

Goal: to identify the processes that produce patterns of artifacts that are found in the archaeological record and to explain why cultures change.

Culture as shared ideas vs. adaptive mechanism

Cultural vs. Biological Adaptation

Donner Party

Willie Handcart Company

Arctic peoples

Inductive Approach - Karl Hempel

- 1) Observe and record all the facts.
- 2) Classify and analyze all those facts.
- 3) Derive generalizations from those facts.
- 4) Test these generalizations (optional).

Problems with the Inductive Approach

- 1) It is impossible to observe and record all the facts.
- 2) It is inefficient to analyze the gathered data without a purpose.

Scientific or Hypothetico-Deductive Method

- 1) A problem to study is defined.
- 2) Pose suggested solutions called hypotheses.
- 3) State the real world consequences or test implications of the hypothesis.
- 4) Collect the relevant data.
- 5) Test the hypotheses against the data gathered.

Pleistocene Extinctions Example

Problem: Why did all these Pleistocene megafauna go extinct at the end of 10,000 years ago?

Overkill Hypothesis: People killed the Pleistocene megafauna.

Consequences

- 1) All 36 genera should go extinct after the arrival of people.
- 2) Extinct animals should be large herbivores that people would hunt.
- 3) There should be no losses of small mammals, reptiles, shellfish, etc.
- 4) Other extinct animals should be dependent on or related to the big game.
- 5) There should be lots of archaeological kill sites.
- 6) Extinctions should not be related to climate.

Data Collection

- 1) Dating the extinction should fall between 10-12 kya.
- 2/3/4) Look at the kinds of animals that went extinct.
- 5) Look for sites with bones of extinct animals and stone tools that indicate hunting.

6) Relate extinctions to climate.