Lecture 22: Archaeology, Behavior, & Origins of Modern Humans

Stone Tool Technology (G. Clark)

The Oldowan industry

Mode 1
Pebble tools
Choppers
The Acheulean industry – Mode 2; bifaces

Mousterian tools – Mode 3 – prepared cores
Levallois point
Levallois core and bifitted flake
side scraper with retouch

Upper Palaeolithic – Mode 4; blades
Mode 5: Microliths

Lower Paleolithic (Early Stone Age)

Middle Paleolithic
Upper Paleolithic

Mode 4 industries and the spread of modern humans

Aurignacian tools – the first Upper Paleolithic industry in Europe.
European Upper Paleolithic

<table>
<thead>
<tr>
<th>Phase</th>
<th>40,000 years before present</th>
<th>30,000 years before present</th>
<th>20,000 years before present</th>
<th>10,000 years before present</th>
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<tbody>
<tr>
<td>Aurignacian</td>
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<td>Gravettian</td>
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<td>Szeletian</td>
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<td>Magdalenan</td>
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Upper Paleolithic Tools

Middle Stone Age of Africa

Levallois Technique
Blade Flakes

European Upper Paleolithic blade flakes

Punch Blade Technique

Archaeological Evidence for Modern Human Origins

Solutrean Laurel Leaf Blade

Mode 4 industries and the spread of modern humans

Aurignacian tools
Paleolithic Tool Traditions in Europe

<table>
<thead>
<tr>
<th>Period</th>
<th>Beginning (years ago)</th>
<th>Cultural Tradition</th>
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<tbody>
<tr>
<td>Upper Paleolithic</td>
<td>17,000</td>
<td>Magdalenian</td>
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<td>Solutrean</td>
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<td>27,000</td>
<td>Gravettian</td>
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<td>33,000</td>
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<td>Middle Paleolithic</td>
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<td>Mousterian</td>
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<td>Lower Paleolithic</td>
<td>700,000+?</td>
<td>Acheulian</td>
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</tbody>
</table>

Contrast Between Middle & Upper Paleolithic in Europe

• Replacement (Richard Klein)
• Continuity

Asia: Eastern and Western

• Middle-East
• Jebel Qafzeh, Israel (115,000-96,000 ya)
• Skhul, Mt. Carmel, Israel (115,000 ya)
• Mode 3 Technologies
African evidence

- Blades: 240 kya
- Microliths: 100 kya
- Aquatic resources: MSA
- Red ocher: 70 kya
- Bone tools: 100 kya

Middle Stone Age Bone Tools from Africa

Upper Paleolithic Europe

Examples of early “modern” behavior in Africa?

Ochre
Shell beads
~70,000 ya
Cro-Magnon

Testing the Models/New Models

Multiregional
Out-of-Africa

Multiple Dispersals

A New Model?

- Origin in small African population 150 kya
- Population replacement with limited admixture
- "Origins" of modern humans not a single event
- Multiple dispersals
- Modern humans are associated with Mode 3 industries of Africa
- Not all archaic hominins are the same