Hisat’sinom: Ancient Peoples in a Land without Water

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This is a well-written and beautifully illustrated volume focusing on a relatively small but geographically diverse portion of the US Southwest—the “Sin Agua” culture area on the Mogollon Rim and immediately east of the San Francisco Peaks and present-day Flagstaff, Arizona. The focus is principally on the interplay between the harsh environment and Native American adaptive resilience from 400 CE or the advent of agriculture to no later than 1300 CE. Although the Paleo-Indian and archaic periods are represented in this zone, the material manifestations found here are also apparent in other better known areas (Chapter 8). Two aspects set this region apart: the lack of water, even by US Southwest measures, and its societal crossroads location, linking the heartland of the Hohokam with that of the Anazasi of Chaco Canyon. Because of this setting, it captures in microcosm much of what is revealed about the ancient social history of the US Southwest more broadly.

The book is composed of 20 well-crafted essays by 25 contributors introducing and developing a comprehensive and encompassing set of topics meaningful to both scholar and well-informed layperson. A primary strength of the volume is its thoughtful assessments by several Hopi authors drawing from their own accounts of the ethnohistoric record as well as the ethnographic present (Chapters 2, 3, and 14). The tensions between academic archaeology—the “arti-facts”—and the Hopi “way”—the ancestral stories and their long-lived occupants—are not dismissed. As Lyle Balenquay notes, “being Hopi was not a right but a privilege, hard earned, at great cost of effort (p 12). Too, the role of Northern Arizona University and the Museum of Northern Arizona pervade the volume by way of faculty and staff commitment during decades of survey and excavation in this region. Christian Downum has done a fine service in envisioning this book.

The geological backdrop for the cultural geography revolves around Sunset Crater, a volcanic blow paleomagnetically dated to 1080 CE and active for no more than 50 years (Chapter 5). The archaeology is significantly identified by pre- and post-Sunset Crater, as the intensity of occupation and agriculture markedly spikes for a hundred and fifty years following the generous deposition of cinder covering an extensive area. This cinder mulch allowed gardens to retain dry farming moisture over the thinnest of soils when the elevated bedrock prevented the further percolation of water deeper and away from the shallow root systems of maize—the latter a clear staple for most all US Southwest ancestral populations. Gregory Brown (Chapter 16) shows how linear and sometimes rectilinear stone alignments were positioned to shield juvenile corn plants from the persistent and sometimes severe spring and summer winds, rather than oriented to the slope angles of the terrain; the latter correlation one usually made in the semiarid world where infrequent cloud bursts and subsequent erosional runoff are credited with linear or contour alignments of rock (cf. Evenari, Shanan, and Tadmor 1982).

Historically, during the 30s and 40s, Harold Colton founded and directed the Museum of Northern Arizona, and along with John McGregor defined the Sinagua culture. The “black sands” associated with the 1080 CE blast were viewed as the catalyst for increased agricultural production and populations, with the significant in-migration of others from neighboring culture areas (Chapter 10). Recent assessments strongly suggest that actual movements of peoples were likely less pronounced, but the exchange of goods and the ideas that they
revealed were a principal change in the region. Michael O’Hara’s chapter (9) provides a highly condensed and helpful introduction to the material remains. Agricultural populations were well established prior to the Sunset Crater eruption most prominently identified at Winoma Village with 36 pithouses, a three-room pueblo and perhaps an early ballcourt. Post-Sunset Crater, all of these material remains have clear definition in the earlier and contemporaneous desert basins of the Hohokam or the highly influential Anasazi center of Chaco Canyon much farther to the east; both of these culture areas reach a threshold of crossroads complexity in the Sinagua zone (Chapter 9).

Jeffery Dean’s concise and informative piece (Chapter 6) outlines the history of dendrochronology telling of A.E. Douglass’s brilliant discovery of ponderosa pine, tree-ring dating while in the Flagstaff area, the methodology thoroughly and finally accepted in Colton’s 1946 overview volume, “The Sinagua: A Summary of the Archaeology of the Region of Flagstaff, Arizona.” If dating controls were not important enough—with over 5000 Southwestern archaeological sites now drawing from over 50,000 dated contexts—Douglass’s revelations introduced dendroclimatology. And now, with the evaluation of tree-ring data obtained from the long-lived bristle-cone pine, not only is it possible to accurately assess drought series back to 300 BCE more widely—with precipitation records extending to 570 CE for the Sinagua area specifically—archaeologist can evaluated temperature records as far back as 663 BCE in the San Francisco Peaks area. The potential for understanding climate change at a truly nuanced level without historic records and in an uninterrupted sequence can be triangulated using calendar dates, precipitation rates and temperature values; with much of this information and research effort pioneered and developed, even today, in the Sinagua zone.

The book is a fine example of a research consortium brought together “to think globally, and act locally.” Many of the assessments introduce ways of collecting and interpreting information that resonates with adjacent areas of the US Southwest, but they also will provide useful evaluations for other semiarid setting elsewhere in the world. For the US Southwest, the fact that the Sinagua region shares so many material elements with both the Hohokam to the south and the Anasazi to the east forces an assessment of the network of ideas linking the greater US Southwest and why relatively limited distances were able to accommodate the apparent deeply held cultural differences maintained between the “cores” of those well-defined culture areas.

Wupatki Pueblo has likely received the most attention by archaeologist in the area because of its size and its florescence in the 1100s, combining a Hohokam-style ballcourt with a possible Great House-like tabular sandstone Chacoan outlier associated with a possible Great Kiva (Chapter 11). These features are timed during a period that Chaco Canyon is in decline and the Hohokam are transitioning from ballcourt-oriented communities to platform mound constructions. And though drought-like conditions may have been influencing decision-making elsewhere, the Sinagua area was considered by its inhabitance as good enough, given the zone was always very dry. In addition to the four-storey construction and the well-defined public architecture noted, many field houses surround the town center with more permanent farmsteads further away and likely occupied during the summer plant-tending months. Too, small deliberately excavated reservoirs were in proximity to these latter features and were likely used to fill jars stored for later drinking. In addition to maize cropping, cotton and pinon nut consumption is evident in the macrobotanical record, the latter collected “dozens of miles away” (Chapter 15, p 115).

Cotton is an expensive crop because of its water demands, and it may have been cultivated as early as 700 CE in the area; though it became truly significant after 1100 CE and the widespread appearance of spindle whorls and evidence for both vertical and backstrap looms (Chapter 18). Wipatki was again a location where the skill of its weavers was as developed as any
By focusing on a specific intermediate zone straddling several much larger and better known culture areas, its many contributors capture the variability and shared set of material attributes identifying the ancient US Southwest. The editor's incorporation of Hopi interpretation, assessment, and deeply held cultural sensibilities also complements the authoritative impact of the volume. The audience for this contribution is both scholarly and comfortably accessible to a broad public. I would recommend it as an addition to any course treating North American prehistory or addressing anthropological issues within the US Southwest. Because of its concise but careful assessment of environmental parameters, it will appeal to those interested in arid land potentials and the constraints and opportunities afforded by the book's review of engineered landscapes and society's ability to cope and niche construct.

References Cited


In closing, Hisat'ínom: Ancient Peoples in a Land without Water draws together both the temporal depth and greater regional diversity of the US Southwest in a concise and meaningful manner.

other place in the US Southwest. Shell ornamentation was highly prized by the Sinagua culture, with a huge number of examples retrieved from Wipatki, quantities and qualities in excess of some of the largest Hohokam communities to the south (Chapter 19). As apparent elsewhere, the highest concentration of shell and related exotics tend to be associated with ballcourts, indicative of that feature's role in greater intercommunity exchange. Other exotics include macaw feathers of which a quarter of all macaw burials and related remains known from the US Southwest have been retrieved from Wipatki Pueblo. Copper bells, too, were imported from Mesoamerica and are represented disproportionately in the Sinagua record when compared to the much larger and long-lived core cultural areas of the US Southwest.

Although by 1300 CE the farming and puebloan life in the Sinagua zone was gone, perhaps affected by sustained drought and the precipitating role of food inadequacies (Chapter 20), the culture captures the resilience of long-term sedentism dependent on an agricultural lifestyle derived from as little water as can be imagined. Ironically, it was the fires of volcanism that provided the soil conditions, by way of mulching, that prolonged, no, accelerated, the productivity of a landscape and the growth of a life way; the latter both unique in its immediate adaptations to the environment, yet culturally similar to much of the US Southwest. This volume is an important testament and contribution to that holistic understanding.