The 13th Century Depopulation of Cedar Mesa: The View from Ceramic Design Elements

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The Four Corners

Utah

Colorado

Arizona

New Mexico
The Five Cedar Mesa Drainage Areas
Previous Conclusions

• The northern Southwest was depopulated in the late A.D. 1200s

• The process began earlier in western areas such as Cedar Mesa (Glowacki 2006; Lipe 1995, 2002)

• There was no shift from mesa-top settlements to canyons and canyon rims in western areas (Varien et al. 1996)
The Problem

• Almost all Redhouse tree-ring dates are from canyon sites
• The ceramic type seriation developed for Cedar Mesa becomes insensitive in the 13th century
• Per Rohn (1971), McElmo and Mesa Verde varieties of Mesa Verde Black-on-white were not distinguished

Lines of Evidence

• Ceramic seriation of Cedar Mesa collections using Lipe’s typology
• Ceramic seriation using Hegmon’s design elements
• Tree-ring dates from Cedar Mesa sites
<table>
<thead>
<tr>
<th>Period</th>
<th>Date Range (A.D.)</th>
<th>Phase</th>
<th>Ceramics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pueblo III</td>
<td>1210/20-1270</td>
<td>Redhouse</td>
<td>Rare Mancos; ‘Mesa Verde’ remains dominant</td>
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<tr>
<td></td>
<td>1165/70-1210/20</td>
<td>Woodenshoe</td>
<td>Some Mancos; ‘Mesa Verde’ becomes dominant</td>
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<td></td>
<td>1150-1165</td>
<td>Brief hiatus-depopulation?</td>
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</tbody>
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Using Cedar Mesa Ceramic Seriation
(Matson, Lipe, and Haase 1990)
Separating Redhouse Sites by Mesa Top or Canyon Location
(Matson, Lipe, and Haase 1990)
Five Redhouse Canyon Sites with 100% Mesa Verde sherds with Organic Pigment
Ceramic Composition of Redhouse Sites
(Matson, Lipe, and Haase 1990)
Method

• Analyze design elements for Cedar Mesa sites using Hegmon (1992)

• Compare Cedar Mesa design element analysis with tree-ring dates from Central Mesa Verde
Ceramic Seriation of Crow Canyon Sites using Hegmon’s Design Elements
The Cedar Mesa Ceramic Sample

- $N = 467$ rim sherds with at least one complete framing line and/or part of a design
- from 16 Woodenshoe or Red House Phase sites
- Mesa-top sites from the 1972-1974 Basic Quadrat Survey
- Canyon sites from the 1973-1974 Canyon Inventory and Collecting Sub-project and the 1974-1975 Tree-ring and Architecture Survey
The Seven Time-sensitive Attributes
(Hegmon 1992)

- Thickness $\geq 6.0$ mm
- Both hatchure and solid design in the motif
- Any type of exterior design
- Any framing line
- Thick followed by thin framing lines
- Square rims
- Rim Ticks
Both hatchure and solid elements in the motif . . .

Any type of exterior design . . .

Any framing line . . .
Thick followed by thin framing lines . . .

Square rims . . .

Rim ticks . . .
Tallying Hegmon’s Seven Time-sensitive Attributes

• Use only bowls, jars, mugs, kiva jars, seed jars; do not use dippers, ladles, effigies, or miniatures.

• Count any sherds that fit together as a single case.

• Use only sherds with a design on the exterior OR a design below the rim other than a single line OR at least two parallel framing lines.
Temporal Positions of Cedar Mesa Sites Using Six* Hegmon Elements on Cedar Mesa Sherds (*no rim ticks)
Parallel Seriations
(with rim ticks)
Left: Central Mesa Verde
Right: Cedar Mesa

D.C. Elements 16 X 7
△ = Mesa Verde Sites
● = Redhouse Sites, Canyon
● = Redhouse Sites, Mesa Top
● = Woodenshoe Sites
⊕ = Formally Unassigned
McElmo Rim Design Elements
Proportion of Black-on-white Varieties at Late PIII Cedar Mesa Sites

Woodenshoe Redhouse
Mesa
Redhouse Canyon

%Mancos %McElmo % MVBW
Different Analyses ➔ Similar Conclusions

1. Cedar Mesa Project type seriation
2. Hegmon design analysis seriation
3. McElmo vs. Mesa Verde varieties of Mesa Verde Black-on-white type
Conclusions

• The abandonment of Cedar Mesa probably precedes abandonment of the central Mesa Verde region to some extent

• Cedar Mesa was not abandoned as a unit around A.D. 1250

• Occupation of mesa-top and canyon sites lasted until at least 1260, with the exception of Moon House
Glowacki, Donna  
2006  The Social Landscape of Depopulation: The Northern San Juan, A.D. 1150-1300.  
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Hegmon, Michele  
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1995 The Depopulation of the Northern San Juan: Conditions in the Turbulent 1200s.  
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Varien, Mark D., William D. Lipe, Michael A. Adler, Ian Thompson, and Bruce Bradley  
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