

The Dyck Rockshelter



An Exhibit of the
Verde Valley Archaeology Center
2015-2016



Acknowledgments

Several individuals deserve sincere appreciation for their contributions to this exhibit. First and foremost are John and Cindy Dyck and the Paul Dyck Foundation Research Institute of American Indian Culture for donating the Dyck Collection to the Verde Valley Archaeology Center. Their generosity has ensured that this valuable collection will be properly cared for in perpetuity and available for research as an intact collection from a well excavated Sinagua site.

Appreciation is also due Dr. Charles Rozaire and George Kritzman for their careful excavations of the Dyck Rockshelter and for providing information about the project via interviews in 2014. In addition, two former student crew members, Dr. Paul G. Chace and Dr. E. Gary Stickel provided interesting information about their experiences at the site when they were young men.

Dr. Karen Adams identified a number of the plant remains. Joshua Edwards examined a portion of the faunal remains. Dr. Laurie Webster and Louie Garcia, a Pueblo weaver, examined some of the textiles and provided valuable information. PaleoWest Archaeology provided a grant for dating a dried cactus fruit recovered from the Dyck Rockshelter which confirmed the ceramic dates. James Graceffa and R. J. Smith analyzed the projectile points, and Richard (Bud) Henderson and James Graceffa analyzed the decorated ceramics.

James Graceffa coordinated the transfer of the Dyck Collection to the Verde Valley Archaeology Center and supervised the cataloging of the artifacts. Many thanks also to the volunteers who are diligently cataloging the Dyck Collection. Diane Graceffa and Jo Parish are coordinating the cataloging. The volunteers include Jan Anderson, Mary Aubuchon, Leslie and Dan Bagley, Heidi Bostwick, Melissa Bowersock, Felicia and Bob Coates, Elizabeth Dean, Miki Dzugan, Carol Dvorak, Hannah Flagg, James Graceffa, Keith and Jeannie Greiner, Ned Greenelch, Laure Griffin, Richard (Bud) Henderson, Bridget Highfill, James Hose, Julia Hutchins, Wendy James, Linda Jerome, Roger and Mary Kearney, Lynette Kovacovich, Larry and Sue LaGuardia, Paul Lindberg, Carol Lombardo, John and Debra Loose, Philip McCarty, Melody Nowaczyk, Sharon Olsen, Bruce Peters, Ann Rasor, Iris Restivo, Ron Rommell, Bill and Joan Sexton, John Simpson, R. J. and Jeanne Smith, Ann Urick, Valery Veroun-Kutz, Jerry Walters, Lisa Ward, Carol Wentzel, Robert Whiting, Jim Worthington, Amelia Yates, and Ken and Nancy Zoll.

The cataloging and exhibiting of this collection, as well as the production of this guide, was coordinated by Dr. Todd Bostwick, the Verde Valley Archaeology Center's Director of Archaeology.

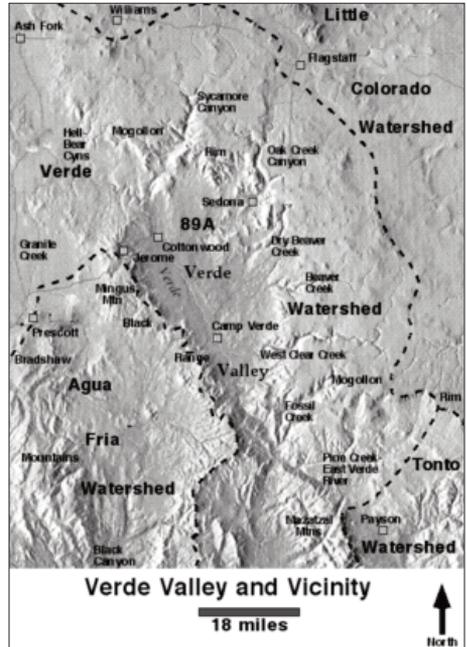
The Dyck Rockshelter

Todd W. Bostwick and Ken Zoll

Introduction

Located at the edge of a limestone cliff along Wet Beaver Creek, north of Camp Verde, is a rockshelter on private land owned by the Paul Dyck Foundation. This rockshelter was occupied in ancient times by the Southern Sinagua, a prehistoric culture that lived in the Verde Valley from AD 600 to 1425.

Wet Beaver Creek is a tributary of the Verde River, which drains the Mogollon Rim, located to the north, and flows south into the Salt River. The middle portion of the Verde River, which begins at Sycamore Canyon and ends at Fossil Creek, is known as the Verde Valley. This 20 mile (32 km) wide valley has been called a “verdant paradise well suited for farming,” and was occupied by both the Hohokam and the Southern Sinagua cultures during prehistoric times. The Verde Valley was formed when the flow of the Verde River was interrupted by down-faulting, impounding its waters and creating a freshwater lake that over 2 million years deposited limestone, mudstone, salt, and other evaporates known as the Verde Formation.



Eventually the Verde River cut through its impediments and continued flowing south, and less soluble limestone deposits were dissolved, creating caves, recesses, and rockshelters suitable for human habitation.

On the Paul Dyck Ranch is one of these rockshelters. It is not easily visible and has been well protected since Paul Dyck purchased the ranch on which it is located in 1938. Two large prehistoric posts had been removed by campers from a plastered wall inside the rockshelter, leaving recognizable post molds, but otherwise the site “had not suffered the depredations of pot hunters to any great extent.” Consequently, this rockshelter contained a remarkable collection of archaeological materials, including numerous perishable items infrequently found in sites in central Arizona.

The Sinagua

About A.D. 650, a people archeologists refer to as the Sinagua entered the Flagstaff and Verde Valley regions from east-central Arizona. Archeologists divide the Sinagua into two branches. The Northern Sinagua occupied the area around what is now Flagstaff, while the Southern Sinagua lived along the middle stretches of the Verde River. The Southern Sinagua quickly learned about the plants, animals, soils and climate of the Verde Valley and developed a dynamic culture.

The rich mineral resources of the Verde Valley, and its central location between the Hohokam to the south and the Ancestral Puebloans to the north, resulted in active trade and exchange of ideas that enriched all the cultures of prehistoric Arizona.

After about A.D. 1125, the Sinagua expanded their occupation of the Verde Valley and for the first time constructed cliff dwellings in the Red Rock canyons around present day Sedona. This shift was probably made possible by a slightly more moist climate. In the Red Rock canyons, the Sinagua could raise their crops with dry farming techniques. A more moist climate meant more consistent harvest.



Between A.D. 1150 and 1300, the Southern Sinagua reached their maximum territorial extent, with villages of 3 to 10 families scattered throughout every environmental niche in the Verde Valley. But between A.D. 1300 and 1400 the climate fluctuated dramatically between wet and dry periods. The Flagstaff area was abandoned, and there were major disruptions in the cultures to the north and south. These and other complications prompted the Southern Sinagua to congregate into about 50 pueblos - large masonry towns - each occupied by 20 to 100 or more families. Most of the pueblos were spaced along the Verde River and its perennially flowing feeder creeks, linking the abundant wild plant and animal food resources of the uplands along the Mogollon Rim with the fertile farming soils of the Valley bottom lands.

Like other areas of Northern Arizona, the Verde Valley was abandoned by the Sinagua about A.D.1400. The ultimate fate of the Sinagua is unknown though there is some evidence linking the Sinagua with the Hopi of historical times.

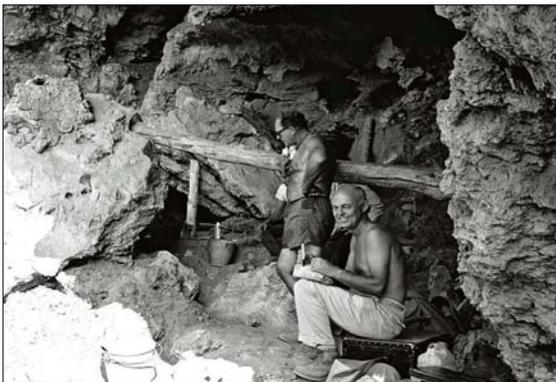
The Dyck Rockshelter Excavations

In the late 1950s, Paul Dyck became concerned that the rockshelter on his property would be pot hunted due to development in the Rimrock area. During an exhibit of his life-size paintings of Plains Indian Chiefs at the Southwest Museum in Los Angeles, Paul met Dr. Charles Rozaire, who was working at the museum at that time. Paul asked Dr. Rozaire if he would be interested in conducting a professional excavation of the rockshelter.

In 1961, Dr. Rozaire drew up an agreement between the Southwest Museum and Paul Dyck that stated that they each would receive half of the artifacts recovered from excavations. A letter written by Dr. Rozaire to Paul Dyck on December 21, 1961, thanked Paul for showing him the rockshelter and tentatively set a date in early April of the next year to undertake excavations. The purpose of the initial excavations was to “get a better idea of the site, materials, depth, cultural and historical ‘problems’, etc.” Dr. Rozaire stated that his “main concern regarding what is found is the information of technique (e.g., of weaving), style (e.g., of pottery decoration), stratigraphy, associations, etc. that will give clues to cultural sequences and relationships.”

The site consists of three natural alcoves in the limestone cliff, two of which have a large open face and the third is an enclosed cavern located at an upper level (more cave-like than the other two alcoves). The larger northern part contained several cobble-wall rooms, including living rooms (as deduced from smoke blackening on the wall above) and storage cists. Nearby, to the south is another alcove in the cliff called the “annex” which also has a smoke-blackened ceiling. Altogether, there appears to be 8 to 10 rooms within the rockshelter. A considerable amount of the soft limestone ceiling had fallen both during and after its prehistoric occupation that made excavations difficult.

The Dyck rockshelter excavations proved to be so interesting and the deposits so



extensive that Dr. Rozaire (in picture to the left) conducted excavations over the course of seven seasons of investigations in 1962, 1968 (two seasons), 1969, 1970, 1971, and 1972. These excavations recovered thousands of artifacts, including a large collection of perishable materials preserved in the dry midden deposits inside the rockshelter.

The Collection Comes to the Verde Valley Archaeology Center

Paul Dyck passed away in 2006 at age of 88. In 2014, John Dyck, son of Paul Dyck and President of the Dyck Foundation (pictured here with wife Cindy), contacted the Verde Valley Archaeology Center (VVAC), a new research facility and museum in Camp Verde, to inquire if they would be interested in having the Dyck Rockshelter artifact collection and site records donated to it. James Graceffa and Ken Zoll, officers of the VVAC, told John Dyck that the VVAC would be thrilled to accept the collection.



Interpreting the Dyck Rockshelter

The Dyck Rockshelter excavations of 1962 to 1972 are one of the most important investigations ever undertaken at an archaeological site in the Verde Valley because of the abundance of well-preserved perishable materials recovered through systematic excavations by professional archaeologists. The textiles and wooden artifacts that were collected rival and in many cases exceed those found in only a few other sites in the region. The scientific value of these excavations, however, has been severely limited due to the absence of an excavation report. Through the diligence of Dr. Bostwick, a preliminary report, written more than 40 years after the field work was done, now provides a basic framework for understanding the history of the project, who worked at the site, how the site was excavated, and what was generally found. The report will serve as a reference tool for detailed cataloging of the artifacts by the VVA Center and for further analyses of the remarkable materials that the site yielded. Eventually the full scientific and educational value of the project will be realized, and this report is the beginning of that process.

Architecture

The Dyck Rockshelter appears to be a cliff dwelling that dates from approximately AD 1100 to 1300 based on the decorated ceramics. A radiocarbon date on a prickly pear fruit has been dated to AD 1210, consistent with the ceramics dates. This rockshelter was clearly a habitation site as indicated by the cobble walls, adobe floors, hearths, and ash lenses in at least five rooms; storage rooms; and thick midden deposits that were 3 to 5+ ft in depth. The two centuries the site was occupied coincides with what is called the Honanki phase of the Southern Sinagua. The Honanki phase was a time of settlement expansion due to a wetter climate than today, with new settlements in elevated places overlooking waterways, including the initial construction of Tuzigoot and Montezuma Castle (Pilles 1981:13). In addition,

numerous small pueblos in cliff dwellings were built, and similar to the Dyck Rockshelter, their smoke blackened ceilings indicate year-round habitation.

Gathering and Farming

The Dyck Rockshelter is located in what is called the Transition Zone below the Colorado Plateau and above the Sonoran Desert, thus it has biotic communities from both higher and lower elevations, giving the Verde Valley an “extraordinary microenvironmental diversity.” Riparian deciduous forest, desert-shrub, desert grassland, chaparral-oak woodland, pinyon-juniper woodland, ponderosa pine forest, and pine-fir communities are all present within the Verde Valley region. In addition, the Wet Beaver Creek would have provided a year-round source of water.

Therefore it is not surprising that a wide variety of plant remains were recovered from the Dyck rockshelter, reflecting the rich habitat located in the area near the rockshelter. These plants include both cultivated domesticates and wild plants. Botanical remains show that the rockshelter’s inhabitants had a diverse diet that included corn, squash, gourds, beans, acacia beans, agave, yucca, walnuts, piñon nuts, acorns, mesquite pods, wild grapes, and cotton seeds.

The Dyck Rockshelter inhabitants probably farmed fields nearby. Paul Dyck felt that the Wet Beaver Creek floodplain where he farmed was used by the Sinagua for their agriculture. A 79.5 cm long digging stick from the rockshelter was likely used to till soil and dig holes to plant cultivated seeds in fields located nearby. This stick has had its bark removed from its lower portion, but retains some bark at the other end. The entire stick including the bark is highly polished from frequent use, and its pointed end has been battered from hitting hard objects such as limestone rocks. Other long and sturdy diggings sticks are present in the collection.



Hunting and Fishing

In addition to the plant remains, other sources of food were eaten by inhabitants of the Dyck Rockshelter. A slender stick with a barbed end was identified as a fishing spear and several fish vertebrae were found in the midden deposits inside the rockshelter. Fresh water shells were common, the insides of which could be eaten. Frog bones were found in the midden deposits, and the presence of tortoise shells suggests they were eaten. An assemblage of small and large mammal bones indicate the hunting of game by the rockshelter inhabitants. An S-shaped throwing stick was recovered that was used to dispatch rabbits. Several ingenious snares probably were used for capturing small animals and birds.



Several bows and numerous compound arrows found in the rockshelter were likely used for killing large mammals such as deer, and to protect the rockshelter inhabitants from unfriendly neighbors. Nine wooden self bows were recovered, four of which were miniature bows probably given to young males for practicing or used for ritual purposes. Almost all of the arrow shafts were made of reed, locally available along Wet Beaver Creek. Reed arrowshafts were common in the Southwest and were used by the Hopi and the Yavapai. Many of the arrow shafts were decorated with painted designs interspersed with multiple sinew wrappings. These decorations included red, black, and brown stripes or bands; yellow bands; black wavy lines; blue or black paint that sparkles in the sunlight; short, paired brown dots that look like “ditto” marks; and red and black “E”s with long tails.

Weaving and Textiles

Excavations at the Dyck Rockshelter recovered a full range of woven materials including textiles, sandals, skirts, cords, braids, ropes, matting, bags, and nets. There is abundant evidence indicating that an important activity in the rockshelter was the weaving of cotton and non-cotton textiles. Evidence for the weaving of cotton at the Dyck Rockshelter includes cotton seeds, unspun cotton, yarn, and a variety of weaving tools including spindle whorls, spindles, wooden battens, and shed rods.

Numerous needles made from agave spines also were recovered, some which had their agave threads woven into cotton threads, suggesting they were used for sewing or making repairs to cotton textiles. In addition, a considerable amount of cotton and yucca cordage was recovered, numbering in the thousands, as were numerous pieces of cotton cloth woven with a variety of designs.

Several beautiful textiles were recovered from the Dyck Rockshelter. There are several large fragments of open work garments. A dark brown colored tie-dyed plain weave had a decorative design of multiple squares with a light colored background and dark dots in their middle that resemble corn kernels. Another unusual textile is a cotton plain weave that has been dyed red internally and has painted, dark parallel lines across the entire surface. A cotton pattern weave textile was woven with yarn dyed in red and grey on a beige background.

Several clay spindle whorls used for spinning cotton, and possibly other fibers, were found. A few circular disks of wood were also found. One of the most important tools used in weaving with a loom is the wooden batten which was used to push down (batten) the weft threads or to hold open the shed tool. More than a dozen complete and broken wooden battens in various sizes and shapes were recovered.

This exhibit displays only a tiny fraction of the items in the collection. It is our intention to rotate the items periodically over the next several years.

Paul Dyck (1917-2006)

Paul Dyck was born in Chicago in August 1917. His family was originally from Europe but lived in Alberta, Canada; Chicago, Illinois; and St. Paul, Minnesota. While in southern Alberta, the family lived with the Blackfoot Tribe and Paul's father collected Plains Indian crafts, which began Paul's life-long interest in the Plains Indian culture. Paul's family returned to Europe in 1921, and it was decided that Paul was to train to be an artist. He was sent at age 12 to apprentice with his Uncle Johann van Skramlick, a well-known European portrait painter. At 15 he trained at the Munich Academy. Paul returned to New York in 1934 where he stayed for about three weeks, but then went to South Dakota to see his friend, One Elk, a Lakota Sioux holy man. Paul married One Elk's daughter, Fawn, but she apparently died in childbirth soon after the marriage.

In 1935, Paul traveled by motorcycle throughout the west for the next several years, returning to the East in winter to do freelance illustration work. While he was travelling on his motorcycle he would make Indian sketches and sell them for 50 cents or trade them for meals and other necessities. Paul settled in Rimrock in the Verde Valley, Arizona, in 1938. Using money he earned from advertising illustration work, he purchased a 312-acre ranch that had fallen into disrepair. He worked on the ranch until 1942, when he went into the Navy, returning to his ranch after World War II. He spent the rest of his life working the ranch (pictured above in 1946), raising horses and planting crops, as well as painting in his studio on the ranch.



In 1953, he took up painting as a full-time career. He largely painted on board in the Old Master tradition or utilized the Japanese Sumi-e ink techniques, but he also worked with acrylics. Paul became well-known as a painter and ultimately he had 65 one-man exhibitions all over the country, including New York, Chicago, Los Angeles, and Tucson. His paintings are included in the collection of the Phoenix Art Museum, the Museum of Northern Arizona, and the Tucson Museum of Art.

After 1954, he began visiting the Plains often, as the Plains Indian people and the Buffalo Culture were his most important inspirations. He also became an initiate in the Native American Peyote religion. He went on to paint, study, write, lecture, and collect one of the most extensive privately-owned collections of Plains Indian



artifacts in the world. He had close friendships with many tribes and individuals.

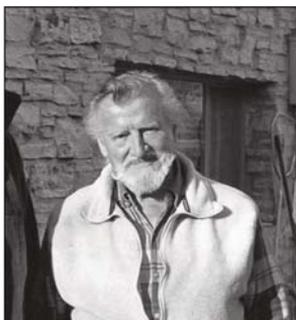
The Sioux people gave him the name *Wi-bun-ke E-ta'-pa* (Rainbow Hand), an appropriate name for a person who created beautiful paintings. During his lifetime, he lived among the Cheyenne, Blackfoot, Crow, Oto, Pawnee, Kiowa, Comanche, Zuni, Navajo, Hopi and Apache. Paul served as a consultant to the motion picture industry, as an art director, and an ethnological adviser to museums. He often was asked to authenticate Plains Indian craft items. In 1971, Northland Press of Flagstaff

published his book, *Brule: the Sioux People of the Rosebud*. The Tucson Festival Society honored him in 1973 with their Artist of the Year award.

In the 1960s, Paul built his own two-story studio-residence on his Rimrock ranch. The 2,000-square ft stone building was taken up mostly by his studio and served as a storage facility for his huge collection of Plains Indian objects. The residence portion of his house was quite small, but he was known to be a frugal man who was not obsessed with material comforts, perhaps because of his experience living with Native Americans much of his life.



Paul passed away in 2006 at age 88. He had originally wanted to build his own museum to house his Plains Indian collection near the entrance to the Bighorn Battlefield in Montana, but his plan never came to fruition. Instead, the Paul Dyck Foundation decided the best place for the Plains Indian collection was at the Buffalo Bill Center of the West in Cody, Wyoming, in part because it regularly sought advice from Plains Indians elders. In 2007, the museum acquired more than 2,000 Plains



Indian objects from the Paul Dyck Foundation. This collection includes clothing, eagle feather bonnets, bear claw necklaces, buffalo hide tipis and tipi furnishings, shields, cradles, peace medals, moccasins and more from nearly 30 different Plains tribes. In June 2013, the Buffalo Bill Center of the West began displaying some of this collection in their new Paul Dyck Plains Indian Buffalo Culture Gallery.

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