Leaving Mesa Verde: The Great Pueblo Migrations of the 13th Century

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Cliff Palace, Mesa Verde, 1891
(two years after Richard Wetherill first saw it)
For over 120 years, archaeologists and the general public have asked “Why did the Mesa Verde people leave, and where did they go?”
Where did the people go?

In the 1200s, they joined existing Pueblo communities or established new ones in the Northern Rio Grande, Zuni, Hopi, and other areas to the south and southeast.
Scott Ortman compared population estimates from the CMV study area (previous slide) with estimates for the “Tewa Basin” in the Northern Rio Grande area. Increase in that area correlates strongly with decrease in the Central Mesa Verde area.
First, some background:
Maize and people in the Northern Southwest

- Requires 12-14 in. precip.; 110-120 days growing season (dry-farming)
- Introduced from Mexico ca. 2200 BC
- Maize dependency by 1000-500 BC
For hundreds of years, Mesa Verde people lived in small family homesteads near their fields. The underground “household kiva” was both a domestic and a ritual space. It represented the Pueblo belief of emergence from worlds below this one. When sites became larger, these household units became the “building blocks” of villages.
The Pueblo II period (AD 900-1150) saw the rise of Chaco Canyon as a major cultural, political and religious center.

Left: Pueblo Bonito, 1929

Above: Chaco Canyon

Right: Doorways in Pueblo Bonito

Lindbergh 1929, from Noble 2004
Small Chaco-style “great houses” proliferated in the AD 1000s and 1100s, indicating widespread Chacoan religious and (some think) political influence.
View west from Mesa Verde NP. In the mid 1100s, Chaco declined and population boomed in the Mesa Verde region.
In the Mesa Verde region, population peaked in the mid-AD 1200s, and then rapidly declined.

In ca. 1240, there were 15,000 to 35,000 people in the Central Mesa Verde area. By ca. 1285, they were all gone…

(Schwindt et al. 2016)
We used to know the answer... It was the “Great Drought” of A.D. 1276-1299.

This 1929 article from The National Geographic is by A.E. Douglass, the astronomer who first recognized that annual growth rings of trees could be used to date archaeological sites.
The 1276-1299 Great Drought shows up as narrow tree-rings in beams from archaeological sites all over the Northern Southwest.
It’s no longer that simple. Tree-ring dates indicate cutting beams for building or remodeling declined before 1276 and other measures indicate population decline started by 1260.
Today, archaeologists think that multiple “push” and “pull” factors contributed to the 13th century migrations.

**Push factors in the Mesa Verde area**
- There were smaller droughts in the 1200s, before the “great drought” hit in 1276
- High population put some communities at risk during these dry episodes. They couldn’t readily move to better farming areas because these were already taken
- Inter-community warfare proliferated
- People congregated in large villages, further limiting household movement
- Game depletion led to more reliance on domestic turkeys, which had to be fed corn
- New community leadership practices may have generated dissension
- The great drought was the last straw, affecting people still remaining in 1276

**Pull factors from areas to the south and southeast**
- Related Pueblo communities were growing in areas to the S and SE
- More reliable summer rainfall and greater supplies of wild game
- Emerging new forms of community organization that resisted hierarchy
- Opportunities for cultural revitalization
Farming conditions declined as population increased in the 1200s

Recent reconstructions of soil moisture show generally below-average conditions in the 1200s prior to the “great drought” (though the mid 1100s were worse!)

There is also some evidence of cooler temperatures in the 1200s, which would have shortened growing seasons. Here, a reconstruction based on pollen evidence.
Examples from SE Utah of sites in defensible locations

Throughout the Mesa Verde area in the 1200s, people built “cliff dwellings” where natural shelters were available

Warfare!
The entire population of Castle Rock Pueblo (ca. 75 people) was massacred around AD 1270. Other post-1250 sites show evidence of violence as well.

Warfare!
In the 1200s, the practice of locating single-family homesteads near fields was given up as people increasingly gathered in large villages. Some were in natural shelters (here, Spruce Tree House at Mesa Verde NP).
The largest villages, however, formed around springs at the heads of canyons. Here, an artist’s reconstruction of Sand Canyon Pueblo (400 rooms, 90 household kivas)
Above: a computer reconstruction of Sand Canyon Pueblo (AD 1250-1280). It was “front-oriented”, had lots of south-facing household kivas, and several examples of “public architecture”, including a D-shaped building.
Wild game became depleted as populations grew. More domestic turkeys were needed to supply meat and eggs. Three adult turkeys required as much corn as one adult human. In AD 1200s refuse deposits, turkey bones often outnumber rabbit bones, and deer bones are rare.
In a recent book (2015) Donna Glowacki argues that in the 1200s, some leaders attempted to reinstitute hierarchical social systems reminiscent of Chaco. Families opposed to this began to drift away to join distant relatives in growing Pueblo communities to the south and southeast.
“Out on a limb”

By the mid-1200s, the Central Mesa Verde communities were vulnerable to environmental and social problems. Population at an all-time high, with maize supplying 80% of food.

Warfare encouraged moving into large villages. Households lost flexibility to move locally in response to problems with farming or dissension within the community.

Aggregation promoted new forms of community leadership (evidenced by new kinds of “public architecture”)

Reliance on turkeys in response to game depletion required yet more maize production.

Was migration a path to socio-cultural renewal?
In the late 1200s and 1300s, Mesa Verde people moved to various places in the blue-shaded area on the map above.
Existing relationships and general cultural similarities
More reliable summer rainfall and supplies of wild game
Less inter-community warfare
New forms of community organization

“Pull” Factors

Left: Frijoles Canyon, N. Rio Grande Area, New Mexico

Photo from “The Internets”
In the late 1100s and early 1200s, “plaza-oriented” villages begin to appear in the southern part of the blue area shown on the previous map. Inhabitants looked inward to the plaza.

Left: Broken K Pueblo, Upper Little Colorado region (Hill 1966)
By the late 1200s, “plaza pueblos” were becoming the norm in the N. Rio Grande

Burnt Mesa Site--Built 1270s-1280s.
Differs from a Mesa Verde village:

- Not front-oriented
- No household kivas
- No “public architecture”
- Single kiva in the plaza

Implies a shift away from the Mesa Verde pattern of household & lineage autonomy in favor of stronger community integration
N. Rio Grande plaza-oriented villages rapidly increased in size—Arroyo Hondo in the early 1300s was several times as large as Sand Canyon Pueblo.
1300s & 1400s saw a florescence of art and ritual in the Rio Grande, as new socio-religious patterns proliferated. These had their roots in the social transformations of the late AD 1200s.
Post-migration Pueblo communities developed ways to hold large communities together without a strong central authority. No more Chacos!

Today, religious and other organizations draw members from multiple kin groups. No individual or organization holds all the reins of power. All must play their part to keep the community functioning. This type of organization emerged or was strengthened in the “migration period.”
The Mesa Verde migrants changed some important aspects of their culture, but they also retained many beliefs and practices from earlier times. The Mesa Verde area remains an important part of their cultural identity and heritage.
“Movement is part of us…People have moved from place to place and have joined and separated again throughout our past, and we have incorporated it into our songs, stories, and myths because we must continually remember that, without movement, there is no life.”

Tessie Naranjo, 1995