early Representation of Identifiable Plants

Predynastic drawing of palm tree and gazelle, 5000–6000 years ago
Cereal carvings, first dynasty, 5000 years ago

Conclusions

Increasing Importance of Plants
Food Fuel
Weapons Ritual
Clothing Medicine

Shift from gathering to cultivation
10–12,000 years ago

Neolithic Revolution
Various Locations
Fertile Crescent
Indus Valley
China
Americas
Lecture 2 Readings

2-1. Furs for Evening, but Cloth Was the Stone Age Standby
2-2. Use Of Plants in the European Palaeolithic: A Review of the Evidence