# ARCHAEOLOGICAL PARKS AND PREHISTORIC NATIVE AMERICAN INDIAN RUINS OF CENTRAL ARIZONA



TONTO NATIONAL MONUMENT \* UPPER CLIFF DWELLING "NPS PHOTO"

#### INTRODUCTION

The purpose of this website is to provide some information about the prehistory of the Southwest with a focus on two of this regions prehistoric cultures; the Hohokam and Salado and their historic homelands. Native Americans have occupied what is now Arizona for thousands of years. There is no other place in the United States that contains such monumental remnants of prehistoric cultures as does the Southwest desert of North America. The largest Native American reservation (majority of the Navajo Nation ) and the second largest the Tohono O'odham Nation are located in Arizona.

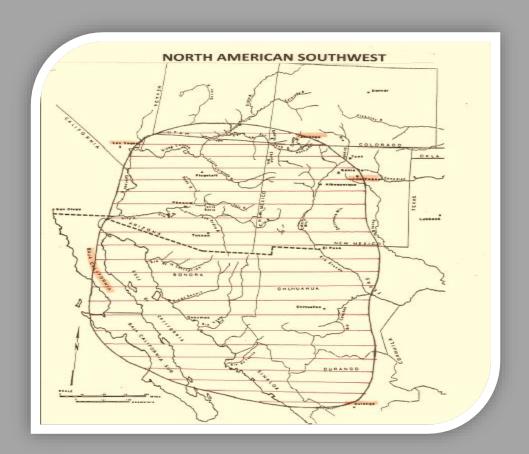
The purpose of these pages are also to give visitors to this area a glimpse of the well-preserved ancient dwellings and history of the indigenous people whose civilizations occupied this region. These people flourished here in the Southwest Sonoran Desert centuries ago, prior to the first Spanish explorers arriving here in Arizona around the midlate 15th century. Instead of the great riches they expected, the Spaniards found self-sustaining communities of natives. Most of the natives were living in simple shelters along fertile river valleys, dependent on hunting and gathering and small scale farming for subsistence as was noted in the journals of the first Spanish explores. It seems that they had reverted back to their archaic ancestor's way of life centuries before. The first to arrive in

Arizona was Fray Marcos de Niza a Franciscan friar in 1539 and was followed a year later by Francisco Vasquez de Coronado.



ARTIST VIEW CORONADO'S EXPEDITION (SOURCE \* PINEREST.COM)

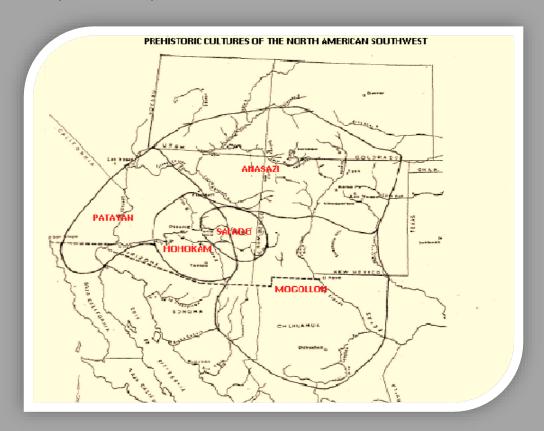
The Southwest is described as extending from Durango, Mexico, to Durango, Colorado, and from Las Vegas, New Mexico, to Las Vegas, Nevada. (Cordell 1984:2)



## SOUTHWEST CULTURES GEOGRAPHICAL AREA ILLUSTRATION BY JOHN McDONALD

Archaeologists believe some of the first early inhabitants arrived here in the Southwest some 11,000 to 15,000 years ago (Paleo-Indian Tradition). Archaeological evidence of the earliest Paleo-Indians in the American Southwest comes from two mammoth kill sites in Southern Arizona. The Lehner Mammoth-Kill Site dating to around 9000 years BCE and the Naco-Mammoth Kill Site dating to about 10,000 years BCE.

It's believed that these Paleolithic people transitioned from a hunting/gathering lifestyle to one involving agriculture and permanent, if not only seasonally, occupied settlements. Archaeologists refer to this period in time as the Southwestern Archaic tradition. In the Southwest the archaic period is generally dated from 8000 B.C. and ending around A.D 150. Archaeologists and historians believe that these desert archaic people eventually evolved into the four major prehistoric cultures in the American Southwest and Northern Mexico. These major cultures are the "Ancestral Puebloans" (formerly called Anasazi) Hohokam, Mogollon and Patayan. Archaeologists use these terms to denote these ancient cultures tradition of the North American Southwest. These ancient Native American cultures occupied the present-day Four Corners area of the United States, comprising Utah, Arizona, New Mexico, and Colorado.



PREHISTORIC CULTURES TRADITIONAL HOMELANDS ILLUSTRATION BY JOHN McDONALD

This site is also an attempt to give an insight on these early inhabits who relied heavily on their relationship with "Mother Earth" the sky, the sun and the natural elements to provide food, clothing and shelter. Everything in their daily existence depended upon them. These pages are also an attempt to explain how these prehistoric peoples survived and adapted to this harsh desert environment and of their ingenuity in utilizing desert materials to create wood and stone tools. From animal bone, they made tools, whistles and flutes. From fibers of the agave and other wild desert plants, they wove mats, sandals and rope. From cotton grown in their fields, they wove blankets and clothing. To build structures they would find a deposit of caliche hardpan to use as a foundation and flooring. They erected their roof and wall supports from timber such as fir, pine and juniper from the nearby mountains then plastered the walls of brush and grass with adobe (mud and clay). Potters formed ropes of local clays to coil them into plain, incised or beautifully decorative painted pottery. These artisans would fashion human-animal shaped figurines and obtain paints from crushing local minerals such as Hematite. Using igneous rocks such as chert, obsidian and jasper they manufactured projectile points, knives, choppers. Food processing tools (mano and metates) were made from basalt and granite. Shells imported through trade from Gulf of California and Pacific coast were made into fine jewelry and ornaments.



BONE (FAUNA) AWL PHOTO BY JOHN McDONALD

If you are a curious individual who is planning a trip or just someone who exhibits a fascination towards historic sites and ancient cultures, there is no better place to start exploring than the historic locations listed below. Visits to these archaeological and national parks promises visitors of all ages an interesting, informative and unforgettable experience.

Many of the archaeological parks listed here contain on-site museums that are dedicated to preserving the cultural remains (artifacts) that were found during excavations of these prehistoric sites. These artifacts provide valuable information about the prehistoric people who once inhabited them. Some of the museums attractions include not only displayed artifacts, but exhibitions and videos.

Information contained here on these archaeological parks and sites give only a brief introduction about the Native American Cultures who flourished here in the prehistoric Southwest over a millennium ago. For more information about the prehistoric dwellings and the peoples who inhabited them, you may wish to contact the official web page of that site. Driving directions, hours of operation, phone numbers, addresses, tours, activities, facilities and web page links are posted for the parks listed here. Some of the parks listed here have seasonal hours of operation, be sure to visit that parks website or call before planning your trip.

#### **HOHOKAM AND SALADO CULTURES**

HOHOKAM-(A.D. 1 – 1450) –Hohokam was a term deemed by archaeologist Harold S. Gladwin to describe a culture differentiated from others in the region thanks to excavations in the 1930s. They are one of the four major prehistoric archaeological cultures, of the present day four corners areas of the North American Southwest. Archaeologists believe the Hohokam people migrated out of Mexico around CE 200 and occupied the middle Gila and lower Salt River drainage areas, now referred to as the main Hohokam core of the Phoenix and Gila Basins. Early archaeological researchers believe that this culture was made of local decedents of ancient hunter/gathers (Late Archaic Period) who responded to Mesoamerican influences and possibly emerged as the Hohokam. If the Hohokam were not immigrants, then perhaps the Mesoamericans influenced the Hohokam through trade and exchange. The Hohokam traded goods widely across the American Southwest and Mesoamerica with other prehistoric cultures. During this period in time, there were several trade routes from Mesoamerica into southern Arizona.

The Hohokam culture occupied a geologically and ecologically diverse region of the North American Southwest. Their region extended from the basin and range, lower desert area of northern Sonora, through southern Arizona, northward to the Mogollon Rim into the southwestern corner of the Colorado Plateau. The main Hohokam core of settlements was located along the Gila and Salt Rivers. These prehistoric people constructed one of the largest and most sophisticated irrigation systems in the North American Southwest, which created a productive agricultural society that lasted for centuries using pre-industrial technology.

In 1992 the Hohokam canal system was recognized as a National Civil Engineering Landmark, by the American Society of Civil Engineers. SEE PREHISTORIC CANAL SYSTEM PAGES 24-31.

For continued success and management of their canal system the Hohokam culture appeared to have some sort of leadership, or hierarchy structured within their society. Some sort of elite leadership was needed to govern over any conflicts that may have arose from villages and farmers over water issues and keep social harmony among the people. It is also perceived that Hohokam religion played a prominent role in their society as well.

These prehistoric people are known for their use of adobe and caliche to construct homes and public architecture such as platform mounds and ball courts. The primary dwelling of the Hohokam culture was a semi-subterranean structure called a "PITHOUSE". These dwellings would stay cool in the summer and warm in the winter. Pithouses were regularly arranged in groups around an open courtyard referred to by archaeologists as a pithouse cluster. These pithouse villages are believed to be inhabited by extended families. Besides providing shelter from environment, these structures may also have been used to store food. The larger structures may have been used, not as residences, but as gathering places for telling stories, dancing, singing and cultural celebrations.



HOHOKAM MODEL PITHOUSE (SOURCE \* PINEREST.COM)

They were skilled artisans who carved marine shell jewelry stone palettes, and stone beads and pendants. They also made a distinctive red-on-buff pottery and other ornate objects. For reasons that remain unclear, the Hohokam culture collapsed during the 14<sup>th</sup> century, when people abandoned their large villages and canals. This depopulation did not happen all at once but over several generations.

According to local oral traditions, the prehistoric Hohokam culture may be the ancestors of the Native American Pima peoples living in Southern Arizona today. The Pima people (or Akimel O'odham, "River People" formerly known as Pima) are Ancestral People who now live in the shadow of the historic Hohokam culture. The Pima and the Hohokam have similar lifestyles in the way they farm and their pottery is similar. They are closely related to other river people of Southern Arizona.

The Classic Period of Hohokam culture is notable for the peaceful intrusion of the Salado culture, that came from the upper reaches of the Salt River in the Tonto Basin. The Salado people lived in Hohokam territory for several decades, then withdrew to unknown regions.

SALADO- (A.D. 1250-1450) "Salado" was the name chosen by archaeologist Harold S. Gladwin for discoveries made along the Rio Salado, or Salt River that flowed through the valley of their homeland. The Salado people are believed to be a mixture of cultures brought together by environmental factors which forced people to change territory and

adapt to new environments. Gladwin felt that the origins of the Salado came from the Little Colorado River region of Northeastern Arizona, bringing Mogollon architecture and pottery traits with them, which they modified as they moved farther south. There has been much debate among archaeologists over whether the Salado was a distinct culture or a mixture of cultures, including elements of Hohokam, Mogollon and Ancestral Pueblo, or a subgroup of a single cultural tradition (Cordell 1997., P 414). The Salado civilization was centralized by three prehistoric culture of the Southwest during this time period, Ancestral Puebloans to the North, Mogollon to the East and the South and the Hohokam to the West and Southwest.

The Salado peoples who migrated into the Tonto Basin area established settlements at regular intervals along the Tonto Creek and Salt River. The Salado lived comfortably in the Tonto Basin valley along the Salt River for several centuries irrigating about 2000 acres of crop fields, and supplementing their diet by hunting and gathering native wildlife and plants. Something "changed" and for un-known reasons the Salado people went to great lengths to move their settlements away from their only water source and crop fields. Archaeologists are not sure what forced the Salado to move, perhaps it was for protection from the environment, population growth, or possibly defensive position. Even though there is no archaeological evidence that warfare existed among these cliff-dwellers, they moved to higher ground in the natural caves located in the nearby Superstition Mountains and built their magnificent cliff dwellings that remain today.

There is archaeological evidence that the Tonto Basin/Roosevelt Lake and Globe, Arizona region was occupied long before the Salado people appeared in the region. By about A.D.500 to A.D 700 small groups of Hohokam colonists apparently moved into Tonto Basin from the lower Gila and Salt River Valleys and established settlements along the Salt River and at the Besh Ba Gowah and Gila pueblo sites in Globe, Arizona. At the same time that the Salt River area was being settled by Hohokam, other people were settling in the upper Tonto Basin along Tonto Creek. These would appear to be Mogollon settlements. By about 950 to 1150 A.D. the Hohokam apparently pulled back into the Phoenix Basin. No one replaced them for some time until what has been called the Salado culture.

Archaeologists believe that the main reason for the Hohokam migration from the Phoenix Basin area into the Tonto Basin was for the express purpose of growing cotton. Cotton is strong, durable, and lightweight. It was relatively easy to grow, harvest and process. Cotton had many uses, and held an important role in religious ceremonies, which still is seen today in modern Pueblo groups where cotton is used in all articles of dress associated with ritual ceremonies.

#### ABANDONMENT AND MIGRATION THEORIES

These civilizations flourished here in the Sonoran Desert for centuries, then for reasons unknown populations declined and settlements were abandoned sometime between the

14th and 15th centuries. It is believed that this phenomenon did not happen all at once, but rather over several generations. Archaeologists, historians and scholars have proposed various hypotheses and explanations for the major abandonment of the Southwest during this time, suggesting that it was not due to one single catastrophic event, but a combination of social and environmental stress factors such as severe drought followed by repeated flood events, population pressure combined with fewer available resources, and a breakdown in trade relationships.

Archaeologists are beginning to think more in terms of relocation than "abandonment" and depopulation rather than "disappearance". The prehistoric people of the Southwest did not just disappear, their cultural traits did. Their many relocations created a record of abandoned residences, but not relinquished places.

In her book, *Archaeology of the Southwest*, Linda S. Cordell points out that these people felt themselves "pushed" by a combination of social and environmental changes and "pulled" for a more stable weather patterns, fertile farm lands, safer communities and spiritual fulfillment.

Immigration especially from the north increased in the late prehistory of the Southwest. Facing climate changes themselves forced Ancestral Pueblo cultures to migrate south, bring more people into the valley and causing internal conflicts triggered by environmental pressures on a population that more than likely already met or exceeded the carrying capacity of the land. With less food available villages broke up and peoples migrated to find prosperity elsewhere. Proposed explanations for these prehistoric cultures decline appear to have both strengths and weakness. From archaeological data and scientific research such as dendrochronology, there is evidence to substantiate some of these theories. All theories are still under investigation and new research is on-going.

WHERE DID THEY GO? It has been pondered over and debated as to which direction these different cultures took. It has been speculated that the majority of people, such as the Hohokam and Salado migrated south to the Casa Grandes in Mexico, while others went north to be absorbed into the Northern Pueblo cultures and the Hopi. Even though their societies collapsed, the entire prehistoric population did not completely abandoned their ancestral homelands. They more than likely scattered, joining various groups and cultures depending on where they could best survive.

There is evidence that Paquimé, Casas Grandes located in the modern day Mexican state of Chihuahua of Northwestern Mexico, received a population influx during the 13th and 14th centuries, in the midst of an era marked by unprecedented cultural splintering and dislocation in the surrounding areas. In the 1950's and 60's archaeologist Charles C. Di Peso excavated nearly half of the site at Paquime. His archaeological findings were that this cultural site was coalesced around Mogollon-like nucleus of people; capitalized on Hohokam precedents for its early community architecture and water control, after Ancestral Puebloan's infusion of immigrants. (Di Peso 2008 the end of Casas Grandes)



PAQUIME CASA GRANDES MEXICO (SOURCE: PINEREST.COM)

WHERE ARE THEY TODAY? Archaeologists and historians have tried to follow their trails, by correlating cultural traits by community plans, architectural designs, construction methods and distinctive pottery styles. Another way we learn about prehistoric people is by studying modern day Native American cultures and observing how these people use similar resources and the environment.

Modern day Native American tribes that claim these prehistoric cultures as their ancestors still speak of ancient abandonments and migrations in their oral histories. Thus, years of additional research will be necessary to discover new evidence as to the mysterious phenomenon of these people's origins and collapse of their civilizations. We may never find out the answers to some of the centuries oldest questions: "What failed" "Where did they go?" "Where are they today?"

It has been estimated that the population of the desert southwest around the 14th century numbered somewhere between 40,000 to 80,000. By the time the first Spanish explorers reached Arizona in mid-late 15th century, the population had declined to an estimated 5,000.

If you would like to learn more about the prehistory of the Southwest and the Native American Cultures who lived in the North American Southwest over a millennium ago try visiting these sites: NATIVE PEOPLES of NORTH AMERICA AND THE SALADO

A few short hours driving distance north of Phoenix, Arizona are some monumental Ancestral Puebloan cliff-dwellings to visit as well. These spectacular Puebloan cliff dwellings were once home to the prehistoric Anasazi culture. Today, the descendants of the Anasazi prefer the term "Ancestral Pueblo". Modern Pueblo people that exist today such as the Navajo, Hopi, and Zuni claim these ancient people as their ancestors.

Navajo National Monument (U.S. National Park Service)
Canyon de Chelly National Monument (U.S. National Park Service)
Bandelier National Monument (U.S. National Park Service)
Montezuma Castle National Monument (U.S. National Park Service)
Exploring Montezuma Well - Montezuma Castle National Monument...

If you are interested in ancient cultures, these sites promise visitors of all ages an unforgettable experience and are worth a day's road trip to visit.

These prehistoric cultures that occupied this region of the Southwestern United States left us with no written record of themselves. Instead they left behind remains of their existence here with numerous archaeological sites, cliff-dwellings, platform mounds and artifacts to unravel their culture's mysteries. Located in the Phoenix, Tonto and Gila Basins and Globe, Arizona are some of these prehistoric cultures best preserved archaeological sites and dwellings of the North American Southwest.

THESE HISTORICAL ARCHAEOLOGICAL SITES ARE: Besh Ba Gowah
Archaeological Park, Tonto National Monument, Casa Grande Ruins National Monument,
Hieroglyphic Canyon, Mesa Grande Cultural Park and Pueblo Grande Museum
Archaeological Park.



## **SALADO**



#### BESH BA GOWAH ARCHAEOLOGICAL PARK AND MUSEUM

Located in Globe, Arizona is an 800 year old Salado culture pueblo. The Salado culture inhabited the Tonto Basin, Globe, Miami, Superior and San Carlos areas from A.D.1150 to 1450. Who were the prehistoric Salado people? Many archaeologist have pondered and even argued weather the Salado people were a mixture of cultures; Hohokam and Mogollon, Mogollon and Anasazi or Anasazi and Hohokam (Middaugh 1998) or just a subset of a single cultural tradition (Cordell 1997:414).

The name "BESH Ba GOWAH" comes from the Western Apache phrase meaning "place of metal" or "place of hard rock", originally employed by the Apache Indians to refer to Globe, Arizona which was a major copper mining town. Local miners took this Apache name of Globe and gave it to the ruin.

The pueblo was built in stories. Many of the ground floor rooms were used for storage as upper stories were for living areas. Several of these rooms have been almost completely restored and contain the types of tools and pottery which were excavated from the site.



BESH Ba GOWAH PUEBLO \* GLOBE, ARIZONA PHOTOGRAPH COURTESY OF "RICK HOSSMAN"

The previous temporal phase of the site is identified with the regional Hohokam culture who settled here around A.D.550 and abandoned it around A.D1100. This was evident by the Hohokam pit house found under Besh Ba Gowah dating to A.D. 550.

At approximately A.D. 1225, the Salado Indians began construction of the pueblo that still stands today. Shortly after A.D. 1400, the pueblo was abandoned and the Salado people are believed to have migrated to different areas of the Southwest. It is believed that this is linked to climatic changes that caused a shortage of water which may have resulted in an increase of warfare among Pueblos (Gila Pueblo) The area apparently remained uninhabited for centuries until the Apache people made it their homeland sometime after A.D. 1600.





#### PHOTO'S CURTESY BESH Ba GOWAH ARCHAEOLOGICAL PARK

The Salado peoples living in the Tonto Basin and Globe area of Arizona did not live in isolation but had a wide spread interaction with other prehistoric cultures of the Southwest such as the Hohokam civilization. It was during the 12<sup>th</sup> and 14<sup>th</sup> century that the Salado people influenced a number of these cultural groups of the Southwest United States with their iconographic pottery designs. The spread of this Salado culture became known as the Salado Phenomenon.

Sometime after A.D. 1350 and by A.D. 1450 the Salado began migrating out from the Salado heart land in the Tonto Basin and Globe regions and moved to other places. Despite the great influence of the Salado culture, archaeologist and historians continue to debate

the Salado Phenomenon. This once thriving culture left behind remnants of their civilization, but we have yet to determine their final fate.

The Besh Ba Gowah Museum: The museum displays a variety of the artifacts that were excavated from the site. The museum houses one of the largest single collection of Salado pottery as well as tools, clothing and other artifacts. A seasonal ethno- botanical garden on the grounds illustrates how native plants were used by the Salado in their daily life.



PREHISTORIC STONE AXE HEADS \* PHOTO BESH Ba GOWAH MUSEUM

For information on this parks seasonal hours of operations, address, phone number and driving directions visit: Visitors - Besh Ba Gowah Archaeological Park- City of Globe or call (928)-425-0320



# TONTO NATIONAL MONUMENT Tonto National Monument (National Park Service)

Located in some natural caves on a hillside overlooking Roosevelt Lake, located within the Tonto National Forest on the Eastern end of the Superstition Mountain Wilderness area you will encounter two of the best preserved Salado cliff-dwellings of the upland Sonoran Desert.

Inhabiting the Tonto Basin for a relatively short period between A.D. 1250 and around A.D. 1450 were the Salado. The Tonto Basin and Globe, Miami, Superior, and San Carlos areas have traditionally been considered the Salado heartland. The Salado Indians

occupied these areas for two centuries, and made their living from what nature provided in their mountainous terrain. Many of the wild plants were sources of food, medicine and raw material for these prehistoric civilizations. Besides some of the wild plants and cactus other food subsistence consisted of turtles, fish, deer, corn, beans and different types of squashes.

The Salado peoples living in the Tonto Basin and Globe area of Arizona did not live in isolation. Sometime around the 8<sup>th</sup> century A.D. things began to change in the Tonto Basin.

Hohokam colonists expanding their domain from the lower Gila and Salt River valleys and began to move into the Tonto basin. Establishing pithouse villages and mounds along the Salt River and Tonto Creek areas around 850 A.D. where they lived for a few hundred years. Archaeologists believe that the main reason for the Hohokam migration from the Phoenix Basin area into the Tonto Basin was for the express purpose of growing cotton.

During their occupation of the Tonto Basin they developed specialized crafts and became master potters, designing a unique style of ceramics that associate these wares to the Salado culture. Archaeologists refer to these styles as Roosevelt Red Ware, also known as Salado Red Ware and Salado Polychrome. Salado Polychrome appeared to be one of the most widely traded of all ceramics of the prehistoric Southwest and one that was duplicated as well. Based mainly on their design, Salado Polychrome was divided into three styles Pinto, Gila and Tonto. This style of pottery consisted mainly of squat jars, bowls, and ollas and were done in red, white and black paint. Pictured is a good example of "TONTO POLYCHROME" typical of the Salado culture.

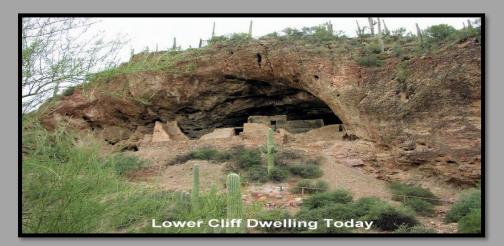


TONTO POLYCHROME "NPS PHOTO"

Archaeological study continues to reveal aspects of this culture. Even so, we have only a vague notion of who the Salado were. Like most of the prehistoric cultures that were here in the Southwest, the Salado people left no written record of their existence, no chronology of events that shaped their society. The most vivid signs of life are in their pottery, in remnants of fabric, abandoned ruins, stone and bone tools-all reminders that humans once led rich and productive lives here in the Tonto Basin (Roosevelt). Tonto National

Monument is unique due to the fact that it offers visitors a chance to visit two cliff dwellings, both constructed by the prehistoric Salado people around A.D 1300.

The "LOWER CLIFF DWELLING" consists of 20 ground floor rooms, three of which had a second story and next to this was a 12 room annex.



LOWER CLIFF DWELLING "NPS PHOTO"

The "UPPER CLIFF DWELIING" is much larger and had 32 ground floor rooms, eight of these with a second story (40 rooms). The upper dwelling is reached by a different trail, and visitors must be accompanied by a ranger. The upper dwelling is only accessible through scheduled tours. Reservations are required, and tours run 2-3 days a week from November through the end of April. The average tour length is 3-3 1/2 hours. For additional information call (928) 467-2241.



**UPPER DWELLING "NPS PHOTO"** 

Sometime between A.D.1400 and A.D 1450 the Salado culture abandoned their cliff dwellings. The dwellings at Tonto National Monument represent the end of the Salado presence in the Tonto Basin.

SALADO: WHERE DID THEY GO? Like the Hohokam, the Salado people were also impacted by climate changes and resources that were becoming scarcer. All of the Southwest cultural groups experienced population drops and migrations into other regions. Some archaeologist and historians speculate that the Salado like the Hohokam people migrated to the Casas Grandes in Mexico, while others suggest they traveled northward and became integrated into the remnants of other pueblo peoples. The Hopi and Zuni and other modern-day Native American Tribes claim the Salado as their ancestors.

"AS TO THE MYSTERY OF THIS CULTURES ORIGINS, SO IS THE MYSTRY TO THEIR DISAPPEARANCES".

Tonto National Monument is about 78 miles (about a 2 hour drive) N. East of Apache Junction, AZ and 4 miles west of Roosevelt Dam. Apache and Roosevelt Lake. For more information on this parks driving directions, hours of operation, activities and facilities visit: <a href="https://www.nps.gov/tont/planyourvisit/basicinfo.htm">https://www.nps.gov/tont/planyourvisit/basicinfo.htm</a> or call (928)-467-2241

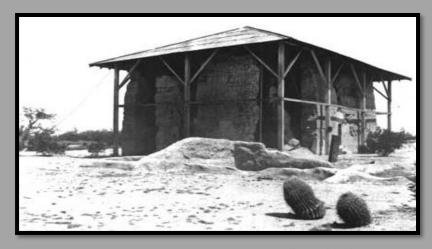


## **HOHOKAM**



CASA GRANDE RUINS NATIONAL MONUMENT

"GREAT HOUSE"



FIRST SHELTER ROOF "NPS PHOTO"

Located a short driving distance South of Apache Junction, Arizona rising above the desert floor in Coolidge, Arizona sits a famous national landmark. Under a sheltered roof in Casa Grande Ruins National Monument, stands the "Great House" This historical place was the very first archaeological site in the United States to be protected as a cultural preserve in 1892, then twenty-six years later became a National Monument in 1918.

A wooden structure was first constructed in early 19<sup>th</sup> century to shelter the ruin from the harsh Sonoran Desert weather. Then in 1932 a new steel roof was constructed, although this 1932 shelter roof that shadows the "*Great House*" it has no unique engineering or architectural feature because it was constructed using common steel frame techniques of the day, it has historical importance. Even though it was not the first roof to cover the Great House, this roof represents early National Park Service preservation efforts.



CASA GRANDE RUINS PRESENT DAY "NPS PHOTO"

Casa Grande Ruins National Monument preserves intact a large portion of a Hohokam village. Some of the Parks archaeological features include the enigmatic Great House (Casa Grande in Spanish) building as well as the remains of other buildings and a prehistoric "ball court". Named by early Spanish explorers, the large caliche earthen structure rises four stories high, 60 feet long, has walls three feet thick and is surrounded by a compound wall. The ceilings and floors consisted of wooden beams from juniper, pine and fir which had to be brought down from mountains located as much as fifty miles away. This dwelling is the last remaining example of the largest structures built by the Hohokam Culture. Completed prior to A.D. 1350, the Great House dates from the Classic Period of the Hohokam Chronologies A.D. 1150 to 1450 and was in use for approximately 100 years.

WHO BUILT THE RUINS? Today we refer to the people who built the Casa Grande Monument as the Ancestral Sonoran Desert People, or "Hohokam." this was a name given by archaeologists as being a distinct prehistoric culture living along the Salt, Gila, Verde

and Santa Cruz Rivers in the Sonoran desert of Arizona. Archaeologists use these terms to denote these ancient cultural traditions of the North American Southwest.

The first recorded history of Casa Grande came when Eusebio Francisco Kino first visited the prehistoric dwelling in 1694. His first journal entries started the first written accounts and description of the structure and village compound. He was followed in later years by historian Adolph Bandelier in 1883-84 and anthropologist Frank H. Cushing in 1887-88, who continued documentation about the ruins. The primary function of the dwelling remains unknown.

WHO WERE THESE DESERT FARMERS? Their origins probably lay within the archaic hunter-gathers who lived in Arizona for several thousand years. These nomadic peoples began to live more sedentary lives, agricultural fields and corn cultivation have been found along the Santa Cruz in Tucson dating to 2100 B.C.E. Some archaeologists and historians have theorized that these early desert archaic people and migration of Mesoamericans into region evolved into the Hohokam. By circa 500 C.E. a distinctive culture with shared traits and settlement patterns emerged along the Gila and Salt River valleys. It was during the 4<sup>th</sup> and 5<sup>th</sup> centuries we see larger communities rising such as Grewe, Snaketown, Mesa Grande and Pueblo Grande.

The Ancestral Sonoran Desert People traded material goods and ideas with other peoples. They imported turquoise, pottery, pinyon nuts, obsidian (volcanic glass) and even sea shells from the Gulf of California and the Pacific Coast. From Mexico came copper bells, iron pyrite mirrors, and parrots. So what did these desert dwellers have to offer in exchange? Their farms produced surplus crops for export, including cotton. They also traded their finely crafted shell jewelry and pottery. Casa Grande Ruins was an important site along the trade networks of the southwest. One major route, reconstructed by archaeologists, went from northern Mexico into the Tucson area, and from there into the Gila River Valley.



PIECES OF SHELL RINGS, NECKLACE AND BRACLETS
PHOTOGRAPH BY JOHN McDONALD

Additional distinctive characteristics of the Hohokam Culture includes finely made ceramics, stone and shell jewelry, architecture including community compounds and public buildings, earthen platform mounds and ball courts, The Hohokam Culture is well known for its pottery throughout the Southwest. In particular a style called "RED-ON-BUFF" because of its distinctive coloring.



SANTA CRUZ RED-ON-BUFF JAR (SOURCE \* PINEREST.COM)

BALLCOURTS: Besides their distinctive pottery styles another cultural trait were the Hohokam ballcourts. These earthen ballcourts were typical oval shaped depressions in the ground and there dimensions would vary in size but averaged around 100 feet and up to 50 foot wide with a slopping wall embankment as high as 9 feet. The largest ballcourt was found at Snaketown a Hohokam settlement near the Gila River between Phoenix and Tucson. Its adobe embankment was 8 foot high, 108 feet wide and measured 196 feet in length.



ARTIST RENDITION OF BALL GAME (SOURCE \* PINEREST.COM)

There have been several hundred ballcourts identified throughout the Hohokam geographical region of the southwest and with more than 30 being found in the Salt River Valley. These ballcourts were virtually associated with the larger Hohokam settlements such as Casa Grande Ruins, Pueblo Grande near down town Phoenix and Mesa Grande.

FUNCTION: These Hohokam ballcourts features are difficult to date, but archaeological evidence (pottery styles) indicate most of the ballcourts were constructed between 700 and

1100 C.E. It's believed some sort of ball game was played inside, with spectators watching from the berm surrounding the oval shaped feature. Some of the early theories of its function was a water reservoir for threshing crops, dance plazas and even "sun temples".

Emil Haury a renowned Southwest archaeologist excavated a ballcourt during his 1934-1935 excavations at Snaketown. Haury noted that Hohokam ballcourts had similarities with those found throughout Mesoamerica Mesoamerican ballcourt and proposed that these Hohokam ballcourts served a similar role. This similarity was one used to help the hypothesis of cultural trade connections between the Southwest United States and Mesoamerica.

Between the 11<sup>th</sup> and 13<sup>th</sup> century's things began to change within the Hohokam society they stopped building ballcourts and concentrated on the construction of platform mounds suggesting a change in their social and religious organization. This could have led to an opportunity for those with elite potential and standings within the community to create a system of platform mounds designed for claiming territory and for monitoring the flow of the vast canal water system. Archaeologist and historians have hypothesized that Hohokam sites with platform mounds appear to have served as possible ceremonial and administrative centers. See also Platform Mounds-Mesa Grande | Arizona Museum of Natural History



ANCIENT BALLCOURT CASA GRANDE NATIONAL MONUMENT, AZ "NP PHOTO"

CANAL SYSTEM: The Hohokam Culture were masters of the desert eventually developing their renowned canal system and agricultural practices diverting water off the Gila and Salt Rivers to irrigate their crop fields. Ancestral People designed and built an extensive irrigation system, digging gravity fed canals by hand along the Gila and Salt Rivers. Approximately 1,000 miles of canals have been mapped in the Salt River Valley alone; these represent thousands of years of construction and use.

The earliest known Hohokam canal was dated to around 150B.C.E. The core of the Hohokam Culture is found along the Salt River, Gila River, and Santa Cruz River Valleys. The crops grown by the Ancestral Sonoran Desert People eventually included not only corn but several varieties of beans and squash, as well as cotton ad tobacco. In addition to crops, these Ancestral People continued to harvest many native plants and hunt animals of the desert. These included cactus fruits, pads and buds, agave hearts, mesquite beans, the

medicinal creosote bush. They hunted small game (fauna) rabbits, birds and reptiles. The nearby mountains held big game such as deer and desert bighorn sheep.



PICTOGLYPH OF DESERT BIG HORN SHEEP (SOURCE \* PINEREST.COM)

For more information about booking a tour, planning a visit, hours of operation, and facilities visit: Casa Grande Ruins National Monument (U.S. National Park Service) or call (602)-723-3172



## **HIEROGLYPHIC CANYON**



Hieroglyphic Trail, Superstition Mountains, Arizona



Located a short driving distance east of Apache Junction, Arizona is a valley of prehistoric "rock art" first named Apache Springs, then Hieroglyphic Springs and now Hieroglyphic Canyon. The USGS topographic map shows the canyon as having both names Hieroglyphic

Canyon and Hieroglyphic Springs. The canyon is located within the Superstition Mountain Wilderness of the Tonto National Forest and east of Gold Canyon, Arizona. The ideal time for planning your hike is during the fall and winter months when temperatures normally average in the 60's and 70's during the day. It is also during this time that the surrounding scrubland is lush and green. As you make your way into the canyon you will encounter seasonal pools of water and natural water falls. Watch for local desert animals as you make your way up the trail for jackrabbits, birds, lizards and gecko's. Dress according to the season and terrain and follow these guides: Hike the Hieroglyphic Trail, Arizona



**SEANSONAL POOLS OF WATER** 

As you enter into the canyon, hikers will see a variety of recognizable images, symbols, and other geometric designs that only have meaning to the person who etched those centuries ago. You can pick out images of desert big horned sheep, lizards, deer, hunting scenes, fertility miracles and some which are believed to be religious rituals and ceremonial activities. These ancient etchings are believed to have been made by the Hohokam culture sometime between A.D. 900 to A.D 1100. Some of the rock art here may date back to the late Archaic Period. The term Archaic Period was given by archaeologists to the huntergathers who followed the Ice Age Paleoindians in North America. The Archaic period in Arizona dates from about 8,000 BC to as late as A.D. 400 to A.D 150 depending on the region.



PETROGLYPH PANEL PHOTOGRAPH BY "CHRIS JUCK"

Hohokam seasonal and village settlements have been found in the nearby Gold Canyon and Apache Junction area. Based on test excavations, the temporal era of these sites were late Pioneer Period to Sedentary and some Classic Period A.D 300 to A.D 1150. (Greenwald 1987) It is possible that these sites are associated either seasonally or ceremonial. The Gold Canyon site may have been affiliated with Hieroglyphic Canyon due to the fact that isolated petroglyphs have been found on nearby hilltops in Gold Canyon.

As you follow the trail through the lower desert scrub environment towards the valley of petroglyphs be sure to look closely for other prehistoric features. Located among the rock outcropping you will observe bedrock mortar holes and grinding slicks that were essential for food processing. Prehistoric people once sat at these milling stations to process wild edible plants, cactus, medicine and pigments. These ancient mortars holes and grinding slabs were generally utilized to grind raw plant material into small pieces or flour for cooking. Some grinding slicks may have been used to sharpen and manufacture tools and weapons. It's possible that some of the ancient mortar and grinding slicks here were used by hunter/gathers from the Archaic Period.

The early hunter-gathers of the Southwest would carry with them cores or chunks of raw materials such as chert, dacite and other materials until a tool or weapon was needed. Then all they would have to do was flake and chip the edges or surfaces to make a desired tool or weapon, such as knives, scrappers and projectile points.

BEDROCK MORTARS-are shallow to deep basins in bedrock formed by the continuous grinding, crushing and pounding of various weed and grass seeds, grains, nuts with a hand held stone (mono) or wooden tool (pestle).

GRINDING SLICKS-are flat or concave surfaces where a variety of raw foods are pulverized with a hand stone tool into flour and meal used in gruels and breads. Hand stones were selected mostly of igneous or metamorphic rock that was used to grind other rock material, such as basalt and granite or quartzite.



**BEDROCK MOTAR HOLES** 

During the Archaic period small bands of 10-50 members would travel throughout the countryside to seasonally harvest these wild plants and cacti. They would gather yucca seeds, palo-verde, mesquite pod, prickly pear, saguaro buds (Fruit) and jojoba beans. The Mesquite pods have a natural sweet taste when ground, which is great for baking. One of the Hohokam's main foods was Cholla cactus (buds) and agave hearts. They would dig up the base of the century plant Agave Americana and slow roast the heart in an earthen oven or horno and eat the sweet tasting heart.

Not only did early prehistoric people gather the native plants and cacti for subsistence, but hunted animals (fauna) and reptiles that were indigenous to the region. Mountain sheep, deer, lizards and snakes are depicted in the rock art of the canyon. There may be some sort of hunting magic associated with the animal images pecked into these canyon walls.

Even though the site is called Hieroglyphic Canyon these images pecked into the walls of the Canyon are what archaeologists refer to as petroglyphs which were created by pecking chipping, scraping or grinding the surface of the rock to remove the outer "patina "also called desert or rock varnish (due to exposure of the arid environment) to create a symbol, design or motif. They are by far the most common form of "rock art." Designs that are painted are called "pictographs", although none of these types of rock art are present in Hieroglyphic Canyon.



PHOTOGRAPH COURTESY OF "CHRIS JUCK"

WHAT DO THESES GLYPHS MEAN? Native American symbols can be thousands of years old and are not easily interrupted. Rock drawings, or inscriptions have been left on caves, canyon walls, and rock outcrops as early as the Upper Paleolithic era (late Stone Age) in the Old World dating 45,000 to 10,000 years ago. The earliest known North American petroglyphs were found at Pyramid Lake, Nevada that date back some 10,000 to 15,000 years ago. Interruptions have included shamanic, (ceremonial), astronomical, maps to hunting grounds, water source or mere doodling. The late LaVan Martineau a non-Indian adopted by the Paiute spent much of his time trying to decipher these glyphs. His conclusion was that this "rock art" was a form of writing that was based on symbols. Native Americans had different languages so in order to understand one another these pictorial symbols were used as a sign language. (Martineau 1973).

Ethnologists believe that pre-Columbian times at least two thousand distinct Native American languages existed in the western Hemisphere, accounting for about one-third of the languages of the world.

There are many theories to the meanings of these symbols peeked onto rock outcrops and canyon walls of the Southwest. No one knows for certain if this was art or writing, or both. One image or symbol may have five different interpretations to five different people. We may never find out there real meanings, but we will keep trying. Petroglyphs must have had a very deep cultural and religious significance to the prehistoric inhabitants that created them that continues to resonant with modern Indian communities of today.



HIERGLYPHIC CANYON TRAIL HEAD

DRIVING DIRECTIONS: From Apache Junction, Arizona take U.S. highway 60 east to King's Ranch Road about 5 miles. Turn left on Kings Ranch Road, 2.8 miles to Baseline Road, turn right and follow baseline .3miles to Mohican, turn left for.3 miles to Valley View, turn left and follow Valley View (turns into Whitetail Road), to Cloud view Avenue, turn right and then continue .5 miles to Lost Gold Mine Trail Parking Lot. There will be signs to follow along this route as well. Wear sturdy hiking shoes or boots and comfortable clothing and a walking stick is advisable Dress for the time of seasons, summer time especially make sure you have at least two quarts of water, sun screen, hat and plan your trip early before the sun gets too high in the sky.

These petroglyphs and other archaeological sites are a fragile, non-renewal resource and should be respected not only for us, but future generations as well. Destruction to these sites are permanent and irreversible. So please take a minute to familiarize yourself with the Archaeological Site Etiquette Guide. This can be found by visiting: State Historic Preservation Office | Arizona State Parks

HAVE AN ENJOYABLE VISIT AND REMEMBER IF YOU PACK IT IN, PACK IT OUT

## **HOHOKAM**



#### MESA GRANDE CULTURAL PARK



ARIAL VIEW OF MESA GRANDE FROM THE NORTHWEST PHOTO COURTESY OF AZMNH

Rising above the desert landscape in Mesa, Arizona you will find one of the city's historical landmarks. "MESA GRANDE TEMPLE MOUND". This earthen platform mound is one of the two largest remaining platform mounds in the North American Southwest. With a height of around twenty seven feet and walls made of caliche the mound is longer and wider than a football field. The platform mound is enclosed by a compound adobe wall with a large plaza located in front of the mound. The village surrounding the mound once covered over one-half a square mile. Mesa Grande controlled over 27,000 acres of Hohokam farm land, which now lay under city streets and housing developments of Mesa, Arizona. The prehistoric Hohokam culture, ancestors to the modern day AKimel O'Odham (Pima), constructed the great mound some time around A.D. 1100 and it was occupied up to around A.D. 1450.

PLATFORM MOUNDS: It was during the Hohokam Sedentary Period A.D. 950-1050/1150 platform mounds start to appear along the Salt River in the Phoenix Basin or what is now referred to as the Hohokam Core. During this period we begin to see the emergence of a

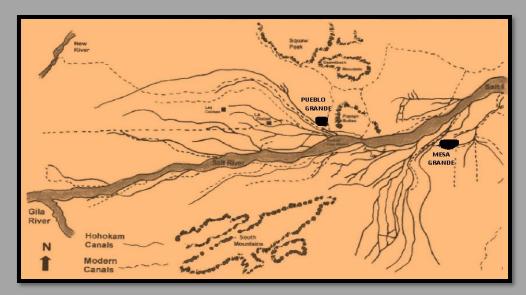
more social hierarchy. There have been approximately 120 identified along the Salt River, with Mesa Grande and Pueblo Grande being the largest.

The construction of these mounds like the canals required combined labor of a multitude of people. The first mounds were small between 2 and 12 feet high then around 1200 C.E. platform mounds became much larger and have been known to be built over pre-existing smaller mounds similar to that of Mesa Grande. The mound was primarily constructed with adobe and capped flat tops with caliche hardpan plaster made from the natural calcium carbonate material found under the desert crust. Eventually, they transformed into elite residence as social differentiation grew.

FUNCTION: A variety of functions have been attributed to the platform mounds of the Hohokam. Archaeologist and historians have hypothesized that Hohokam sites with platform mounds appear to have served as possible ceremonial and administrative centers. Sites such as Mesa and Pueblo Grande played crucial roles in the construction, organization and operation of the Hohokam's vast canal system. Some archaeologists and researchers suggested the "elites" of the Hohokam society such as head of linages lived in residence on top of these mounds that were surrounded by a high compound wall which restricted access to the mound. General consensus among modern day archaeologists and historians is that platform mounds were "dance platforms", or stage were ritual dances were performed for the people in the village. Here the elite could govern the distribution of water, perform rituals to insure agricultural success and to keep harmony among the villages and their spiritual world.

Located west of Mesa Grande in Phoenix is the Pueblo Grande Platform Mound, also constructed some time around A.D 1100. (See Pueblo Grande Museum Archaeological Park P.24) Pueblo Grande was also occupied by the prehistoric Hohokam Culture between A.D. 450, and A.D. 1450. Pueblo Grande had already established the first large main irrigation canals that diverted water from the Salt River onto thousands of acres of farm land on the north side of the Salt River. Pueblo Grande population grew and flourished for centuries as a result of their agriculture success.

Both of the "Grandes" are centrally located in what archaeologists refer to as the Hohokam Core, or Phoenix Basin. They were strategically situated at the headgates of two extensive irrigation systems. Archaeologists and researchers believe that these two settlements played essential roles in the organization, construction, and operation of irrigation systems and the distribution canal water from the Salt River to farm lands and villages. With Pueblo Grande on the North side of the Salt River and Mesa Grande on the South, they were able to supply water to some 110,000 acres of Hohokam farm land and service an estimated population of between 50,000 to 80,000 Hohokam people.

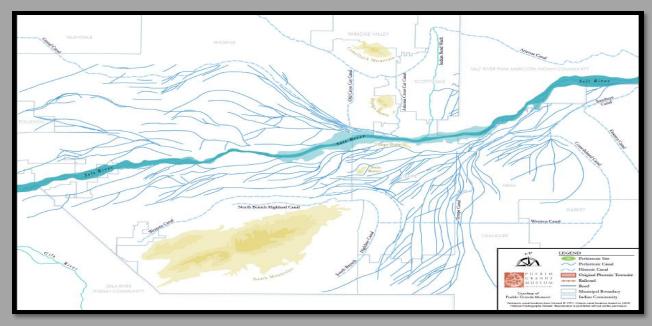


Hohokam canal map of the Salt River (Phoenix Basin) with Pueblo Grande situated on the North and Mesa Grande on the South side of the Salt River.

These early desert-farmers grew corn, (maize) tepary beans, and different varieties of squash (also known as the three sisters), cotton, tobacco, agave, amaranth and barley. Their agricultural success was due to the variety of farming techniques used other than irrigation, such as planting in the alluvial fans and outwash slopes(Ak-Chin farming Desert farming) far from any wells or river sources. These innovations in farming allowed their population to grow and flourish for centuries here in the Sonoran Desert.

#### PREHISTORIC CANAL SYSTEMS-HOHOKAM

The Hohokam were renowned for their ability to develop and maintain a highly sophisticated irrigation systems for more than a thousand years. Constructing the vast network of canals must have taken a substantial amount of physical labor. One might imagine the manpower required to accomplish this task, which took years to complete in some cases. Dehydration, heat exhaustion and heat stroke would have been factors to contend with, especially during the hot summer months here in the valley where daytime temperatures can reach well over 100 degrees. Archaeological research indicates that at least one canal extended nearly 20 miles, and that there were about 16 separate canals systems, each with its own headgate area. Approximately 1,000 miles of canals have been mapped in the Salt River Valley alone; these represent thousands of years of construction and use.



COURTESY PUEBLO GRANDE MUSEUM. PREHISTORIC CANAL LOCATIONS FROM HOWARD @ 1991, HISTORIC CANAL LOCATIONS BASED ON USGS NATIONAL HYDROGRAPHY DATASET. REPRODUCTION IS PROHIBITED WITHOUT WRITTEN PERMISSION.

These gravity-fed canals were dug by hand using wedge-shaped stones as hoes and wooden digging sticks to loosen the hard desert soils. The soil could then be put into baskets and emptied along ditches to form the canal banks. These canals were dug to an average depth of around twelve feet and fifteen feet wide. It has been estimated that approximately 400,000 to 800,000 cubic meters of soil was excavated to construct some of the main canals that took years in the making. These carefully engineered canals diverted water from the Salt/Gila Rivers and were designed to follow the contours of the desert terrain, dips and slopes to achieve a gradual downhill drop of 1 to 2 feet per mile.



ARTIST VIEW OF HOHOKAM DIGGING CANALS SOURCE: PINEREST.COM

For more information about booking a tour, planning a visit, hours of operation, and facilities visit: Arizona Museum of Natural History | Home or call (480)-644-2230

## **HOHOKAM**



#### PUEBLO GRANDE MUSEUM AND ARCHAEOLOGICAL PARK



PUEBLO GRANDE ANCIENT PLATFORM MOUND PHOTO COURTESY OF PUEBLO GRANDE MUSEUM

Spanish for "Large Town," *PUEBLO GRANDE*" is a large prehistoric village site with one of only two remaining largely intact platform mounds that are open to the public. During prehistoric times, there were more than 20 such mounds situated along a network of prehistoric irrigation canals in the Salt River Valley. The Pueblo Grande village is believed to have once encompassed an area close to a square mile. The village was occupied for about a thousand years (A.D 450 to A.D 1450) and supported a population of between 750 and 1000. Pueblo Grande contained three ball courts and a "Big House" similar to that at Casa Grande National Monument in Coolidge, Arizona. Unfortunately, Pueblo Grande's "Big House" was destroyed during the early development of Phoenix. In addition to these monumental structures, Pueblo Grande also contained hundreds of pit houses, several trash mounds (middens), adobe compounds, and numerous "*HORNOS*" (earthen ovens) and extramural pits.



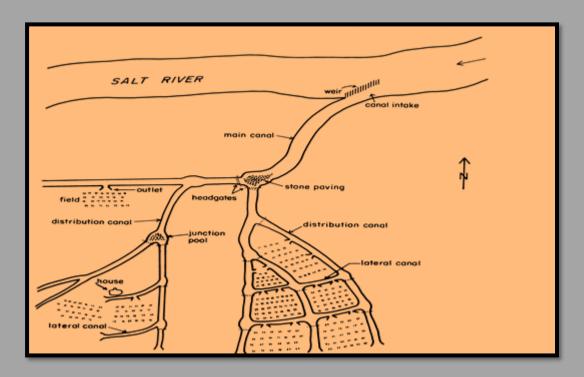
HALF EXCAVATED HORNO (EARTHEN OVEN) FROM LA CIUDAD DE-LOS HORNOS-ARIZONA \* PHOTOGRAPH BY JOHN McDONALD

#### HOHOKAM CANAL SYSTEM 2 / RECENT RESEARCH REVEALS NEW

Recent archaeological investigations revealed new and exciting information about Hohokam irrigation technology in the vicinity of Pueblo Grande. Under contract to the City of Phoenix, Desert Archaeology, Inc. conducted data recovery just west of Pueblo Grande and south of the Grand Canal. This area is in the path of several of the main trunk canals of Canal System 2, the largest prehistoric irrigation network on the north side of the Salt River.

Located northwest of the Park of Four Waters, which is the headwaters of several main trunk canals at Pueblo Grande, discovery of numerous prehistoric canals, including main, distribution, and lateral canals was not a surprise. Unexpected was the discovery of recognizable prehistoric irrigated field systems—the first exposure of such systems in the Salt River Valley – and a water control structure that regulated water flow from one canal to another. Also found were several canal-side water catchment features, pit houses, field houses, and a surface adobe structure. One of the pit houses contained burnt corn evidence that crops were being processed here.

SALT RIVER: The Salt River is the largest tributary of the Gila River and was the major source of water in the valley during prehistoric times. The Salt River originates some 200 miles from Phoenix, Arizona where the Black and White Rivers meet and the entire watershed comes out of the White Mountains of Arizona. From the White Mountains water flows West/Southwest through the Salt River Canyon, Tonto National Forest, continuing westward through the canyons of the Mazatzal and Superstition Mountains towards the greater Phoenix area passing through Mesa, Scottsdale, and Tempe. The Salt River final joins the Gila River on the south west edge of Phoenix around 15 miles from the center of down town Phoenix, Arizona. Along its journey the Salt would pick up parental drainages such as Tonto Creek, Verde River, and during the winter month's drainages from snow packed mountains along the way. Salt River Project (SRP) created four dams along the rivers path forming Roosevelt, Apache, Canyon and Saguaro lakes.



**Hohokam Canal System Components** 

After Masse in Hohokam & Chaco. Courtesy, Pueblo Grande Museum, City of Phoenix

Each prehistoric field system identified had a distribution canal and a series of lateral canals. Seven fields were distinguished in the patterned distribution of lateral ditches. Other fragmentary ditches indicate additional fields were present, but not well-preserved. The upper limits of preserved prehistoric field surfaces were within centimeters of the zone of modern disturbance; in most places, modern land leveling had removed the actual field surface. Similarities in stratigraphic layers in the laterals that fed the fields imply the fields and irrigation features were built and used at the same time, between A.D. 1000 and A.D. 1150. Pollen evidence indicates that many crops were grown, including corn, cotton, squash, cholla buds, and possibly prickly pear.

Agricultural fields and lateral canal



#### Photograph courtesy, Pueblo Grande Museum, City of Phoenix

While large main canals were anticipated in these areas, the complexity of distribution canals was unforeseen. Two large distribution canals that ran toward the southwest indicate that main trunk canals were supplying water to areas in that direction, as well as to known villages to the northwest. Archaeological excavation at the junction of a main and distribution canal revealed a well-preserved adobe and cobble water-control structure in the form of a low wall or weir that reinforced the junction and controlled the elevation at which water could enter the distribution canal from the main. This feature is presently unique among Hohokam irrigation structures, indicating even greater engineering sophistication among the Hohokam than was previously known.



# Trench excavated through water-control structure to reveals its construction Photograph by Connie Darby, courtesy, City of Phoenix

The large "North Canal," originally investigated by Richard Woodbury in the Park of the Four Waters, was trenched revealing a deep, broad channel (7+ meters wide, 3 meters deep) containing relatively uniform, fine sandy sediments. These sediments represent a single, massive flood event that ended the use of the canal. A luminescence dating sample collected from the base of these flood sediments suggests that at least one of the floods speculated to have ended prehistoric irrigation in the Salt River Valley occurred sometime between A.D. 1221 and A.D. 1341. However, it seems unlikely that the devastating flood occurred within the first hundred years of this interval, given the large populations living along and utilizing the northern reaches of Canal System 2 during this time. New, currently unpublished evidence confirms that the flood occurred sometime after AD 1300.



Photograph by Connie Darby, courtesy, City of Phoenix

Although standard 5-ft-deep trenches were initially excavated during the projects, numerous deeper benched trenches were needed to expose the larger canals to their full extent. Here, Dr. Kathy Henderson points toward the upper edge of the North Canal. The light-colored fill of this canal is primarily a massive deposit of fine sand from a single flood event that ended its use.

Other discoveries include a reservoir designed to capture and hold water from a canal, and an enigmatic canal-side basin that may have been a walk-in for access to the canal, or a pond created for other purposes.

A report on one of these excavation projects will soon be available at Pueblo Grande Museum. Data analyses for the other project are still underway, and results will add new important information to the archaeological record.

MUSEUM AND EXHIBITS: Pueblo Grande archaeological park's main museum gallery



displays a variety of artifacts excavated from the ruins of the prehistoric Hohokam culture who once inhabited this site several centuries ago. The featured exhibits here include the distinctive pottery style of the Hohokam along with prehistoric tools, shell, and stone jewelry. Visitors to the museum can learn about the Hohokam civilization who survived and adapted to

COURTESY PUEBLO GRANDE MUSEUM living here in the Southwest Sonoran Desert. The museum offers a hands on children's gallery were children of all ages learn various aspect of archaeological study and field work to learn about the past and present. Some of the museums attractions include not only displayed artifacts but exhibitions and videos.

Another attraction offered to visitors at the park is an outdoor interpretive trail. Here one can walk along the trail to see some of the park's main attractions: platform mound, ballcourt and a Hohokam village with pithouse clusters including an agricultural garden and desert oasis that informs visitors of the available resource these early inhabits who relied heavily on their relationship with "Mother Earth" the sky, the sun and the natural elements to provide food, clothing and shelter. Everything in their daily existence depended upon them.

#### PLATFORM MOUND



#### **BALLCOURT**



#### **PITHOUSE**



#### PHOTOS CURTESY OF PUEBLO GRANDE MUSEUM

During the year the archaeological park holds many events and lectures for adults, children and families with annual events such as the famous two day Indian market in December. For more information about booking a tour, planning a visit, hours of operation, and facilities visit: Parks and Recreation Pueblo Grande Museum & Archaeological Park or call the Pueblo Grande Museum at (602)-495-0901

#### START EXPLORING ARCHAEOLOGY TODAY

#### ARIZONA ARCHAEOLOGICAL SOCIETY

If you are just a curious individual or someone considering a vocational level, consider becoming a member of the Arizona Archaeological Society. As a member you will have the opportunity to participate in field schools, workshops and other activities were you will develop your archaeological skills through a certification program. There are about twenty three different courses available such as excavation, laboratory, and survey techniques

As a member, you will receive the monthly newsletter called the Petroglyph. This is an informative paper of what's going on within the Arizona Archaeology Society and includes reports from the various chapters located throughout Arizona. Each year that you are a member, you will receive the annual publication of the Arizona Archaeologist. This book is written by professional archaeologists on archaeological investigations throughout the Southwestern United States and Northwestern Mexico. You will also have online access "Members Only" to download some of the past publications of the Archaeologist.

The Arizona Archaeological Society has many chapters located throughout Arizona. Too fine a chapter near you visit the Arizona Archaeological Society - Home and click on chapters to learn more about becoming a member today.

Another archaeology organization that is dedicated to the preservation and conservation of our cultural heritage is: The Southwest Archaeology Team (SWAT)

Southwest Archaeology Team, Inc. here you can experience the prehistoric and historic past of the Southwest. Both of these organizations offers membership for singles, families.

#### PREVIOUS KNOWLEDGE OR EXPERIENCE IS NOT NECESSARY

#### SOURCES

Our sincerest appreciation and gratitude go out to the following individuals and the Archaeological parks for their contributions of useful information and photos used for the development of this web site.

We wish to thank Wikipedia, the free encyclopedia for some of the information on this page and Pinerest.com images.

**Arizona Archaeological Society (San Tan Chapter)** 

**Marie Britton-President** 

Casa Grande Ruins National Monument-(U.S National Parks Service)

Besh Ba Gowah Archaeological Park

Leana Asberry-Museum Supervisor

**Tonto National Monument (U.S National Parks Service)** 

**Eric Schreiner-Lead Ranger** 

**Tonto National Forest** 

Steve Germick- Archaeologist

Pueblo Grande Museum Archaeological Park

Laurene G. Montero-Phoenix City Archaeologist/Pueblo Grande Museum

**Arizona Museum of Natural History** 

Dr. Jerry B. Howard- Curator of Anthropology

Verde Valley Archaeology Center/PaleoWest Archaeology

Dr. Todd W. Bostwick

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This web page was first created in 2014 and was last updated on 12 NOVEMBER 2017