The Importance of Water
and Arizona’s Spanish and Mexican Land Grants to Archaeologists

Jim Turner, M.A.

In Mary Austin’s *Land of Little Rain*, her essay, “Water Trails of the Ceriso” describes how in arid lands, prehistoric human paths arose from game trails, which were dictated by the animals’ need for water. She wrote, “It needs but a slender thread of barrenness to make a mouse trail in the forest of the sod. To the little people the water trails are as country roads, with scents as signboards.” Following the animal trails, the paths were marked:

On the other side of Ceriso, where the black rock begins, about a mile from the spring, is the work of an older, forgotten people. The rock hereabout is all volcanic, fracturing with a crystalline whitish surface, but weathered outside to furnace blackness. Around the spring, where must have been a gathering place of the tribes, it is scored over with strange pictures and symbols that have no meaning to the Indians of the present day; but out where the rock begins, there is carved into the white heart of it a pointing arrow over the symbol for distance and a circle full of wavy lines reading thus: "In this direction three [units of measurement unknown] is a spring of sweet water; look for it."

Continued on page 2
Key to the land grants shown on page 1 map

<table>
<thead>
<tr>
<th>Map no.</th>
<th>Grant name</th>
<th>Acres claimed</th>
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No matter what era you examine, the human history of Arizona is the history of water use. In prehistoric southern Arizona, the San Pedro and Santa Cruz rivers were the Tigris and Euphrates of human civilization. Larger tributaries to the Santa Cruz and San Pedro are the Babocomari, Madera, Sonoita, Agua Caliente, and Cienega creeks, and Brawley Wash. Prehistoric cultures hunted and eventually built their villages along their banks.

With the advent of agriculture, watered areas were no longer just links in hunting trails, but with the advent of irrigation, became places where populations settled. Over the centuries, certain areas grew into communities because water flow was regular, edible plants grew along the banks, and the land was flat, clear, dry, and firm enough to support a number of inhabitants.

When prehistoric cultures diminished, partially because of water conditions, modern tribes replaced them in the same locations because of the water. It is no coincidence that when Jesuit Father Eusebio Kino entered what is now Arizona in the 1690s, his Sonoran native guides led him along the San Pedro and Santa Cruz riverways. Historians sometimes refer to the Spanish method of empire-building as the “cross and the sword,” combining religious conversion with military might. When the conquistadors’ violent conquests were banned in the early 1600s, Spain turned to its cross hand of peaceful missionizing. Father Eusebio Kino entered southern Arizona in the late seventeenth century, and mapped and reported populations of native villages. They were predominantly near the rivers and creeks.

While suffering a near-fatal illness in his youth, Kino pledged his life to missionary work and was sent to New Spain to convert the natives to Christianity. He was not only focused and determined, but logical and efficient as well. He knew that the way to be most successful was to find populated villages where he could make the largest number of converts.
Kino sent word through converted Indians traveling north that if the villagers there would like him to visit and teach them about Christianity, they should send a cross to indicate their interest. When he received a large number of blue-painted wooden crosses, he followed the ancient Indian trade routes up the San Pedro and Santa Cruz rivers. In the next ten years, Kino traveled 50,000 square miles and mapped an area 200 miles long and 250 miles wide. His skills as a mathematician, astronomer, and cartographer allowed him to produce maps with enough accuracy that they were translated into several languages and used for more than a century after he drew them. The detailed reports written by his military escort, Captain Juan Mateo Manje,
were edited and published as *La Luz de Tierra Incognita: Unknown Arizona and Sonora, 1693-1701*. The map included with the book makes an excellent guide to the villages of Kino’s time, and thus a guide to the best watered-locations where prehistoric encampments most likely existed as well.

Kino established permanent missions at Tumacácori and Guevavi in 1691, and San Xavier del Bac, near Tucson, the following year. All three of these missions are along the Santa Cruz River in locations where historic and prehistoric native habitation occurred, particularly in the Tucson area. Kino estimated that 900 natives lived at the village of Wa:k, where he established Mission San Xavier del Bac. The word Wa:k, translated into Spanish as Bac, means “place where the water appears” in Tohono O’odham. The Santa Cruz River flows underground intermittently, and near this location it hits a shelf of hard rock and comes back to the surface at a place called Punta de Agua, or point of water, three miles south of the mission. Kino encountered another group of 800 natives at the base of what is now called “A” Mountain, in a village called Çuk Son. The missions were abandoned after a few years, then re-established in the 1730s.

The Pima uprising of 1751 brought back the sword method of settlement with the establishment of the Spanish presidio at Tubac, also next to the Santa Cruz River, in 1752. There were no major problems with the Pimas after that, but the introduction of livestock and guns brought increased Apache raids from eastern Arizona, causing the construction of three more presidios at Tucson, Terrenate (near Tombstone), and San Bernardino (near Douglas), in 1776.

The clash of cultures between Apaches and Spaniards continued to escalate until the Viceroy of New Spain, Bernardo Galvez, implemented his peace policy in 1786. First, he waged an all-out relentless campaign against the Apaches from the Gulf of Mexico almost to the Gulf of California to show the Spaniards’ military strength. Then, the Apaches were offered stipends of beef, blankets, and guns if they would settle in about two dozen *establacimientos de paz* (peace camps) along the frontier.

This plan met with success for the Spaniards, and within a few years more than 2,000 Apaches, called Manso (helpful) Apaches, or *Apaches de Paz*, settled in the camps. According to historian James Officer, the Tucson camp, near St. Mary’s Blvd. and Interstate 10, was occupied for almost a century.
With considerably less threat from Apache raids, Spanish settlements began to thrive. Large cattle ranches were established, and mining began in some areas of southern Arizona. As settlement by private citizens grew, Tumacácori mission’s governor, Juan Legarra, began to worry about the property rights of the mission area and the Tohono O’odham Indians in his charge. He received what was probably the first Spanish land grant in Arizona in 1807. It consisted of lands along the Santa Cruz River from the presidio at Tubac, north of the mission, to the former mission at Calabazas, near the present U.S.-Mexican border. Like the ones that followed from Spain and later Mexico, the grant stipulated that the owners must grow crops and raise livestock to support the area, that the owners or their representatives must live on the land, and that the grant would be void if the land was abandoned for more than three years.

These first grants established a pattern which would follow for all the rest, through the Spanish and Mexican eras up until the Gadsden Purchase of 1854. Petitioners applied for grants along substantial rivers and creeks, thus repeating settlement patterns of native peoples seemingly since the first Clovis Culture hunters inhabited the Southwest.

The next two grants to be approved by Spanish officials, Guevavi in 1811 and Arivaca in 1812, were received by Don Agustín Ortiz, a landowner from Arizpe, Sonora, Mexico. A man of some means, he was related to the Urrea and Zuñiga families, part of a strong kinship network on the frontier. At this time gold mines were begun in the Arivaca area.

In 1820, the year Agustín died, his sons Tomas and Ignacio Ortiz applied to the Spanish government for a grant near the Santa Cruz River that they called San Ignacio de la Canoa. There was a Tohono O’odham village in that area, no doubt because of the available water. Previous to the grant, Captain Juan Bautista de Anza had stopped at the village on his way to establish a colony in what is now San Francisco, California, in 1775. The Canoa grant was the first to be approved by the Republic of Mexico when it won its independence in 1821.

Other grants in southern Arizona include the Buena Vista, granted 1826 on the Santa Cruz on both sides of the international border. It was purchased by movie star Stewart Granger who then sold most of it in 1969, and it became the Kino Springs development.

The San Rafael de la Zanja, also on the border, was granted by Mexico in 1821. At 27 square miles, it was the largest of the Mexican grants straddling the current international border. It included the headwa-
ters of the Santa Cruz River, which begins in what is now the United States, flows south into Mexico, and then reverses itself and in wet years flowed north as far as the Gila River 30 miles south of Phoenix.

In 1851, U.S. boundary commissioner John Bartlett described the Mexican land grant San Ignacio de Babocomari, along 25 miles of Babocomari Creek west of Tombstone, to be covered with a luxurious growth of grass. “The stream, which is about twenty feet wide and in some places two feet deep, winds through the valley, with willows and large cottonwood trees growing along its margin. The cattle roamed along the entire length of the valley; and at the time it was abandoned, there were not less than 40,000 head of them besides a large number of horses and mules.”

George Hearst, Comstock Lode silver mine entrepreneur and U.S. senator from California, bought the San Juan de los Boquillas y Nogales also on the San Pedro River near Tombstone, in 1880. It was originally granted to Captain Ignacio Elias Gonzales and Nepomucino Felix in 1827. In addition, more than a dozen other Mexican grants were all situated along the San Pedro, the Santa Cruz, or large free-flowing creeks within 20 miles of the current international border.

From the overlapping locations of prehistoric sites, historic native villages, Spanish missions and presidios, and eventually Spanish and Mexican land grants, it seems clear that the history of human history in southern Arizona is the history of water use, as stated earlier.

Many of the land grant sites have been excavated for prehistoric evidence, but it may be productive to re-examine these findings, and to search the land grant records to see if any areas have not yet been excavated, or could benefit from new, more thorough attention.
Sources:


All illustrations in this article were created or adapted by Jim Turner except for the one below.
What Are Archaeological Sites and Cultural Resources?

Pictorial Essay
Allen Dart, RPA

An archaeological site is a definable area (that is, one can put boundaries on it) where people left material remains—artifacts or human-made features such as purposeful constructions, excavations, or deposits—in historical or prehistoric times.

The U.S. government and many states draw the line on what may be considered “archaeological” at 50 years before the present day. That guideline might suggest that the author of this article and readers who are at least 50 years old might be “archaeological,” but implicit in the definition is that the artifact, feature, or site is no longer used by anybody. Therefore, we over-50 folks who are able to read this are using our bodies and minds, so we aren’t really archaeological.

OK, so maybe we’re relics.

The term “prehistoric” is used here to refer to times before decipherable written records were made. Use of the term is not meant to suggest that preliterate societies did not have history because they certainly did, in forms such as oral history.
Although archaeological sites that date to the Historic period can be as few as 50 years old, most of them are much older. In fact, some archaeological sites in North and South America are tens of thousands of years old.

An archaeological site is a kind of “cultural resource.” Cultural resources are the material evidences that we have about all the past activities and accomplishments of people, and about their cultures that have come and gone.
Cultural resources include:

“old” things made or deposited by people, such as prehistoric rock clusters, rock alignments, and ditches . . .

Prehistoric Hohokam rock agricultural terrace (left) and mulch pile (right), Tucson

Remnant of Hohokam irrigation canal drawn from Sabino Creek near Tucson

Photos by Allen Dart

Cultural resources include:

historical cultural features . . .

Below: Historical irrigation canal along the Little Colorado River near Eagar, Arizona

Allen Dart

Above: Historical Santa Fe Trail ruts near Fort Larned, Kansas

National Park Service

Center: Segment of historical Apache Railway grade near Taylor, AZ

Charles Webber, Natural Resources Conservation Service photo

Right: Historical dirt road along 1930s gas pipeline, Cochise County, Arizona

Alien Dart, Natural Resources Conservation Service photo

Cultural resources include prehistoric and historical archaeological sites and objects, historically and architecturally significant structures and buildings, historical landscapes, and traditional cultural places – that is, locations that are associated with cultural prac-
tices or beliefs of a living community, that are rooted in that community’s history, and that are important in maintaining its continuing cultural identity.

The illustrations in this article provide some examples of cultural resources, including archaeological sites.
Cultural resources represent many different cultures and segments of society, past and present. They are the tangible evidence of our heritage. This is why U.S. and some states’ laws protect cultural resources and require federal and state agencies to take into account the effects of their undertakings on cultural resources.

Volunteers Needed for Children’s Archaeology Activities in March

Old Pueblo Archaeology Center is offering children’s activities for Arizona Archaeology and Heritage Awareness Month on March 14 and March 21 for which we need volunteer assistance. **The March 14 event is the Ancestral Indian Life Skills Day,** for which Old Pueblo is partnering with the Casa Grande Ruins National Monument to turn children on to archaeology in Coolidge, Arizona.

**The March 21 program is the Vista del Rio Archaeology Celebration free children's activities** that Old Pueblo and the Vista del Rio Residents' Association offer in partnership at Tucson’s Vista del Rio Cultural Resource Park.

If you like to assist children with craft-making activities and want to learn more about archaeology yourself, please contact Old Pueblo at 520-798-1201 or info@oldpueblo.org today so that we can get you onto our schedule for one or both of these events.
Some Upcoming Old Pueblo Archaeology Center Activities

ONGOING: The OPEN3 simulated archaeological excavations, OPENOUT in-classroom education programs, and archaeological site tours for children

OTHER ACTIVITIES MAY HAVE BEEN ADDED!

For updates and details please contact Old Pueblo Archaeology Center:

Telephone 520-798-1201  Email info@oldpueblo.org
Web site www.oldpueblo.org

Old Pueblo Archaeology Center’s “Third Thursday Food for Thought” dinner presentations:

January 15, 2015: “Underpinnings of Southern Arizona Historical Archaeology: The Historical Record” by historian James Turner at a Tucson restaurant to be announced

February 19, 2015: Guest speaker & Tucson restaurant location to be announced


April 16, 2015: “The Billingsley Hopi Dancers” by Kenneth Zoll at a Tucson restaurant to be announced

Children’s Activities (See page 11)

March 14, 2015: “Family Archaeology Day at Casa Grande Ruins” sponsored by Casa Grande Ruins National Monument in partnership with Old Pueblo Archaeology Center, at the Monument, 1100 Ruins Drive, Coolidge, Arizona

March 21, 2015: “Vista del Rio Archaeology Celebration” free children’s activities at City of Tucson’s Vista del Rio Cultural Resource Park, 7575 E. Desert Arbors St. (at Dos Hombres Road), Tucson

Pottery Making Workshop

April 11, 12, & 19, 2015: “Ancient Native American Pottery Replication Workshop: Corrugated Ware of the Mogollon Culture” class with ceramist Andy Ward at Old Pueblo Archaeology Center

Archaeological Site Tours

January 31, 2015: “Rock Art and Archaeology of Ventana Cave” carpooling educational tour with archaeologist Allen Dart departing from 401 N. Bonita Ave., Tucson

March 20, 2015: “Spring Equinox Tour of Los Morteros and Picture Rocks Petroglyphs Archaeological Sites” with archaeologist Allen Dart departing from near Silverbell Road and Linda Vista Blvd. in Marana

For more information on any of these activities please visit Old Pueblo Archaeology Center’s http://www.oldpueblo.org/programs/ web page or contact Old Pueblo at 520-798-1201 or info@oldpueblo.org.
Historical archaeology
(continued from page 1)

south of the Gila River started in 1691 when the first Spanish explorers entered the Santa Cruz Valley, and ended in 1964, 50 years prior to the date of this bulletin (2014). Of the 273 years in that span, 130 years (48%) were during the Spanish Colonial period (1691-1821), when this portion of what is now Arizona was part of the Spanish empire. The next 33 years (12%) were the Mexican period (1821-1854), when the area was part of Mexico. Another 58 years (21%) constituted the Arizona Territorial period (1854-1912) after the United States made the Gadsden Purchase to obtain the land south of the Gila, and the latest 52 years (19%) of the Historic period were the Arizona Statehood period (1912-1964). The last 50 years, according to the federal guideline, are the Modern period.

Therefore, approximately 60 percent of southern Arizona’s Historic period spanned the Spanish Colonial and Mexican periods when Spain, and subsequently Mexico, granted large parcels of land in this region to a few individuals, to encourage non-Indian settlement and extraction of resources. When the U.S. took over the territory, grantees’ heirs or purchasers of the grants (or claimants) were able to petition the U.S. Government to recognize the historic grants in the hope that the U.S. would give title to the grant lands to the purchasers/claimants.

As Jim Turner’s article in this issue shows, the history of land grants in southern Arizona is essentially the history of water use, that is, the land grants provide a kind of key to which portions of the Gadsden Purchase area (the part of Arizona south of the Gila River) were the most favorable for Spanish, Mexican, and later U.S. settlement. Because much of the Spanish and Mexican settlement of southern Arizona, with the possible exceptions of the Native American settlements that arose around the Spanish Colonial missions and presidios, was associated with the land grants, they figure importantly in the historical archaeology of this region. Archaeologists therefore need to be well-versed in the land grant history of southern Arizona to understand and interpret the Spanish Colonial, Mexican period, and even Territorial period archaeological sites. It is for this reason that we decided to ask Jim to write his page 1 article for Old Pueblo Archaeology: to give readers some historic context for southern Arizona historical archaeology.
Old Pueblo Archaeology Center’s Archaeology Opportunities Membership and Discounts Program

Archaeology Opportunities is a membership program for persons who wish to support Old Pueblo Archaeology Center’s education efforts and perhaps even to experience for themselves the thrill of discovery by participating in research. Membership is also a means of getting discounts on the fees Old Pueblo normally charges for publications, education programs, and tours. Members of Archaeology Opportunities at the Individual membership level and above are allowed to participate in certain of Old Pueblo’s archaeological excavation, survey, and other field research projects, and can assist with studies and reconstruction of pottery and other artifacts in the archaeology laboratory. Membership benefits include a 1-year subscription to the Old Pueblo Archaeology electronic quarterly bulletin, opportunities to participate in Old Pueblo’s member-assisted field research programs, discounts on publications and archaeology-related items, and invitations and discounts for field trips and other events.

Old Pueblo Archaeology Center
Located at 2201 W. 44th Street in the Tucson Unified School District’s Ajo Service Center
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Your membership helps support Old Pueblo’s children’s education programs.