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ARCHAEOLOGY SOUTHWEST

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*That* **Nobody**  
**Really Knows**

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Cover image: Byron Cummings (1860–1954) in a rebuilt room at Kinishba in 1942. In a tribute to the Dean, (*The Kiva*, Vol. 20, No. 1), anthropologist and former Cummings student Clara Lee Tanner (1905–1997) wrote:

“A man can be measured but partially in his scientific attainments, in the positions he holds in life, in the words he speaks or writes on paper; his greater worth lies in relation to his fellow men. Dean Cummings rests deep in the hearts of the men and women with whom he came in contact. He gave freely of inspiration, of knowledge, he gave willingly and without reservation.

“Indeed, it is given to but few men to so influence the lives of others that they are forever grateful to him.”

Image: Chuck Abbott. Courtesy of Dedi and Mike Hoeck



## Archaeology Southwest

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# The Site That Nobody Really Knows: Kinishba Reawakened

JOHN R. WELCH  
SIMON FRASER UNIVERSITY

*The term “archaeological record”* has at least two meanings. In one sense, it comprises the material legacy of those who have passed on, the sites and artifacts left behind and potentially available for study. In another sense, the archaeological record consists of the results of excavations and surveys—the collections of artifacts and documents produced by archaeologists.

Landscapes are populated by primary or in situ archaeological records, as in the former sense; museums, universities, cultural resource management (CRM) offices, and other “dens of antiquity” are bulging with the secondary, or derivative, archaeological record, as in the latter sense. Primary archaeological records attract the lion’s share of research; secondary archaeological records are often discussed in terms of the “curation crisis” of practical and ethical challenges in managing the physical results of archaeology.

In this issue of *Archaeology Southwest Magazine*, we describe how the secondary archaeological record—in the form of previously unexamined and nearly lost documents—enabled us to reawaken investigations of one of Arizona’s most famous but least reported sites, Kinishba Ruins National Historic Landmark.

## *Place of Abundant Snakeweed*

Known in Hopi oral traditions as Mäi’povi (Place of Abundant Snakeweed) and to Apaches as kį dałbaa (brown house), Kinishba Ruins is the sprawling remains of a plaza-focused village where people lived from about A.D. 1200 into the 1400s. Located just west of Fort Apache and Whiteriver, on White Mountain Apache tribal land, the site sits in a grassy, conifer-

fringed valley that drains into the White River, a principal tributary of the Salt River (see map on page 4).

Beginning in 1931, archaeologist Byron Cummings—University of Arizona professor and director of the Arizona State Museum, affectionately referred to as “the Dean”—



*The rebuilt portion of Kinishba in 1942, view to the north.* IMAGE: CHUCK ABBOTT. COURTESY OF DEDI AND MIKE HOECK

dedicated most of the last two decades of his long career to the site (pages 8–10). He supervised students and local Apache workers in excavating about 240 of Kinishba’s approximately 600 rooms, in rebuilding about half of those excavated, and in launching a site museum. The museum foundered in the



Major locations mentioned in this issue.  
 Kinishba is just west of Whiteriver. MAP:  
 CATHERINE GILMAN

early 1950s as archaeologists, museum professionals, and the Bureau of Indian Affairs (BIA) abandoned Kinishba’s protection and management to the White Mountain Apache Tribe (pages 9–10).

In the 1990s, the Tribe’s Historic Preservation Office and the nonprofit Fort Apache Heritage Foundation began working with local Apache, Hopi, and Zuni leaders to provide culturally appropriate stewardship. Tribal officials and the foundation undertook this charge in conjunction with the preservation and redevelopment of the Fort Apache and Theodore Roosevelt School National Historic Landmark.

***The Dean’s Vision***

Beyond this historical outline, Kinishba is the site that nobody really knows. The ruin ranks among the most extensively excavated, rebuilt, and visited yet least analyzed or published sites in the American Southwest. No archaeologist alive in 2016 has conducted on-site research beyond visitor planning and surface mapping. Neither memories nor complete documentation are available to guide studies into what archaeologists did at Kinishba, or what they found or learned. Until just over a decade ago, I and

***Food for Thought...***

Commonly used in an earlier era, and part of the official names of many sites, “ruins” is a misnomer. Descendant communities and other indigenous groups do not think of archaeological sites as “ruins,” but as material evidence of the lives and journeys of their ancestors or others who came before—not used up or abandoned, but replete with spirituality, messages, and lessons for living. This view resonates with today’s archaeologists, who see sites not as “ruins,” but as places rich with information about people’s lives in the past.

others had accepted the notion that Cummings's breezy 1940 monograph and his students' reports were all that we had to teach us about what happened at Kinishba, whether in the distant past or in the mid-twentieth century.

But we were wrong.

In 2003, the White Mountain Apache Tribe Historic Preservation Office, where I served as preservation officer from 1996 to 2005, received a box of documents that catalyzed new research. Our work has revealed that Cummings envisioned Kinishba as a living museum and U.S. National Park Service monument. The Dean labored into his eighties to create a place to inspire youthful imaginations, boost visitor appreciation for American Indians and archaeology, and seed what we now call heritage tourism.

Thanks to further study of old papers—including federal personnel records scheduled for destruction—we have also learned that, in 1946, the BIA hired two of Cummings's students to take up where their mentor had left off. James Ball Shaeffer and Margaret Whiting Murry Shaeffer (later Dowd) devoted most of the next decade to Kinishba's preservation and study. Following in Cummings's example, the Shaeffers dug a lot and published a little. We now know that the Shaeffers conducted major excavations in the great kiva and Group VI room block (pages 11–13).

Because so little has been published about Kinishba, and because the site's unpublished archaeological record is so fragmented, I realized that the draft reports contained in the box received in 2003 were uniquely valuable evidence regarding the Shaeffers' excavations. I convened a "salvage archival archaeology team" that used the "orphaned" reports as a foundation for research to mobilize new understanding of Kinishba.

Our results, published as *Kinishba Lost and Found: Mid-Century Excavations and Contemporary Perspectives* (Arizona State Museum Archaeological Series 206, 2013) are summarized herein. By sharing them in this issue of *Archaeology Southwest Magazine*, we wish to acknowledge and advance preservation partnerships, and we seek to foster additional study, outreach, and respectful use at Kinishba and related sites. 



From 2002–2004, students in a University of Arizona field school led by Dr. Barbara Mills participated in masonry stabilization and preservation workshops at Kinishba. The White Mountain Apache Tribe Historic Preservation Office and a network of National Park Service officials directed the workshops. IMAGE: BARBARA MILLS



This issue of *Archaeology Southwest Magazine* summarizes what Welch's Kinishba research team learned—and the questions that remain—as a result of opening "the fateful box." To learn more, we encourage you to read the volume pictured here (Welch is showing how they chose the cover color to reflect the slip on White Mountain Red Ware pottery). Visit [archaeologysouthwest.org/asw30-1](http://archaeologysouthwest.org/asw30-1) for more information. IMAGE: P. K. WEIS

# Episodes in Kinishba History

JOHN R. WELCH  
SIMON FRASER UNIVERSITY

*Previous research* on the eastern Mogollon Rim has produced a sturdy chronology of the region's history, which reveals a few episodes of rapid change followed by long periods of relative calm.

Paleoindian groups may have used the region, but its high-energy depositional environments make it difficult to identify very ancient materials in stratigraphic context. During the Archaic period (6,000 B.C.–A.D. 1), hunter-gatherers moved across the Mogollon Rim, attracted by seasonal plant and game foods. Toward the end of the Archaic, many groups in the region were planting crops along creeks and the moist areas below the Rim country's abundant springs and seeps.

Plain brown pottery signifies the beginning of cultural traditions ancestral to today's Pueblo groups. Large great kivas suggest that ceremonies contributed to solidarity in the earliest long-lived communities. The number of villages, their overall size, and the sizes of storage facilities and communal structures during the Late Pithouse period (A.D. 600–1150) indicate

steady growth in populations and greater reliance on farming. Work at two pithouse sites near Kinishba (see pages 13–15) sheds light on the origins of some of the people who lived near Kinishba. Evidence from these sites also conveys what life was like before people began living in fully aboveground structures, which occurred around 1100.

Distinctive architectural and community forms emerged across the Rim during the Mogollon Pueblo period (1150–1450). Studies in the Silver Creek area (see map on page 24) show that people and cultural influences from the north and east began to arrive in the region shortly after 1000, continuing until about 1300. Great kiva ceremonial systems, relatively low populations, high ecological diversity, and drought-resistant water sources probably “pulled” immigrants toward the region. At the same time, dissolution of the Chaco system in the 1000s and drought on the Colorado Plateau in the later 1200s probably “pushed” migrants southward.



**Left:** Kiva in Patio B during rebuilding, 1935. Standing with hat is Ryan Gillan (ASM 2004-1500-3). IMAGE: TAD NICHOLS. COURTESY OF ARIZONA STATE MUSEUM, UNIVERSITY OF ARIZONA **Above:** The same in 2005, from a slightly different vantage point. IMAGE: P. K. WEIS

One outcome of migration was that populations moved to large, aggregated, plaza-focused villages like Kinishba after 1200. The arrivals probably came in waves from specific settlements in the Four Corners region (see pages 19–20 and 20–23). The ancestral Hopi and Zuni villages known to archaeologists as Point of Pines, Kinishba, Grasshopper, Bailey, and Q Ranch attained their greatest size as people dry-farmed lands surrounding reliable water sources.

This transition was not uniformly peaceful. The rise of big pueblos and their settlement systems was often accompanied by dietary stress, uncertainty, and great wariness. Although few overt signs of warfare have been identified at Kinishba, questions concerning the co-residence of distinctive social groups (see pages 15–18), variation in agricultural productivity and human health, and the sources and management of conflicts are ripe for research attention.

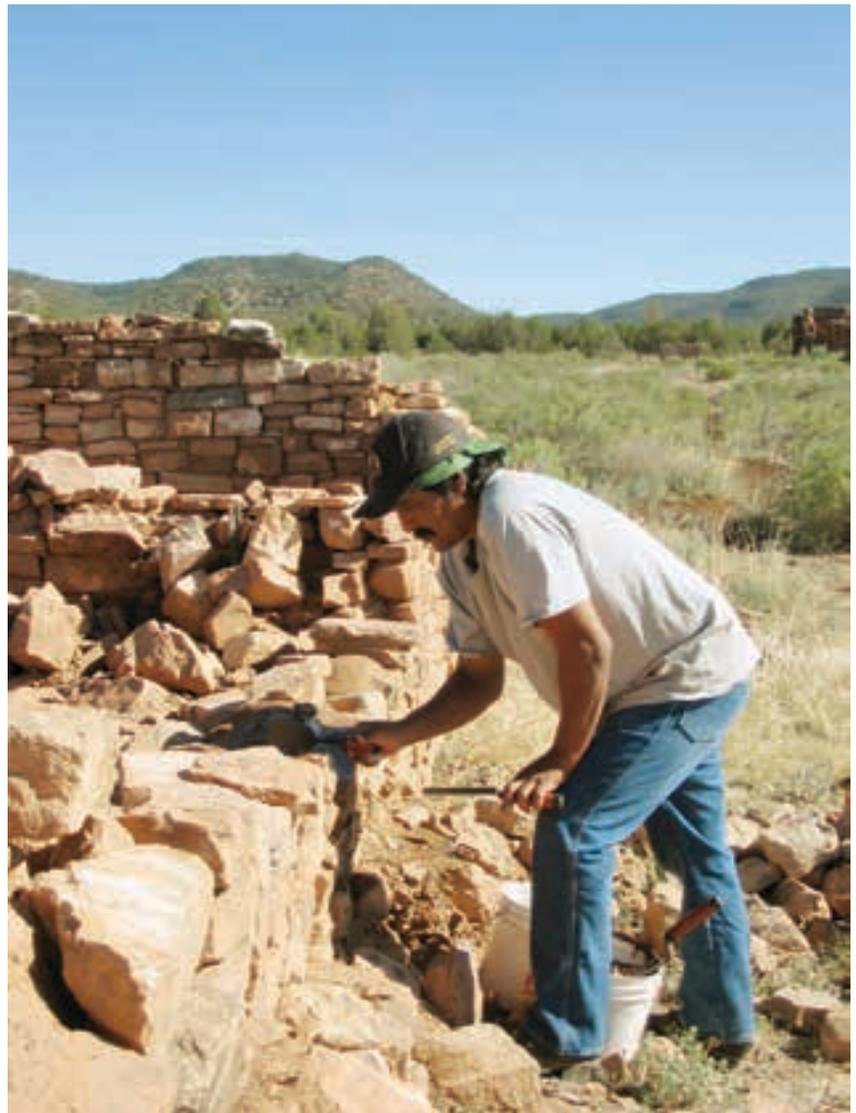
According to Hopi traditions, Kinishba Ruins was once known as Mäi’povi, “Place of Abundant Snakeweed.” The village was made of sandstone masonry, mud mortar, and juniper and ponderosa pine timbers from nearby stream terraces. As the largest of about 20 large (150 or more rooms), plaza-focused pueblos formed as a result of migration and successful adaptation to the eastern Mogollon Rim region, Mäi’povi was also made of people, as well as their families, stories, hopes, and memories. Kinishba’s first residents’ choices—where to live, what kinds of houses to build, what sorts of utilitarian crafts and sacred arts to pursue—all signal attention to the soils, rains, and communal institutions necessary to sustain their lifeway in a region of uncertain environmental and social conditions.

Household, lineage, and community leaders undoubtedly kept an eye on opportunities and threats presented or promised by changes in the village’s natural and social environs. Some of these opportunities and threats probably partly explain why Kinishba did not endure. Residents might have been pushed out, driven from their homes by crop failures. According to Hopi and Zuni oral traditions, sacred mandates beckoned Kinishba’s families elsewhere.

In any case, villagers moved on, leaving “footprints”—masonry and petroglyphs, pottery forms, diverse household and ritual items, and their ancestors’ and family members’ burials (see pages 26–27). They took with them stories and sentiments that live on as links among peoples and places. Kinishba was among the last places in the

region Pueblo people left. By about 1400, the mountains south of the Rim quieted once more.

We do not know exactly when ancestors of the Western Apache (Ndee) moved into Arizona or established Ndee Dawada Bi Ni’, the Western Apache homeland. Until the later 1800s, when soldiers from Fort Apache began looting the ancient village as a pastime, Kinishba’s Ndee stewards followed their elders’ advice and left the place alone. Respect for ancestral sites is among the many elements of pre-reservation society that help Ndee maintain links to cultural and geographical birthrights while using reservation lands as economic foundations (pages 26–27). ■



*Dempsey Quintero stabilizes rebuilt portions of Kinishba, 2006. IMAGE: KARL HOERIG. COURTESY OF THE WHITE MOUNTAIN APACHE TRIBE HERITAGE PROGRAM, FORT APACHE*



# A Dream Deferred: Cummings and the Shaeffers at Kinishba

JOHN R. WELCH  
SIMON FRASER UNIVERSITY

*In 1931*, Byron Cummings, venerable and vivacious founder of the University of Arizona Department of Archaeology (now the School of Anthropology) and director of the Arizona State Museum, turned his 30-something mind and 70-year-old body to the site then known as Fort Apache Ruin. Cummings's notions about giving back to Native people for facilitating his long career soon took shape as a quixotic quest to integrate archaeological research and training with Native American community engagement and tourism development.

To these ends, for the next 16 years, Cummings led archaeological field schools, Depression-era work programs, and campaigns for funding and National Park Service management. Cummings, his students, and Apache workers excavated about 240 rooms, rebuilt about 140 of those, erected the Kinishba Museum visitor and interpretive center, and pioneered the

creation of what we today recognize as a “living museum.” A comparable effort today could easily consume the entire Arizona State Museum budget for decades, but Cummings mounted the project as a shoestring swan song.

Eventually, even the indomitable Cummings realized the project's completion was beyond him. As his once-limitless vitality waned after World War II, he reached into his network of students and supporters, bringing forth James and Margaret (Murry) Shaeffer. The Shaeffers returned to Kinishba as Bureau of Indian Affairs (BIA) curators in 1946, a decade after working there as students. Cummings moved from his cherished quarters into a “suite” of rebuilt pueblo rooms in the northwestern corner of Group I (see map on page 18). He returned for the last time in spring of 1947, but felt in the way. Later that year, shortly after his eighty-seventh birthday, Cummings married

longtime friend Ann Chatham and turned his energies to building their retirement home and writing two more books.

The Shaeffers, meanwhile, set to keeping the Dean's dreams alive and creating a life for themselves and their three children. Margaret and Jim knew well Cummings's intentions to present Kinishba to visitors in four complementary contexts: unexcavated, excavated, rebuilt, and as a modern indoor museum.

Challenges quickly mounted. Cummings's hard-charging excavating,



*Rooms at Kinishba (foreground) and Cummings's museum (background), 1942. IMAGE: CHUCK ABBOTT. COURTESY OF DEDI AND MIKE HOECK*

rebuilding, and new building led to deferred maintenance issues. Serious questions emerged about the Museum's incompletely interpreted admixture of ancient and twentieth-century Apache and Pueblo collections. (On the plus side, Kinishba was the only BIA museum closely linked to an archaeological site and the only one interpreting a living tribe—the White Mountain Apache—as well as an ancient cultural tradition.)

While the BIA was attempting to redress matters at Kinishba, it inherited responsibility for three other museums: the Sioux Indian Museum in South Dakota; the Museum of the (northern) Plains Indian in Montana; and the Southern Plains Indian Museum in Oklahoma. The agency directed the Shaeffers to prepare Kinishba to serve as a regional center for interpreting Southwestern Native cultures and stimulating crafts markets.

Structural problems worsened. Wet winters damaged dozens of rebuilt rooms beyond simple repair. The \$450 allotted for repairs in 1948 was no match for the \$15,000 needed for a new roof on Group I. Although visitation to Kinishba was growing—from 711 in 1946 to 1,793 in 1949—the numbers were too small to drive a market for Apache crafts. Moreover, of the four BIA museums, Kinishba was located farthest from an urban center or other tourist destinations. No cost-effective plan for drawing visitors to Kinishba emerged then, and none has since.

Ultimately, the Shaeffers were spread too thin. In addition to their museum and family duties, they were directed to reroof Group I and install a drainage system. When the Indian Arts and Crafts Board (IACB) absorbed the meager annual funding (\$66,000) for all four BIA museums, Kinishba's entire budget was transferred, but management responsibilities were not.



*Oblique aerial view, circa 1936, showing excavation in Group I (right) and rebuilding (ASM 2004-1500-011). Note the white sleeping tents at left. IMAGE: TAD NICHOLS. COURTESY OF ARIZONA STATE MUSEUM, UNIVERSITY OF ARIZONA*

Neither the IACB nor BIA ever invested in an interpretive and sales center for the Southwest.

In the spring of 1952, the Marine Corps reactivated Jim for an assignment in Korea. Margaret and the kids left Kinishba in June. Failure to propel Kinishba into the currents of federal budgeting condemned the site to a perpetual struggle for sustainable management. Reports of theft and vandalism circulated at the 1953 Pecos Conference, a summer meeting

## *Food for Thought...*

**Restored? Reconstructed? Rebuilt.** Federal guidelines and standards for historic preservation closely define “restoration” and “reconstruction,” and Cummings’s post-excavation rebuilding does not fit those delineations (see [nps.gov/tps/standards.htm](http://nps.gov/tps/standards.htm)). Although the rebuilt portion of Kinishba generally follows the pueblo’s ancient footprint and uses excavated materials, it also features improvisations and unlikely structural elements (some to accommodate visitation), as well as controversial second- and third stories (see pages 15–18).

In fact, Kinishba was one of several cases that obliged the National Park Service, while Kinishba was under consideration for national monument designation, to take a hard look at the meaning of preservation and the terms of reference for federal support for treatments to historic structures. This analysis led U.S. preservation leaders to exclude rebuilding from the list of acceptable preservation treatments, leaving stabilization, rehabilitation, restoration, and reconstruction.

for Southwest archaeologists held annually since 1927. The BIA was left with a crumbling reconstructed pueblo and a museum desperate for attention, yet bereft of funding. Kinishba was ultimately excluded not only from the roster of BIA museums, but also from all BIA maintenance duties.

When Cummings died in May 1954, Kinishba's future was doubtful. Following a 1956 field trip to the site by the White Mountain Apache Tribal Council, the Council voted to authorize Kinishba's transfer to the National Park Service. The decision spelled the end of the professional, on-site management required to foster Cummings's vision for Kinishba.

Some of the Dean's most dedicated students—the Shaeffers, Emil Haury, Erik Reed, and Albert Schroeder—continued to advocate for the site's preservation via National Park Service adoption, but to no avail. Bureaucratic intrigues brought Kinishba to the brink of designation as a national monument, but Stewart Udall's 1964 declaration of Kinishba as a national historical landmark confirmed continuing tribal management responsibility and retired full realization of Cummings's dream of a "monument to Native American civilization." 



**Below:** Northwest corner of the Kinishba Museum gallery, circa 1941. Note the fireplace. IMAGE: UNKNOWN PHOTOGRAPHER, POSSIBLY EMIL HAURY. COURTESY OF ARIZONA HISTORICAL SOCIETY **Right:** The museum building burned in 1994, and this image was taken not long after. Again, note the fireplace to orient your view and compare to the historical image. Use the doorway to compare with the image on page 8. IMAGE: JOHN R. WELCH



# The Fateful Box: Excavations at Kinishba after 1939

JOHN R. WELCH  
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*Cummings's Kinishba (1940)* was the only published record of excavations at the site for more than 60 years. Then, the box of documents (page 5)—along with correspondence and Kinishba Museum catalog cards at the Arizona State Museum—confirmed that substantial excavations took place from 1941 to 1944 and from 1947 into the early 1950s.

Cummings kept digging after publishing his book. Only a few cards provide collection descriptions or precise provenience information, but dates and names indicate that Cummings, with Kinishba's Apache caretakers, excavated several rooms in Group VIII, extramural areas in Group IV, and elsewhere.

The Shaeffers took up where Cummings left off. Trained as an archaeologist, interested in pursuing a doctorate, and encour-

aged by Cummings to excavate rather than administer, Jim dug a lot, administered some, and wrote little. With a few exceptions, documentation on the Shaeffers' work does not specify where excavations occurred, who participated, what was found, or the disposition of the collected materials.

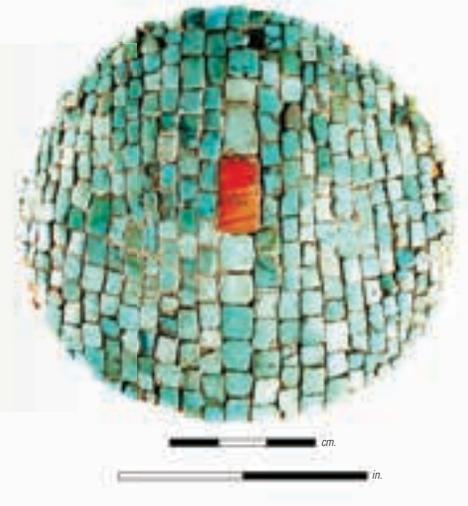
We do know that, in the summer of 1947, Jim initiated excavations into features below the fourteenth-century surface of the Group I plaza. Later that same year, Jim and an Apache crew dug Group VI. We also know that the Shaeffers explored the Group II plaza and room areas on the west side of the stream channel that bisects Kinishba. Because documentation for these excavations is sparse, virtually every shred is presented in *Kinishba Lost and Found* (see [archaeologysouthwest.org/asw30-1](http://archaeologysouthwest.org/asw30-1) for full reference). We remain on the lookout for field notes, collections, and other primary excavation records.

## *The Shaeffers' Group VI Excavations*

The Shaeffers' goals for Group VI were straightforward: allow visitors to witness the archaeological excavation process; learn about the portion of Kinishba west of the stream channel; and gain information about relations between the larger "main" room blocks (Groups I and II) and the smaller "outlier" groups (III–VIII).



**Above:** Margaret Shaeffer's reconstruction of the southern portion of Kinishba's great kiva showing inferred details of roof construction. GRAPHIC: ADAPTED BY CATHERINE GILMAN FROM A COPY OF SHAEFFER'S ORIGINAL RENDERING. COURTESY OF ARIZONA STATE MUSEUM, UNIVERSITY OF ARIZONA **Right:** Shell ornament (ASM 6748) recovered at Kinishba in 1933, now in the collections of Arizona State Museum, University of Arizona. In his 1940 monograph, Cummings wrote, "Clinging to the side of the wall of room 43 on the east side of the large court [plaza] was half the shell of a large sea clam [*Dosinia ponderosa*, found from the upper Gulf of California and south to Peru]. A hole had been drilled through the knob near the hinge and the outer surface encrusted with tiny squares and rectangles of turquoise... There were 367 of these pieces of turquoise, carefully cut and polished and set in pine or juniper resin mixed with fine clay. In the center was a piece of red shell [*Spondylus* (spiny oyster); range extends from Tibron Island and south along the Pacific coastline]... It was probably a breast ornament..." IMAGE AND SPECIES IDENTIFICATIONS: ARTHUR W. VOKES



## Good Intentions and Cautionary Tales

There are hard lessons in the history of Cummings and the Shaeffers at Kinishba. Their quests to extract, interpret, and perpetuate the cultural, scientific, management, and economic development values embedded in Kinishba might be summarized as the proverbial road to ruins, paved with good intentions. Without the promise of sturdy institutional support, the lures of excavation and interpretation focused on serving the interests of small communities are usually no match for fiscal and climatic vicissitudes over multiple generations—as the histories of Besh-Ba-Gowah and Casa Malpais, among others, bear out.

Our publication of the Shaeffers' work offers significant testimony that was nearly lost. Now that we are aware of additional excavations, we know that any future excavations or damage assessments at Kinishba must take these into account.

Prior to the excavations, the archaeologists estimated that Group VI comprised six rooms. Digging uncovered a row of six rooms on an east–west axis with two additional rooms projecting southward from the middle of this line—a total of eight rooms. Excavations also revealed whether the room walls were built at the same time (bonded corners) or sequentially (abutted corners), allowing the Shaeffers to infer that an original three-room household had been remodeled in four more construction episodes, ultimately becoming eight rooms. Residents probably had to accommodate a growing nuclear family or the arrival of close relatives, or both.

In addition to their architectural analyses, the Shaeffers noted the features and artifacts they observed. Their report describes the “fireboxes” (slab-lined hearths), entry-hatch covers, paved areas, and mealing bins they found on the floors. They also describe flaked and ground stone tools; shell, antler, and exotic items, including turquoise, kaolin, azurite, quartz crystals, and a stalagmite; and even a painted deer jaw bone. These finds fit comfortably within the assemblages Cummings recovered and documented, now in the collections of the Arizona State Museum. The 45 complete and partial ceramic vessels (29 ollas, 15 bowls, and one seed jar) suggest Group VI was built and inhabited in the 1300s, toward the later phase of people's residence at Kinishba, and probably only after about 1320.

### *The Shaeffers' Group I Plaza Excavations*

Documentation of the great kiva excavations is more extensive, and the report more complete. From four exploratory trenches Cummings dug, the Shaeffers knew that remains of numerous structures lay beneath the Group I plaza. Their goals here were simple: expose and document these features in a search for clues to Kinishba's earliest habitation and subsequent development.

The Shaeffers' goals may have been straightforward, but the process was not. Working primarily in the summer of 1948, Jim and Chester Holden, his Apache helper, stripped back the entire surface of the plaza, an area well over 3,000 square feet. They excavated dozens of features, including wall segments, ramps, ventilator shafts, packed



*Kinishba's villagers made pigments from iron oxide (red), limonite (yellows), malachite (green), azurite (blue), kaolin (white), and manganese and gilsonate (black). These deer jaws recovered by Cummings, now in the collections of the Arizona State Museum, University of Arizona, are among the objects they painted. The Shaeffers also recovered a painted deer jaw. For catalog numbers, see [archaeologysouthwest.org/asw30-1](http://archaeologysouthwest.org/asw30-1). IMAGE: JOHN R. WELCH*

clay floors, postholes, and storage caches. They focused on understanding the building sequence and function of five dirt-walled rooms below the plaza, and on determining how people ultimately transformed the plaza into a great kiva.

Their work showed that, by no later than the early 1200s, the area that became Kinishba's Group I plaza held five small kivas (four rectangular and one "D"-shaped). Based on the presence of features associated with kivas in the greater Four Corners region, the near lack of artifacts, the lack of similar

house types in the Mogollon Rim region, and subsequent use of the same area for ceremonial purposes, the Shaeffers concluded that the rooms were ceremonial, rather than residential. By the early 1300s, residents had filled in the kivas, leveled off the area, and erected room blocks defining a rectangular plaza. Shortly thereafter, perhaps in the 1320s, people modified the courtyard and roofed the area, thus forming a great kiva that looks like a contemporaneous example at Point of Pines and a later example at Grasshopper Pueblo. □

## Before Kinishba: Two Mogollon Pithouse Villages

RICHARD CIOLEK-TORELLO, STATISTICAL RESEARCH, INC.  
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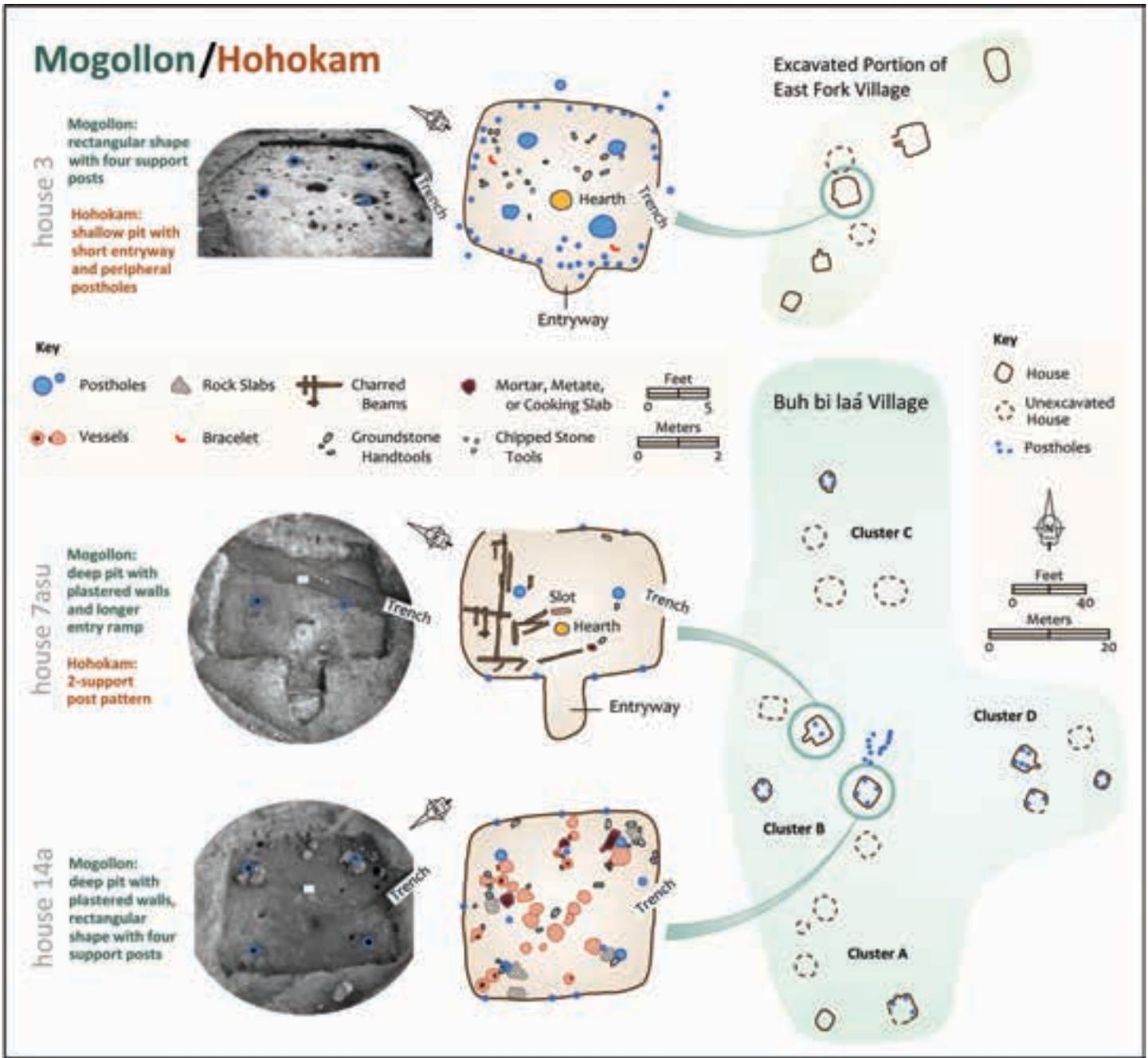
*Between 1983 and 1984*, the Museum of Northern Arizona (MNA) conducted excavations at two Mogollon pithouse villages in the vicinity of Kinishba and Fort Apache, Buh bi laá Village (NA17,903) and East Fork Village (NA17,962). People lived at these villages between A.D. 750 and 875, a time when the Mogollon tradition included brown and red pottery and small settlements composed of clusters of distinctive pithouses.

The project provided the first opportunity to study early Mogollon culture development in east-central Arizona since Dr. Emil W. Haury's excavations in the Forestdale valley in 1939 and 1940 (see *Archaeology Southwest Magazine* Vol. 27, No. 4). Haury sought to gather information to support the concept of Mogollon as a distinct archaeological tradition. The resulting evidence suggested Mogollon emergence as a culture distinct from other Southwest cultures by about 1,700 years ago. Haury surmised that Mogollon groups in the Salt River watershed had greater interaction with desert-dwelling Hohokam groups at first, with greater influence from people living to the north, on the Colorado Plateau, occurring over time. There was little work done to evaluate these ideas until MNA's excavations at Buh bi laá and East Fork.

The most striking aspect of these two small settlements is the extensive evidence for interaction with contemporaneous Hohokam populations. Hohokam pottery was common at both sites, along with local Mogollon and nonlocal (Colorado Plateau) ceramics. A Gila Butte vessel found on the floor of a centralized storehouse at Buh bi laá Village and two small Santa Cruz Red-on-buff jars in cremation pits at East Fork Village suggest Hohokam influence was more than incidental. Primary (ashes left in place and covered) and secondary (ashes relocated) cremations at both settlements further indicate that relations with the Hohokam extended beyond material exchanges. Finally, the presence of several Hohokam-style shallow house-



*Buh bi laá Village crew in House 14a. Front row, from left: West Anderson, Jr.; Reno Johnson, Jr.; Emery Jackson; Roger Johnson; Challis Colelay; Chad Smith. Back row: Don Keller; Hodder Cosay; Davis Riley; Spencer DeClay; Rocky Antonio; and Carl Halbirt above. COURTESY OF MUSEUM OF NORTHERN ARIZONA*



Some dwellings at Buh bi laá and East Fork Villages showed an intriguing mix of Hohokam and Mogollon architectural features. We investigated both sites as part of the White Mountain Apache Tribe's plan to develop a wastewater treatment facility and related trunk lines that would serve surrounding areas. Because Buh bi laá Village was located right where the facility would be built, we investigated the entire site of 19 pithouses and a ceremonial/communal area. Our efforts at East Fork Village were limited to the trunk line alignment, where we found five pithouses. A subsequent visit to the site after agricultural plowing by the property owner revealed more than 15 structures. GRAPHIC: CATHERINE GILMAN, ADAPTED FROM MATERIALS PROVIDED BY RICHARD CIOLEK-TORELLO AND CARL D. HALBIRT

in-pit structures and the arrangement of some houses within small courtyard groups suggest strong Hohokam influences.

Although the precise nature of Hohokam presence in the Kinishba area is not yet clear, some form of co-residence with local Mogollon populations probably occurred. The Hohokam

pottery at Buh bi laá Village and East Fork Village is not unassailable evidence that Hohokam and Mogollon people lived side by side, because villagers could have obtained pots through exchange. By contrast, secondary cremations are usually associated with Hohokam mortuary rituals, one of the more conservative



aspects of culture. Their presence provides stronger evidence that people of the Hohokam tradition *were* present in these villages. The association of Hohokam vessels with these cremations further strengthens this evidence. Because domestic architecture and household arrangements are also culturally conservative traits, the presence of houses-in-pits and courtyard groups provides additional evidence that Hohokam ideas about how to do things influenced the development of these villages.

The mix of Mogollon and Hohokam vessels in the cremations and the placement of cremation remains in Mogollon vessels weakens the co-residence argument, however, as does the absence of censers or palettes—items commonly associated with Hohokam cremations. Thus, although Hohokam influence was apparently significant and probably involved the presence of Hohokam settlers, it remains unclear whether

these were temporary residents, people who intermarried with locals, or an enclave of immigrant families.

Evidence of Hohokam influence seems to have disappeared from the region by about A.D. 900, as external influences from other areas became primary. We cannot yet discern what lasting effects the Hohokam had on subsequent events in the Kinishba area. Clearly, the Western Pueblo tradition represented at Kinishba was heavily influenced by regional and interregional responses to developments in the Little Colorado region (pages 19–23). On the other hand, Haury thought the Hohokam had much more than a passing influence on Mogollon. The evidence for intensive Hohokam-Mogollon interaction in the area during the time of pithouse villages suggests that the later Western Pueblo expression at Kinishba might reflect persistent Hohokam influences. □

## What Grasshopper Pueblo Tells Us about Kinishba: An Architectural Perspective

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*Architecture is a powerful influencer* and indicator of human behavior. Because architectural remains reflect a wide variety of decisions, they are important for understanding social organization, migration, settlement history, human ecology, and land-use practices. Such is the case with Kinishba, fraught as it is with Cummings’s complex legacies.

As one approaches Kinishba’s rebuilt room block (Group I) from the parking area, the now-crumbling walls of Cummings’s rebuilding come into view. As a scholar who studies ruined pueblo architecture, I am simultaneously grateful to Cummings and frustrated with him as I take in the scene. To see a fourteenth-century pueblo rise up out of its ruins is as inspiring as Cummings intended. As it succumbs to the ravages of time and weather, it offers insights into decay processes that have unfolded across the Pueblo world for centuries (not exactly a benefit Cummings anticipated).

To my exasperation, though, much of what Cummings rebuilt at Kinishba was based not on observations of fallen walls, but on a blend of speculation and aspiration about how Kinishba “should” look. Data critical to understanding Kinishba as a living community either were not collected or were forsaken in Cummings’s drive to build his monument. Simply put, a

detailed architectural study of Kinishba is not possible based on available data.

In lieu of new excavations at Kinishba (which would be costly and subject to approval by Apache, Hopi, and Zuni leaders), I used observations from Grasshopper Pueblo to fill in details about Kinishba. Grasshopper is Kinishba’s largest, closest neighbor—within 40 miles, as the crow flies—and the best available analog.

I also corrected some misconceptions in Cummings’s 1940 monograph on Kinishba and the map he published (see map on page 18). This map of excavated spaces in Kinishba’s Group I allowed me to identify numbers and sizes of rooms and to count floor features, particularly hearths and mealing bins. To these data, I applied the massive Grasshopper architectural database, refined over the last half century.

I offer observations on three aspects of Kinishba’s built environment: community layout, room function, and ceremonial architecture. My study demonstrates that there is much to be learned from Kinishba without breaking new ground. Many of Kinishba’s original walls are still exposed, awaiting renewed documentation. Many original floor features are still intact, buried under a thin layer of backfill.



## The Two- or Three-Story Room Problem and Its Implications for Room Function

The number of stories contained in a room space also has implications for estimating the number of early-abandoned rooms (usually recognized as such because they are filled with trash) and for assessing room function. Apart from some obvious exceptions, like cliff dwellings and the great houses in Chaco Canyon, buildings of three stories are rare in the precontact Southwest, and even two-story buildings were probably not common until after 1300. Moreover, and as they do today, Pueblo people made extensive use of roof surfaces for all sorts of activities, from grinding corn to cooking, adding to the challenge of distinguishing single-story from multistory structures.

One issue with Cummings's rebuilding has been his interpretation that the east unit was primarily two stories, but as many as three stories in some places. The Grasshopper example suggests that there were no three-story rooms at Kinishba.

Determining the number of stories has implications for determining the number of households. At Grasshopper, as at most multistory pueblos in the Southwest, it was common for people to inhabit the second story of two-story household suites. The lower floor in two-room suites at Grasshopper was almost always remodeled to serve a new, limited-activity function, such as storage, or abandoned and used for refuse disposal.

## Community Layout

Based on room construction rates, wall features, types of wood and building stone, and the sizes and shapes of rooms, Grasshopper Pueblo was home to at least two and perhaps three large social groups. Many members of these groups came from outside the Mogollon Rim region. Differences between or among the groups residing at Grasshopper are overtly reflected in its layout. With large blocks or groups of rooms on either side of Salt River Draw, Grasshopper's layout is much like Kinishba's.

The three largest pueblos below the eastern Mogollon Rim—Kinishba, Grasshopper, and Q Ranch—are all laid out on either side of a north-south stream channel. We know that this dual community division had social significance at Grasshopper: it separated the community into a local (Mogollon Pueblo) population on the west and a nonlocal population (Pueblo immigrants from the north) on the east. This community division was not dictated by topography: people built Kinishba, Grasshopper, and Q Ranch Pueblos in locales where there was plenty of adjacent open space suitable for construction. Placement of the pueblos' principal structures on either side of stream channels represents deliberate division of people into two groups.

As immigrants and locals came to Kinishba, Grasshopper, and Q Ranch, they probably settled in the part of the village that clan and community leaders designated based on ethnic identity and kinship ties. Through time, as villagers participated in sodality groups (non-

kin associations usually organized for mixed sacred and secular purposes), and as they intermarried, these distinctions probably softened. The longer a community was inhabited, the less marked the spatial divisions became.



*A spring-fed stream channel runs through Kinishba. What you see in this image is the result of downcutting; it did not look like this when the pueblo was in its heyday.*  
IMAGE: JOHN R. WELCH

The architectural division at Kinishba probably reflects a social division. Although we cannot know if it represents a local versus non-local population, as inferred for Grasshopper, it is interesting to think about Kinishba's inhabitants negotiating community membership as the village grew over time. Because great kivas are a local Mogollon characteristic, and one is clearly present in Kinishba's Group I, the east-west division at Kinishba might reflect a different dualism.

### Room Function

Given similarities in community layout between Grasshopper and Kinishba, it is likely that Kinishba's more subtle architectural characteristics also indicate differences in the identities of the groups that built and lived in Kinishba's main room blocks. At Grasshopper, people living on the east side used fewer doors and fewer wall features, such as vents and niches. When they did install these, they were usually smaller than those on the west side. East Village builders made greater use of juniper and piñon pine relative to ponderosa pine. They occasionally built and used double mealing bins, which have not been documented in West Village. On the east side, people seldom used higher-quality sandstone in construction, and they did not create kivas (only ceremonial rooms) or formal plazas.

Cummings's map of Group I at Kinishba depicts 202 room spaces. Of these, 105 had rectangular slab-lined hearths, the hallmark of habitation (living) rooms at Grasshopper and other sites. If we calculate the ratio of rooms with one or more rectangular hearths to rooms without rectangular hearths in Group I at Kinishba, we find that 52% of the rooms potentially served as habitations.

The higher ratio of habitation rooms to other kinds of rooms at Kinishba suggests that there were more households relative to total community size, and that Kinishba's households might have been smaller.

### Ceremonial Architecture

At Grasshopper, as at other Mogollon pueblos, residents built large public spaces for ritual, such as plazas and great kivas, as well as smaller, more private spaces for household use or use by close social groups. These more private spaces are characterized by two types at Grasshopper: kivas and ceremonial rooms. People incorporated both types of rooms into room block architecture, and we cannot differentiate them from other room types unless we excavate.

Kivas at Grasshopper contain a masonry bench, a ventilator, and a

### Room Size and Community Size

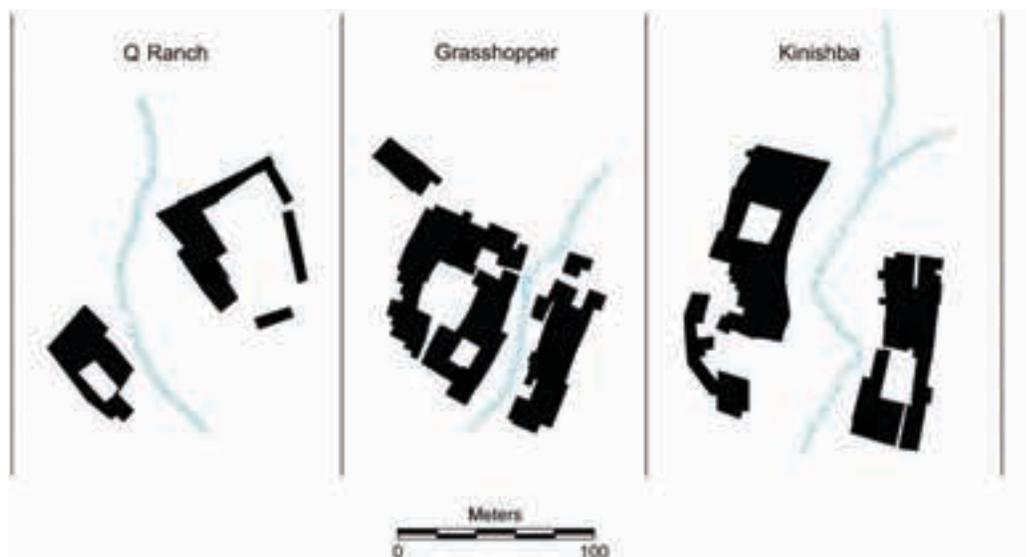
Room size can indicate culturally specific notions of adequate space, as well as room function. Using Cummings's map, I estimated the average room size of the 202 rooms in Group I to be about 126 square feet. At Grasshopper, the average room size for the 287 rooms in the Main Pueblo is about 166 square feet.

Kinishba's smaller rooms might mean that the closely available stands of ponderosa pine and Douglas fir at Grasshopper enabled construction of larger rooms there, whereas the environment around Kinishba limited use of these species.

Conversely, it could suggest that Kinishba's inhabitants represented different groups of people than the builders of Grasshopper—groups who had different preferences about space requirements for habitation, storage, and ritual. One way to address this question would be to examine the tree-ring collection from Kinishba to determine wood species used in construction.

The average room size from Kinishba, combined with the estimated two-story room counts, enables an estimate of the number of total rooms. My remapping of Kinishba indicates that Group II may be two separate room blocks. I divided the total areas of Group II south and Group II north by the average room size calculated for Group I. This yields a total of approximately 314 ground-floor rooms.

I estimate that there were approximately 700 rooms at Kinishba. Because people resided there for a longer time than residents did at Grasshopper, Kinishba may have had more second-story rooms.



*Q Ranch Pueblo, Grasshopper Pueblo, and Kinishba Pueblo had similar community layouts. These layouts had social meaning, but we do not know whether they held the exact same meaning in each community.*  
GRAPHIC: CATHERINE GILMAN, ADAPTED FROM ORIGINAL BY CHARLES R. RIGGS

circular stone-lined hearth, whereas ceremonial rooms have a circular stone-lined hearth and a small, slab-lined ash box. At Grasshopper, about three households shared a ceremonial room, whereas as many as six households probably shared a kiva.

The Shaeffers' description of the earlier kivas underlying Patio A (great kiva) notes circular *and* rectangular hearths in these spaces. The fact that these probably predate Kinishba at its most populous, are fragmentary in their preservation, and seem to represent a range of kiva types, complicates extrapolation. There is no consistent correlation between hearth shape and ceremonial room function. Construction of stone-lined, circular fire pits in ceremonial rooms does not seem to have been among residents' building practices, at least not in Group I.

The subterranean kiva north of the great kiva in Group I's enclosed plaza (Patio B) also sets Kinishba apart from Grasshopper, where no detached kivas have been found. Its

location, and to some extent its internal features, suggest that Kinishba's kiva is akin to traditional Hopi kivas.

The most striking similarities between the great kivas at Kinishba and Grasshopper are their enclosure within the southern portion of former plazas and the placement of wooden support posts and primary beams. The structures also share similar floor features, and each appears to have been built as the villages neared their maximum population, probably around A.D. 1330. The decision to construct a great kiva in both cases seems to have occurred as the local core population tried to reassert traditional religious practice, which included the use of a great kiva in late stages of community development, just prior to depopulation.

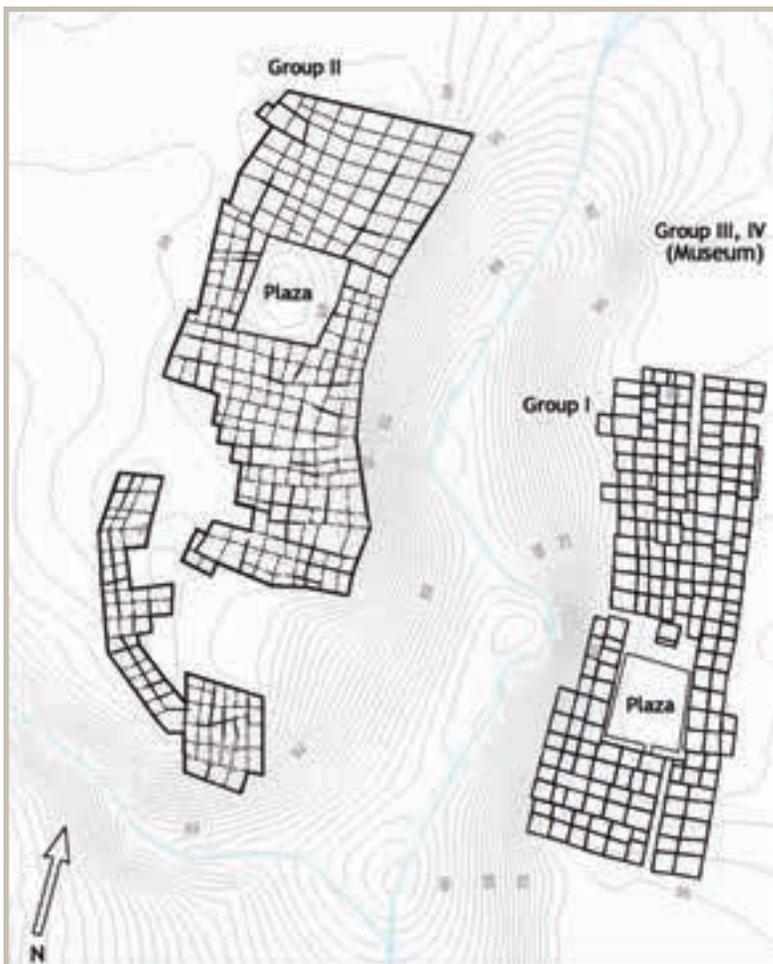
### *Meaningful Similarities and Differences*

The apparent timing of construction and use of similar building techniques in the outlying room blocks of both communities is also interesting. At Grasshopper, outlying room blocks were constructed late in the pueblo's residency. Builders used low-walled construction techniques that had been traditional before great numbers of people began to gather in the community. This has been interpreted to represent lower population density in the area just prior to more momentous regional depopulation.

The seemingly similar construction techniques in Kinishba's outliers suggest intriguing similarities in behavior. Were builders anticipating a shift to more seasonal use of the locale and investing less time and energy by building less permanent structures? Future work around this question will need to look more closely at regional architectural practices prior to aggregation at Kinishba, and it may need to delve more deeply into extant records of excavations at Kinishba's outliers.

Assessment of room function is not quite as straightforward. Overall, there is compelling evidence that slightly more than one-third of Kinishba's rooms were for habitation. This is not unlike Grasshopper Pueblo, or even Turkey Creek Pueblo in the Point of Pines Region. To get an accurate count of Kinishba's habitation rooms, we need to better understand the number of rooms abandoned during the life of the pueblo, the number of two-story rooms (see sidebar on page 16), and the nature of rectangular versus circular hearths.

As it currently stands, it is probably safe to say Kinishba housed a proportionally similar number of households as Grasshopper and Turkey Creek. Heavier snowfall and lower temperatures at Grasshopper may have necessitated more time indoors, and thus larger rooms, whereas the milder climate at Kinishba may have enabled people to spend more time outdoors, with less demand on interior spaces. □



*Plan of Kinishba Group I and Group II. Notice the stream running between the two major room blocks. MAP: CATHERINE GILMAN, ADAPTED FROM ORIGINAL BY CHARLES R. RIGGS*

# The Movement of People and Pots

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*Kinishba Pueblo* is one of several large pueblos in the White Mountains of eastern Arizona that came into being as a result of population movements in the late 1200s and 1300s. Together with Point of Pines and Grasshopper Pueblo (pages 15–18), it is a key site to understand these demographic developments.

My studies of the whole and reconstructible vessels recovered from Kinishba, complemented by compositional analyses and data distilled from Byron Cummings's handwritten field journals, provide new insights into the mechanisms of migration into the mountains, as well as how people made and used pots at the pueblo. Using Cummings's notes, I was able to compile and analyze comprehensive data about ceramic distributions in the pueblo's rooms and among the excavated burials.

## *What Vessels Were Most Common?*

Spatial distribution data show that the most common ceramics were corrugated and plain wares and a red-slipped type called Kinishba Red. The most common painted ceramics were

Roosevelt Red Ware (sometimes called Salado polychrome), followed by White Mountain Red Ware (see pages 20–23). This stands in contrast to Grasshopper Pueblo, where the most common painted ceramics were White Mountain Red Ware.

Adult men were more likely to have been buried with vessels than women or children. In general, however, painted vessels were relatively rare in burials, and the most common burial goods are small plain and corrugated jars and bowls, including Kinishba Red bowls.

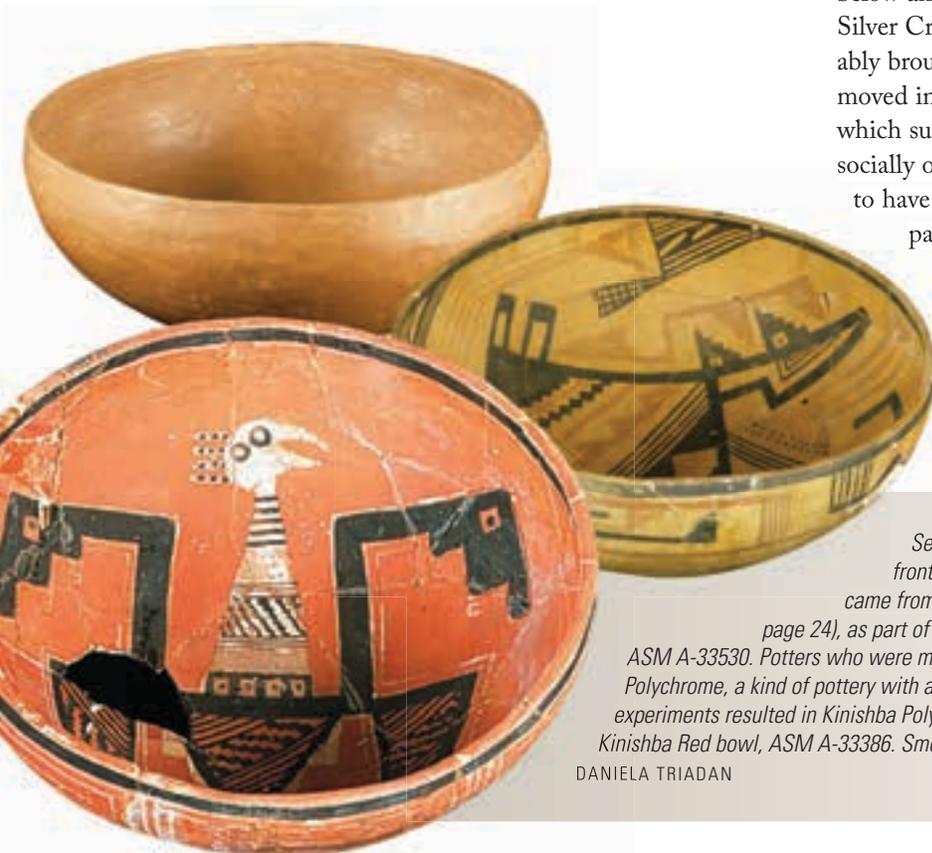
## *Where Were Different Kinds of Vessels Made?*

Chemical and petrographic analyses revealed that people imported or brought some White Mountain Red Ware vessels from the southern Colorado Plateau. Potters produced Kinishba Red at Kinishba. The same is probably true for the brown corrugated and plain pottery.

The imported White Mountain Red Ware (Fourmile Polychrome and Kinishba Polychrome, for example—see images below and on pages 20–21) came from at least three sites in the Silver Creek area, and migrants from these three villages probably brought these pots to Kinishba. These people may have moved in household units rather than as whole communities, which suggests that source villages were not well integrated, socially or politically. After these people resettled, they seem to have made red-slipped bowls that eventually replaced the painted White Mountain Red Ware ones.

## *What Might These Patterns Mean?*

The overall variability of the pottery at Kinishba is similar to that at Grasshopper Pueblo, especially with regard to the multiple painted



*Serving bowls recovered from Kinishba. Counterclockwise from front: (Front) Fourmile Polychrome bowl, ASM A-33397. This bowl came from the Silver Creek area north of the Mogollon Rim (see map on page 24), as part of an immigrant household. (Right) Kinishba Polychrome bowl, ASM A-33530. Potters who were making Fourmile Polychrome may have tried to emulate Sikyatki Polychrome, a kind of pottery with a yellow background made in ancestral Hopi villages. Their experiments resulted in Kinishba Polychrome. This bowl also came from the Silver Creek area. (Back) Kinishba Red bowl, ASM A-33386. Smoothed and polished, this bowl was made locally. IMAGES:*

DANIELA TRIADAN

wares and types. My evaluation of the whole vessel assemblage from Kinishba also reveals patterns that distinguish Kinishba. As is true for the Grasshopper assemblage, the Kinishba assemblage contains a large quantity of bowls. Villagers probably used these for serving food within households, and they may also have used them occasionally in communal feasts. In both pueblos, imported White Mountain Red Ware bowls seem to have been eventually replaced with locally made ones. At Grasshopper those local pots were painted to look like White Mountain Red Ware, especially Fourmile style. Interestingly, at Kinishba the locally made bowls were not imitating that ware, but were only covered with a red slip without painted designs.

This striking difference may indicate a different ritual emphasis, different interactions of immigrant and local groups, or different origins or affinities of Kinishba's founding or

in-migrating groups compared to those from Grasshopper Pueblo. It is also possible that pottery at Grasshopper was more directly linked to ritual symbolism than it was at Kinishba. Differences might also indicate different constellations of people or alliances and different social and political dynamics in these villages.

The inhabitants of these pueblos were grappling with challenges inherent in new, densely populated, multiethnic, and probably also multilingual communities. Residents seem to have developed communal ritual practices that varied from community to community around the common theme of integrating diverse groups. These practices are to some degree reflected in the pottery people made and used. Still, depopulation of all these pueblos after one or two centuries suggests that their integrative efforts either did not work, or other factors determined community destinies. ■



Perforated plate fragment from Kinishba. Moenkopi Corrugated specimen (ASM 2011-687-5). IMAGE: JANNELLE WEAKLY. COURTESY OF ARIZONA STATE MUSEUM, UNIVERSITY OF ARIZONA

### Chronology

Tree-ring dates from the site, though lacking in cutting-date clusters, are consistent with construction beginning in the late 1270s and continuing into at least the 1370s. Specimens of painted pottery types with start dates after 1275 account for 80 percent of the whole vessel assemblage. Nearly 40 percent postdate 1325, 10 percent postdate 1350, and three vessels represent types that postdate 1375. Los Muertos Polychrome (a late Roosevelt Red Ware type) is present in the sherd collection, indicating use of the site after 1390. Together, this evidence suggests that people resided at the pueblo between 1275 and 1400.

### Locals and Immigrants

Based on the mix of wares and types recovered from Kinishba, as well what is known—and in some cases, what is suspected—about where they were made and who made them, three basic inferences can be made.

First, most of the inhabitants of the village were likely members of local groups from south of the Mogollon Rim. Second, these people maintained strong relationships with groups in the Silver Creek drainage, north of the Mogollon Rim, who produced White Mountain Red Ware and Cibola White Ware (and see pages 19–20).



The type specimens of Kinishba Polychrome, ASM 7226 (a), 26243 (b), and A-33401 (c); and Kinishba Brown-on-buff, 20009 (d). IMAGES: JANNELLE WEAKLY. COURTESY OF ARIZONA STATE MUSEUM, UNIVERSITY OF ARIZONA

Third, immigrants from the Kayenta region, farther north, were present at the site. This is indicated by ceramics brought to Kinishba by these newcomers (Tusayan Gray Ware perforated plates, as well as Tsegi Orange Ware and Tusayan White Ware vessels of many forms). Pottery likely manufactured on site using Kayenta technology, vessel forms, and decoration (Maverick Mountain Series types, brown ware perforated plates, and a brown ware babe-in-cradle effigy; see *Archaeology Southwest Magazine* Vol. 27, No. 3) lend strong support to this inference.

### What the Presence of Late Roosevelt Red Ware Means

The Roosevelt Red Ware assemblage from Kinishba is extremely important, especially in the context of those from other sites. Kinishba is currently the easternmost site known to have yielded Los Muertos Polychrome, one of the three latest types (circa 1390–1450) in Roosevelt Red Ware. Other late types present at Kinishba include Cliff Polychrome (circa 1360–1450), Nine Mile Polychrome (circa 1375–1450), and Whiteriver Polychrome (circa 1360–1450), a type named for the Kinishba area. The late Roosevelt Red Ware types Dinwiddie Polychrome (circa 1390–1450) and Cliff

## Kinishba's Pottery Revisited

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ARIZONA STATE MUSEUM

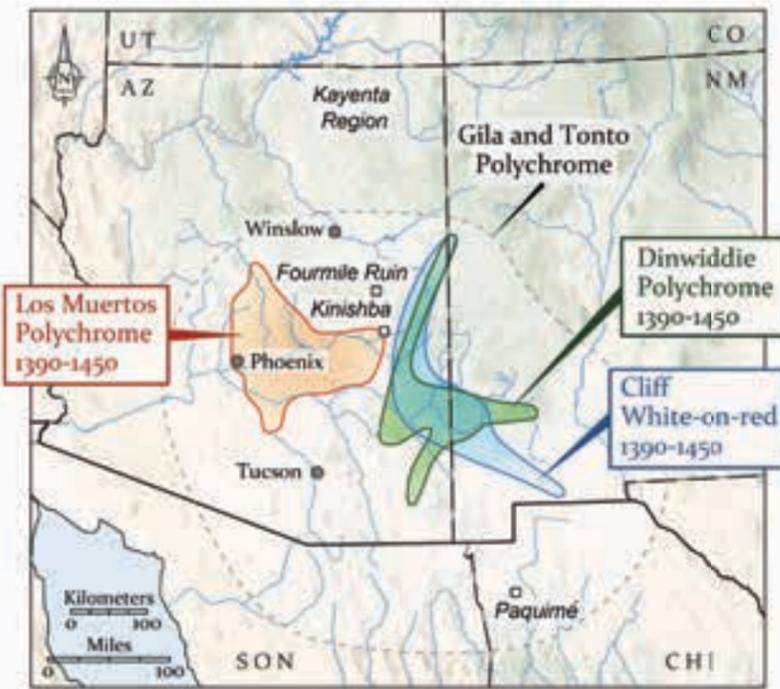
*Byron Cummings* used the biblical quote, “By their fruits ye shall know them,” to capture his approach to understanding the ancient people of Kinishba. By this, he meant that studies of the site's pottery could reveal relationships between its inhabitants and their contemporaries in other parts of the U.S. Southwest.

Excavations by Cummings and his students produced an assemblage of more than 600 whole ceramic vessels, most of which are now curated by the Arizona State Museum. I reanalyzed these, as well as the small sample of potsherds Cummings retained, with three goals in mind: (1) confirming and, if possible, refining the site's chronology; (2) better documenting traces of immigrants from the Kayenta region; and (3) clarifying the dating and distribution of late Roosevelt Red Ware (Salado polychrome) types.

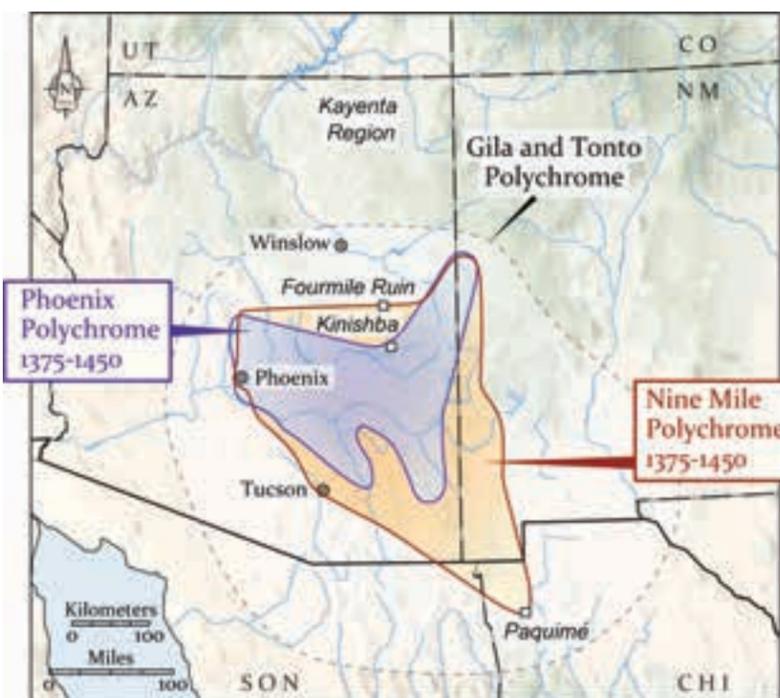
Unpainted pottery comprises 60 percent of the whole vessel assemblage (pages 19–20). Nearly half of the unpainted vessels are classifiable as Kinishba Red (a red-slipped brown ware type), with the majority of the rest plain brown ware or brown corrugated. Among the painted vessels, Roosevelt Red Ware is most abundant, accounting for more than 40 percent. Another 30 percent are White Mountain Red Ware.



From left to right: Tusayan White Ware jar from Kinishba (ASM 7137); (front) Kinishba White-on-red bowl from Kinishba (ASM 8575); (back) Maverick Mountain Series vessel from Kinishba (Tucson Polychrome jar, ASM 23788); Showlow Glaze-on-white jar from Kinishba (ASM 7200). IMAGES: JANNELLE WEAKLY. COURTESY OF ARIZONA STATE MUSEUM, UNIVERSITY OF ARIZONA



**Above:** Map showing the spatial distributions of Gila and Tonto Polychrome, Los Muertos Polychrome, Dinwiddie Polychrome, and Cliff White-on-red. To date, Four-mile Ruin is the only site where Los Muertos Polychrome (the western subtradition) and Dinwiddie Polychrome (part of the eastern subtradition) are known to occur together. **Below:** Map showing the spatial distributions of Gila and Tonto Polychrome, Phoenix Polychrome, and Nine Mile Polychrome. GRAPHICS: CATHERINE GILMAN, BASED ON MAPS BY PATRICK D. LYONS



White-on-red (circa 1390–1450) are absent from the Kinishba assemblage, however.

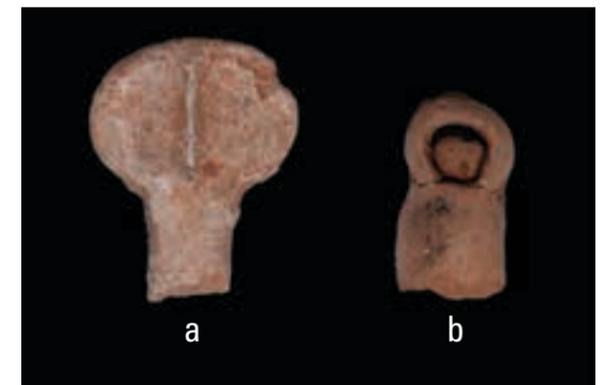
This mix of types means that those who produced the Roosevelt Red Ware recovered from Kinishba were part of the western Salado pottery making subtradition that developed during the late 1300s. This subtradition is found as far west as the Phoenix Basin. Its northern boundary is marked by Montezuma Castle and its southern edge is defined by sites in the Santa Cruz Flats area, north of the Tucson Basin. The eastern Salado subtradition—which includes Dinwiddie Polychrome and Cliff White-on-red, but lacks Los Muertos Polychrome—is found along the Arizona–New Mexico border, in the Sulphur Springs valley, the Upper Gila, the Point of Pines area, and the upper Little Colorado River valley.



A Kinishba White-on-red jar bearing decoration reminiscent of Kechipawan Polychrome (ASM A-33504). IMAGE: JANNELLE WEAKLY. COURTESY OF ARIZONA STATE MUSEUM, UNIVERSITY OF ARIZONA

### Looking Ahead

On a smaller scale, based on these analyses, we are now in a better position to begin comparing and contrasting the histories of the five late, very large precontact pueblo settlements of the Arizona mountains: Kinishba, Tundastusa, Grasshopper Pueblo, Q Ranch Pueblo, and Point of Pines Pueblo (see map on page 24). Ongoing work with collections from Point of Pines Pueblo, which yielded more than 750 whole pottery vessels, will help enormously in this regard. □



Babe-in-cradle effigy fragments from Kinishba: Tusayan White Ware, ASM A-33749 (a); brown ware, A-33774 (b). IMAGES: JANNELLE WEAKLY. COURTESY OF ARIZONA STATE MUSEUM, UNIVERSITY OF ARIZONA

## The Kinishba Boundary Survey

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NICHOLAS C. LALUK AND MARK T. ALTAHA, WHITE MOUNTAIN APACHE TRIBAL HISTORIC PRESERVATION OFFICE

*The Shaeffers' reports* also prompted new considerations of Kinishba's roles in regional settlement. We examined Kinishba's nearest neighbors to better interpret and manage Kinishba as a once-vital and still-honored community, as part of an ancient settlement cluster, and as a national historic landmark conserved for its cultural, educational, and research values.

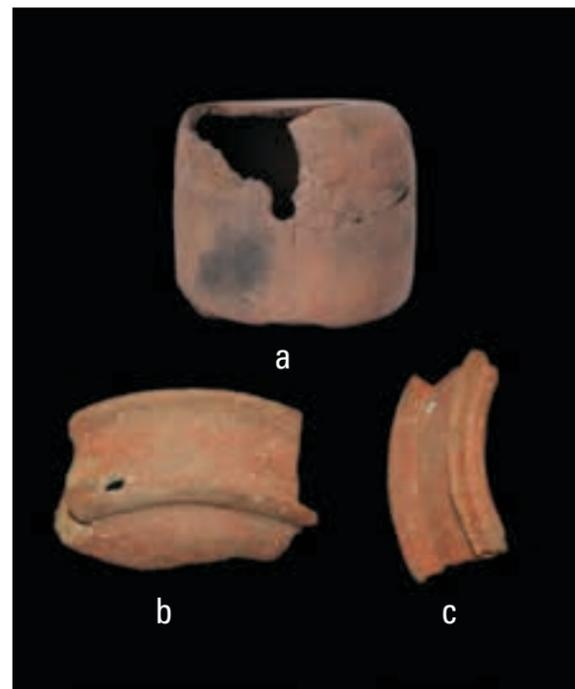
Our study involved a boots-on-the-ground inventory of the area within a one-mile radius of Kinishba and a review of site files for the greater Kinishba region. Both efforts were completed in close cooperation with the White Mountain Apache Tribe's Historic Preservation Office and the National Historic Landmarks (NHL) program of the U.S. National Park Service. We targeted the one-mile radius to assess Kinishba's designated NHL boundary and to enable comparisons with the one-mile-radius site inventory conducted around the remnants of Grasshopper Pueblo.

As Riggs notes (pages 15–18), Kinishba and Grasshopper each include at least 500 rooms. Each was built within the largest expanses of arable bottomlands in their respective regions. Each is situated near the head of a spring-fed stream that bisects it; these streams also supported year-round surface flows into the

1900s. Each consists of massive, plaza-focused ruins groups (also known as “room blocks”) surrounded by a number of smaller, generally low-walled ruins groups (also known as “outliers”).

The two sites share temporal and cultural affinities, but there are ceramic and architectural indications that Kinishba was inhabited somewhat earlier as well as later, and that the community participated in exchange networks that were greater in number, or more extensive, or both. Each site seems to have grown rapidly in response to immigration from regions well to the north of the Mogollon Rim.

We relocated and redocumented previously recorded sites, identified and recorded additional sites, and compiled information on other large residential sites within about 10 miles of Kinishba. Several compelling—and incompletely answered—questions came to the fore: Is the existing official boundary for Kinishba Ruins NHL appropriate? How similar or different to the Grasshopper pattern is settlement around Kinishba? What do variations in the two patterns indicate about how the two systems emerged and changed through time? What evidence is there for cooperation and conflict within and between the two settlement clusters?



Unusual Kinishba Red vessel forms: (a) small vessel, ASM 23909; (b) and (c) two views of a rim sherd, ASM 2011-687-2. IMAGES: JANNELLE WEAKLY (A) AND PATRICK D. LYONS (B) AND (C). COURTESY OF ARIZONA STATE MUSEUM, UNIVERSITY OF ARIZONA

### *The Kinishba Ruins National Historic Landmark Boundary*

Available evidence supports the validity of the officially designated boundary for Kinishba Ruins NHL. The parcel within the boundary fence in place in 2016 is the same land proposed for transfer to National Park Service management as Kinishba National Monument in the 1950s. This generally square enclosure (about 36.5 acres) encompasses all the structural and archaeological features associated with the late Mogollon Pueblo settlement and the structures Cummings investigated and interpreted.

The boundary fence also encloses (1) the spring that probably served as a primary attraction and domestic water source for the village's builders and residents; (2) the bedrock exposures quarried to exhaustion by Kinishba's builders; and (3) representative sections of the juniper woodlands, ponderosa pine stringers, and fertile flatlands that contributed to the locality's attractiveness to pueblo-dwelling corn farmers.

### *Kinishba and Grasshopper Settlement Patterns: Emergence and Change through Time*

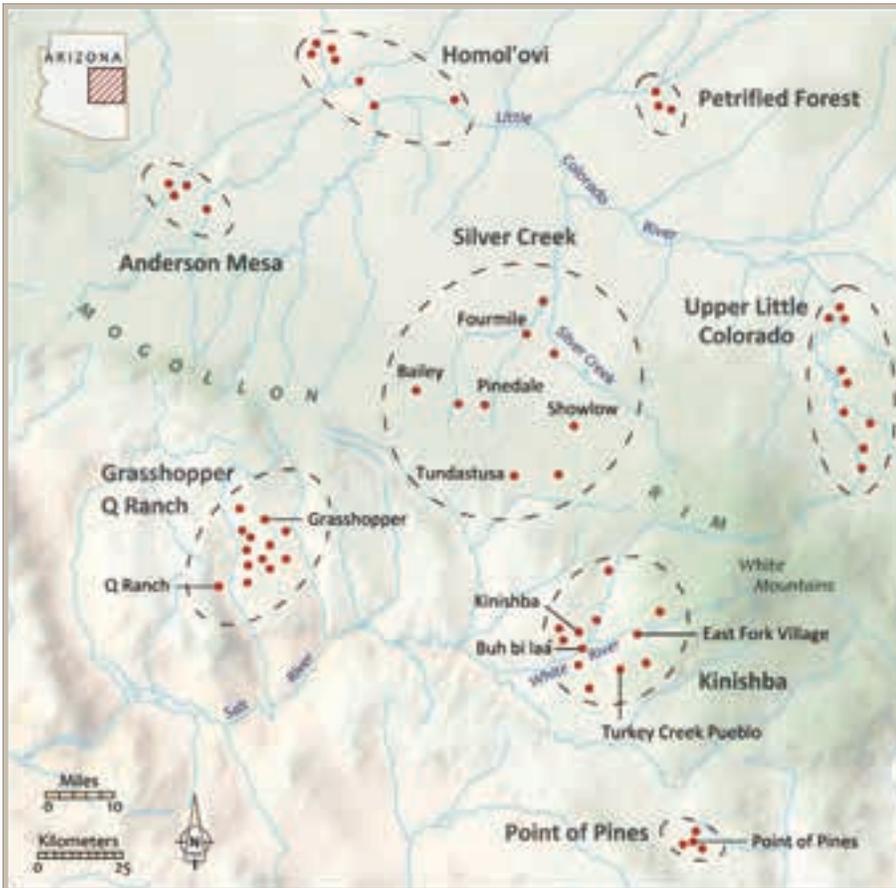
Whether intentional or otherwise, the founders of both Kinishba and Grasshopper chose the most northerly, highest-elevation spring surrounded by the largest expanses of arable land within about 60 miles. Other sites in the Mogollon Rim region are also located in places with water, land, and raw materials for pueblo construction, but the extent of the available farmlands and the optimization of elevation within the arable landform define the Grasshopper and Kinishba locations (as they do Q Ranch and Tundastusa, among others).

The most striking contrast between the Kinishba and Grasshopper settlement patterns appears to be the lower density of sites right around Kinishba. This distinction seems anomalous. Given that Kinishba was probably inhabited longer and more intensively than Grasshopper, we expected there would be more field houses and more of the boulder alignments farmers use to manage fields.

We were wrong. Our one-mile-radius survey found few indications of the intensified agricultural practices present in the Point of Pines region, and to a lesser extent around Grasshopper. We think the Kinishba basin may have been more fertile than lands around Grasshopper, Q Ranch, Point of Pines, and the like, and that Kinishba's lower elevation (5,250 feet above sea level, about 700 feet lower than Grasshopper) translates in most years into a longer frost-free growing season. Alignments and field houses were less necessary in Kinishba's gentle basin. The fact that agricultural lands in Kinishba's immediate vicinity are more abundant and more contiguous may explain the smaller number of satellite pueblos, compared to the Grasshopper region.

### *Cooperation and Conflict*

We think geography, especially topography, also played important roles in regional and interregional conflict. The fortress-like Grasshopper Plateau—along with the area's fertile, generally well-watered soils, numerous springs, and abundant game—attracted immigrants who built and joined high-density communities, probably due in part to real or imagined security threats. Virtually every suitable prominence in the Grasshopper region is fortified, and every



*The Silver Creek, Kinishba, Point of Pines, and Grasshopper regions. Large, roughly contemporaneous pueblos within about 10 miles of Kinishba and Grasshopper are marked. Buh bi laá and East Fork Village are earlier. MAP: CATHERINE GILMAN*

major access route onto the Grasshopper Plateau from the south and west is monitored by lookouts or satellite pueblos.

Settlement data from the Kinishba region include compelling indications of parallel concerns. One site recorded during our 2004 survey, though beyond the one-mile radius, is located on a high ridge north of Kinishba. The commanding view of the Kinishba basin suggests the site may have served as a lookout. Farther afield, but within a five-mile radius, are two unmistakably fortified lookouts and three satellite pueblos positioned to optimize tactical advantage over attackers. Each of these five sites is located on a prominent landform, and three other major pueblo sites are located on landforms that overlook obvious travel routes into the Kinishba basin, or occupy landforms that constrict or otherwise dominate those routes.

As is true for the Grasshopper region, every one of these sites is located south or west of Kinishba. To the extent that real or perceived security threats had a real or perceived source, for the people of the Kinishba and the Grasshopper settlement systems, those lay to the southwest.

### Looking Ahead

The comparisons undertaken here prompt additional questions: Why is site density in the Kinishba region lower than it is in the Grasshopper region? Are the observed settlement pattern similarities confined to the Grasshopper and Kinishba regions, or more widely distributed in adjacent regions—Q Ranch, Point of Pines, Cibecue–Carrizo, Silver Creek, and the like? Is arable-land

contiguity a significant determinant of the size and distribution of large pueblo sites in neighboring regions?

Additional, more detailed, and incisive comparisons of Kinishba and Grasshopper settlement systems, regional alliances, and agricultural and exchange economies are needed to provide higher-resolution information on population distributions, land uses, and cultural histories. The archaeological record of the Kinishba region and adjacent portions of the White Mountain Apache Tribe's lands merit careful consideration for understanding the colonization, population displacements, aggregations, and interregional tensions characteristic of the period from about 1200 to 1400. □



**Top right:** The view from one of several fortified buttes that appear to have been used to monitor the most likely route to Kinishba from the west and south.

**Right:** The landscape around Kinishba is marked by the incursion of the southwestern edge of the White Mountain volcanic field into mostly flat-lying sandstones and limestones. IMAGES: JOHN R. WELCH



# PRESERVATION SPOTLIGHT

## APACHE, HOPI, AND ZUNI PERSPECTIVES ON KINISHBA HISTORY AND STEWARDSHIP THIS PLACE IS PROTECTED



**Above:** Mark Antonio stabilizes rebuilt portions of Kinishba, 2006. Mr. Antonio's uncle worked with Cummings. IMAGE: KARL HOERIG. COURTESY OF THE WHITE MOUNTAIN APACHE TRIBE HERITAGE PROGRAM, FORT APACHE **Below:** Representatives from the Hopi and White Mountain Apache tribes posed for a group photo during a consultation at Kinishba in 2004. From left to right: (standing) Raleigh Puhuyouma, Morgan Saufkie, Floyd Lomakuyava, Garrin Pocheoma, Levi Dehose, Greg Glassco, and Bradley Balenquah; (kneeling) John R. Welch and Garrett Mansfeld. Not pictured: T. J. Ferguson, who took the photo. COURTESY OF THE WHITE MOUNTAIN APACHE TRIBE HISTORIC PRESERVATION OFFICE



*The policies and practices* used in caring for archaeological and heritage sites reflect the values, interests, and goals of the caretakers. Because Kinishba has been managed, sequentially, by local Apaches, by outsider archaeologists, and by an intertribal consortium authorized by the White Mountain Apache Tribe, the site offers an opportunity to compare the processes and results of the different management regimes. Apache, Zuni, and Hopi elders and cultural specialists have shared information about Kinishba's history and management as part of a cultural affiliation assessment intended to facilitate the administration of the Native American Graves Protection and Repatriation Act (NAGPRA) on White Mountain Apache lands.

Prior to the Army's 1870 establishment of Fort Apache a few miles to the east, Kinishba had been under the exclusive care of Native Americans. Apache management values center to a large extent on showing respect for every element of their world. Apaches are traditionally taught that the Ancestral Pueblo sites found across their reservation and aboriginal lands were built and inhabited by spiritually potent people who intended their former communities to be left alone to fulfill ongoing purposes. By practicing almost total avoidance, Apaches showed utmost respect for ancestral sites. (An exception to the practice of avoidance but not to the policy of respect is the fact that some Apaches are given the prayers and others are trained to collect colored stones and beads from Ancestral Pueblo sites for use in the Western Apache Sunrise Ceremony and other observances.)

Management policy and practice changed dramatically in the later 1800s and early 1900s as the U.S. government ushered mining, livestock grazing,

logging, and other extractive enterprises onto Apache lands. In an episode of resistance to land use perceived by Apaches as disrespectful, a group of men confronted Army officers at Fort Apache in 1880 to demand reburial of human remains and cultural items removed from a burial cave. Although the soldiers complied, Apache frustration grew as their lands were managed and used in accord with industrial mandates to commoditize plants, animals, and minerals. Many Apaches, and growing numbers of community- and university-based researchers, think losses in ecosystem and cultural system integrities are closely related—that people need land as much as land needs people.

Byron Cummings seems to have grasped the importance of distinguishing his Kinishba project from the many schemes to create benefits for non-Indians. With guidance and assistance from William Donner, the benevolent and long-tenured superintendent of the local Bureau of Indian Affairs agency, Cummings worked to keep Apache people closely involved with his project. At Kinishba, this meant creating short-term jobs and seeking to build a sustainable tourist destination at Kinishba. The project went forward, of course, but Apaches' suspicions are even today reflected in a term Cummings's workers used for archaeologists, *bini'dayilsole*, meaning "they blow in their faces"—describing excavators' exhalations to clear sediments from burials.

White Mountain Apaches and other Native Nations have welcomed NAGPRA as a means for restoring their values, interests, and goals as the forces driving the management of heritage sites and objects. Since consultations began in 1992, Apache, Hopi, and Zuni interests in reestablishing respect for ancestral sites have served as the basis for intertribal collaborations with archaeologists. Two decades of work to stabilize Kinishba's architecture, remove intrusive industrial materials (especially sheet metal, dimensional timbers, concrete, and tar paper), limit vehicle access to the site, and repatriate human remains and funerary objects are grounded in shared admiration for the builders and residents of the region's ancestral pueblos, and in concerns for the wellbeing of Native people and communities today.

Kinishba's management is a case study in changing conceptions of appropriate use and treatment of heritage sites, and especially in the restoration of control by descendant and steward communities. Archaeologists and land managers



Mark Altaha (left), White Mountain Apache Tribe historic preservation officer, works with a field school student to document masonry stabilization efforts at Kinishba. National Park Service preservation specialists were also part of the team. IMAGE: BARBARA J. MILLS, UNIVERSITY OF ARIZONA SCHOOL OF ANTHROPOLOGY

have not always maintained a balance, sometimes taking more than they needed, downplaying nonscientific relations among people, places and pasts, or otherwise acting disrespectfully. The meetings and site visits that brought archaeologists together with Zuni, Apache, and Hopi leaders have encouraged us and other land and heritage managers and stewards to "listen" closely to places and their constituents (plants, animals, and water sources, for example) and to give back in proportion to what has been sought or taken. Specifically, participants in our cultural affiliation assessment agreed that Kinishba and other ancestral sites deserve preservation and management according the following principles:

- (1) minimize disturbance to ancient remains and architecture
- (2) maximize opportunities for descendant control over, participation in, and benefits from stewardship
- (3) minimize intrusive and industrial elements
- (4) maximize respectful visitation to and interpretation of sites as resting places and sacred places important in Native cultural and oral traditions

These principles—and the legal and institutional changes bringing them within reach—are guiding White Mountain Apaches as they resume service as caretakers for thousands of heritage sites on their 1.67-million-acre reservation. The Tribe is actively applying respect-oriented stewardship on landscape scales, creating training opportunities for tribal members, capacity in tribal institutions, and health in tribal communities.

—John R. Welch, *Simon Fraser University*, and  
T. J. Ferguson, *University of Arizona*



back sight

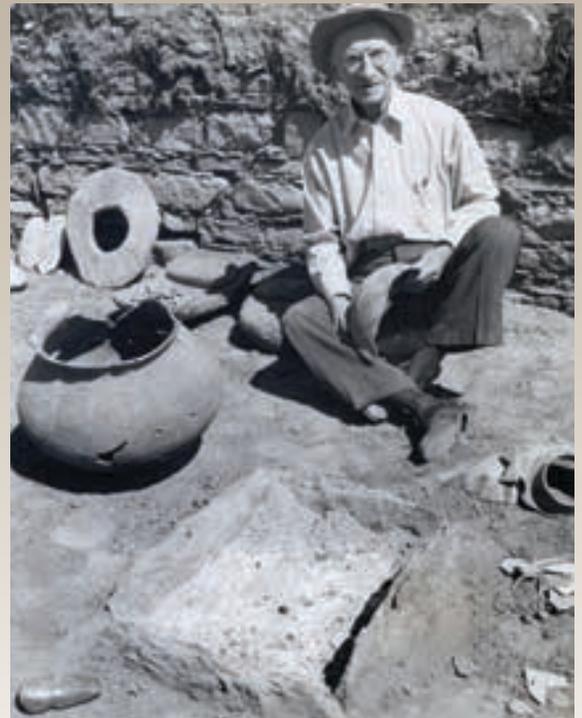
*Who was the first Preservation Archaeologist?* When I posed that question in *Archaeology Southwest Magazine* in 2012 (Vol. 26, No. 1), I bestowed that title on Edgar Lee Hewett. But in my mind, Byron Cummings was Hewett’s leading competitor. Cummings was the first director of the Arizona State Museum; he was head of the Department of Archaeology at the University of Arizona; he championed the initial Arizona Antiquities Act of 1927; and he was deeply committed to sharing archaeology with students and the public. Yet Hewett and Cummings also shared a shortcoming: each left behind a fair amount of unfinished business in the form of incompletely documented, analyzed, conserved, and reported results of their fieldwork.

Authors in this issue reveal how hard they worked to recover a more complete story from the work Cummings and his students undertook at Kinishba. The outcome is impressive, but as I read the articles I kept wondering, *How much more might we have known if only there were better records to return to and build upon?* Sadly, our two early Preservation Archaeologists have a good deal of company. Digging is exciting, whereas the post-field tasks tend to drag on. Few among us find writing to come easily.

In the early 1970s, Bill Lipe made a precise statement that underpins Preservation Archaeology, “Our basic problem is that we exploit a nonrenewable resource.” We now recognize that sites still present on the landscape warrant careful consideration of preservation for the future. When sites

not immediately threatened with destruction by development are excavated, that “consumption” of this nonrenewable resource requires limited and considered sampling. Furthermore, all excavations must be accompanied by detailed field notes, meticulously inventoried collections, high-precision maps and drawings, full photographic documentation, examination of stratigraphy, analyses of recovered artifacts, and permanent storage of all collections, data, and documents.

The shortfalls of our mentors can serve as important teachable moments. By recovering some of the nearly lost contributions of Byron Cummings and James and Margaret Shaeffer, John Welch and his intrepid team clearly bring that home. □



*Byron Cummings was a beloved teacher and public archaeologist, and deservedly so. Being aware of the areas where our luminary predecessors fell short can be another way we learn from them. IMAGE: CHUCK ABBOTT. COURTESY OF DEDI AND MIKE HOECK*

**back sight** (bāk sīt)  
n. 1. a reading used by surveyors to check the accuracy of their work. 2. an opportunity to reflect on and evaluate Archaeology Southwest’s mission.

*William A. Doelle*

