



SECOND AMERICAN DENDROCHRONOLOGY CONFERENCE

University of Arizona

Laboratory of
Tree-Ring Research

AmeriDendro 2013

Midweek Excursions

May 15, 2013

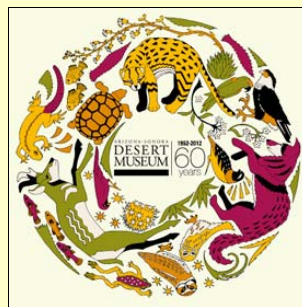
1:00 PM – 8:30 PM



Sonoran Desert and Rock Art (purple line): The Arizona-Sonora Desert Museum is world-renowned for its collection and interpretation of flora and fauna of one of the world's most diverse and productive deserts, the Sonoran Desert. Then, within [Saguaro National Park](#) a rock art site known as Signal Hill, with petroglyphs from Hohokam Culture, will be visited.



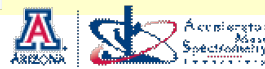
[Gate's Pass](#)



[ASDM](#)



Signal Hill



Arizona-Sonora Desert Museum--Signal Hill Rock Art			time
1:00 PM	1:40 PM	drive to ASDM	0:40
1:40 PM	5:00 PM	tour ASDM, yes bathrooms	3:20
5:00 PM	5:30 PM	drive to Signal Hill	0:30
5:30 PM	6:30 PM	rock art, CCC, wild desert	1:00
6:30 PM	7:40 PM	dinner, nopalitos, sunset 7:15, photo, yes bathrooms	1:10
7:40 PM	8:30 PM	drive to DoubleTree	0:50

ARIZONA-SONORA DESERT MUSEUM

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An Introduction to ASDM

For a half-century the Arizona-Sonora Desert Museum has enchanted millions of visitors with its exhibits of live animals in astonishingly natural settings, while intriguing and instructing them with fascinating educational programs. At the same time, the Museum has gained a worldwide reputation in the scientific community as an institution committed to researching and protecting the land, plants, and the animals of the Sonoran Desert Region.

The mission of the Arizona-Sonora Desert Museum is to inspire people to live in harmony with the natural world by fostering love, appreciation, and understanding of the Sonoran Desert.



ARIZONA-SONORA
DESERT
MUSEUM

In a nutshell

The Arizona-Sonora Desert Museum is a world-renowned zoo, natural history museum and botanical garden, all in one place! Exhibits re-create the natural landscape of the Sonoran Desert Region so realistically you find yourself eye-to-eye with mountain lions, prairie dogs, Gila monsters, and more. Within the Museum grounds, you will see more than 300 animal species and 1,200 kinds of plants. There are almost 2 miles of paths traversing 21 acres of beautiful desert.

We are accredited by the [Association of Zoos and Aquariums](#) and are a member of the [American Association of Museums](#).

Founded in 1952 by William Carr and Arthur Pack, the Desert Museum is a private, nonprofit organization dedicated to the conservation of the Sonoran Desert. Our current operations and future growth are funded entirely by admissions, memberships, contributions and grants.

Annual membership dues ensure the future of the Desert Museum - our work, our programs, collections and our actual museum site.

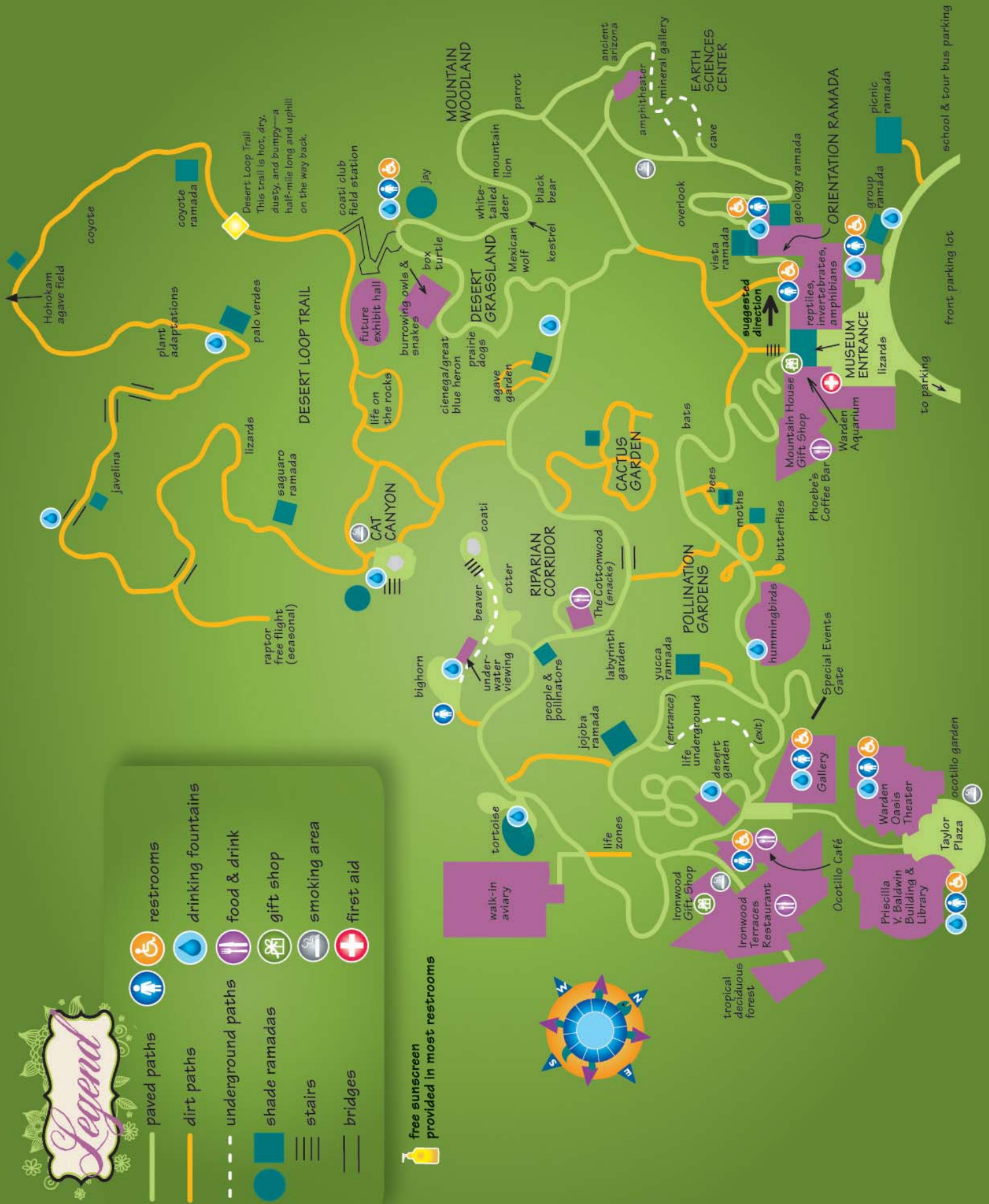
- Providing educational programming for our community - for children and adults
- Conserving the Sonoran Desert environment - protecting native plants and animals
- Maintaining and improving the Museum's collections of live plants and animals as well as our other natural history collections
- Supporting ongoing research and advancing scientific understanding of the desert and shaping people's sense of stewardship

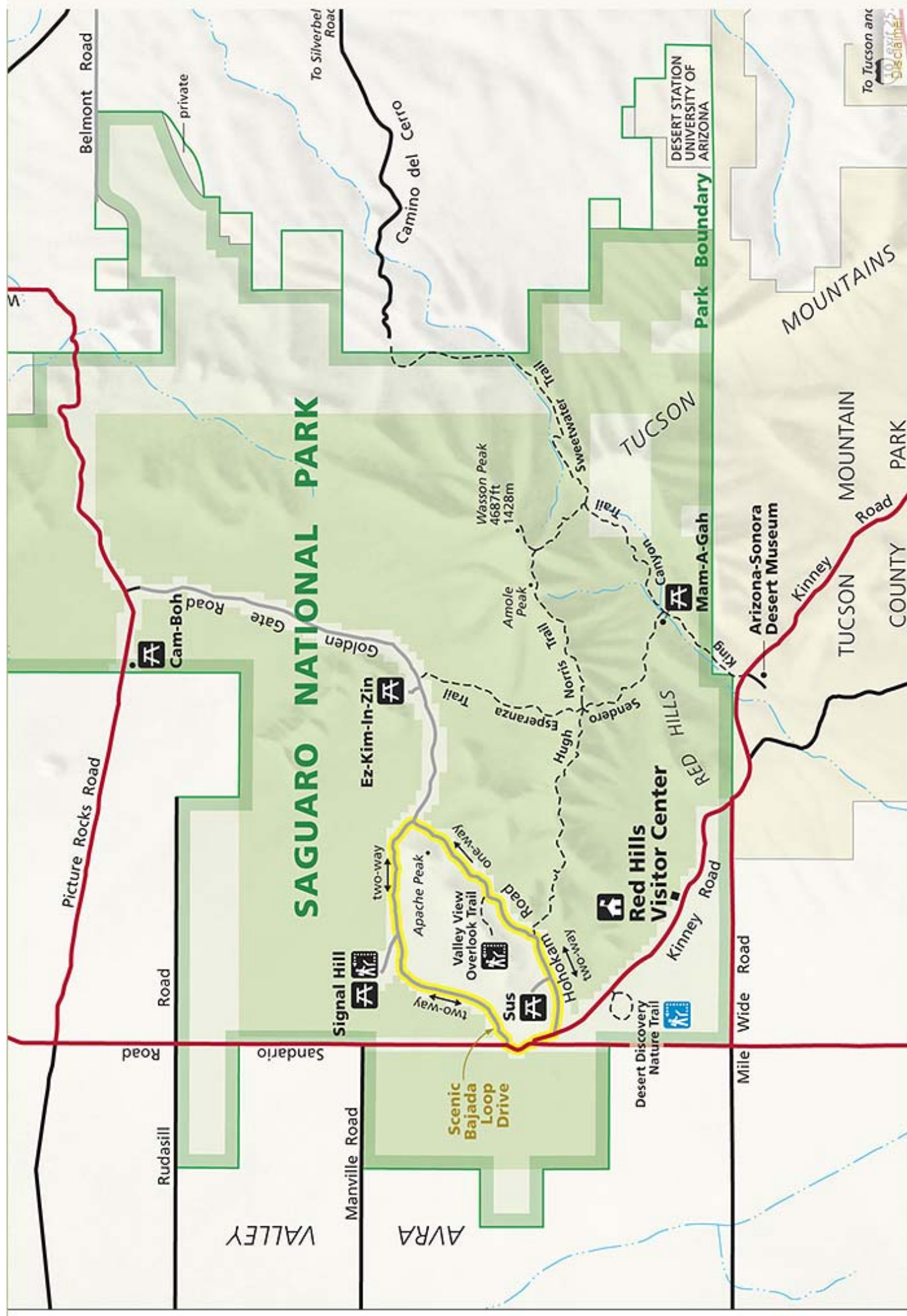
More information about the Arizona-Sonora Desert Museum can be found in the following [books from ASDM Press](#): *All About the Arizona-Sonora Desert Museum* (a great souvenir book), and *Arizona-Sonora Desert Museum: A Scrapbook* (full of behind-the-scenes stories).

Legend

-  paved paths
-  dirt paths
-  underground paths
-  shade ramadas
-  stairs
-  bridges
-  restrooms
-  drinking fountains
-  food & drink
-  gift shop
-  smoking area
-  first aid

free sunscreen
provided in most restrooms







Geology of the Tucson Mountains



General Setting of the Tucson Mountains

The Tucson Mountains are one of many relatively small ranges that dot the south-western United States belonging to the Basin and Range Province. These ranges are the result of block faulting, which occurred about 10-15 million years ago (MYA), and today are separated by basins filled with thousands of feet of alluvial

sediment derived from the erosion of these mountains. The Tucson Mountain block is about 20 miles long and up to 7 miles wide at present, although valley fill covers much of the lower slopes of the mountain block. The highest peak in the Tucson Mountains is Wasson Peak at 4,687 feet, the terminus of many popular hiking trails in the park.

The Geologic History of the Tucson Mountains: General

Before we begin to look at the origin of the Tucson Mountains, it is important to look briefly at the rocks which make up the mountains and the theory of plate tecton-

ics, which holds the key to understanding the origin of the rocks and structures which make up the Earth's crust.

The Building Blocks

Rocks of the three major classes - igneous, sedimentary and metamorphic - are found in the park. The igneous rocks include coarse grained intrusive rocks such as granite, which cooled deeply within the Earth, and fine grained rocks including extrusive lava flows and intrusive basalt dikes which cooled much more rapidly. Sedimentary rocks are formed from the consolidation of sediment derived from weathering and erosion of preexisting rocks and deposited in layers by streams, wind or in the shallow waters of the ocean. The most common of these rocks include sandstone, shale and limestone. Metamorphic rocks form deep within the Earth when heat, pressure and chemical fluids alter preexisting rocks. These include slate, marble, gneiss and schist. Specific examples of these major rock types will be discussed in the following sections as they help to explain the geologic history of the Tucson Mountain District.

The theory of plate tectonics states that the crust is made up of many plates, some of which are thousands of miles in diameter and up to sixty miles thick. These plates are in constant motion, breaking apart along the mid-ocean ridges, as molten material

(magma) wells up beneath them, and coming together along the margins of certain continents. Where these plates meet, one of three things may happen. If one plate, usually the oceanic plate, is denser than the other, it will descend (subduct) under the other plate and a trench will form at that point. As the oceanic plate continues to descend deeper, the rocks become plastic and then molten, leading to the formation of a chain of volcanoes as the less dense magma rises to the surface. Such is the case today as the Pacific Plate subducts under the North American Plate or Asian Plate. On the other hand, if the two colliding plates are of similar densities, neither can descend very far beneath the other. As a result, the plates will rise (obduct) high above the surface. Such is the case with the Himalaya Mountains in Asia. Finally, if the two plates are moving in the same general direction but at different rates, the plates will separate along a horizontal or strike-slip fault. Such is the case today with the San Andreas Fault along the Pacific coast of North America. This very brief description of the theory of plate tectonics will hopefully suffice in our discussion of the origin of the Tucson Mountains.

How it Came to Be

The oldest rocks found in the area, although not directly in the park, are granites and metamorphic rocks which represent the original crust of Southern Ari-

zona. These rocks are approximately 1.7 billion years old and belong to an era of geologic time known as the Precambrian. The metamorphic rocks are mostly schist

How it Came to Be Con't

resulting from a plate collision at that time, altering preexisting sediments and volcanic rocks.

There is little evidence of what happened over the next billion plus years, as the region was subjected to extensive erosion. Approximately 600 million years ago (MYA), at the beginning of the Paleozoic Era, gentle rise and fall of the crust, as the Pacific Plate approached the North American Plate, led to deposition of sedimentary rocks, mostly limestones, sandstones and shales separated by extensive periods of erosion. A few scattered outcrops of these rocks can still be seen in the park including around the Sus Picnic Area.

During the early part of the Mesozoic Era, approximately 150 MYA, continued uplift of the region led to erosion of the exposed rocks by streams. The sediments were deposited as floodplains in the shallow water of an inland sea. Today these sediments make up the Red Hills to the south of the visitor center. The red color is from the iron oxide, hematite, which formed in the oxygen-rich shallow seas of this area. Further evidence of the shallow nature of these waters can be seen in the fossils of petrified wood, clams and even dinosaur leg bones found in the area.

As the Red Beds were being formed, the ancient Pacific Plate continued to descend under the North American Plate leading to much volcanic activity and mountain building in the west. This event is known as the Laramide Orogeny, which occurred over a 30 million year interval during the latter part of the Mesozoic Era and beginning of the Cenozoic Era. At this time the Tucson area was subject to extensive volcanic activity, resulting in extensive emission of rhyolite (a light tan fine grained rock) lavas and fiery ash-steam clouds, or nuee ardentes, which were so dense they rolled down the sides of the volcanoes consuming everything in their path. So much material was pumped out from below the surface that eventually the area collapsed producing a huge depression or caldera at least fifteen miles in diameter! Over time this caldera was filled with rhyolite, ash deposits (tuff) and brechia, a rock formed from the consolidation of blocks broken from the collapse of the sides of volcanoes. This complex mass of rocks collectively is known as the Tucson Mountain Chaos, and forms the bulk of the rocks which make up the present Tucson Mountains. All can be seen in the proximity of the scenic overlook at Gates Pass. At the same time, nearby areas were intruded by masses of pink granite and quartz veins which bear many of the minerals, mostly copper, silver and gold, which led to the rapid

development of southern Arizona during the late 1800's. One of these intrusions is exposed today at Amole Peak located northeast of the visitor center. No major ore deposits were found in the Tucson Mountains, but the area is dotted with prospector pits and abandoned mines.

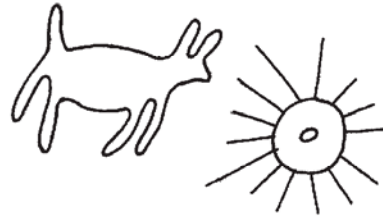
After another long period of erosion, renewed activity began with the intrusion of the Wilderness Granite as well as renewed volcanic activity in parts of southeastern Arizona. (What follows is the most commonly accepted theory, but it is still controversial.) The Wilderness Granite was emplaced about six to eight miles below the surface approximately fifteen to twenty miles east of Tucson. This intrusion bowed up this region and at the same time altered the surrounding rocks to a highly mobile state. As arching continued, a huge slab of rocks broke loose and slid west and to its present position along a special type of fault known as a detachment fault. This movement took place slowly over thousands of years. Eventually the rocks upon which the upper plate rocks slid, solidified and today comprise the Catalina Gneiss which can be seen as strikingly banded rocks along the Catalina Highway. The actual detachment fault and the lower plate rocks can be seen along the loop road at the Rincon Mountain District of Saguaro National Park.

This detachment of the upper plate rocks brought the rocks of the Tucson Mountains to their present site, but this is not the end of our story. This event, however, did end the compressional stage of the Laramide Orogeny. As these stresses relaxed, the entire southwestern portion of the United States became stretched as the Pacific Plate began to pull away from the North American Plate, beginning approximately 20 MYA. The extension of this area produced block faulting, where many blocks separated from other blocks along steep normal faults producing the basins which today surround the Tucson Mountains and other similar mountain ranges in the southwest. At one time valley floors may have been as much as eight to ten thousand feet below the mountain crests, but today relief is much reduced, as alluvial (stream) deposits of gravel, sand and mud have filled the basins to their present levels.

What does the future hold for the region? Erosion will continue to reduce the relief of the mountains, which may lead to renewed uplift of the mountain fault block and potential future earthquakes. A major earthquake has not occurred in the Tucson region since the 1880's, but could happen at any time. However, such events will most likely be few and far between over the next few thousand years!



Rock Art



Etched in Stone



Rock art is found throughout the world. These images afford us rare opportunities to look into the past and provide us with insight into the lives of ancient peoples. The southwestern United States is rich in this art and Saguaro National Park has many rock art sites. Most southwestern rock art pre-dates written history and had its origins hundreds, perhaps thousands, of years ago among the people of this region.

Prehistoric occupation of Saguaro National Park spans the Archaic and Hohokam periods. Evidence of the Archaic Period in the park, which may go back as far as 5000 B.C., is limited to temporary camps and hunting sites. The Hohokam were farmers, gatherers and hunters who lived in the river valleys and deserts of southern Arizona from about A.D. 300 to 1450. Most of the rock art in the park appears to be from the Hohokam Period. Prehistoric rock art in Tucson falls into two categories - petroglyphs and pictographs. In the Hohokam region the rock art is primarily petroglyphs.

Petroglyphs



Petroglyphs are designs pecked, incised or abraded onto rock surfaces. Petroglyph artists preferred patinated surfaces. Patina is a natural geological process that results in a dark coating on rock surfaces. It is also known as desert varnish. Chipping away on a patinated surface exposes the lighter color beneath.

Different methods were used to create the petroglyphs. Pecking was the most common method used and was accomplished by a direct blow with a hammerstone or indirectly by striking a stone held against the rock face with a second stone or hammerstone.

Another method was scratching or incising designs onto the rock surface with a sharp-edged stone. Abrading was sometimes used to grind the surface of the rock in the interior of a pecked petroglyph design.

Pictographs



Pictographs are designs painted on a rock surface. The paints were made by grinding different clays and minerals and mixing them with a liquid. White paint could have been made from gypsum, red from hematite and black

from charcoal. Paint was applied with brushes made from plant fibers or with fingers. Pictographs are not as durable as petroglyphs. They sometimes survive in protected settings such as rockshelters or caves.

Rock Art Designs

Both representational and abstract designs are seen in Hohokam rock art. Abstract designs include geometric forms and curvilinear lines; spirals are quite common.

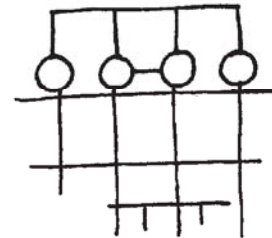
Representational designs depict life forms in a stylized manner. Human forms, mountain sheep, deer, reptiles and plant designs are found throughout Tucson and the surrounding mountains.

Most rock art can be classified into five general categories.

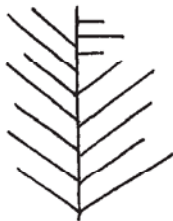
Basic Geometric Elements



Geometric Designs



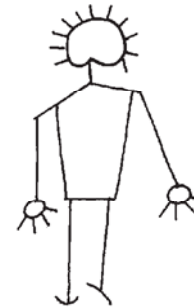
Botanical Designs



Zoomorphic Designs



Anthropomorphic Designs



What does it mean?



Did rock art serve a purpose? Was it communication or decoration? We can only guess at the intended meaning of the artist. We may look at rock art as a reflection of Hohokam culture. Some possible purposes of rock art include:

Hunting, fertility or ritual symbols. Boundary markers or landmarks. Records of important events. Clan symbols, decoration, solstice or calendar markers or simply for art's sake.

How old are these things?



How far into the past do these images take us? Rock art is difficult to date. Clues include the condition of the image, the subject of the image or a comparison of the image with similar

designs found on pottery or other well dated artifacts. New techniques are continually being developed to assist in dating this art form.

What can you do to help?

Rock art is irreplaceable. Please assist us in preserving this part of the rich, cultural landscape of Saguaro National Park.

Treat all rock art with respect. Do not touch rock art as the oils in your skin can damage them. Take nothing but photographs, leave nothing but footprints.





Those Who Came Before Prehistory at Saguaro National Park



The Hohokam

- ◆ Broken bits of pottery, decorated with swirling red lines litter the desert floor. Some of these broken jugs, pots, bowls and mugs portray animals: native quail or imported macaws.
- ◆ The image of a bighorn sheep, carefully pecked onto the face of a boulder, confronts you along the Signal Hill Trail. Nearby, a spiral image, mystic or real, faces the desert sun.
- ◆ In the bedrock by a dry stream, deep holes, called *morteros*, mark the place where mesquite beans were ground into a tasty and nutritious flour.

- ◆ Scraps of sharp-edged rhyolite rock beside the trail are leftovers from the manufacture of an arrowhead, spear point, knife or hide scraper.

These are remnants of a culture we now call "Hohokam", a native word sometimes translated as "all used up". From 200 to 1450 a.d. these farmers lived in villages near present day Saguaro National Park, venturing into both the Rincon and Tucson Mountains to hunt and gather native foods to supplement their dry-farming crops of corn, beans, and squash. Their ingenuity and will to survive the harsh desert amazes us, even as we puzzle over their "disappearance".

The O'odham



The fate of the Hohokam is more controversial than mysterious. While archeologists search for evidence of direct links to the present indigenous peoples, today's O'odham Nations carry on the Hohokam's desert traditions.

What many have referred to as the "decline" of Hohokam culture was probably a natural change in lifestyle. Droughts and soil depletion, warfare and internal strife, disease and social disruption, have all been mentioned as factors in this change. Missing is a recognition of the richness of O'odham life, in the past and today.

Adopting a simpler lifestyle, more fitting to desert realities, the Sobaipuri people of the Tucson Basin and their Tohono O'odham neighbors to the west, wrested a living from the cactus forests of Saguaro National Park. Deer, rabbits squirrels and pack rats were hunted; cholla buds, prickly pears, and palo verde pods were a few of the plants harvested here. Medicinal herbs softened a hard life.

Of special importance was the annual saguaro fruit harvest, practiced to this very day from camps in the Tucson Mountain District of the park. In late June, at the height of summer's heat, the sweet pulp is boiled down for jelly and syrup, then made into wine for the ceremony that ushers in the season of summer rains.

The Spaniards

Seeking to extend their conquest of Mexico, Spanish explorers came into Arizona in 1539-40. One expedition was led by a friar, the other by a soldier. The dual, sometimes dueling, forces of Church and State governed Spain's newly-claimed lands and the peoples subjugated there.

Actual settlement of the area around Saguaro National Park began 150 years later when Father Kino and Captain Manje founded the first missions along the Santa

Cruz River. San Xavier was, and is, the major area mission; not far away was a military outpost, or Presidio, at the native village of Stjukson - modern Tucson.

Activities on the frontier of New Spain scarcely affected today's park. Spaniard and native alike clustered in riverside communities, often besieged by raiders from the Apache nation. Even after Arizona became a U.S. territory, Apaches often returned home over, and around the park's high Rincon Mountains.

Copper and Cattle History at Saguaro National Park

The Miners

1854: Southern Arizona is U.S. Territory

1862: Homestead Act opens public lands

1880: Railroad arrives in Tucson

1886: Geronimo gives up, Apache War ends

The lands that would become Saguaro National Park now faced development.

The Tucson Mountains - low, dry, lacking any streams or permanent springs - never appealed to settlers. But the geology was complex, intriguing and *mineralized*. The Nequilla Mine opened in 1865 and produced \$70,000 in silver ore.

Around 1900 a copper boom led to a wave of claims and speculation. The Gould Mine, its tailing piles still visible today, yielded only \$9,000 worth of low-grade chalcopryite. More infamous was the Mile Wide Mine; its 400 foot shaft led to only a small amount of ore, but one of its owners absconded with over \$100,000 of his investors' money.

A few prospect holes were sunk in the Rincon Mountains also - the Loma Verde Mine is still visible, and lime kilns are found there and in the Tucson Mountains. All in all, mining raised far more dollars in speculation than in mineral wealth.

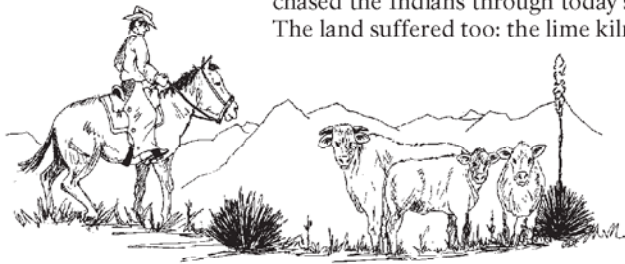
The Cowboys

In 1872 Manuel Martinez began his Cebadilla Ranch in the valley below Tanque Verde Ridge. He planted 400 fruit trees and brought in cattle. By 1880 other families - Campos, Van Alstine, Oury and Carrillo - settled here and ran over 1,200 head of cattle on public rangelands that would become Saguaro National Park.

There were troubles. When the land was declared part of Fort Lowell, squatters were subject to military review of grazing and wood-cutting. As late as 1886 the seven year old son of a cowboy was kidnapped by Apache raiders and a posse chased the Indians through today's park. The land suffered too: the lime kiln opera-

tion and unlimited grazing led to the destruction of several generations of saguaros. Only now is the recovery evident.

In the early 1900's ranches both north and south of the park were amalgamated into large holdings. Jim Converse opened the still operating Tanque Verde Guest Ranch in 1928. Gradually, homesteaders like Firmin Cruz turned to the drier giant cactus forest at the foot of the Rincons. You may visit the Freeman Homestead on a nature trail at Saguaro East. A more unusual "homestead" is the summer cabin of Levi Manning, wealthy Tucsonan, high on the shoulders of Mica Mountain.



The Park and the City

In 1933 University of Arizona president Homer Shantz convinced President Hoover to set aside Saguaro National Monument in the Rincon Mountains. Civilian Conservation Corps workers built recreation areas there and all around the growing city. When mining threatened the Tucson Mountains, citizens appealed to President Kennedy to add land to the monument. In 1991 and 1994 Congress enlarged both areas and created a National Park of 91,445 acres.

From a sleepy town, 15 miles away, Tucson now crowds the boundaries of the park. Developments are visible from many overlooks, air pollution mars the view, city

crime disturbs visitors. Our response to these changes will be the future history of Saguaro National Park.



Chef Gary's Nopalitos Horneados (baked prickly pear pads)

1 pad fresh nopal, the fleshy part of prickly pear cactus

some cooking oil

pinch salt

Dethorn and wash (rinse) nopal. Pat dry with paper towel. Slice or dice as desired. In mixing bowl, add nopalitos with oil and salt and stir. Place on cookie sheet and bake at 400° F for 15 minutes. Serve warm, room temperature, or chilled. Good with tortilla chips or as toppings on other Sonoran dishes. ¡Qué sabroso!



SEEDS, SEASONS, AND ECOSYSTEMS: SEDENTARY HOHOKAM GROUPS IN THE PAPAGUERÍA

ROBERT E. GASSER
Museum of Northern Arizona

ABSTRACT

Variability and seasonality in archaeobotanical and archaeological remains from three adjacent ecosystems in the Papaguería of south-central Arizona are examined in relation to settlement-subsistence hypotheses. A three ecosystem model is developed which indicates that the Hohokam in the Papaguería were able to maintain sedentary villages by utilizing, in different manners, three distinct ecosystems. It is suggested that the Hohokam in this desert region intermittently maintained agricultural field houses in the creosote plains, cacti gathering camps on mountain slopes, and permanent villages and fields on major wash flood plains. To some extent, sedentarism in the Papaguería depended upon exploitation of non-flood plain ecosystems.

INTRODUCTION

The Papaguería of south-central Arizona is a vast, riverless desert region which was inhabited by the Hohokam for a 1,000 year period ending about A.D. 1200. It has generally been assumed that Hohokam sites in the Papaguería were seasonally occupied in a manner similar to the historic Papago bilocal residence pattern. The Papago maintained winter villages in the mountains with summer villages along wash flood plains. Papago groups also maintained a series of mobile gathering and hunting camps throughout the year. Masse (in press) and Raab (1976) have documented large Hohokam villages along Gu Achi Wash and Santa Rosa Wash in the Papaguería. Their size and other archaeological manifestations warrant a closer inspection of the possibility of sedentarism in the area.

The purpose of this research is to examine Hohokam archaeobotanical remains and site settlement systems in the Papaguería in order to reappraise Hohokam settlement there. My analysis indicates that the Hohokam in the Papaguería were able to live in permanent sedentary villages by utilizing, in different manners, three distinct ecosystems. For the purposes of this paper, an ecosystem is a biotic and abiotic complex of self-sustaining natural systems that are distinct from other systems. These three ecosystems are: 1) the *Cercidium-Cereus* community on the upper bajadas of uplifted mountains

that contains a wide variety of aggregated cacti and tree legumes, 2) wash flood plains with dense mesquite bosques, arable land, and available water, and 3) creosote plains traversed by small washes that functioned, in part, as loci for agricultural field houses.

This research concentrated on 29 flotation samples from the flood plain site of Gu Achi, 8 from a site along Santa Rosa Wash, and another 14 flotation samples from four sites in the creosote plain (Figure 1). Additionally, indirect settlement-subsistence data were drawn from Goodyear's (1975) study of Hohokam use of the upper bajadas of the Slate Mountains. The present research was especially concerned with variability and seasonality expressed in the archaeobotanical record. Flotation analysis can document subsistence practices as well as indicate the seasons in which retrieved plant parts were harvested. Variation in plant remains across the three ecosystems, which make up the vast majority of the Papaguería, should indicate variability in Hohokam adaptation to contrasting ecosystems.

The basic hypothesis under examination is that no single ecosystem is sufficient in and of itself to support permanent sedentary villages in the Papaguería. Its test implication is that plant food remains from habitation loci should contain species from ecosystems other than the one in which the habitations are located, indicating necessary "support" from the other ecosystems.

This hypothesis, and others to follow, are viewed in relation to an examination of resource diversity, abundance, seasonality, and dependability found in the individual ecosystems. An important additional consideration is an examination of variability in archaeobotanical food data from Hohokam sites in the area (Table 1). Additionally, site activity loci and settlement patterns are used as aids in developing a regional perspective.

The available data rely heavily on three adjacent ecosystems, which have recently been investigated by archaeological survey and excavation (Goodyear 1975; Raab 1976; Yablon n.d.) designed to examine site settlement and subsistence patterns. This desert landscape runs from the Slate Mountains in the east with an abundant food producing *Cercidium-Cereus* complex on its slopes (Goodyear 1975), west to the Santa Rosa Wash flood plain that is dominated by a *Prosopis-Acacia* riparian habitat (Raab 1976), and further west to a *Larrea* plain that is cut by small washes (Yablon n.d.). These study areas, which span a distance of about 15 km, provide a unique opportunity to examine subsistence and settlement systems in relation to a diverse environment. In addition Gu Achi (Masse, in press; Gasser, in press), a Hohokam village on the Gu Achi Wash flood plain about 30 km south of the Santa Rosa Wash study area, is included in the analysis. Masse (in press) has commented on the remarkable similarity in the Gu Achi and Santa Rosa Wash sites.

The Civilian Conservation Corps in Southern Arizona

Postings on the history of the Civilian Conservation Corps (CCC) in Southern Arizona and on the history of the CCC in general. The CCC was a federal program during the 1930s and 1940s to employ young men in conservation projects throughout the country. In Southern Arizona, they worked on soil conservation, range management, forest maintenance, and development of public parks.

Monday, October 31, 2011

Camp SP-6-A, Tucson, Arizona

by Phil Brown, Saguaro National Park Ranger, Tucson, AZ,
pbrown@desertmuseum.org


Camp Pima (SP-6-A) Is Established: On May 9, 1933, Charles Sanders and ninety-five other young men from Tucson and Ajo became the first Arizona enrollees in the newly formed Civilian Conservation Corps (CCC). Sanders and the others in his group were sent to Fort Huachuca for a few weeks of physical training.

When they got back to Tucson, their camp was not yet ready, so they were put to work at a camp in Randolph Park. In October, they moved to a temporary tent camp in the Tucson Mountains, west of town, for a few more weeks. A well had been dug on the selected site for a permanent camp in the Tucson Mountains, and two recruits—Clarence George Lundquist and Red Wills—were sent to the site to monitor the flow from the new well. During this time the camp sent food over to them. “Peanut butter and jam sandwiches. That’s all we got, morning, noon and night. Oh, and apples. For two weeks!” Lundquist later remembered. Once they had established that there was enough water, the company moved to the new site. This was Camp SP-6-A, known variously as Manville Well, Tucson Mountain Camp, Recreation Area Camp, or Camp Pima. This camp was in use from November 1933 to June 1941.

The CCC in the Tucson Mountains: Tucson Mountain Park had been established by the Pima County Board of Supervisors in 1929. When the CCC became available, the supervisors requested two camps in the Tucson Mountains under the auspices of the National Park Service’s State Parks unit. Camp SP-7-A lasted only one season, as the water supply was inadequate and unpredictable. Camp SP-6-A flourished.

The camp was occupied in the winter months, and the companies moved to higher elevations for the summer. Two summer seasons saw activity at Camp Pima: one year by a unit from the Department of State Camps (designated DSP-1, in 1934) and another year by a

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 **Sharon E. Hunt**

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company of World War I veterans (Company 1826-V, in 1937). In 1940, the camp was re-designated as CP-1 (County Parks).

Work Projects: The CCC boys worked on projects to develop the recreational areas and to combat soil erosion. They built or improved the unpaved roads into and through the park. They established miles of trails with restraining walls and erosion barriers as needed, and chiseled steps out of local stone. They also used local stone to build fire rings, picnic tables and benches, restroom facilities, buildings, and ramadas (picnic shelters).

At the top of Gates Pass, a scenic route through the Tucson Mountains, they built a parking area and restroom, scenic overlook, and even an amphitheater. In park canyons, they constructed twenty-six debris or check dams to back up flash floods and slow the rate of erosion. The boys put in several windmills with cisterns and overflow ponds to provide water for wildlife and built “spreader” dikes to spread water from smaller washes out over the nearby desert.

CCC boys built the “lodge” or “Mountain House”—two large adobe buildings with fireplaces and beam ceilings connected by a covered breezeway—at the site of the planned Tucson Mountain Park Headquarters. They also built an electrical building and stable at this site. The two adobe buildings became the entrance complex of the Arizona-Sonora Desert Museum, a world-renowned zoo and botanical gardens. The stable building now houses the museum’s maintenance department.

Camp Life: Tucson CCC boys “adopted” a local herd of javelina (Collared Peccaries; a piglike native mammal) and fed them on kitchen scraps. They invented a kind of game of “tag” with the animals, with the barracks serving as a safe base for the enrollees.

Enrollees ate three good meals a day, often simple food but nutritional and lots of it. Enrollee Francisco “Chico” Bejerano, who was at SP-6-A in 1938, was asked if he could recall any particularly memorable meals he had had in the CCC. He replied, “Yeah. Breakfast, lunch, and dinner!”

Origin of Enrollees: Boys at SP-6-A were nearly all from the CCC’s Eighth District, and came from Arizona, New Mexico, or Texas; some came from Oklahoma. Few were from places farther east, and Arizonans often expressed their distaste for “easterners” and “hoodlums” from New York or Pennsylvania.

Camp Pima Closes: The last CCC company departed Camp Pima in June 1941. In 1942, the Army took the barracks and other buildings down and sent them to a mechanics’ center in Phoenix as part of the World War II effort. In 1961, President John F. Kennedy designated the northern half of Tucson Mountain Park as Saguaro National Monument’s western unit. In 1978, the land containing the site of Camp Pima was added to the national monument. In 1994, Congress re-designated the monument as Saguaro National Park.