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Cultural and Behavioral Determinants

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Section A

Culture and Food Patterns
Main Points

1. How culture—rather than nature—provides the human background for food choice
2. What is meant when we speak of “natural food”?
3. What does “natural human food” really mean?
4. Whether a basic human cuisine has evolved in broad outline in human history
5. Where protein fits into the overall picture of human food choice
Culture

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Human Food Choices

- Historical—not biological
- For example, fire made previously inedible foods edible
  - Graminiae (rice, maize, wheat)
  - Leguminosae (legumes, pulses, beans)
  - Araceae (taro, yautia or tannia)
  - Solonaceae (tomato, potato)
  - Convolvulaceae (sweet potatoes)
  - Dioscoraceae (yams)
Humans Have the Capacity to Create Culture

- Technological changes by humans
- All animals have natural histories
- Humans have natural histories + histories of our own making
- For example, human language
  - In contrast to built-in capacity to learn and speak a language
  - No language is “natural”
Is There Such a Thing As a “Natural” Food?

- No foods are “natural”
  - Maybe mother’s milk?
  - Maybe sweetness?
- Biological predisposition toward fat?
- Umami?
Human Food Choices Are Historical

- Development of food behaviors depended on various natural constraints, such as
  - Locality
  - Seasons
  - Flora and fauna
  - Economic and sociological organizations developed by the people
If It Can Be Eaten, Someone Eats It!


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Whopper. Public Domain
Humans Do Not Eat Everything Available To Them

Image source: USDA.

Image source: USDA.

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Food Is Saturated with Symbolic (Extrinsic) Meaning


Seder Plate. Public Domain.

Tailgating by MaxPower. Some rights reserved.
From Hunter-Gatherers to Domesticators

- ~65 million years ago: Primates evolved
- ~300,000 years ago: Homo sapiens evolved
- ~1.6 million years ago: Early humans evolved
- ~12,000 years ago: Domestication of plants and animals begins
Domestication of Animals

- Capturing of reproductive processes
- Not just “taming” for human use and interaction
- Continuity of reproduction
- Human interference by breeding
Domestication of Food Production

- Ordinary people undertook the science of agriculture
Processes of Animal Domestication

- Isolating reproduction
- Limiting sphere of movement
- Interfering with feeding patterns
Important Role of Domestication and Agriculture

- Increased food security
- Led to population growth
- Facilitated spread of human species
- Most humans were born after domestication of plants and animals
Agricultural “Hearths”

- Examples
  - Nile Valley
  - South Asia
  - Andes
  - Mexican Central Plateau

- For further exploration
  - N. Vavilov: *Origin and Geography of Cultivated Plants*
  - E. Anderson: *Plants, Man, and Life*
Agricultural Hearths—Patterns

- Began with core complex carbohydrate (cereal or tuber)
- Paired with legume or pulse (chickpea, bean, peanut, soybean)
- Complementary foods—provide nutritional synergy
Food Patterns

- Carbohydrate/tuber = CORE
- Legume = PULSE
- Flavoring addition = FRINGE
### Examples of Core + Pulse + Fringe

<table>
<thead>
<tr>
<th>Region</th>
<th>Core</th>
<th>Pulse</th>
<th>Fringe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexican Central Plateau</td>
<td>Maize</td>
<td>Red Beans</td>
<td>Tomatoes &amp; Peppers</td>
</tr>
<tr>
<td>Middle East</td>
<td>Wheat</td>
<td>Chick Peas</td>
<td>Olives, Sesame Seeds. etc.</td>
</tr>
<tr>
<td>Asia</td>
<td>Rice</td>
<td>Soy Beans</td>
<td>Ginger, Leeks, etc.</td>
</tr>
</tbody>
</table>
Core, Fringe, Legume

- Three elements identifiable in each major agrarian society
- Contents of each category may differ
- Contents of each category in each society/place reflects the intersection of culture and environment
Core, Pulse, Fringe

- Notable for a lack of animal protein
- Versus “high on the hog” in U.S. and few elite in other cultures
- Few domesticated animals
  - Often used more for milk, cheese, riding, leather, rather than as meat