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The Great Bend of the Gila
William H. Doelle and Andy Laurenzi, Center for Desert Archaeology
Ella Pierpoint, Arizona Site Steward

From its source in the highlands of western New Mexico, the Gila River flows for nearly 650 miles in a westerly direction to join the Colorado River at Yuma. Just forty miles southwest of downtown Phoenix, the Gila River makes a very sharp bend to the south. After twenty-two miles, it turns abruptly to the west-northwest. This “Great Bend of the Gila” was carved as the river’s waters were pushed left and right by the unique geology of this area. Several ancient volcanoes and extensive lava flows flank much older sedimentary layers that are exposed in the Gila Bend Mountains (see map on pages 6–7).

Since ancient times, countless travelers have passed through the Great Bend. The river was essential to a prehistoric trail network linking the California deserts, lower Colorado River, and Gulf of California with the verdant Salt and middle Gila river valleys. European explorers and Euro-American travelers crossed this arid landscape in close proximity to the river. Remnants of their passage are still visible today.

The Gila River sustained many communities for hundreds of years: Mimbres villages in its upper reaches, Hohokam irrigation farmers between Safford and Gila Bend, and Patayan groups from Gila Bend to Yuma (see map on page 2). In the Great Bend, the two desert cultures met. Substantial Hohokam ballcourt villages were established along the margins of the floodplain here, and an early Hohokam platform mound was built at the Gatlin site, north of Gila Bend. These settlements thrived from the 800s to the 1100s. By the 1100s, Patayan groups had also moved into the region. Areas of culture contact such as this are dynamic places—sometimes creative and peaceful, at other times socially tense, and, in extreme cases, torn by conflict.

Much of this story is—literally—written upon the rocks. Taking advantage of the lava flows and volcanic features along the river, native peoples transformed long stretches of the Great Bend of the Gila into an extraordinary gallery over the past two millennia. These fragile traces of the past have yet to be fully explored.

This issue of Archaeology Southwest presents several thousand years of human history along the Great Bend of the Gila. We tap the records of early travelers and archaeologists to reveal some of the hidden history of a unique, sometimes overlooked, cultural landscape.
Hohokam and Patayan

One of the most compelling aspects of archaeology in the Great Bend of the Gila is the growing body of evidence that people from two distinct cultural traditions, Hohokam and Patayan, lived there, concurrently, for several centuries.

Archaeological surveys of the lower Gila region in the 1950s and 1960s identified a pattern: Patayan pottery was more abundant west of the Painted Rock Mountains, containing mostly Patayan ceramics in areas closer to the Gila River. Albert Schroeder, a National Park Service archaeologist who performed an initial survey for the project, thought that these sites represented the movement of Yuman speakers from the lower Colorado River into the area by 1100.

Two recent excavations near Gila Bend provided intriguing glimpses into Hohokam-Patayan interaction in the centuries between 1000 and 1200. Excavations by Rio Salado Archaeology at a site southeast of the Gillespie Dam (see map on pages 6–7) revealed two contemporaneous burial areas that were very different from each other: based on the associated ceramics, one was clearly Hohokam, and the other was distinctly Patayan. Rio Salado archaeologist Glen Rice thinks both groups lived in the community at the same time. The presence of Patayan households within Hohokam communities is also seen at the ballcourt village of Las Colinas, on the western side of Phoenix.

At the same Gillespie Dam site, a few hundred yards to the north, archaeologists from Desert Archaeology, Inc., discovered a series of exceptionally large Hohokam pithouses—one more than 1,000 square feet in floor area, five times the usual square footage (see *Archaeology Southwest* 21[4]). Built and used in sequence, these structures may have been formal meeting places for heads of household who provided leadership for the community.

It is striking that leadership and ritual in this apparently multicultural community did not employ a ballcourt or a platform mound, as we see at other Hohokam sites in this time period. The nearby and roughly contemporaneous Gatlin site (see page 4), for example, had a platform mound as a community focus. The mound was excavated by Arizona State Museum archaeologists William Wasley and Frank Eddy in the winter of 1958–1959. Although they interpreted the site as a vacant ceremonial center, we now think it was a thriving community of some 500 residents. Clearly, there is much to learn about how Hohokam and Patayan people were living and working together within and among villages, and how community-level decisions might have been made.
There is linguistic, historical, and oral history evidence of close, long-term contact between Hohokam and Patayan people, as well. Archaeologist John Andresen and linguist David Shaul examined words shared by Yuman speakers of the lower Colorado River area and Piman, or O’odham, speakers. Their conclusion, reported almost twenty years ago, was that Yuman and O’odham speakers probably interacted very closely for at least several centuries around A.D. 1000.

When Father Kino passed through Gila Bend in 1699, he observed settlements of Yuman speakers to the west, O’odham speakers to the east, and bilingual people in the middle. By the mid-1800s, warfare with lower Colorado River groups had forced the abandonment of the Gila Bend area. People resettled farther upstream with allies and relatives living on the stretch of the Gila between Coolidge and the junction of the Gila and Salt rivers. The Salt River Pima-Maricopa Indian Community and the Pee Posh (Maricopa) and Akimel O’odham (Pima) of the Gila River Indian Community continue to recognize the languages and cultural traditions of this earlier time.
The Gatlin Site, a National Historic Landmark

The Gatlin Site National Historic Landmark (NHL) and Archaeological Park preserves and interprets a major Hohokam village that was inhabited from A.D. 800 to 1200. The Gatlin site—also known as the Gila Bend site—had two ballcourts, a unique platform mound, a large plaza, and more than thirty trash mounds. The platform mound dates to the 1100s, which makes it earlier than other mounds outside the lower Salt and middle Gila river areas. Furthermore, it seems to be the only platform mound ever built in the Great Bend area.

Thirty acres of the site were designated as a NHL in 1964, following William Wasley and Frank Eddy’s excavations; this represents only a portion of the site. The Town of Gila Bend purchased the NHL property in 1986 and an adjoining eighty acres to the south in 1987. Although the twelfth century settlement covered nearly twice this preserved area, the Town of Gila Bend’s Gatlin Site Archaeological Park contains a substantial portion of the original core of the community.

The Gatlin Steering Committee was established in 1990. Consulting archaeologist David Doyel has led development, interpretive, and preservation efforts at the site, and a diverse group of volunteers has devoted time to these projects. Funding has come from local, state, and federal sources.

As a result of these efforts, the site is now fenced; sixteen trash mounds have been stabilized; a road and a power line through the site have been formally abandoned; portions of the site are landscaped with native plants; and entry and exit roads, as well as a parking area, have been developed. Interpretive elements include walking-tour trails, ramadas, signage, and replica pithouses. At present, the park is open for walking tours and special events by prior arrangement with the Town of Gila Bend (928-683-2255).

Ancient Rock and the Great Bend Gallery

The Great Bend of the Gila is a dramatic landscape, bounded by a volcanic field, cleaved by the Gila River, and studded with mountains and buttes. These geologic features provided centuries of residents and travelers with ideal surfaces for imparting information and artistry.

Formed three to four million years ago, the Sentinel-Arlington Volcanic Field is comprised of basaltic lava flows and two shield volcanoes, one west and one north of Gillespie Dam (see map on pages 6–7). As the Gila River cut through this volcanic field, cliff faces and boulders formed. The surfaces of these rocks developed a dark patina, which, when pecked away by humans, revealed lighter rock beneath and enabled communication of bold signs and symbols.

Older geologic features, such as the Gila Bend Mountains and the iconic Powers and Robbins buttes of the Buckeye Hills, are embedded in and adjacent to the volcanic field. Striking reddish sandstone outcrops in the Gila Bend Mountains host petroglyphs dating from early prehistoric through protohistoric times.

Three major styles of petroglyphs are found across the region. The Archaic style, which dates before A.D.
100, features geometric elements rather than human or animal forms. Because of their greater age, Archaic petroglyphs often exhibit a dark patina. During the ceramic period, both Hohokam and Patayan styles are evident. Circular images that may represent shields became more common in Patayan glyphs over time, and may indicate increased conflict between Patayan and Hohokam people in this boundary zone after 1100.

The ground surface of this arid, sparsely vegetated volcanic landscape is itself a messenger. Geoglyphs—arrangements of rocks or boulders on the ground surface—are often found on the terraces overlooking the Gila River. Archaeologists have also documented trails and the patterned removal of desert pavement, which is comprised of closely packed rocks or gravels that have weathered to a dark patina.

All of these expressions in or on the rock landscape are extremely fragile—and greatly endangered. When a vehicle drives over intact desert pavement, it leaves an indelible scar. Geoglyphs are under constant threat from vehicles and vandals. Petroglyphs are especially vulnerable to vandalism, and spray paint is their worst modern enemy.

Top: A geoglyph—an arrangement of large volcanic cobbles on the ground surface—presents a striking view in this aerial image taken just after sunrise. Right: A very complex panel with many distinctive Patayan elements is found at Sears Point.

First Recording in 1852

JohRusSel Bartlett (1805–1886) headed the United States–Mexico Boundary Commission, which surveyed the boundary imposed by the 1848 Treaty of Guadalupe Hidalgo at the close of the Mexican-American War. At that time, the Gila River constituted the boundary with Mexico across what is now Arizona. In his published account, Bartlett describes the June 1852 journey from Fort Yuma to Gila Bend: the oppressive heat, meals of fish, “sculptured rocks,” stands of willows, trailside graves, U.S. Army camp remains, abandoned canal systems, a river crossing, the tragic fate of the Oatmans a year earlier. He sketched a number of these “sculptured rocks”—petroglyphs—at two locations along the way.

Bartlett recorded this Patayan image (left) near Antelope Hill, some twenty-eight miles west of the Great Bend region. It bears a close resemblance to a petroglyph (far left) at Sears Point.
Counterclockwise from above: anthropomorph along the Gila River; Putayan shield petroglyph along the Gila River; geoglyph on Sentinel Plain; Putayan waterbird image of a deer on a sandstone outcrop in Red Rock Canyon in the Gila Bend Mountains.
Counterclockwise from above: anthropomorph along the Gila River; P atayan shield petroglyph along the Gila River; bird at Hummingbird Point; Robbins Butte; view north of Gillespie Dam Bridge and Dam; a small group examines a large petroglyph panel at Red Rock Canyon; image of a deer on a sandstone outcrop in Red Rock Canyon in the Gila Bend Mountains.
Use of Hillsides and Hilltops

When archaeologists encounter residential sites on high ground surrounded by steep slopes, they generally interpret this positioning as a defensive strategy on the part of the site’s inhabitants. Several hilltop sites in the Great Bend region seem to be such fortresses, including the Fortaleza and Pierpoint Canyon sites. Other uses of local hilltops and hillsides are evident, but harder to interpret.

The Fortaleza, or Fortified Hill, site was investigated by William Wasley and Cameron Greenleaf in the early 1960s as part of the salvage work done in anticipation of the Painted Rock Dam and Reservoir. Funded by the National Science Foundation, Wasley and Greenleaf excavated forty-three of the fifty-seven rooms they identified. The rooms were built of dry-laid rocks with a rubble core, resulting in walls that were almost three feet thick. Although archaeologists did not find much decorated pottery, what they did recover was almost exclusively Tanque Verde Red-on-brown. This pottery, which helps date the site between A.D. 1150 and 1300, is most common in the Tucson Basin.

Thus, the site seems to have been inhabited while Patayan presence in the region was growing stronger—yet there was almost no Patayan pottery at Fortaleza. Some archaeologists have suggested that a group of migrants from the Tucson area lived at the site. Collections and field notes from the project should be reexamined in order to assess this intriguing idea.

The Pierpoint Canyon site is located in the Gila Bend Mountains. The Agua Fria Chapter of the Arizona Archaeological Society intensively surveyed and mapped the site, which is distinguished by two massive stone walls oriented north-south across the mouth of the canyon. More than 140 rock rings averaging ten to twelve feet in diameter are located near these walls. Composed of roughly stacked, friable granite, the rings probably represent rooms. The team identified 120 other features, including partial rock rings, rockshelters, cleared areas, water diversion features, and an extensive foot trail system. Petroglyphs are found at twenty-nine locations around the site, and both Patayan and Hohokam pottery are present.

Many isolated volcanic hills in the Gila Bend area bear features that may have been defensive, but probably served other, special purposes. We know of one hilltop site that likely had a ceremonial function, as there is limited usable space at its peak. Some hills are marked by very steep, straight trails, called summit trails. Archaeologists’ examination of multiple summit trails indicates they were intentionally constructed. They are unlike trails known from hilltop residential sites, and, in some cases, they show strong relationships with petroglyphs and other rock features. Their striking physical appearance further supports the idea that they served a ritual function.
Community-based Preservation Archaeology

Dr. David Doyel and Roy and Ella Pierpoint must be recognized for their dedication to the preservation of special places in the Great Bend of the Gila. Active in Hohokam archaeology since the early 1970s, Dave has spent more than two decades working with the Town of Gila Bend and local volunteer groups to create a public preserve and interpretive program at the Gatlin Site National Historic Landmark and Archaeological Park (see page 4).

Dave found outstanding partners in the Pierpoints, local farmers with deep roots in the community who spearheaded efforts to establish the Gatlin Site Archaeological Park. For more than fifteen years, Ella served as the liaison between the park’s Steering Committee and the town. As the project’s grants administrator, she secured nearly $200,000 in funding. Roy directed on-the-ground efforts to protect the site and donated the use of heavy equipment from Pierpoint Farms.

As long-time Arizona site stewards, Roy and Ella advocated for a complete survey of the Pierpoint Canyon site (see page 8). With Dave Doyel’s guidance, the Glendale-based Agua Fria Chapter of the Arizona Archaeological Society recently completed inventory and mapping of the site. A report is forthcoming.

In November 2004, rancher Earl Rayner alerted the Pierpoints that he had observed petroglyphs on some boulders dislodged by road blading. In time, it was learned that the owner of the property (a third party) planned to remove the volcanic rocks and gravel for processing and sale as commercial landscaping material. Ella and Roy convened a group of archaeologists and other specialists, including the Bureau of Land Management (BLM).

The BLM determined that the federal government owned the underlying mineral rights. The landowner was notified that removing and selling the rocks would constitute mining activity, which would in turn require submission of a formal plan of operation to the BLM, as well as consultation with the State Historic Preservation Office and Native American tribes.

The mining project did not go forward; the petroglyphs were saved. Roy and Ella’s involvement in protecting the rock art was formally recognized in 2008, when they received the Arizona Archaeological Council’s award for “Avocational Archaeologist of the Year.”

Norton Allen

Any discussion of the archaeology of the Great Bend of the Gila must pay tribute to Norton Allen (1909–1997). A well-respected avocational archaeologist and commercial artist, Norton spent forty field seasons and many more years discovering, documenting, and doing what he could to protect Hohokam archaeological sites in the region. Allen maintained correspondence with Dr. Emil Haury of the University of Arizona and a host of other professional archaeologists, sharing information and advocating on behalf of threatened sites such as the Gatlin site. He lovingly preserved a stunning collection of artifacts and field notes that he and his wife, Ethel, donated to the Arizona State Museum. Significantly, the Allens stipulated that the Tohono O’odham Nation should be able to use any objects it wished at Himdag Kí, its cultural center in Topawa, Arizona.

To find out more about a recent publication celebrating Norton Allen’s remarkable life and contributions to archaeology, visit www.cdarc.org/asw-25-1.
Trails Across the Millennia

The darkened, closely packed gravels known as “desert pavement” have recorded at least two thousand years of journeys. Feet, hooves, and wagon wheels displaced the thin layer of dark rock and exposed the lighter-colored soils beneath. Trails through the Great Bend of the Gila can be traced continuously for tens of miles—or even longer—in many areas. Despite the apparent longevity of these traces, their durability is under constant threat; desert pavement is extremely fragile, and particularly vulnerable to off-road vehicle damage (see Archaeology Southwest 21[4]).

Later travelers followed in the footsteps of the native peoples. In addition to grooves and ruts worn by wagon wheels, occasional inscriptions and camp remains provide a physical record of the Bartlett survey (see page 5), the Butterfield Overland Stage, and the rush of “Forty-niners,” among others. The Juan Bautista de Anza National Historic Trail (see map on pages 6–7) now marks the route taken by the Spanish Expedition of 1775–1776 on its way to the San Francisco Bay area.

In the Sentinel Plain, south of the Gila River, little has changed since prehistoric times. Remarkably, this plain preserves portions of ancient and historical routes, as well as the landscapes experienced by those who traversed them.

Inscription by “O W Randall,” a Texas rancher who made two trips to California, at least one in 1849, at the time of the Gold Rush.

U.S. Route 80, Broadway of America

In 1925, the U.S. Department of Agriculture submitted a proposal to the American Association of State Highway Officials (the “Association”). In it, they created a numbered system of U.S. highways that was stitched together with formally designated state highways. In 1926, the Association adopted these recommendations for U.S. Route 80, and the Arizona segment of a federal highway system was officially born.

Prior to designation as U.S. 80, the Arizona route was part of the Dixie Overland Highway. The latter was promoted as a southern, all-weather transcontinental highway beginning in 1914. After 1916, the Arizona segment was also listed as part of the Bankhead Highway, a second transcontinental highway comprised of regional auto trails. This network of auto trails, which shared portions of other named routes such as the Dixie, was complex and confusing. For a time, the Bankhead was touted as the “Broadway of America.”

Lack of consistent standards for these long-distance auto trails led states to petition the federal government to establish a formal system of interstate highways. The Department of Agriculture’s proposal followed. The first official description of the federally approved U.S. 80 appeared in April 1927. In Arizona, the route came through Douglas, Bisbee, Tombstone, Benson, Tucson, Florence, Mesa, Phoenix, Buckeye, Gila Bend, Sentinel, and Yuma. It crossed the Gila River at the Gillespie Dam Bridge (see page 11).

In 1956, the section of U.S. 80 between Buckeye and Gila Bend was realigned to the current State Route 85. The former alignment was decommissioned, and that segment of U.S. 80 came under the control of Maricopa County. Today, the section of U.S. 80 between Buckeye and Gila Bend, including the Gillespie Dam Bridge, retains much of the historical character present when it first became a part of the federal highway system.
IN 1926, in anticipation of the federal highway system, the Arizona State Highway Department commissioned the construction of a steel truss bridge just downstream from Gillespie Dam (see map on pages 6–7). Prior to the bridge’s construction, the concrete apron fronting the 1921 dam provided the only vehicular crossing in the area. Heavy runoff over the diversion dam required trucks to pull cars through the flow. During major floods, automobiles could not cross at all. The bridge was completed and opened to traffic on August 1, 1927, at a cost of $320,000 ($3,950,000 in 2009 dollars).

A ride across the Gillespie Dam Bridge evokes that earlier era of road travel. The striking steel thru-truss spans, the concrete piers and road deck, the substantial length, and the dramatic physical setting all contributed to a successful nomination to the National Register of Historic Places in 1980.

In 2010, Maricopa County proposed bridge rehabilitation according to federal preservation standards. The project cost is estimated at $6.8 million, three-quarters of which will be borne by Maricopa County. The remainder of the funds comes from the Federal Highway Administration’s Bridge Rehabilitation and Transportation Enhancement programs. Significant effort has been invested in retaining the historical character of the bridge through the rehabilitation process, which is scheduled to begin in 2011, after five years of planning. Concrete abutment and pier footings will be reinforced and refurbished; broken, bent, and rusted steel elements will be treated and reintegrated into place; and compromised steel roller bearings crucial to stability will be replaced by new elastic bearings that will better absorb the forces that have threatened the bridge’s survival. This important historic resource will be preserved, safe, and efficient for the foreseeable future.

See the Center for Desert Archaeology website for more information: <http://www.cdarc.org>
Back Sight

The Great Bend of the Gila is a unique and fragile place. Its most visually spectacular resources are the geoglyphs and petroglyph panels that border the Gila River floodplain, sometimes continuously for more than a mile. The volcanic hills that tower above parts of this area also show special uses—some probably defensive, others more likely ceremonial. Many Hohokam and Patayan sites have been degraded or destroyed by agricultural and flood control activities, but several significant villages have survived. This is fortunate.

Petroglyph sites along the Great Bend of the Gila are among the largest concentrations of rock art in the desert west. Some designs are thousands of years old, and some inscriptions date from the mid-1800s. In the short stretch from Painted Rock Dam to Sears Point, a very distinctive variety of Patayan rock art occurs that has not been found elsewhere.

Threats to this area are numerous. The Painted Rock Dam was constructed to slow and briefly retain floodwaters in order to protect downstream agricultural areas. As a result, archaeological resources over a very large area are exposed to intermittent inundation and the destructive wave action of rising and falling water levels. As recreational use of the area grows in tandem with Arizona’s metropolitan areas, other deleterious impacts occur.

Much less archaeological work has been accomplished in the Great Bend than upstream on the Salt and middle Gila rivers—yet nearly every study has yielded unexpected results. In an area where so much more could be learned, loss of or damage to archaeological sites is particularly tragic. The Center for Desert Archaeology is working with diverse groups who are also concerned about this area. We continue to work with private landowners, but protection of this vast, valuable landscape also urgently requires significant safeguards on public lands.

Spray paint and recent pecking deface these ancient petroglyphs. Irrevocable vandalism to petroglyphs is on the rise.