



Sample
Handout

**History Optional
Quality Enrichment
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HISTORIOGRAPHY ON DOMESTICATION OF ANIMALS AND PLANTS

WHAT IS THE DEBATE ABOUT?

- Why and how the domestication of plant and animal started?
- What were the factors responsible for the domestication of plant and animal?

Perspective of V. Gordon Childe - Environmental changes were responsible for domestication

- One of the earliest attempts to find answer to the question of why did some groups of people start domesticating animals and plants despite thousands and thousands of years of hunting and gathering, was made by V. Gordon Childe, who suggested that environmental changes at the end of the Pleistocene were the impetus towards food production.
- Childe argued that about 10,000 years ago, the climate in parts of West Asia became drier due to a northward shift of the summer rains.
- This desiccation (i.e., drying up) led to a concentration of people, plants, and animals close to water resources such as rivers and oases.
- This enforced closeness eventually led to new relationships of dependence between humans, plants, and animals, resulting in domestication.
- **Limitation of Childe's theory:**
 - Childe's theory was questioned by **Robert J. Braidwood**, who rejected the focus on environmental change as the crucial factor leading to agriculture.
 - He pointed out that environmental changes had occurred within the Pleistocene as well and had not led to agriculture.

Perspective of Braidwood - Domestication was experiment conducted by humans in Nuclear zone:

- **Braidwood** argued that domestication took place in certain nuclear zones, which supported a variety of wild plants and animals that had the potential for domestication.
- In such areas, domestication was the natural outcome of human experimentation and people getting to know their environment better.
- **Limitation of Braidwood's theory:**
 - This theory does not really explain the pressures or incentives that may have led to domestication.
 - There is ethnographic evidence of many hunting-gathering communities who know their environment very well and are even aware of agriculture, but do not see the point of practising it themselves.
 - There have to be good reasons for a community to radically change its way of life.
 - Braidwood's theory was rejected by **Lewis R. Binford** (1968) on the grounds that it could not be archaeologically tested, and that there are some specific, concrete factors that can explain the beginnings of agriculture.

Perspectives of Lewis R. Binford - Demographic stress was responsible for domestication:

- Binford asserted that ethnographic evidence indicates that in areas where environment and population have remained constant, a stable balance between the human population and food resources is achieved and people do not have to look for new sources or strategies of getting food.
- Such groups in fact tend to live at food consumption levels far below the resource potential of their environment.
- Two factors can upset the balance between people and food:
 - Stress produced by environmental change or
 - Stress produced by demographic (population) growth.
- Binford identified two kinds of demographic stress—
 - **Internal demographic stress**, which occurs when the number of people within a community increase; and
 - **External demographic stress**, caused by immigration into an area by people from another area.
- In the context of the origins of agriculture, Binford emphasized external demographic stress.
- He argued that at the end of the Pleistocene era, as a result of a rise in sea levels, people living along the coasts migrated to less populated inland areas.
- This upset the people–food equilibrium in inland areas and gave an impetus to the search for new strategies to increase food supplies.
- **Limitation of Binford theory:**
 - Evidence of a migration of people from the world’s sea coasts to inland areas at the end of the Pleistocene is lacking.
 - Internal demographic stress may have been a factor in upsetting the people– food balance in some areas, but it does not make sense to talk about ‘over-population’ and ‘food crisis’ in times when human communities were small and resources abundant.

Perspective of Kent Flannery - Negative and Positive Feedback mechanism was responsible for domestication:

- **Kent Flannery** (1969) shifted the focus from the search for an event that might have led to the beginnings of food production **to the process of food production** itself and the adaptive advantages of plant and animal domestication over foraging and hunting.
- He distinguished **two types of food procurement systems—negative and positive feedback food procurement systems**
- **Negative feedback food procurement systems** involve a balanced exploitation and use of various food resources within an area and discourage any change.
- **Positive feedback systems** are those in which the productivity of resources actually increases as a result of human interference and exploitation.
- This hypothesis explains why people found agriculture more advantageous than food gathering.
- **Limitation of this theory:**
 - This hypothesis does not explain why the initial experiments in domestication were made in the first place.

Recent findings - Conclusion:

- Recent studies have suggested that the **key may in fact lie in environmental change**, although not the sort suggested many years ago by Childe.

- In many parts of the world, the **Holocene** was marked by the onset of a milder, warmer, wetter climate. Such changes may have led to an expansion of the natural habitat area of wild cereals that had the potential for domestication.
- Perhaps it was not an environmental crisis but **amelioration that was responsible for the beginnings of domestication.**
- Given the variety in ecology and resources in the various centres of early plant and animal domestication, it is very much possible that different factors may have been involved in different parts of the world.