Mediterranean Spain

(Adapted from McClure et al. 2006)
Hypothesis

Climate change was an indirect cause of change in agricultural practices and social complexity

Expectations

Changes in behavior coincided or immediately postdated changes in climate
The Terminal Pleistocene

HUNTING AND GATHERING

? 

AGRICULTURE
## Eastern Spain in the Neolithic

<table>
<thead>
<tr>
<th>Archaeological Period</th>
<th>Time Period</th>
<th>Behavior Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neolithic I</td>
<td>7600 – 6500 BP</td>
<td>Beginning of Agriculture</td>
</tr>
<tr>
<td>Neolithic II</td>
<td>6500 – 4400 BP</td>
<td>Aggregated Settlement</td>
</tr>
<tr>
<td>Final Neolithic II</td>
<td>4400 – 3800 BP</td>
<td>Increase in Storage</td>
</tr>
</tbody>
</table>

**Image:** Storage Pits from Les Jovades
Agriculture in Mediterranean Spain

Neolithic I

Settlement in fertile valley bottoms

- Intensive hoe-based agriculture
  - Intercropping of domestic plants
  - Primarily sheep and goat husbandry

Neolithic II

Aggregated villages in remnant valley bottoms and valley margins

- Extensive plough-based agriculture
  - No intercropping (?)
  - Terrace (?) construction
  - Increased cattle and pig husbandry
  - Corral construction

(Adapted from McClure et al. 2006)
Precipitation Modeling
Temperature Modeling
Evaporation Modeling

Beginnings of Agriculture

Risk Minimization Intensifies
Rain Event Intensity Modeling

Graph showing precipitation per rainy day (mm) over years before present. The graph indicates:

- **Beginnings of Agriculture:** Around 7500 years before present, precipitation starts to increase.
- **Risk Minimization Intensifies:** Around 4500 years before present, there is a significant increase in precipitation variability.

The graph compares data for January and September.
Beginnings of Agriculture

Risk Minimization Intensifies
Summary

The beginning of agriculture and its rapid spread coincides with the establishment of environmental stability. While these conditions may have also benefited hunter-gatherers, it appears to have allowed agriculturalists to outcompete them.

Agricultural practices, beginning with Neolithic I, worked well for a long period of time; this led to more dependency on agriculture and vulnerability to environmental changes. As a result, when the climate did change, the effect was magnified.

The proliferation of risk minimization strategies (such as storage) and intensification of land and animal management coincide with the return of climatic instability and the onset of the Mediterranean regime in place today.
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