

Malcolm Rogers at White Tanks, Arizona, 1939–1956

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Abstract

Malcolm Rogers was the father of Far West desert archaeology. Almost single-handedly and with much personal sacrifice, he conducted independent surveys in southern California and Arizona from which he developed a culture sequence for the region. Much of his work remains the foundation for current artifact typologies and culture chronologies. Except for the C. W. Harris site in Rancho Santa Fe, California, no place is more closely associated with Malcolm Rogers than the White Tanks locality on the U.S. Army Yuma Proving Ground, Arizona. His extensive field notes, maps, and rock art sketches archived at the San Diego Museum of Man indicate that he visited this locality more times and over a longer time span than any other of the hundreds of sites he discovered in the Colorado or Sonoran deserts. Rogers' field camp at White Tanks remains much as he left it and bears testimony to his indomitable dedication and individuality. Information from Rogers' unpublished field notes together with discoveries made in the White Tanks area during survey work in 1990 provide a rare glimpse into the working conditions he faced and his approach to field archaeology.

Introduction

No resource is more critical in a harsh desert environment than water. Ancient hunters and gatherers of southwestern Arizona relied on the Colorado and Gila rivers as their most reliable sources, but once away from these oasis-like habitats, the broad basins and ranges provided few predictable, life-sustaining sources. One of the most important of these is White Tanks, approximately 29 km north of the Gila River and 36 km northwest of the town of Dateland, Arizona (Figure 1). Ravines cutting 20–40 m deep into soft volcanic tuffs conceal two sequences of tanks, or *tinajas* (Figure 2).

The initial occupation at White Tanks extends back to the San Dieguito period and is characterized by lithic

scatters, quarries, cleared circles, and rock rings on desert pavement terraces (Schaefer et al. 1993). More intensive use of the *tinajas* occurred in the Archaic period from which abundant diagnostic projectile points (Shackley 1996) and ground stone implements were recorded at one enormous residential base camp complex, six temporary camps, seven quarries, 12 rock shelters, 15 chipping stations and lithic scatters, 10 grinding stations, an expansive rock art complex (Hedges and Hamann 1993), and the westernmost recorded obsidian source in Arizona (Shackley 1991). Use of many of these sites and activity loci continued through the Late Prehistoric period, when there were ceramics representing all phases (Patayan I, II, and III). Ceramics occur as low-density scatters at several residential base camps, rock shelters, and what appear to be intentional pot drops along the major trail that led from the Gila River to the White Tanks complex. Patayan and Hohokam ceramic types suggest periodic use by people with ties to adjacent areas of the Gila River. Several pictograph panels near the *tinajas* also bear unmistakable Late Prehistoric characteristics. In ethnohistoric times, the general area was in the territory of the Tolkapaya Yavapai, who continued the long tradition of wide-spectrum hunting and gathering for which White Tanks provided a reliable base for water and desert riparian seed resources. Tolkapaya use of what they called *Hakimatava* (“water clear”) extended possibly as late as the 1870s (Gifford 1936). Most of the 416 petroglyph rock art panels conform to styles identified with the Archaic occupation, although Patayan elements were also identified (Schaefer et al. 1993; Hedges and Hamann

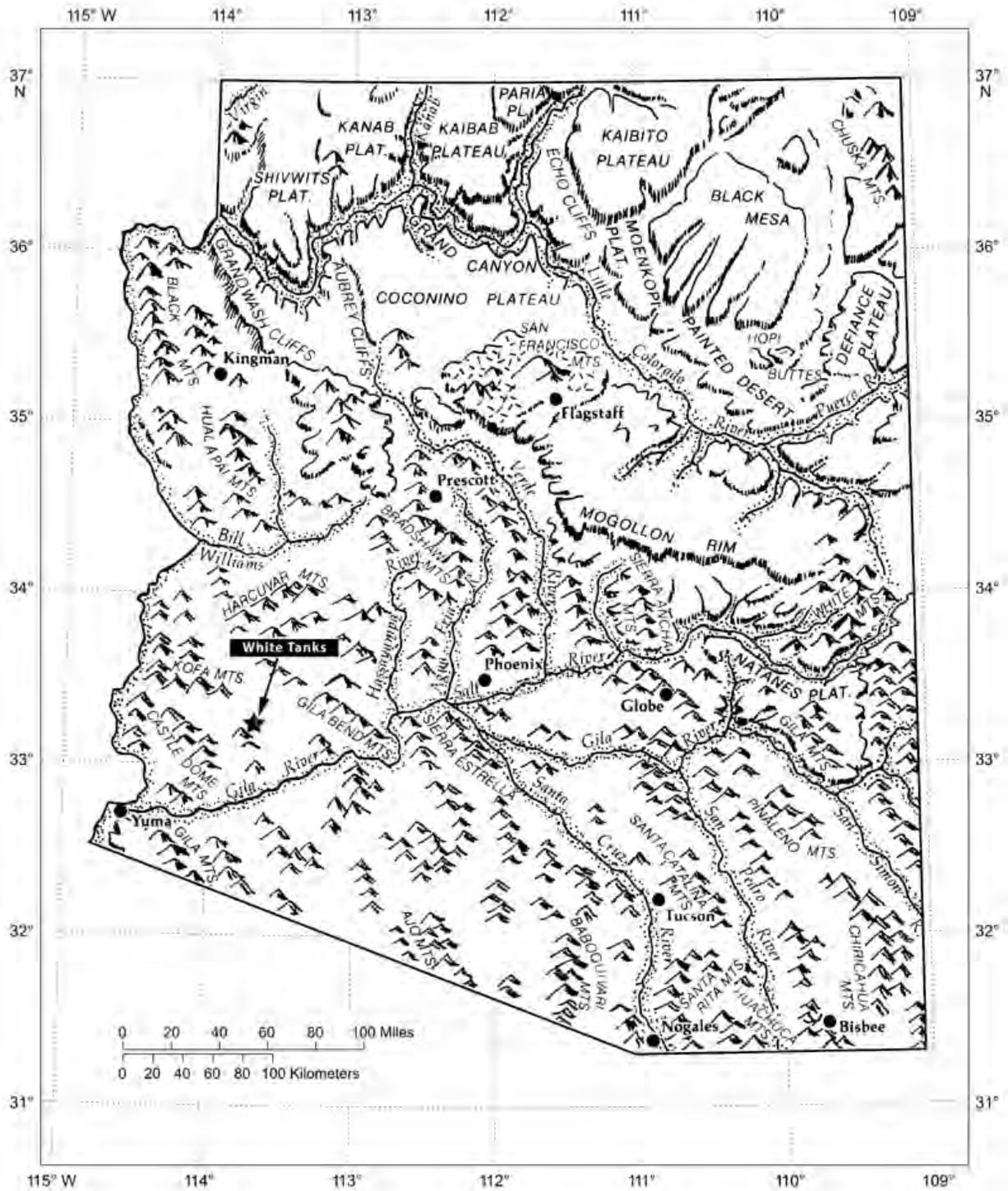


Figure 1. Location of White Tanks.



Figure 2. Photo of the Lower Tanks taken during one of Malcolm Rogers' field trips, ca. 1950. Courtesy of the San Diego Museum of Man.

1993). Malcolm Rogers was the first archaeologist to visit White Tanks and recognize its importance.

Malcolm Rogers' Career

Born on September 7, 1890, in Fulton, New York, Rogers studied mining geology at Syracuse University and practiced in the Pacific Northwest between 1917 and 1918 (Ezell 1961; Hanna 1982). After a year of U.S. Government work, he joined the Marine Corps for another year and then took up citrus farming in Escondido, California. It was in this period that he first became a volunteer field archaeologist with the five-year-old San Diego Museum of Man. His first published article (Rogers 1928) was on the results of a

brief reconnaissance of the lower Gila River; in it he is identified as an Associate in Archaeology. By 1930 he was the full-time Curator.

Rogers served as both curator and administrator until the end of 1945, which included a difficult period beginning in March of 1943 when the museum of Man became a Navy hospital for World War II casualties. Unable to function at the museum, he resigned and moved to Hipass, California, with his second wife, Frances, with whom he had four children. Poor health forced him to relocate to Scottsdale, Arizona, to live with Frances's mother. Regaining his health by 1957, Rogers found himself in serious financial trouble and separated from his family. He sought work outside of archaeology, with friends supplementing his income. He came to live with Julian Hayden in Tucson where he resumed his field trips and publications (Hayden et al. 2011).

Eventually, with the help and support of close friends, Rogers returned in 1958 to the Museum of Man as a Research Associate. He spent the next two years reorganizing the collections and amending his field notes for publication. Tragically, he died in a traffic accident on September 11, 1960. At the time he was finishing his magnum synthesis of the San Dieguito culture, *Ancient Hunters of the Far West*, which was printed posthumously (Rogers 1966).

Rogers published 13 books, monographs, and articles. Although not a prolific writer, he made an enormous contribution to southwestern archaeology that remains the foundation for all subsequent work. His most important contributions include excavations at the C. W. Harris site (type site for the San Dieguito culture), recordation of hundreds of sites, establishment of a culture chronology for southern California and southwestern Arizona (Schaefer 2013), definition of the San Dieguito and Archaic lithic assemblages, and development of the Late Prehistoric cultural chronology and Patayan ceramic series.

Julian Hayden best summarized Malcolm Rogers' contribution to desert archaeology:

To the older men in southwestern archaeology, he needs no introduction; this is directed primarily to the younger men, the recent graduates and present students, to whom Mr. Rogers is known as a semi-legendary master of desert archaeology and as the author of a knotty and difficult report.

Educated before the onset of the age of specialization, when it was still possible for a man to believe that he might be able to learn everything about everything, Mr. Rogers can be compared only to the English natural historians of the Victorian Era in his command of a multiplicity of knowledges, a command required in the solution of the problem of Early Man in the deserts, a task in which he has been engaged for nearly 40 years. Working backward from the present, he mastered Yuman ethnology and Yuman ceramics; combining this knowledge with climatology, physical geology, biology and anthropology enabled him to go to the beginnings of ceramic history in the area, thence to Early Man, both in the desert and on the Pacific Coast.

Mr. Rogers's pioneering entry into the area preceded the swarm of relic hunters and amateur archaeologists, land developments and the destructive floods of recent years, which have so utterly destroyed the pristine archaeological context of the deserts in which he worked. He has walked literally hundreds of miles of ancient and prehistoric trails, surveyed the beach terraces of the old Blake Sea and the Mohave sinks with such thoroughness that later workers reported "no sherds to be found"—Mr. Rogers has collected

them all. His knowledge of the relationships between climate and changing physiography and their effect upon Early Man has become almost intuitive.

A constant striving for simplicity and practicality and an emphasis upon patterns rather than upon the unique or the unusual element of an ignored pattern—for example, the variations in point types which have resulted in the naming of so many "complexes"—is fundamental in Mr. Rogers's approach to the problem of Early Man [Hayden, Introduction; in Rogers (1958:1–2)].

Rogers' Work At White Tanks

Rogers' first visit to White Tanks was in 1939, with subsequent trips in 1941, 1945, 1950, and 1956. On several trips he was accompanied by his photographer father, Frederick S. Rogers. One photograph shows Malcolm Rogers working at his camp (Figure 3).

Rogers produced seven pages of handwritten manuscript, five typed site forms, four hand-drawn maps, and 14 pages of rock art sketches with accompanying notes (Figures 4 and 5). Eight negatives and 11 separate prints, including pictures of three rock art panels, comprise the remainder of the White Tanks documentation (Figures 6 and 7). All are curated at the San Diego Museum of Man.

Rogers made several surface collections at White Tanks and along trails leading into the site complex. He mapped the trails as separate sites. Cataloged surface collections include at least 11 groups of sherds from trails, rockshelters, and surface areas; three restored or whole ceramic vessels; 38 stone tools; two halves of a basin metate; and other items of ground stone and shell. Rogers conducted no excavations, although some subsurface testing or probes can be inferred from his field notes.

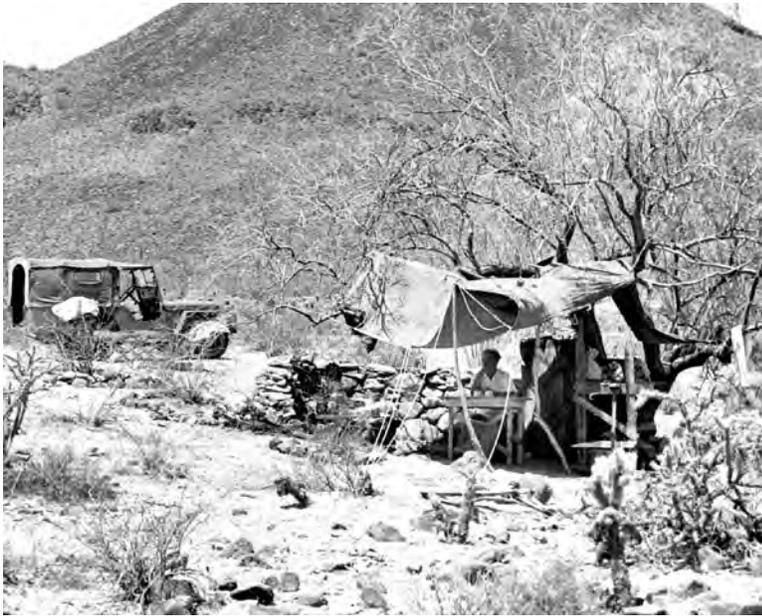


Figure 3. Malcolm Rogers working at White Tanks, ca. 1950. Courtesy of the San Diego Museum of Man.

Rogers' earliest definitions and refinements of the cultural traditions in the Colorado Desert, California, and the far western Sonoran Desert, Arizona, were made while working at White Tanks, among other sites, and have become the basis for all subsequent studies in the regions (Rogers 1939; McGuire and Schiffer 1982:114–120). Some of his changes to more current terminology for temporal periods and cultural patterns can be seen in amendments to his field notebook. Work at White Tanks was pivotal in his definition of the Southeastern Aspect of the San Dieguito complex (Rogers 1966:67–77). Many of the stone tools collected from White Tanks were used in his original type collection at the San Diego Museum of (Rogers 1966). These collections continue to be a source of fruitful research (e.g., Shackley 1996). He also used the White Tanks ceramic type collections at the Museum of Man to derive a Yuman ceramic typology and culture phase sequence (Rogers 1945a). Rogers classified and counted 165 sherds from White Tanks, identifying types extending from the Patayan I through III phases (Rogers' Yuman I–III), and indicating culture contact with the Hohokam (Rogers 1945b). He examined an additional 381 sherds from the trail between the Gila River and

White Tanks, sherds that were crucial to his methods of relative dating based on “trail stratigraphy” and associations with Hohokam sherds. Rogers' cultural phases and ceramic series were the foundation for the current Patayan ceramic sequence (Waters 1982).

Rogers' Camp

This complex of historic features at what was recorded as site AZ S:14:52 is centered on a small terrace adjoining a wash. Rogers established his camp here during at least five visits between 1939 and 1956. He drew a rough sketch map of the camp in 1940 that indicated the location of two caches, one of ground stone buried in a wash and one of a five-gallon oil can filled with flaked stone specimens (Figure 8). During the Brian F. Mooney Associates 1990 survey, the author with colleagues failed to locate either one (Schaefer et al. 1993). It is presumed that Rogers exhumed the caches and collections and brought them back to the San Diego Museum of Man.

The main camp covers about 130 m² and includes a semicircular stone enclosure, five small circular

Located 1939 in ~~1941~~ ¹⁹⁴¹⁺¹⁹⁴⁵⁺⁵⁰ ~~1945~~ ⁵⁶

A-III - WHITE TANKS, White Tanks Mts, in
 Yuma Co. Arizona. Located at the crest
 of the mountains in the east central part in a
 crater-like basin. Trail A-112 coming up
 from the Gila passes through the site and
 on north to the S+H Mts + the Little Horn Mts.
 In a white tuff formation are a chain of
 8 large tanks of which 3 are at least permanent.
 One half mile up drain - the ~~crater~~ ^{drainage} has cut a
 deep narrow defile through hard effusions and in
 this are 8 more tanks not as large as the
 lower series. The region was an important
 camping place for all aboriginal groups
 down to the Yumans. The latter seem to have
 used it more in Yuma I+II Periods and but
 seldom during the Third Period. They camped
 mostly in the flats below the tanks and in the
 few caves present. They either left little or
 erosion has dissipated most cultural debris.
 They seem more but however in hurrying on
 north to the mesal area in the higher
 S+H Mts - 18 miles away. Of the numerous
 petroglyphs in the vicinity (probably 500) only a
 few are Yuma or present - Early Yuman
 glyphs constitute almost half the remainder
 the other half being of pre-pottery age.
 Completely surrounding the amphitheater of
 the tanks are black lava boulders with individual
 glyphs on them - the larger ones carrying several - these
 are mostly of pre-pottery origin (La Posa ^{Arizona} ~~Industry?~~)
 On the north wall of the crater is a vertical cliff,
 in 2 detached sections, of brownish oxidized lava

Figure 4. The initial page of Malcolm Rogers' notes on White Tanks. Courtesy of the San Diego Museum of Man.

alignments arranged around cactus and creosote and constructed from boulders and ground stone items, and one hearth (Figures 9 and 10). The 90 cm high, semicircular enclosure contains a built-in bench of roughly coursed boulders that was used as a table and cooking area. An ironwood plank hangs from a wire, cantilever-style, and serves as a shelf. A rusted iron flap-type door still remains on the bench and may have been used as a griddle. One boulder at the base of the bench is inscribed, petroglyph-style, with the message "M & F." This apparently refers to a visit in 1950 by Rogers with his new, second wife, Frances (Julian

Hayden, personal communication 1991). Rogers probably also collected the metates that line landscape features around cacti and creosote bushes (see Figure 10). A photograph at the San Diego Museum of Man showing Rogers working at a bench under a canvas canopy was probably taken on the occasion of this 1950 visit. The rock-lined landscape features can also be seen in this photograph (see Figure 3).

Nine low retaining walls were found in the small washes around Rogers' camp and throughout the eastern half of what was recorded as Locus A at White

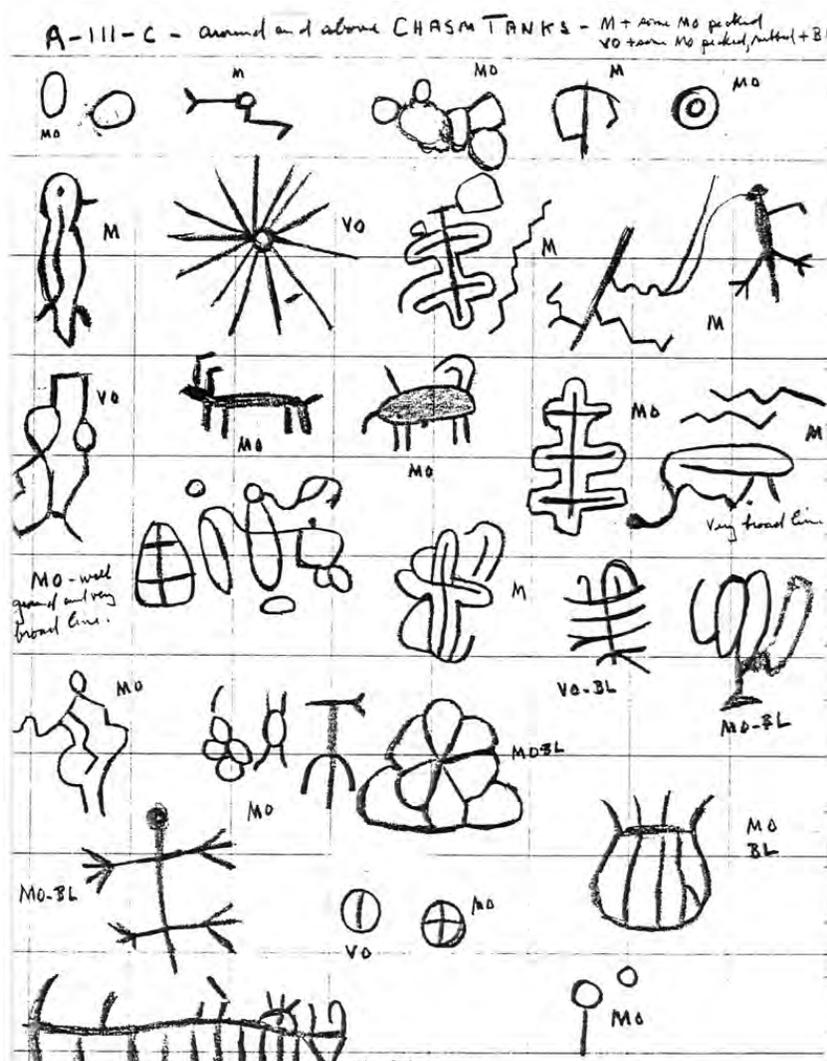


Figure 5. Malcolm Rogers' sketches of petroglyph elements on boulders above the "Chasm Tanks." Courtesy of the San Diego Museum of Man.

Tanks. These rhyolite and tuff boulder walls range in length from 1.44 m to 11 m, up to 70 cm in width, and up to 50 cm in height (Figure 11). From one to four courses of irregularly arranged boulders were used. They appear to be part of a flood control and soil retention system that focuses primarily on washes flowing towards Rogers' camp. Two of the largest retaining walls, however, were built in a wash that flows south towards the canyon edge and away from the camp. A large 9 m x 14 m sediment basin has formed behind one of these walls. Although flaked stone, ground stone, and ceramics may be found throughout the area,

it is probable that these walls were built by Rogers or some other historic period visitor. Many of the stones exhibit caliche on upper surfaces suggesting relatively recent construction dates.

A series of four historic caches were found in small natural cavities or among the boulders on the tuff slopes about 100 m northeast of the camp. One cache contained an enamel-ware pitcher and a large, clear glass jar, its lid labeled "ARNOLDS Olives, Pickles, Relish, Quality Product, PHOENIX." This company was founded in 1909 and continues as the Klein Pickle



Figure 6. Photo showing one of the many petroglyph boulders; taken during one of Malcolm Rogers' field trips to the valley above White Tanks. Courtesy of the San Diego Museum of Man.



Figure 7. Photo of one of the petroglyph boulders taken during one of Malcolm Rogers' field trips. His rendering of this element is seen in Figure 5. Photo courtesy of the San Diego Museum of Man.

Company. Production marks on the bottom indicate the jar was manufactured by Owens Illinois Glass Company between 1940 and the present. Another cache contained a one-gallon white glass jug with handle and metal cap. Manufacturing marks indicate production by Owens Illinois Glass Company between 1929 and 1954. A third cache contained a metal "pudding pan" and three bent iron rods of the type used to hang pots over a campfire (Figure 12). The fourth cache included two tin cans, a purple glass confection bottle, a brass fitting, and a wood and metal sifting screen (Figure 13). These natural cavities within

which the caches were found also contained prehistoric caches. Sherds from a restorable, stuccoed Tumco Buff cooking pot were located below one such crevice near the historic caches.

There is no direct physical evidence to indicate whether the camp was built by earlier prospectors or herders and later reused by Rogers. Julian Hayden (personal communication 1991) remembered that Rogers did indeed build the camp and spent the first part of his honeymoon there with Frances. They then continued on to Tucson to be with Julian Hayden.

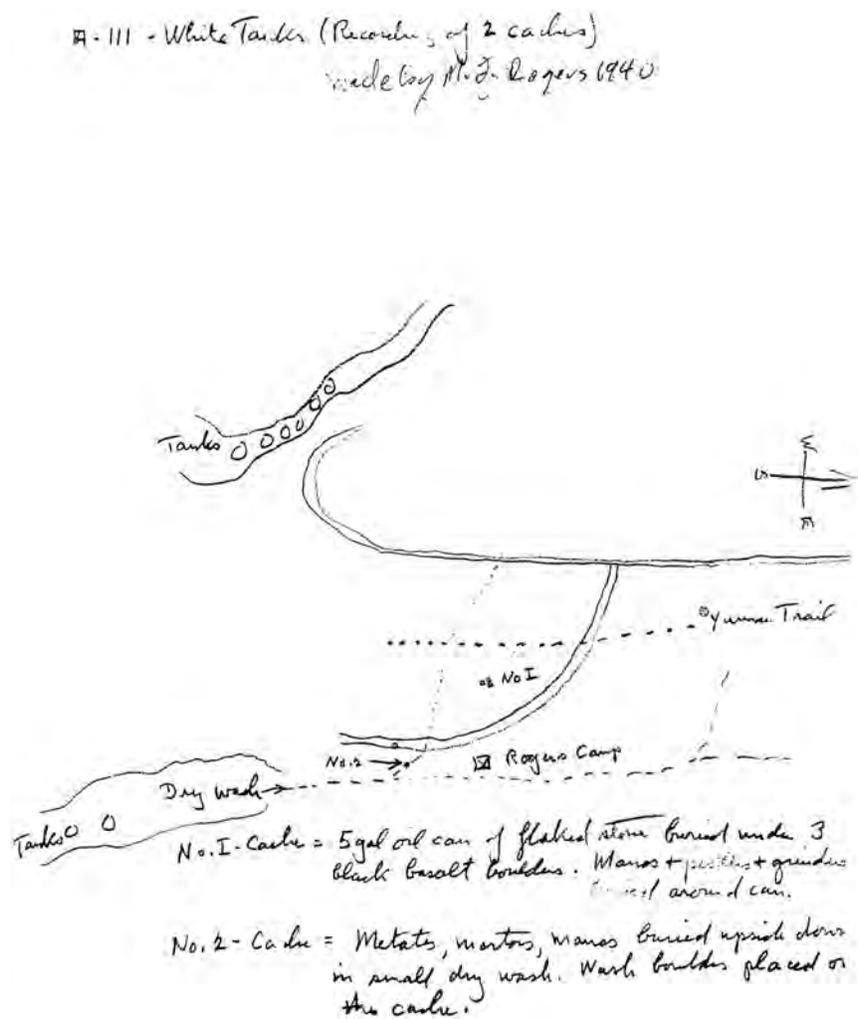


Figure 8. Malcolm Rogers' sketch map of his camp. Courtesy of the San Diego Museum of Man.

Hayden recalled that Malcolm Rogers loved White Tanks and hoped to homestead there. He was heart-sick when he discovered that manganese prospectors blasted part of the tanks during World War II. Certainly, all items found in the nearby caches date to the period of Rogers' research. The screen could have been used for testing certain sites as implied in his notes. The graffiti in the rock enclosure was made by Rogers or his wife, and the large number of ground stone items used in the circular landscape elements around the camp appear to represent discards from Rogers' collecting activities. Such arrangements may seem more typical of a desert homestead

than a modern professional research setting, although they can be understood within the context of Rogers' early research efforts and his own documented caching of artifact collections for later retrieval. His field notes repeatedly mention looters at other sites, and he was well aware that artifact assemblages were being lost for future study. In any event, the camp bears significant associations with one of the most prominent figures in the history of Far West North American archaeology. For that reason, it was recommended that his camp be included as a contributing element to a proposed White Tanks Archaeological District.



Figure 9. Circular rock enclosure that was Malcolm Rogers' field office and kitchen.



Figure 10. Broken metates around a saguaro cactus at Rogers' camp.



Figure 11. Large retaining wall; note silt buildup.



Figure 12. Metal pudding pan, stake, and rods in Feature 276 above Rogers' camp.



Figure 13. Pickle jar, coffee cans, and brass fitting in Feature 277 above Rogers' camp.

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