Mesa Verde Pueblo III

AD 1150 to 1300
General trends

- High population growth
- Redistribution of land use
  - Aggregation into big sites
- Conflict increases
  - Sites in defensive locations
- Extreme depression of resources
- Regionalism of pottery style & form
- By AD1275 Pueblos in decline
Water Control

- Check dams
- Site location

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Hypermorphic K-selected PIIII culture

- Hypermorphic means over-developed
- Whereas PII = aggregations of farmsteads; PIIII cloistered
- Pottery becomes highly specialized
- Hyper-dependence on corn & turkey
- Architecture becomes specialized
  - a Kiva in every garage

- Communities move to defensive locations
- Sunk costs?
Material Culture
The Sunk Cost and Concorde Effects:
Are Humans Less Rational Than Lower Animals?

Hal R. Arkes
Ohio University

Peter Ayton
The City University, London

The sunk cost effect is a maladaptive economic behavior that is manifested in a greater tendency to continue an endeavor once an investment in money, effort, or time has been made. The Concorde fallacy is another name for the sunk cost effect, except that the former term has been applied strictly to lower animals, whereas the latter has been applied solely to humans. The authors contend that there are no unambiguous instances of the Concorde fallacy in lower animals and also present evidence that young children, when placed in an economic situation akin to a sunk cost one, exhibit more normatively correct behavior than do adults. These findings pose an enigma: Why do adult humans commit an error contrary to the normative cost-benefit rules of choice, whereas children and phylogenetically humble organisms do not? The authors attempt to show that this paradoxical state of affairs is due to humans’ overgeneralization of the “Don’t waste” rule.
The Sunk Cost Dilemma

• Having to choose between
  1) continuing a project of uncertain prospects already involving considerable costs
  2) or discontinuing the project

• Given a choice between
  A) certain loss of the sunk costs when stopping the project
  B) vs. possible – even if unlikely – long-term profitability when going on

People favor uncertain success over certain loss
PIII sunk costs

- Elaborate pottery
- Huge architecture
- Domesticated food sources
- Controlled water resources

- A lot of investment in the Mesa Verde region

- In the context of another drought
  - Technological/organizational change
Another Drought?

Larry Benson, USGS
NSF Village Ecodynamics

• Modeled soil fertility in Mesa Verde region

• Found that PIII communities pushed land to the limit

• Domestic turkey = protein (must be fed corn)

• A few bad farming years with low precipitation could have made the whole system collapse

http://village.anth.wsu.edu/
PIII: Site Defense

- **Canyon head locations (Sand Canyon)**
  - Surrounding springs
  - Water retention & control
  - Enclosing walls in back (multistory)
  - Cliff face in front

- **Cliff dwellings (Cliff Palace)**
  - Highly protective
  - Inaccessible

- **PIII, mesa-top, open villages on prime farmland**
Moving to the canyons

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Cliff Palace
100+ rooms, 50+ kivas
Sand Canyon Pueblo
420 rooms, 90 kivas
Sand Canyon
Sand Canyon Pueblo
Goodman Point Pueblo
Goodman Point Pueblo
Goodman Point Pueblo
Yellowjacket Pueblo
Yellowjacket Pueblo
"Architecture," by Kristin A. Kuckelman

Figure 1. Aerial photograph of Yellow Jacket Pueblo, showing locations of possible Chacoan roads. (Photograph by Tom Baker, Aerial Archaeology, © copyright 1996.)

The possible Chacoan roads are visible in this photograph as shallow, linear depressions. One extends north from the possible reservoir to the great kiva; a second extends north-northwest from the great kiva to Architectural Block 4200. Photograph is oriented approximately north-south.
Defensive Site Settings:
Location of Moon House
Defensive Site Settings:
Location of Citadel Ruin
Defensive Site Settings: Eagle’s Nest House
Mug House Ruin
Mug House Ruin

• 20 households, 100 people
• Central living rooms w/ surrounding storage
  – Outside courtyards among several dwellings
• Turkey pens on south side of site
• Terraced farm fields on Mesa top

www.nps.gov
Woods Canyon
Woods Canyon

www.dennisrhollowayarchitect.com
Defensive Features:
Loop-Hole Apertures
Direct Evidence of Warfare:
Castle Rock Pueblo
Hovenweep sites
Summary

• People’s of Mesa Verde limited by...
  – Climate & growing season length
  – Population density & size
  – Water availability

• By AD 1250...
  – Density high
  – Margin of error slim
In the end...

AD 1200 to 1250

AD 1400 to 1450

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