

Chapter 01 : Prehistoric times

Lesson N°02 : Prehistoric times

It is impossible to know a science without knowing its history. Internal factors (experiments, discoveries, observations, demonstrations, knowledge, etc.) and external factors (politics, philosophy, economic power, etc.) have all contributed to the evolution of the history of science.

1. Prehistory : is generally defined as the period between the appearance of and the appearance of writing. The sciences that have contributed to providing evidence of this period are **archaeology**, **anthropology**, excavation (fossils, paintings.....) and molecular biology (DNA).

Prehistory is divided into different periods characterized by particular techniques :

A- Paleolithic period

This term derives from the Greek *palaios*: **ancient** and / *lithos* (**stone**). This period is characterized by the technique of sculpted stone, and represents the oldest and longest period of prehistory (5 to 6 million years). Humans were unaware of agriculture and animal husbandry, and lived a nomadic lifestyle based on collecting and killing.

Early prehistoric humans lived naked in the nature. Like many animals, they sleep at night in a cave, a refuge. They never set up camp too far from a pond or river to drink, and always spent a lot of time in search of food: wild fruits, roots, the meat of dead animals or small animals they had captured. They also defend themselves from large carnivores that chase them to eat them.

B- Neolithic period

Is a period of prehistory marked by profound technical, economic and social changes, linked to the adoption by human groups of a subsistence model based on agriculture and animal husbandry, and usually involving sedentarization.

2. Origins of contemporary Biology

These origins begin with an enumeration (consultation) of the plants and animals found on historical sources (rock walls, terracotta pottery, paintings, etc.). These can be grouped into two categories :

A- Prehistoric data related to the animal world :

Paleolithic humans were able to observe and illustrate now-extinct animals : Walking or running, in killing positions, in combat.

Chapter 01 : Prehistoric times

Neolithic man practiced stone polishing and also became an animal farmer.

B- Prehistoric data related to the plant world :

- Prehistoric man used plants for a variety of purposes because plants:
 - Constitute a source of alimentation (food).
 - Have secret therapeutic properties
- Man became a cultivator of plants in the Neolithic period.

3. The main types of human

Even if we are genetically very close to certain apes (+ or - 99% common DNA with the chimpanzee). The first *hominids* appeared in Africa 7 million years ago. The study of fossils shows a progressive evolution into the *Homo* genus, localized in Africa, with *Homo habilis* then *Homo ergaster* (**craftsman**) who, appearing almost 2 Ma ago, ventured as far as Asia.

Homo sapiens has physical characteristics identical to our own. while **Cro-Magnon Man** appeared in Europe 40,000 years ago.

4. The lifestyle of humans at that time

A. These men look like us : they were sculpting stone or wood. They could not yet write, but they could speak and bury their dead.

B. Producing food : they harvested wheat and barley they had sown themselves, and farmed goats and sheep. For the first time, humans produced part of their own food.

C. Living in a village : becoming farmers, men settle down and multiply their innovations. They build houses for their families, schools for their herds. They spun the sheep's wool. They drank sheep's milk. They made their first potteries from earth.