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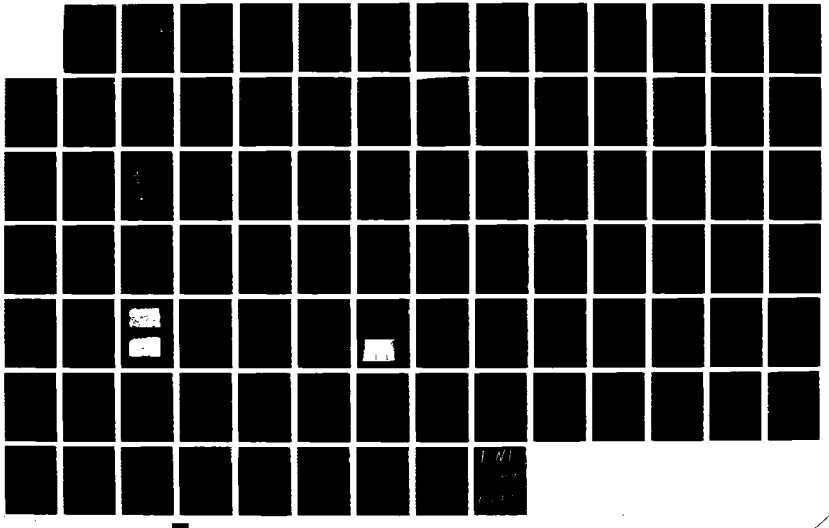

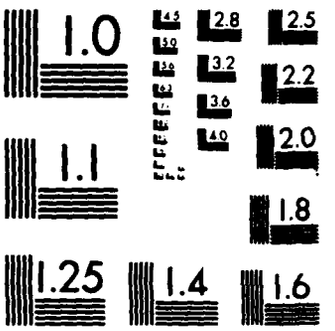

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A CULTURAL RESOURCES SURVEY OF THE WHITLOW RANCH DAM AND RESERVOIR AREA, EASTERN PINAL COUNTY, ARIZONA

By

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and
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(Contract No. DACW09-85-C-0030)

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1986

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Between July 1 and 26, 1985, New World Research Inc. (NWR) conducted a cultural resources survey of the Whitlow Ranch Dam and Reservoir area for the U.S. Army Corps (Corps) of Engineers, Los Angeles District. Because of rugged terrain, only part of the project area was surveyed using systematic transects. In most of the remainder of the study area, all likely locations

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of cultural resources were checked as part of an intensive reconnaissance. A small portion of the area was not surveyed, as the terrain was too rugged to contain cultural resources. The approaches used are believed to have been as effective in locating cultural resources as an intensive survey would have been, given gentler terrain.

In all, 2 previously surveyed

The area subsumed by the present survey effort covered about 890.3 ha (2258 ac). Additional areas covered during a 21 percent sample survey by Arizona State University (ASU) in 1977 were not resurveyed, although an attempt was made to relocate three sites recorded by ASU.

In all, two of ASU's sites were relocated and 28 new sites were recorded. In addition, 163 isolated finds were located. No preceramic sites were noted. The major occupation (Hohokam) of the area appears to have taken place during the Classic period, when three small villages and possibly nine isolated habitation sites or farm sites were occupied. These sites are generally characterized by the presence of redware pottery, and by rock or cobble masonry rooms. A much smaller Preclassic Hohokam occupation is also indicated. One Hohokam site, a hilltop fortified site, appears to have been reused briefly by a protohistoric group (possibly the Yavapai). Historic remains are restricted to the Anglo-American period, and include sites and isolated finds related to mining, ranching, and the building and operation of a narrow gauge railroad along Queen Creek.

All the remains found were evaluated in terms of eligibility for the National Register of Historic Places ~~(NRHP)~~. Seven sites were judged to be eligible on the basis of survey data alone; two sites (or components of sites) were judged to be ineligible, based on survey data. The remainder were judged to be ambiguous in nature, and deserving of testing prior to further attempts at evaluation.

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ABSTRACT

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PREFACE

As the Principal Investigator for the Whitlow Ranch Dam survey, I would like to thank the following persons who assisted materially in the completion of this project: Dr. Helen Wells (Corps archaeologist who served as Contracting Officer's Representative during the life of the project); Carol Weed (who assisted in research and report preparation); Maryanne Frederickson (who served as a crew member and then during in-house report preparation); John Rose, Greg Seymour, Alice Sinkovic, Dick Ryan, and Richard Anduze (crew members); Linda Swann and Linda Rogers (office managers for NWR's Western Division); John Regan (who drafted Figures 1 through 3); and Robert Corley (who drafted Figures 4 through 6, 8 and 9). The help provided by all these people is appreciated by the authors.

With the completion of the Whitlow Ranch Dam survey, NWR's Western Division comes to a close. During that time, 38 projects of various sizes have been completed, resulting in 12 formal reports and a number of letter reports. Throughout the period, a number of people have contributed in ways large and small to the division's efforts; to all of them I wish to extend my personal thanks.

DAP

CHAPTER 1

INTRODUCTION

In May 1985, the Los Angeles District, U.S. Army Corps of Engineers (Corps) awarded a contract to New World Research, Inc. (NWR) to carry out an intensive cultural resources survey of Corps easement lands at Whitlow Ranch Dam, in eastern Pinal County, Arizona (Figure 1). The survey was a non-disturbing survey and, consequently, no collections were made.

Authority for the work included Executive Order 11593, "Protection and Enhancement of the Cultural Environment," and the National Historic Preservation Act of 1966, as amended. These laws direct all Federal agencies to inventory their lands for cultural resources and to evaluate the resources for eligibility to the National Register of Historic Places. Prior to the current study, the Corps had already funded a sample survey of the Whitlow Ranch Dam area by Arizona State University (ASU) (Stone 1977).

The goals of the current study were to: (1) relocate and re-record three sites found during ASU's sample survey; 2) locate and record all other potential cultural resources within the Corps easement lands; and 3) evaluate the resources in question, both individually and in terms of a possible historic district.

The Principal Investigator for the project was David A. Phillips, Jr., while the Project Archaeologist and Field Supervisor was Lee Fratt. Other archaeologists assisting on the project included Carol S. Weed (who did background research during proposal preparation), Maryanne Frederickson (crew member and in-house assistant), and John Rose, Greg Seymour, Alice Sinkovic, Dick Ryan, and Richard Anduze (crew members).

The first step in the research program consisted of a formal work plan (Phillips et al. 1985) which was submitted to the Corps for review and approval. The work plan was then used to guide all subsequent work under the contract. Portions of the work plan have been incorporated into Chapters 1 through 4 of this report.

Archaeological fieldwork began on July 1, 1985, and continued through July 26. Because a portion of the project area

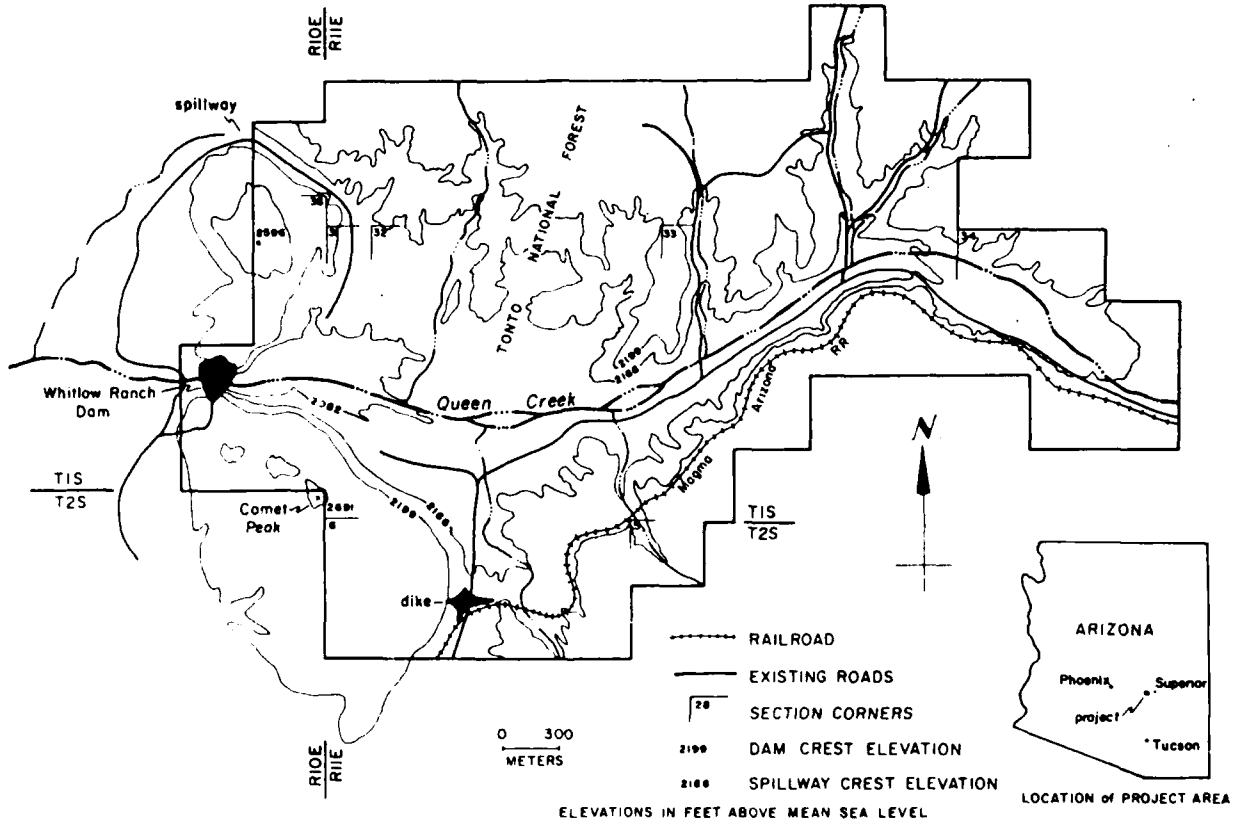


FIGURE 1. LOCATION OF THE WHITLOW RANCH PROJECT AREA.

lies within the Tonto National Forest, a Special Permit to conduct archaeological investigations was secured prior to survey on Forest Service lands. Initially, 15 days were alloted for survey and site recording. However, due to rugged terrain, extremely high temperatures, and a higher than expected site density, the field crew required 18 days to complete its tasks. In all, 83 person-days were spent in the field. During that time, 28 sites and 163 isolated finds were located, and two of the three ASU sites were successfully relocated and re-recorded.

Once fieldwork was completed, analysis and report preparation began. A summary of results of all phases of the project, presented herein, was submitted to the Corps for review in October, 1985. The following report has been edited in response to the draft review comments issued by the Corps in letter form (see Appendix 1 for copy of letter Carl F. Enson to L. Janice Campbell, 3 December 1985).

In addition to the report, a companion volume containing all site forms and maps is also being submitted to the Corps. Accompanying this support volume are all photographs.

CHAPTER 2

PROJECT BACKGROUND

As noted earlier, the Whitlow Ranch Dam project area has been subjected to only one previous investigation (Stone 1977), although other projects pertinent to the areal culture history have been conducted in the vicinity. The following discussion, prefaced by a brief resume of the environment of the region, summarizes these various investigations and the culture setting of the project area.

Natural Setting

The Whitlow Ranch Dam (WRD) project area lies west of Superior, Arizona, along middle Queen Creek. For WRD, we are defining middle Queen Creek as the section beginning at the mouth of Queen Creek (a point just east of Superior), and ending where the drainage runs into open desert (just north of Florence Junction). Encompassed within the Desert Region of the Basin and Range Province (Wilson 1962), the WRD is characterized by Stone (1977:16) as containing three subzones. These subzones defined in terms of topography, vegetation, and disturbance, are:

1. The Queen Creek channel and narrow, associated floodplain.

2. The first terraces and low foothills above Queen Creek.

3. The uplands or high foothills of the Superstition Mountains.

Zone 1 is now marked by dense salt cedar stands; the zone is also subject to seasonal flooding. Zone 2 displays a plant cover typical of the Arizona Upland subsection of the Sonoran Desert scrub formation (Brown 1982). The principal local communities in this zone are dominated by paloverde and saguaro, with other plant species including prickly pear cactus, cholla, and low shrubs (for a complete listing see Stone (1977:5), Table 1). Differences in the distribution and number of individual species mark each zone, but in general, the species found in

TABLE 1. PREVIOUS ARCHAEOLOGICAL PROJECTS IN AND NEAR MIDDLE QUEEN CREEK.

Date	Project	Number of Sites
	--Within Project Area--	
1977	Sample Survey of Whitlow Ranch Dam Area (Stone 1977)	3
	--Along Middle Queen Creek--	
1965	Survey of Boyce Thompson Southwest Arboretum (Ayres 1965)	10
1977	Coronado Station Project Transmission Line Survey (Antieu 1977)	4
1980	Arizona State Land Survey for Moody/Sutton Mineral Lease (Lange n.d.b)	1
	--Area Surrounding Middle Queen Creek--	
1974	Highway Salvage Right-of-Way Survey (Masse and McGuire n.d.)	1
1975	APS Cholla-Saguaro Transmission Line Survey (Cummins and Teague 1979)	7
1976	Clearance Survey of the Superior Proposed Base for Exchange, Globe Ranger District, Tonto National Forest (Wood 1976)	28
1976	Silver King to Hayden Transmission Line Survey (Yablon 1977)	7
1977	Coronado Station Project Transmission Line Survey (Antieu 1977)	4
1984	Arizona State Museum Land Survey for Arizona Crushing Company (Lange n.d.a)	0
1982	Arizona State Land Survey for Salt River Project Power District (Madsen n.d.)	0
1984	Arizona State Land Survey for ADOT Materials Pit 7705 and Associated Haul Road (Castalia n.d.)	2

this community were extensively exploited by Southwestern aboriginal groups.

The Superstition Mountains (Zone 3) flanking the Queen Creek drainage basin, also contain exploitable resources, predominate among which are lithic materials appropriate for chipping. Perlite (hydrated obsidian), rhyolite and dacite are present in the region, the first of these coming from near Picketpost Mountain. Colluvial deposits with large amounts of quartzite, shale and limestone gravels and boulders are present east of the project area, in the vicinity of Superior (Stone 1977).

In sum, the resources in and near the project area were attractive ones for the aboriginal inhabitants of the region. And, from roughly 1850 onward, the area's potential as regards grazing and mining drew at least a few Anglo-Americans into the region.

Previous Investigations

In order to place the current research in its proper perspective, the results of previous investigations in the project area and its general vicinity (as defined by the USGS topographic sheets of the Florence Junction, Picketpost Mountain, and Superior Quadrangles, 7.5 minute Series) were reviewed (see Table 1 for summary). The region encompassed comprises portions of quadrangles U:11 and U:12 in the Arizona State Museum (ASM) archaeological system.

Previous Research in the WRD Proper

To date, the only archaeological research completed within the project boundaries was the 21 percent sample survey carried out by Arizona State University in June 1977 and documented by Stone (1977) the same year. The survey resulted in the identification of three sites and 12 non-site loci (isolated finds).

The three sites are apparently disparate in function and distribution. AZ U:11:26 (ASU) is a sherd and stone artifact scatter in an area of low hills north of Queen Creek, while AZ U:11:27 (ASU) is a small habitation site with five masonry rooms, located on a gently sloping bench also north of Queen Creek. The third, AZ U:11:28 (ASU), is a petroglyph site on a series of boulders in a narrow wash on the south side of Queen Creek.

The non-site loci summarized by Stone (1977:15, Table 2) range from isolated sherds and stone artifacts to small, low

TABLE 2. SUMMARY OF SITES AT WHITLOW RANCH DAM.

(Note: temporal and site type assignments should be considered highly tentative; see text for full discussion. Field numbers not used: 4, 9, 11, 16, 18, 19, 21, 24, 27, 28, 30, and 31).

Arizona Permanent No.	Field No.	Size (m)	Components	Site Type	Evaluation
U:11:11 (ASM)	1	200 x 80	Classic Hohokam	I	Requires Testing
U:11:12 (ASM)	2	17 x 16	Classic Hohokam	IV	Requires Testing
U:11:13 (ASM)	3	105 x 105	Classic Hohokam	I	Requires Testing
U:11:14 (ASM)	5	115 x 90	Anglo-Amer. Per.	V	Significant
U:11:15 (ASM)	6	50 x 40	Classic Hohokam	IV	Requires Testing
U:11:16 (ASM)	7	70 x 50	Classic Hohokam	IV	Requires Testing
U:11:17 (ASM)	8	75 x 60	Preclassic and Classic Hohokam	I	Requires Testing
U:11:18 (ASM)	10	65 x 55	Classic Hohokam	I	Requires Testing
U:11:19 (ASM)	12	43 x 40	Classic Hohokam	I	Requires Testing
U:11:20 (ASM)	13	35 x 25	Hohokam	IV	Requires Testing
U:11:21 (ASM)	14	23 x 22	Classic Hohokam	IV	Requires Testing
U:11:22 (ASM)	15	1500 x 200	Classic Hohokam	II	Significant
			Anglo-Amer. Per.	VI	Significant
U:11:23 (ASM)	17	30 x 15	Hohokam	I	Requires Testing
U:11:24 (ASM)	20	40 x 25	Classic Hohokam	IV	Not Significant
U:11:25 (ASM)	22	120 x 70	Classic Hohokam	II	Significant
U:11:26 (ASM)	23	52 x 32	Classic Hohokam	I	Requires Testing
U:11:27 (ASM)	25	40 x 23	Classic Hohokam	I	Requires Testing
U:11:28 (ASM)	26	150 x 40	Classic Hohokam	IV	Requires Testing
U:11:29 (ASM)	32	100 x 80	Hohokam, Proto-historic reuse?	III	Significant
U:11:30 (ASM)	37	35 x 25	Classic Hohokam	II	Significant
U:11:31 (ASM)	39	60 x 40	Preclassic Hohokam	IV	Requires Testing
U:12:43 (ASM)	29	30 x 10	Hohokam	IV	Not Significant
U:12:44 (ASM)	33	26 x 15	Classic Hohokam	IV	Not Significant
			Anglo-Amer. Per.	VI	Requires Testing
U:12:45 (ASM)	34	28 x 13	Anglo-Amer. Per.	VI or VII	Requires Testing
U:12:46 (ASM)	35	65 x 37.5	Hohokam	IV	Not Significant
			Anglo-Amer. Per.	VI	Requires Testing
U:12:47 (ASM)	36	60 x 25	Anglo-Amer. Per.	VII	Requires Testing
U:12:48 (ASM)	38	45 x 26	Hohokam	I	Requires Testing
U:12:49 (ASM)	40	46.5 x 41	Classic Hohokam	IV	Requires Testing
U:11:26 (ASU)		40 x 36	Classic Hohokam	IV	Not Significant
U:11:38 (ASU)		5 x 5	Aboriginal	IV	Significant

density scatters of sherds, chipped stone or both. Like the sites, these artifacts were also found on terraces or low hills near Queen Creek.

Previous Research Along Middle Queen Creek

Four archaeological projects carried out along portions of middle Queen Creek outside the WRD area have resulted in the identification of 15 sites (see Table 1). In 1965, the Arizona State Museum conducted an archaeological survey of the Boyce Thompson Southwest Arboretum grounds and land leased from Tonto National Forest (Ayres 1965). This judgemental survey of a 5.2 sq km area involved roughly 75 percent coverage of the survey area.

A variety of sites was found near Queen Creek and adjacent Arnett Creek, on hilltops and stream terraces and in hillside rock shelters. Most of the sites were sherd scatters, or sherd and stone artifact scatters located on stream terraces and low hilltops, though three had eroded architectural remains and two were small rockshelters. The latter were unsurprisingly situated on the steep hillsides (Ayres 1965), and represent, except for historic mine operations, the only exploitation of this particular ecozone. Diagnostic sherds recovered from some of the sites suggested Classic period occupations.

In 1977, ASU surveyed a transmission line running from Kyrene (Tempe) to the Tonto National Forest boundary north of Florence Junction (Antieu 1977). This work, located west of the WRD, located three sherd and stone artifact scatters on the terraces of Queen Creek directly north of U.S. Highway 60-80-89, as well as a pottery and stone artifact scatter with associated masonry structure and check dams at the confluence of Whitlow Canyon and Queen Creek.

The final two projects were both very small areal surveys conducted by Richard Lange (n.d.a and n.d.b). In 1980, Lange (n.d.b) completed a survey of a 16.2 ha (40 ac) parcel of state land west of the WRD. Although he found only an isolated chert scraper on the parcel itself, Lange noted a light density scatter of chipped stone to the east and south on a high terrace overlooking Queen Creek.

Subsequently, in 1984, Lange (n.d.a) completed a survey on the southwest edge of Superior. In the general vicinity were the 1870 Old Pinal townsite and a Classic period prehistoric village (AZU:12:3 [ASM]). The latter had initially been reported in 1962, and at that time was characterized as in imminent danger of destruction by a proposed subdivision (cited in Lange n.d.a). Lange (n.d.a) did not relocate the property, and the 1981 (revised) USGS Superior quadrangle shows houses in the originally reported location, on the first or second terrace on the south

side of Queen Creek.

Research in the Hills Flanking Middle Queen Creek

The results of the seven remaining archaeological projects completed in the country flanking middle Queen Creek, (see Table 1) reflect a prehistoric cultural resource base similar to that found along the creek. Sites reported include: single- and multi-room masonry habitation sites, along with artifact scatters appearing primarily on low hills or terraces along drainage margins; cave and rockshelter sites with petroglyphs and pictographs on hillsides in the steep uplands; and a limited number of Anglo-American historic sites.

Some of the prehistoric and historic habitation sites exhibit associated agricultural features such as check dams, terraces, and rock piles. Most of the check dams in the general area, both prehistoric and historic, appear in relatively narrow drainages east of Superior. A chipped stone quarry (AZ U:11:22 [ASU]) was located on a hillside west of Whitlow Ranch Dam (Antieu 1977:7).

Pertinent Regional Research

While the aforementioned projects have specific applicability to the WRD area, other projects in the region are also pertinent for the interpretation of the WRD project results. Included in this group are the archaeological studies in lower Queen Creek and the Castle Dome-Pinto Canyon area.

In the former area, research has clearly documented the presence of Hohokam affiliated remains, whereas in the latter, Puebloan Salado influences are more prevalent. Work on the Queen Creek alluvial plain, completed by the Arizona State Museum in 1975, included investigations of 14 sites near Gila Butte (Brooks 1976). Also, several large Sedentary and Classic period habitation sites with associated features were recorded in quadrangle U:11 near Florence Junction. These sites were located on the lower bajada where Queen Creek flows out of the Superstition foothills (Stone 1977:7). More recently, the Salt-Gila Aqueduct Project (Teague and Crown 1984) focused on the excavation of a number of sites on or near lower Queen Creek, and documented the existence of large villages associated, in some instances, with canals leading from the creek.

Two archaeological surveys of the Castle Dome-Pinto Canyon area recorded 50 archaeological sites; nearly all the prehistoric masonry and puddled adobe pueblos identified were classified as "Salado" (Windmiller 1974). Descriptions of these "Salado" pueblos are similar to those of masonry pueblos reported in the WRD area and its immediate environs. The Castle

Dome-Pinto Canyon area is at a higher elevation and in more mountainous terrain than the foothills surrounding the Whitlow Ranch area. Because of the environmental setting and the pueblo sizes and associated assemblages, Windmiller (1972,1973) suggested that most represented small settlements established in areas suited for dry farming or for exploiting seasonal resources (Windmiller 1972, 1973).

In summary, lower Queen Creek is characterized by large villages which clearly fall into the Hohokam tradition. The sites of middle and upper Queen Creek are quite different: habitation sites display Pueblo style architecture, and are often small and scattered.

Summary of Previous Investigations

As is evident from the review just provided, relatively little work has been done in the section of Queen Creek between Florence Junction and Superior. For middle Queen Creek as a whole, it appears that site density is only moderate, but that sites are located in a variety of settings; in some settings, however, alluvial deposition may have obscured site remains. But, as Castalia (n.d.) has noted, deflation and headward erosion may also expose sites that have few surface remains.

In most cases, the sites found during past projects are located on terraces and low foothills immediately adjacent to Queen Creek. However, the same projects demonstrate that rockshelters and petroglyph panels can occur in steeper upland areas. Cultural remains can also be associated with tributary drainages, as they are with Queen Creek.

All of this reinforces Stone's (1977) recommendation that archaeological study of the Whitlow Ranch Dam area can help fill the geographic gap between studies along lower Queen Creek and those in the Superior area.

Cultural Setting

While there is no independent cultural historical sequence for the middle Queen Creek area, it is possible to apply the general sequence of the Salt-Gila (Phoenix) Basin Hohokam to this area (Figure 2). The preceding discussion of the previous research in the area has suggested that the majority of the ceramic period occupation in the WRD vicinity can be classified under the presently revised Salt-Gila Hohokam sequence (modified from Haury, 1976). This sequence accomodates "Puebloan" or "Salado" occupations in the region as a Classic period

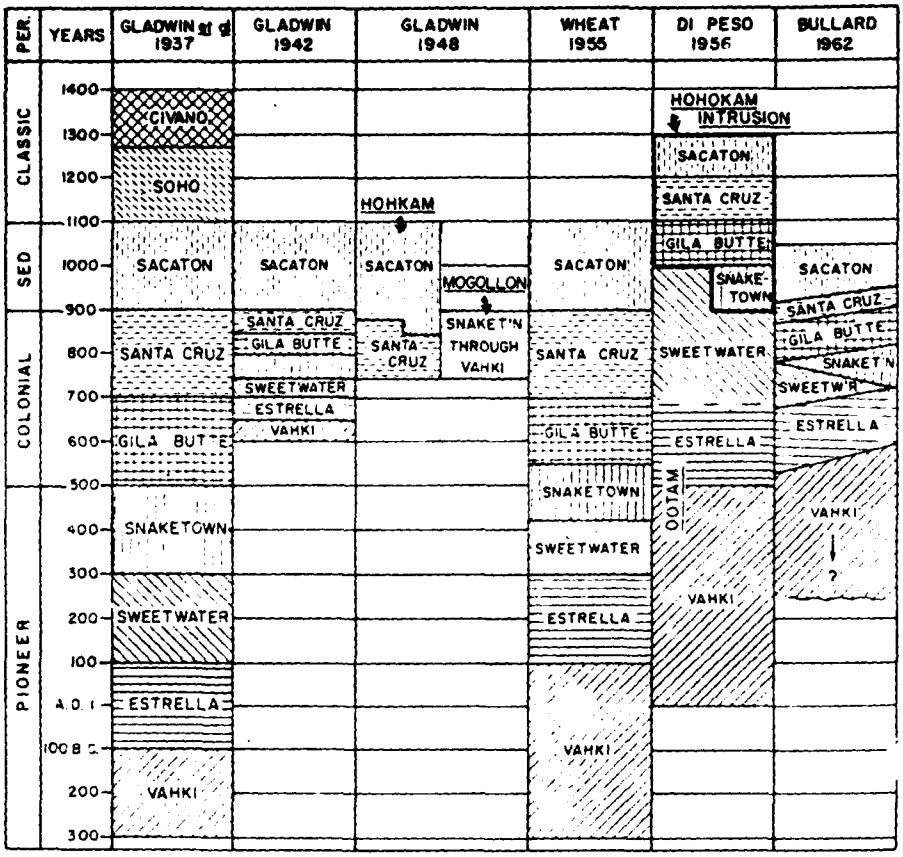


FIGURE 2. PREHISTORIC CULTURE SEQUENCE OF THE SALT-GILA BASIN

manifestation (see subsequent discussion). The Salt-Gila sequence has been discussed at length in a number of sources (Haury 1976; Debowski et al. 1976; Doyel 1979; Gumerman and Haury 1979; Teague and Crown 1984), therefore, it will be mentioned only as needed to illuminate events in or near the study area.

No Paleo-Indian remains have ever been documented in the Queen Creek area. Similarly, only a few Archaic settlements, recognized primarily by distinctive projectile points, have been found in either the general Queen Creek vicinity or nearer to Phoenix (Stone 1977:9). There appear to be several reasons for this. First, the area may not have been highly attractive to the earliest inhabitants of the region as a whole. Second, erosion and deposition may have buried or destroyed a number of early sites.

Almost all the sites found along Queen Creek have been identified as Hohokam. However, data supporting Pioneer period Hohokam use of the area are lacking. Instead, the first sustained human use of the WRD vicinity appears to date to the middle and late portions of the Hohokam sequence (Colonial through Classic periods)(Stone 1977; Antieu 1977; Windmiller 1971, 1972, 1973; Ayres 1965). Moreover, Colonial through early Sedentary activity does not seem to compare to the relatively intense occupations of the late Sedentary through Classic periods. The Salt-Gila Aqueduct Project data from lower Queen Creek (Teague and Crown 1984) clearly demonstrate this trend; data from the WRD area and vicinity also support the conclusion.

Of the 39 sites documented for middle Queen Creek, only one appears to date as early as the Colonial period (see Castalia n.d.). This site (AZ U:11:9 [ASM]) consists of a sherd and stone artifact scatter containing Gila Plain and Gila Butte or Santa Cruz Red-on-buff pottery. The material is eroding out of an alluvial pocket on a terrace adjacent to a large wash, and Castalia (n.d.) suggests that there is a high probability that buried features are present at the site.

Although several Sedentary period sites have been found during surveys west of Superior (Stone 1977:8), most of the dated sites in the area appear to be even later in time, falling within the Classic period. The latter sites are usually characterized by the presence of Gila Polychrome, Pinto Polychrome, San Carlos Red-on-brown, or Casa Grande Red-on-buff, in addition to redwares and plainwares. However, Ayres (1965:10) noted that the dates for AZ U:12:4, 6, 10, and 12 (ASM) are tentative because so few decorated sherds were found.

Of the six probable Classic period sites located, four have remains of masonry rooms and/or compounds. These sites are located on hills and terraces next to Queen Creek. A Classic period sherd and stone artifact scatter was also located on a terrace, and a Classic period rockshelter site was found on a

hillside near the creek.

Artifacts at the Classic period sites appear to consist mostly of sherds, although AZ U:12:10 (ASM) was recorded as also having large quantities of chipped stone. On this basis, Ayres (1965:4-5) suggested that the site may have functioned as a stone tool manufacturing locus. Most other Classic period sites in the area, however, appear to have been less specialized and related to domestic and permanent use (Antieu 1977; Ayres 1965; Johnson n.d.).

Agricultural features, such as check dams, often associated with Hohokam occupations are not widely reported in the areal literature. Near Whitlow Ranch Dam, such features have been noted only for AZ U:11:21 (ASM), located near the upstream limit of soils with good agricultural potential (at the confluence of Whitlow Canyon and Queen Creek) (Antieu 1977:72-77). Also, the Classic period sites reported in the Castle Dome-Pinto Canyon area north of Whitlow Ranch Dam had only a few associated agricultural features.

While the absence of such features may indicate that Classic period Hohokam activity in the middle and upper Queen Creek area focused on the exploitation of wild plant and animal resources, it may also reflect the fact that prior to the late 1970s, archaeologists were not very sensitive to the presence of such features. Two sherd and stone artifact scatters of indeterminate date found during later surveys (AZ U:12:35 [ASM] and AZ U:11:8 [ASM]) were associated with agricultural features such as check dams and rock piles.

Earlier surveys (see various discussions of previous work) tended to classify at least some of the Classic period occupations in the middle and upper Queen Creek--and in surrounding areas--as "Salado". The concept of "Salado" would take an entire book to deal with properly, but a brief summary of the problem is presented below.

Originally, the "Salado" were believed to be a Puebloan people who moved into the Tonto Basin from the Mogollon Rim at about A.D. 1100. In the Tonto Basin, they developed a distinctive set of polychrome pottery styles (the "Salado polychromes", Gila, Tonto, and Pinto), and soon afterwards "invaded" the Hohokam area where they formed an ethnic enclave (Haury 1945; Haury and Gumerman 1979).

More recently, the concept of the "Salado" as an ethnic group lost favor (e.g.,Teague and Crown 1984; Doyel 1979). Instead, "Salado" should probably be thought of as a polychrome ceramic style shared by a number of archaeological "cultures" between A.D. 1300 and 1450, and thus forming a cultural horizon rather than a cultural tradition. The fact that several distinct "cultures" shared the same polychrome pottery style was probably

linked to other regional trends of the time, such as the emergence of a chiefdom social order linked to platform mounds and a redistributive economic network. In the case of the study area, the local "Salado" occupation is best explained as being a Classic period manifestation of a historically Hohokam population (cf. Wood and McAllister 1982).

The majority of sites found within the middle Queen Creek area are of indeterminate age. A variety of sites fall in this category, including artifact scatters, masonry pueblos, agricultural field areas and a rock shelter with a bedrock mortar (Ayres 1965). Some unusual sites have also been located. Antieu (1977) reported the presence of a lithic quarry (AZ U:11:22 [ASU]) on a hillslope east of Whitlow Canyon and west of the project area. The same survey identified a series of cave sites (AZ U:11:19 [ASU]) east of Whitlow Canyon; these may have been campsites or storage areas. Ayres (1965:3-4) noted that AZ U:12:7 (ASM), found during the Boyce Thompson Southwest Arboretum Survey, consists of 12 non-contiguous stone rings varying from 25 cm to 55 cm in diameter on top of a high mesa between Queen and Arnett Creeks (east of the project area). Half the circles had south facing openings; plain and redware sherds were scattered over the site but were concentrated around the rings.

It is not certain when the Whitlow Ranch Dam area was abandoned. The Salt-Gila Aqueduct Project has defined a late Classic phase, the Polvoron which may reflect the disintegration of elite Hohokam social and economic networks and the return to a simpler way of life (cf. Teague and Crown 1984). However, the phase falls within the latter portion of the date range usually assigned to the Civano phase of the Classic period, so the new data do not imply continued occupation into the Protohistoric period. The area may well have been abandoned in the middle 15th century when the Salt River drainage and many other portions of southern Arizona were depopulated.

In the early historic period, the study area fell within Yavapai territory (Gifford 1932), and may also have been traversed by the Yavapai's allies, the Apache. Unfortunately, these two cultures are archaeologically almost invisible. Spanish-American and Mexican period sites are not to be expected, as the frontier of Hispanic settlement lay 100 km or more to the south.

Anglo use of the area began in the middle 1800s. However, relatively intensive use did not begin until the early 1900s, when the area was linked to other portions of Arizona by the Magma Arizona Railroad. Built in 1914-1915, the railroad served various mining operations in central Arizona, including the famous Silver Queen (Magma) Mine.

Ranching also become important during the late 1800s. Charles Whitlow (or Whitlock), presumably the namesake for the

present dam and reservoir complex, settled in the area in the late 1860s or early 1870s, and had one of the larger spreads along Queen Creek. Whitlow also ran one of the local stage stations prior to the coming of the railroad (Granger 1977:310). Cattle grazing and mining have continued as the major economic pursuits in and near the study area during the whole of the twentieth century.

CHAPTER 3

RESEARCH ORIENTATION AND FIELD METHODS

On the Whitlow Ranch Dam survey, a relatively simple research orientation was called for; anything elaborate, we felt, would lead to either frustration or an abuse of the data. In part this was due to the fact that the roughly 890.3 ha (2200 ac) to be surveyed would probably not yield a site sample which could be manipulated statistically with any but minimal results. In addition, the low frequency of diagnostic pottery on sites of the area would make it difficult to control for temporal variation within the sample.

Therefore, only two basic research objectives were formulated. The first was to identify cultural properties within the project area which may be eligible for the National Register of Historic Places (NRHP). Obviously this objective was directed toward meeting management and planning needs. The second objective -- more theoretical in nature, but also applicable to planning considerations focused on the identification of site location variables at Whitlow Ranch.

Research Objectives

Identifying Potentially Eligible NRHP Properties

It was a basic assumption of this project that within the Whitlow Ranch Dam study area, not all remains would be eligible for preservation or further study under Federal law. Given the known variety of cultural remains in the region, there are two ways in which a site could be deemed "significant:"

1. it is associated with significant persons or events in local or regional history; or

2. it has the potential for providing important new information on prehistory or history, through archaeological research or other forms of intensive study.

In the first instance, establishing the association is primarily a matter of documentary research, both before and after actual fieldwork. But where historic associations cannot be documented, a site's potential for providing new information on prehistory or history is generally related to a specific set of five qualities, which are summarized below.

Size of Artifact Assemblage. Although it is obviously important to be concerned with the full range of site types and sizes, the fact remains that small sites contain less useful information than large ones (cf. Teague 1982). A scatter of 30 sherds and flakes will never tell us as much as a scatter of thousands of artifacts.

Thus, the size of the artifact assemblage is one measure of the research value of a site. This does not mean that small sites will be ignored; rather, sites can be divided into those with assemblages that are small enough to be adequately documented through initial survey procedures, and those with assemblages that require further study. Or, to put it another way, sites whose research value is largely exhausted through initial survey cannot be considered as deserving preservation for eventual future study.

Presence or Absence of Subsurface Deposits. Many of the current research issues in central Arizona archaeology--Pioneer period chronology, variability in agricultural strategies, long-term processes of social change and so on--can only be addressed through the analysis of excavation data. Thus, the presence of subsurface deposits at a site clearly enhances its research value. It was therefore important that, despite the non-disturbing nature of the survey, the presence or absence of subsurface remains be documented whenever possible.

Presence or Absence of Features. In those cases where features can be observed directly during survey, their presence clearly enhances the apparent research value of the site. For example, agricultural features can be tested for the pollen of domestic species and field weeds (Susan Fish, personal communication), while features within habitation sites or campsites provide evidence on site function, age, and so on, independent from the evidence obtained through artifactual analysis.

Presence or Absence of Temporally Diagnostic Artifacts. The research value of a site is clearly enhanced if it can be placed within a period or phase of regional occupation. Thus, the presence or absence of diagnostic remains within the observed assemblage can be a reflection of its overall research value.

Integrity. The current condition of a site clearly affects the information potential of that site.

Thus, the variables chosen for use in segregating eligible from non-eligible remains include size of assemblage, presence or absence of subsurface deposits, features, temporally diagnostic artifacts and site integrity.

Site Location Analysis

Aside from the identification of significant or potentially significant cultural properties, we believed that the most appropriate research issue for the Whitlow Ranch Dam survey was understanding site location strategies. Building on the initial statements of Stone (1977), the approach decided on was as follows:

1. To the maximum extent possible, sites would be classified temporally. Even if finer-grained distinctions were not possible, we hoped to be able to distinguish Archaic, Ceramic and Historic period sites in our settlement studies.

2. Working inductively from the survey data, sites would be classed functionally. Drawing from observed patterns, we wished to define a series of formal attributes (size, presence or absence of specific feature types and artifacts) which appeared to distinguish different functional types of sites. By classifying the sites on even a tentative functional basis, we hoped to be able to draw conclusions concerning site function in relation to site setting. In any case, the resulting functional interpretations could always be considered hypotheses, subject to testing during any subsequent excavations.

3. Therefore, for each site type, we wanted to define what environmental variables seemed to be critical to the site location process. Examples of potential variables included distance to nearest water, distance to nearest arable land, topographic setting and biotic setting. In addition, we wanted to consider the fact that some types of Hohokam limited activity sites appear to cluster near habitation sites, as well as near natural resources. Thus, the possibility that complex adaptive variables were involved in any given site pattern had to be considered.

4. Finally, as time permitted, we hoped to evaluate how the project's findings on site location strategies compared to those obtained by other archaeologists in the general area. This is not to say that we expected to fully understand the settlement patterns at Whitlow Ranch, based on survey data alone. We did feel, however, that exploration of settlement patterns would force us to consider the issues of site age, function, and location as we reviewed and evaluated the survey data.

By defining this series of site characteristics and evaluating them against locational data, we felt that recommendations concerning the various WRD sites would be more

substantial. Further, the data provide guidelines for any future testing in the area and would provide researchers with a baseline outline from which to develop formal research designs.

Field Methods

During the 18 days of field survey, the crew was directed by the Project Archaeologist (Fratt), and included two to four crew members. The goal of the project was to conduct an intensive, systematic survey of the 890.3 ha (2258 ac) at Whitlow Ranch not covered by ASU's initial sample survey, with individual crew members at constant 20 m intervals.

In reality, though , much of the terrain was so rugged--and the plant cover so spiny--that the 20 m interval was impractical. In walking around obstacles, crew members often wound up behind one another, which meant that duplication of coverage was taking place. After two days at the specified interval, the survey interval between individuals was increased to roughly 30 m, which was sufficient to prevent overlapping coverage and yet--because of obstacle-induced zigzagging--appears to have covered the area adequately.

In the least rolling terrain, this strict transect approach was maintained, with the crew arranged in a regular skirmish line (Figure 3). The area in question was surveyed in a series of north-south or south-north passes until it had been completely surveyed; to prevent overlaps or gaps in coverage, the "outer" edge of each pass was marked with temporary, biodegradable flagging.

Despite the slight modification to the field strategy, some country was difficult to traverse in parallel transects. Because of this, an alternate approach to survey coverage was adopted. In the more rugged terrain, an "intensive reconnaissance" approach was used (Figure 3).

In this approach, all flat spots (such as terraces, valley bottoms, saddles, and ridge tops) were carefully checked, along with any overhangs or possible petroglyph locations. Intervening terrain was not systematically walked, however; the crew instead made its way from one flat spot to another as the terrain allowed. The assumption made by this approach is that areas too rugged to walk in a systematic fashion are also too rugged to contain significant cultural properties. Thus, while actual survey coverage was less than 100 percent of all terrain, the approach presumably covers 100 percent of all terrain of interest to cultural resource management.

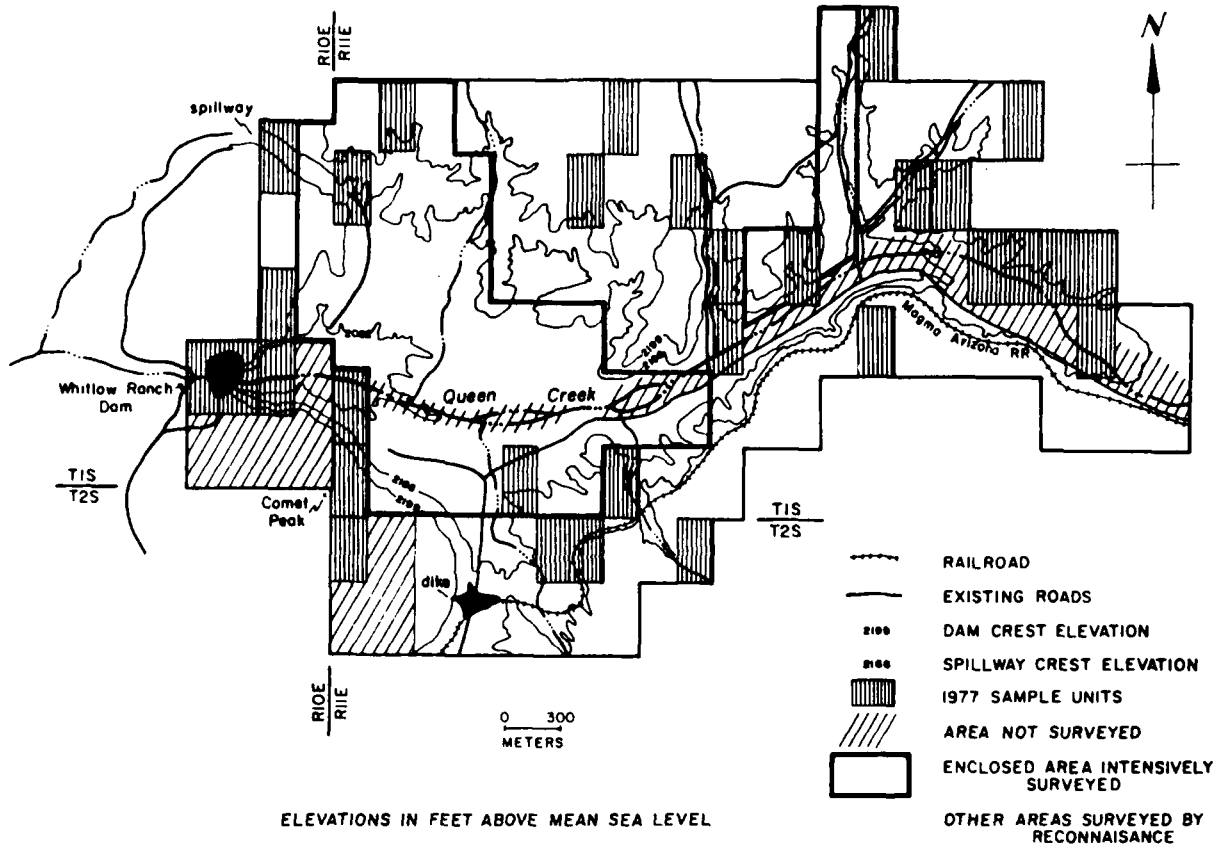


FIGURE 3. WHITLOW RANCH PROJECT AREA SHOWING INTENSITY OF SURVEY COVERAGE.

Finally, immediately along Queen Creek, the vegetation was so thick that neither systematic nor reconnaissance surveys could be conducted. As is shown on Figure 3, this particular situation was confined to the immediate Queen Creek periphery. It is extremely unlikely that the areas in question will ever be developed. If, however,these settings are to be disturbed, it will always be possible to survey the areas at a later date. For now, we will assume that the areas contain no cultural remains.

The crew recorded any cultural loci of known or apparent age of more than 50 years. Any locus containing definable architectural, artifactual, or artistic features, evidence of subsurface deposits, or else more than 10 artifacts deriving from more than a single behavioral event, was defined as a site and recorded on a standard NWR site form. Any cultural locus at least 50 years old, but not meeting these criteria, was recorded on an isolated find list. Thus, for example, an isolated hearth or a cluster of 12 pieces of chipped stone from various materials would be recorded as a site, while a chipping station from a single material or a bottle break would be recorded as an isolated find.

Consistent with the need to evaluate the research potential of sites, the field crew attempted to determine whether subsurface remains existed at each site or isolated find areas. Because of the non-disturbing nature of the survey, this was done by observing rodent burrows, erosion channels, and other natural cuts into sites. The field crew also recorded concentrations of artifacts as features, in order to distinguish artifact assemblages as found in features from the assemblages in the site as a whole.

At each site, and at features defined within sites, at least one black-and-white and one color photograph were taken. Photos included a 30 cm arrow oriented to true North, wherever possible, and were logged on a standard photo form. Sites were sketched on graph paper, with bar scale and true North arrows. Both sites and isolated artifacts were plotted on field copies of the relevant USGS quad. As precisely as possible without transit and triangulation, site elevations were determined to within five feet (1.5 m) of Above Mean Sea Level (AMSL).

Based on our experience in other Southwestern reservoir areas operated by the Corps (Phillips and Rozen 1981; Phillips et al. 1981; Phillips and Seymour 1982), we believed that the main cultural resource management problem posed by flood-control reservoirs is related to long-term management rather than to immediate impact mitigation. A key element of long-term management is, of course, the kind of comprehensive recording and evaluation work inherent in intensive archaeological surveys. In addition, however, we felt that by instituting other procedures, the long-term management needs for the cultural resources at Whitlow Ranch Dam could be more adequately met.

Therefore, the following was also completed during the survey:

--Placement of permanent datums at sites. In this case, the datums consisted of ca. 45 cm (18 in) lengths of steel reinforcement bar, driven so that the top barely protruded from the ground; attached to the bar was a metal tag with the field site number. Wood stakes were considered inappropriate, as they are easily kicked out, and will float out during inundation episodes. A metal datum, in contrast, would probably remain after other site location aids had been altered or removed by repeated flooding.

--Formal definition of site extent. Site boundaries were defined as a line drawn closely around all remains at a locus. During the Whitlow Ranch Dam survey, our goal was to "shoot in" at least four points along each site perimeter (two along the long axis of the site, two along the short), using a tape and compass approach for reasonable accuracy. These points were then plotted on the site sketch map. Then, with the site boundaries defined with greater than usual care, the project's definitions of site extent could be used as a general baseline for studying inundation and other impacts to sites.

In practice, however, some sites were so large that such formal definition of site boundaries was not practical. Instead, approximate boundaries of the larger sites were established by walking them and plotting the apparent boundaries on the field maps.

--Formal definition of surface site condition. On each site found, the field crew defined at least one 2 by 2 m square, in an area of relative artifact concentration, and marked the corners of the square with steel spikes. The location of this square was marked on the site sketch map, and the field crew then proceeded to string the square, photograph it, and prepare a map of the square in which all artifacts were identified and sketched in. The crew then removed the string but left the spikes in place, thus providing permanent corner markers for the square. If future work is conducted, it should be possible to use these squares to measure the cumulative impact of inundation and other forces on surface components of sites.

CHAPTER 4

PROJECT FINDINGS AND SITE EVALUATIONS

As was expected, the majority of the sites identified at Whitlow Ranch are prehistoric and are rather small in comparison with those found in the open desert west of the Superstition foothills. What was not expected was the high proportion of sites which show evidence of structures, and the equally high proportion which can be tentatively assigned to the Classic period. Intuitively speaking, the settlement pattern is more early Puebloan than Hohokam, given its emphasis on many small, possibly seasonal sites with masonry structures; moreover, the main occupation at Whitlow Ranch Dam appears to have been brief yet intensive.

These subjective interpretations will be developed and reviewed in the sections that follow. In Appendix 1 we have provided brief descriptions and evaluations of each site located; a more concise summary will be found in Table 2.

Cultural Affiliation and Temporal Assignments

Of the 30 sites listed in Table 2 and illustrated on Figure 4, 22 can be assigned to the Hohokam culture, three are European-American, three are mixed Hohokam and European-American sites, one is a Hohokam site probably re-used in the Protohistoric or early Historic period, and one is an aboriginal site of unkown cultural affiliation. No preceramic sites were identified; one site, AZU:12:48 (ASM) lacked pottery but is associated with rock piles (either structural or agricultural features) and, therefore, is most likely Hohokam.

Based on the pottery identified in the field, it is possible to subdivide the Hohokam sites into slightly finer categories. Many of the Hohokam sites contained redware pottery, which traditionally has been used to indicate a Classic period component (e.g., Gladwin 1938:264-267; Haury 1945). Today, it is widely recognized that local redware production began during the Sedentary period (Haury 1976:222-223; Teague and Crown 1984), but frequencies of the corresponding type, Sacaton Red, are usually low. Thus, we have maintained the traditional assumption that redwares indicate a Classic period occupation.

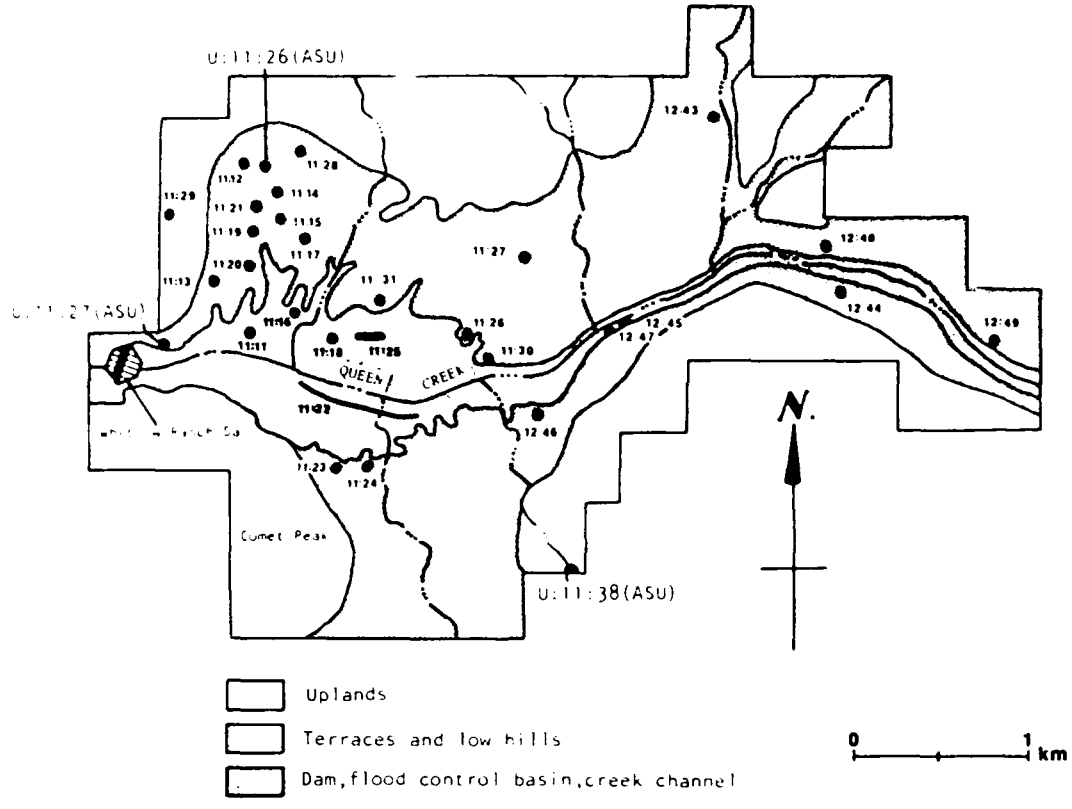


FIGURE 4. GENERAL LOCATIONS OF SITES FOUND AND RELOCATED DURING THE WHITLOW RANCH SURVEY. Note: all site numbers are AZ U:(ASM), except for the two relocated ASU sites.

Also in a few cases the presence of more specifically diagnostic pottery allows assignment below the general culture level. Salado polychromes (Gila and Pinto), Casa Grande Red-on-buff, and Gila Red are all well-known indicators of the Classic period (Haury 1976). At WRD, the presence of red-on-buff types (other than Casa Grande red-on-buff) was assumed to indicate Preclassic occupations (that is, occupations dating to some point in the Pioneer, Colonial, or Sedentary periods). On the whole, however, Whitlow Ranch is characterized by extremely low frequencies of decorated types, which makes reliance on such types as tentative as equating redwares exclusively with the Classic period. And, of course, dating of sites from surface inspection of pottery must be considered a preliminary exercise. Rigorous analysis of pottery from excavation samples would be a great benefit in interpreting the Whitlow Ranch data.

When the above approach is applied, 18 of the 26 sites with Hohokam components can be assigned to the Classic period on the basis of survey level data. The exceptions include one site with both Preclassic and Classic components (AZ U:11:17 [ASM]) one site with a Preclassic component only (AZ U:11:31 [ASM]), and six sites with temporally unidentifiable components (including the Hohokam site probably reused by a later aboriginal group); (see Table 2, cultural affiliation is listed only as Hohokam). This temporal dichotomy suggests that the Preclassic occupation at Queen Creek was a very small one, contrasting with an extensive use of the area during Classic times. We stress that earlier Preclassic occupations may be present, but have been masked by subsequent occupations or even natural factors. Based on the Teague and Crown (1984) data from lower Queen Creek, however, it would appear that there is a strong possibility for only a limited Preclassic expression.

It is tempting to "seriate" the Hohokam remains by lumping all redware sites as Classic and all non-redware sites as Preclassic. This would make the disparity between the intensity of the earlier and later period use of the area less impressive, and would imply less rapid growth (at least in site numbers) during the Classic period. However, two of the six sites not identifiable to period contained possible remains of stone-walled structures, which suggests that they are late rather than early.

Although Preclassic components may be masked, there is, in fact, only one site (AZ U:11:17 [ASM]) which does appear to include both Preclassic and Classic pottery. Most of the sites seem to have limited remains, indicating short-lived occupations; therefore, most probably are single component rather than multiple component in nature. Our tentative conclusion, therefore, is that the major occupation of the Whitlow Ranch Dam area took place during the Classic period, with only minor local antecedents.

It is worth noting that at many of the Classic Hohokam sites, pueblo type architecture--a trait usually thought of as "non-Hohokam"--is present. In a historical-particularist approach to culture change, such as Gladwin (1938) and Haury (1945, 1976) applied to the Classic period, a shift from pithouses to pueblos could be evidence of replacement of one ethnic group by another (e.g., the Hohokam by the "Salado people"). Instead, we believe that such evidence as exists for the mountain area on the eastern rim of the Hohokam region (e.g. Doyle 1976) suggests that in-situ change accounts for the new elements of the Classic period. After all, we are dealing with the same trait changes as occurred in the Hohokam "core" area along the Salt and Gila Rivers, and are now generally assumed to be local developments rather than cultural intrusions (e.g. Teague and Crown 1984). The one difference between Whitlow Ranch Dam and the Hohokam "core" is that the Whitlow Ranch Hohokam had rocks in abundance, and tended to make their above-ground structures of stone rather than adobe (leading to what are called "pueblos" rather than "compounds"). In short, we do not think it incongruous to speak of Hohokam "pueblos" in the Classic period.

As noted previously, only one site with a probable post-Hohokam aboriginal component was identified. This was AZ U:11:29 (ASM), a fortified hilltop site which seems to have been initially occupied during the latter part of the Hohokam sequence. At this site, the field crew noted a number of sherds of thin brownware in addition to Hohokam style plainwares. Such brownware is characteristic of the Protohistoric period in southern Arizona; however, without detailed study it is impossible to state which aboriginal group produced the sherds in question. Most likely the pottery reflects limited reuse of the hilltop by the Yavapai, but at this time possible use of the site by Pimans after A.D. 1450 cannot be ruled out.

Until more protohistoric sites are documented, the identification of this component at AZ U:11:29 (ASM) must be considered both unusual and important. Collection and analysis of pottery from the site should be considered a high research priority for the Whitlow Ranch Dam area; hopefully such an effort can be made before the site is subjected to further impact.

None of the Historic period sites predate the Anglo-American period (ca. 1850-present). Within the latter period, historic sites that both predate and post-date the building of the narrow gauge railroad (ca. 1915) were identified. None, however, date earlier than 1870.

Site Function

Our reasons for attempting to identify site function are given in Chapter 3. In practice, it was difficult to break down the sites in terms of function, and the assignments are, if anything, even more tentative than the temporal placements.

Recognizing the limitations of our data, we derived the following simple breakdown.

Type I: Small Habitation/Field House Sites. These sites are characterized by rock alignments which either definitely or possibly indicate the presence of structures with rock or cobble walls. One or two rooms are indicated.

At Whitlow Ranch Dam, nine of 30 sites fall into Type I (see Table 2). The sites are associated with artifact scatters, which often include sherds (8 of 9 sites), chipped stone (8 sites), and ground stone (4 sites). One Type I site(AZ U:11:17 [ASM]) was the only site with sea shell remains noted during the survey. Although some are probably field houses, we suspect that at least a few were fairly permanently occupied. In general, however, the issue of seasonal versus permanent occupation is an unresolved one for small sites in the Southwest.

Six of the Type I sites are Classic Hohokam, one is both Preclassic and Classic, and two are Hohokam but of unidentified period. Given the general trends of the prehistory of the region, we suspect that all the Type I sites postdate roughly A.D. 1000.

Type II: Small Village Sites. Only three sites fall into this category. Sites AZ U:11:25 and AZ U:11:30 (ASM) are small pueblos (of about 21 and 13 rooms). Site AZ U:11:22 (ASM) is a large habitation site without visible structures, but the site has been badly disturbed and room blocks may have once been present. It is classed as a habitation site because of its size and associated remains.

Artifacts associated with these sites include sherds, chipped stone, and ground stone. All three Type II sites are Classic Hohokam.

Type III: Fortified Site. Although some archaeologists balk at using the term "fortified site," no better explanation for these structures has arisen. The single example from Whitlow Ranch Dam, AZ U:11:29 (ASM), consists of five room-like features and an encircling wall on top of a high hill. A few Protohistoric sherds are associated with the site.

Walled or terraced hilltop sites are actually common in areas on the periphery of the Hohokam world; they occur in the Altar drainage of northern Mexico and the Papagueria (Stacey 1974), where they are known as cerros de trincheras. They also occur in the hilly country north of Phoenix (Spoerl and Gumerman 1985), and in the Prescott Branch country farther north and west. The Whitlow Ranch example indicates that fortified sites also occur on the eastern margin of the Hohokam area. In general, the fortified sites associated with the Hohokam appear to be late in the sequence, between roughly A.D.

1000 and 1350; in other parts of the Southwest, fortified sites do occur both earlier and later than this.

The most likely use of AZ U:11:29 (ASM) during its Protohistoric occupation was as a lookout or fortified refuge. The Indian practice of watching or signalling from high places is well-documented for the historic period and there is no reason to presume that similar practices did not take place prehistorically.

Type IV: Limited Activity Sites. This is a catchall type, which sheds very little light on non-habitation activity loci at Whitlow Ranch Dam. Of the 14 sites in the category, one, AZ U:11:38 [ASM], is a series of petroglyphs initially recorded in 1977 (Stone 1977); it is of aboriginal origin, most likely Hohokam. The remaining 13 Type IV sites are artifact scatters sometimes associated with rock piles, clusters or alignments. All include sherds and chipped stone; seven include groundstone.

None of these sites appear to have functioned as a quarry for chipped stone. The rock types at Whitlow Ranch Dam do not include any highly chippable types, except as dispersed cobbles in the alluvial deposits along Queen Creek. Some local fine-grained rocks were used, but no location seems to have been intensively mined for this purpose. Instead, local procurement of chippable stone seems to have been something of an ad hoc affair. The more likely explanation for most Type IV loci is that they are either a short-term campsite or else are related to food resources (either wild or domesticated).

Type V: Mining Related Loci. Only one Type V site was recorded, AZ U:11:14 (ASM), but a number of mining-related loci were noted as isolated finds. Taken as a whole, these remains include mining related features of various kinds, including prospect holes, shafts, inclines, and claim markers. The latter were of two kinds, those simply of piled rocks and those incorporating an upright piece of wood. Where actual digging took place, historic trash was sometimes present.

All of the mining remains noted at Whitlow Ranch Dam appear to be exploratory in nature, rather than productive operations. Minerals associated with the loci included low-grade copper ores and, in one case, quartz (possibly a test for gold).

Type VI: Ranching or Railroad Related Loci. Two sites, AZ U:12:45 (ASM) and AZ U:12:47 (ASM) could either be related to ranching or to the narrow gauge railroad which operated along Queen Creek. AZ U:12:45 (ASM) may have been a station house or cistern house for the railroad, or else a ranch house. AZ U:12:47 (ASM) appears to have been a ranch house. The artifact-based date range for the latter is roughly 1900 to 1915, which suggests that it was in place before railroad construction began. It may be part of the old Hewitt Ranch.

Site Location by Type

Stone (1977) has divided the project area into three distinct environmental zones, based on topographic and vegetational factors. The three zones, summarized in Chapter 2, are: A) the immediate Queen Creek channel and floodplain; B) the first and second terraces and low hills which flank the channel; and C) the uplands. We presumed from the start of fieldwork that most of the sites in the Whitlow Ranch project area would occur within Zone B, near the creek but out of areas subject to flooding.

As is shown on Table 3, this indeed was the case. Only seven sites were identified in Zone A; 21 in Zone B; and two in Zone C. What is of interest concerning the distribution, however, is the fact the Type II sites (large, habitation occupations) are located either in Zone A, or at the junction of Zones A and B. There are two possible reasons for this pattern. First, the Type II sites may be located on pieces of ground which are protected from flooding, despite their being in the general floodplain zone. Second, the local peoples may have been more concerned with being near their crops than with occasional flooding. It may be that even these larger units were seasonally occupied, and were not used at all when floods were likely. Patterns of seasonal amalgamation and dispersion are common in the ethnohistoric record for the Southwest, but in most cases seasonality has only been considered for smaller sites by the region's archaeologists.

Isolated Finds

Table 4 summarizes the isolated finds by function or characteristics. It can be seen that the isolated remains are generally similar to those at loci classified as sites. Many of the isolated finds (such as Single Flake, Single Core, and Single Sherd) may simply be items washed from sites, or the scattered remnants of now-vanished activity loci. Others may, in fact, represent highly limited sets of activities of varied kinds.

Perhaps the most noteworthy of the isolated finds is the series of claim markers, prospect holes, and shafts (including vertical and incline shafts) at Whitlow Ranch Dam. These show that mining exploration has been an important, if sporadic activity in the area for the better part of the last century. One of the claim markers found during the project, IF-111, held a glass jar containing a claim notice completed in 1975. Other locations were associated with artifact types predating 1915; the historic isolated finds are detailed on Table 5.

TABLE 3. SITE LOCATION BY SITE TYPE.

(Components Represented)

	Environmental Zone		
Site Type	A	B	C
I	AZ U:11:11 (ASM) AZ U:11:18 (ASM)	AZ U:11:13 (ASM) AZ U:11:17 (ASM) AZ U:11:19 (ASM) AZ U:11:23 (ASM) AZ U:11:26 (ASM) AZ U:11:27 (ASM) AZ U:12:48 (ASM)	
II	AZ U:11:22 (ASM) AZ U:11:25 (ASM)	AZ U:11:30 (ASM) (edge of zone)	
III			AZ U:11:29 (ASM)
IV	AZ U:11:16 (ASM)	AZ U:11:12 (ASM) AZ U:11:15 (ASM) AZ U:11:20 (ASM) AZ U:11:21 (ASM) AZ U:11:24 (ASM) AZ U:11:26 (ASU) AZ U:11:28 (ASM) AZ U:11:31 (ASM) AZ U:12:43 (ASM) AZ U:12:44 (ASM) AZ U:12:46 (ASM) AZ U:12:49 (ASM)	AZ U:11:38 (ASU)
V		AZ U:11:14 (ASM)	
VI	AZ U:11:22 (ASM) AZ U:12:45 (ASM) AZ U:12:47 (ASM)	AZ U:12:44 (ASM) AZ U:12:45 (ASM)	

TABLE 4. SUMMARY OF ISOLATED FINDS AT WHITLOW RANCH DAM.
(Page 1 of 2)

Type of Isolated Find	Field Isolated Find Numbers/Comments
Single Flake	32, 40, 54, 67-70, 98, 120, 123, 138, 139, 142, 151, 158, 159, 168
2+ Flakes	122
Single Core	5, 37, 45 (poss. core), 84, 157, 160, 165, 167
Single Formal Chipped Stone Tools	24 (uniface), 82 (proj. point), 100 (proj. point or preform), 107 (scraper), 124 (scraper), 134 (poss. chopper), 162 (retouched flake)
Single Pieces of Pecked/Ground Stone	16 (misc. frag.), 18 ("bedrock" mortar in large boulder), 88 (metate frag.), 89 (mano), 174 (hammerstone)
Core/Flake Assemblage	61, 96, 137, 161
Mixed Stone Artifact Assemblages	29 (1 flake, 1 uniface), 31 (7 flakes, 2 cores, 1 core/battered cobble), 94 (1 proj. point, 1 3/4 groove axe frag.), 130 (1 scraper, 1 flake)
Single Sherd	3, 8, 14, 17, 21, 22, 25-28, 35, 36, 42, 44, 50, 62, 74, 90, 118, 144-B, 155
2-9 Sherds	6, 19, 23 (associated with poss. rock ring), 59, 66, 75, 102, 103 (pot break), 132, 136
10+ Sherds	33 (poss. pot break), 76 (pot break), 78, 117 (pot break), 169 (pot break)
Pot Break, Sherds Not Counted	166, 170, 171
Sherd/Flake Assemblages	30, 34, 43, 49, 81, 104, 105 (pot break and flake), 128, 172
Other Sherd/Stone Artifact Assemblages	38 (1 sherd, 1 core), 51 (6 sherds, 3 flakes, 1 core/battered cobble, 1 rock pile), 71 (ca. 28 flakes, 2 scrapers, ca. 19 sherds), 72 (4 sherds, 6 flakes and cores), 79 (6 sherds, 1 core), 101 (1 metate frag., 1 scraper, 1 sherd)

TABLE 4. SUMMARY OF ISOLATED FINDS AT WHITLOW RANCH DAM.
(Page 2 of 2)

Type of Isolated Find	Field Isolated Find Numbers/Comments
Prospect Hole(s) or Shaft(s)	12, 13 (associated with rock pile), 15, 65, 73 (possible; associated with European artifacts); 77 (associated with 1 shovel blade), 84, 119 (associated with European artifacts), 126 (associated with rock pile), 148 (associated with metal powder keg), 149, 150 (associated with European artifacts), 152 (associated with rock pile), 153, 163, 164 (associated with rock pile, European artifacts)
Rock Pile(s) or Claim Marker(s)	1, 7, 20, 48, 80, 83, 86, 87, 97, 99, 108-116 (No. 111 has glass jar containing 1975 claim), 129, 145-147, 154
Architectural Features	41 (rock alignment, 2 cores, 1 poss. scraper), 173 (section of cobble wall)
Isolated Piece(s) of Glass	58, 60, 91, 125, 141
Single Can	46, 47, 53, 54, 121
Can and Bottle Dumps (Prob. Single Episode)	56, 63, 92
Misc. European Remains	57 (1 railroad spike, 1 piece of glass), 64 (railroad spike), 93 (pieces of a concrete foundation), 95 (pieces of a plate), 127 (sawed off utility pole), 133 (misc. metal object), 135 (bucket with wires attached)
Mixed Aboriginal/ European Remains	39 (1 core, 1 sherd, 1 piece glass), 52 (1 sherd, 1 flake, 1 bottle frag.), 131 (10 sherds, 15 pieces of chipped stone, multiple pieces of European trash), 140 (3 flakes, 1 bottle break), 143 (1 piece glass, 1 flake), 144-A (2 flakes, 3 obsidian nodules, 1 piece glass, 1 insulator fragment)
Miscellaneous	4 (2 fractured cobbles), 9 (transported water-worn cobble), 11 (transported water-worn cobble)
Numbers Not Used	2, 5, 106, 159 (now Site AZ U:12:43)

TABLE 5: Chronological Summary of Historic Isolated Finds

UNIT	I.F. No.	SIZE (m)	DESCRIPTION
G	12	10 x 10	Prospect. Sawed lumber present but may be flotsam. On hill. No date.
L	13	-	Isolated mining activity. East to west are: (1) 1.5 m diam. rock pile (claim marker); (2) 4 m diam. prospect; (3) incline shaft; (4) 3 m diam. prospect. Sawed lumber present but probably flotsam. Traces of low grade copper carbonate ore. Overall dimensions not measured; no date.
L	15	-	Prospect on top of hill, 12 x 4 m; smaller prospect, 3 x 3 m, immediately to east. In schist with quartz veins. Overall dimensions not measured. No associated artifacts and no date.
AA	48	2.0. x 1.5	Rock pile; on gentle lower hillslope. Probably a claim marker. No date.
AA	52	N/A	1 redware sherd; 1 granite(?) flake; 1 STA base of a whiskey bottle, hand blown in a 2 piece mold (1880-1920s) On knoll. In same area were are several concentrations of local rock which appear to be natural in origin
DD	53	N/A	Rectangular hole-in-cap can ca. 1915 and earlier. On slope, near bulldozer push mounds (disturbed area).
DD	55	N/A	Square hole-in-cap meat can, 3 x 2.5 in, ca. 1915 and earlier.
DD	56	2 x 2	Can and bottle dump. Near dirt road, S of Queen Creek. Crimp double lock seam tin cans (ca. 1900-present); amber and clear glass whiskey and soda bottle bases with Owens-Illinois base mark dating 1935-36 or 1945-46. Crown caps (1892-present).

TABLE 5: Chronological Summary of Historic Isolated Finds

UNIT	I.F. No.	SIZE (m)	DESCRIPTION
DD	56 cont		1 redware flower pot or tile sherd. 1 bottle base has Miller machine mark (1930s onward). Est. 80% glass, 20% cans.
DD	57	N/A	1 narrow-gauge railroad spike; 1 piece STA glass from whiskey bottle base (1903-1920s).
DD	58	N/A	3 pieces STA glass (1880-1920s).
DD	60	15 x 15	Pieces of 4 bottles dating 1880-ca. 1900. (1) black glass base "A&DHC", 2 piece mold. (2) dark green turn mold bottle with push-up base. (3) pieces of green bottle, 2 piece mold. (4) pieces of amber beer bottle, 2 piece mold. "A&DHC" is A. and D.H. Chambers, possibly no later than ca. 1900.
DD	63	4 x 1	Can and bottle dump. Est. 90% cans, 10% glass. Food cans (round 1 and 2 lb. size with double lock end seams, ca. 1900-present) and evaporated milk cans; 1 broken clear Pepsi bottle; cobalt blue pieces of 1 milk of magnesia bottle; 1 bottle with Owens-Illinois mark dating 1930, 1940, or 1950; pieces of 1 white earthenware plate with black decal decoration; 1 tobacco can top. Est. ca. 1940s; could be as early as 1930.
DD	64	N/A	Narrow gauge railroad spike.
DD	65	15 x 15	Prospect and spoil. Actual hole is about 2.5 m in diam., 1 m deep. Ca. 30 m N of Site 12. No associated artifacts; no date.
--	77	-	Prospect, 6 x 4 m; rock pile (claim marker), 1 x .7 m. Only associated artifact is rusted shovel blade; no date possible

TABLE 5: Chronological Summary of Historic Isolated Finds

UNIT	I.F. No.	SIZE (m)	DESCRIPTION
K	80	1.0 x .5	Rock pile; possibly a claim marker.
O	83	2.0 x 1.5	Rock pile (claim marker?). No associated artifacts.
S	85	8 x 5	Prospect, 1.5m deep. No associated artifacts.
S	86	.5 x .5	Rock pile with 2 m long stick in center. Stick has wire nails. Claim marker?.
S	87	4 x 2	Rock pile (claim marker?).
BB	91	N/A	Dark green, blown-in-mold (by hand) vermouth type bottle, with base push-up (not pontil) and hand applied finish. Ca. 1880-1920s.
BB	92	5 x 2	Can and bottle dump dating ca. 1930, 1940, or 1950. Est. 70% various sizes of round and square food cans. Whiskey, amber, beer, and clear glass catsup bottles. Also 1 steel wheel hub (8 in diam), 1 .22 caliber bullet, 1 canning jar lid, ca. 7 plainware sherds.
BB	93	N/A	Chunks of a concrete and rock foundation,in a wash S of railroad bed. Could be associated with the railroad.
W	95	10 x 10	Fragments of 1 white earthenware plate, undecorated. Maker's mark present, probably in brown underglaze: "ACK &" and lion-and-unicorn logo. Possibly Henry Alcock & Co. (1861-1910). Parisian Porcelain (white granite ware).
W	97	.75 x .75	Rock pile, 1 m tall; claim marker.
W	99	.75 x .75	Rock pile with two-by four board in center; total height 2 m. Claim marker.
G	108	-	Rock pile with stick; mining claim; size not recorded.

TABLE 5: Chronological Summary of Historic Isolated Finds

UNIT	I.F. No.	SIZE (m)	DESCRIPTION
GG	109	-	Rock pile with stick; mining claim; size not recorded.
GG	110	-	Rock pile with stick; mining claim; size not recorded.
EE	111	-	Rock pile with glass jar; size not recorded. Mining claim in jar dated 1975.
II	112-116	-	Rock pile with stick; size not recorded. Mining claim.
EE	119	-	Unfenced mine shaft; size not recorded. Interior is shored; large pile of shoring next to shaft. Ca. 10 m east are additional prospects and backdirt piles. Also present is a light density scatter of rusted ferrous metal artifacts washing down slope. These include sanitary type cans, evaporated milk cans, corrugated sheet metal, part of a forge, 50 gallon drums, and car parts including an oil filter. Ore appears to be Artifacts suggest a post-1920s date.
GG	121	N/A	Top of a rectangular hole-in-cap can (ca. 1915 and earlier).
GG	125	N/A	Piece of STA glass, oil type finish. Finish is broken. 1880-1920s.
RR	126	-	Rock pile with stick, next to a prospect; size not recorded. No associated artifacts.
RR	127	N/A	Sawed off utility pole, possibly associated with railroad.
RR	129	-	Rock pile with metal pole and wood stick; size not recorded. Mining claim marker.

TABLE 5: Chronological Summary of Historic Isolated Finds

UNIT	I.F. No.	SIZE (m)	DESCRIPTION
RR	131	30 x 20	Bulldozed, highly disturbed area between dirt road and Queen Creek. Ca. 10 sherds of unid. plainware; ca. 15 pieces of chipped stone; rectangular hole-in-cap cans (ca. 1915 and earlier); 1 rectangular bottle base with Owens Glass Co. maker's mark (1919-1929); fragments of glass and ceramic insulators; evaporated milk cans and other food cans; car part (thermostat); oil cans; wood; wire. Historic materials appear to be earlier than 1920s.
RR	133	1 x 1	Square ferrous metal object--possible bucket from a railroad handcar or wheelbarrow. Could be associated with the railroad.
RR	135	N/A	Metal bucket; attached to wires that may have been strung to poles at one time. Could be associated with railroad, but in general area of old Hewitt Ranch as shown on 1900 USGS map.
RR	141	N/A	Intact STA bottle with crown cap. Hand blown in 2 piece mold.Embossed on body: "CELEBRATED CLIQUOT CLUB TRADEMARK REGISTERED BEVERAGES MADE IN AMERICA". 12 oz;10 in tall, 2.5 in diam. base
CC	143	N/A	1 fragment of STA glass base (1880-1920s); 1 flake of chert. On flat between wash and hills.
RR	144-A	N/A	2 flakes of granite; 3 nodules of obsidian each ca. 2 cm diam.; 1 piece STA glass (1880-1920); 1 fragment of a green insulator.
FF	145-147	2 x 1.5-2	Rock pile with stick; claim marker.
EE	148	40 x 20	Series of shallow prospects, and 1 deep shaft, on hillslope. Only associated item is a corrugated metal powder keg.

TABLE 5: Chronological Summary of Historic Isolated Finds

UNIT	I.F. No.	SIZE (m)	DESCRIPTION
RR	173	-	Cobble wall; 4 m long, .5 m tall, width not recorded. In Queen Creek floodplain.

EVALUATION OF CULTURAL PROPERTIES

A primary goal of the Whitlow Ranch Dam survey was to evaluate all cultural properties found in terms of the eligibility criteria of the National Register of Historic Places (NRHP)(Title 36, Code of Federal Regulations, Part 60). The criteria selected for evaluating sites have already been discussed in Chapter 3. Also, in Appendix 2, we have provided a brief evaluation of each site found, as part of the general site description.

At this time, none of the locations appear to be associated -- except in very general terms -- with significant persons or events in local or regional history. Thus, this criterion for NRHP eligibility does not apply. There are a few instances in which documentary research may elucidate a relationship with historic persons or events; in such cases the evaluations in Appendix 2 do recommend archival research as part of any further work.

In any case, for all locations the primary potential for NRHP inclusion appears to lie in a given property's ability to contribute useful information to prehistory or history. Thus, the balance of the discussion will be based on evaluating the information potential of sites.

To begin with, we believe none of the locations described as isolated finds qualify for the NRHP. Except for the mining exploration loci, the isolated finds represent small assemblages not associated with features. They also lack subsurface deposits, are generally lacking in diagnostic artifacts, and are often of dubious integrity (representing either "floaters" or disturbed loci). Therefore, both as individual loci and as a category, the isolated finds are unlikely to yield important new information on prehistory or history, and the survey can be said to have exhausted their information potential.

The mining exploration loci are somewhat more substantial, but still cannot be considered significant. The rock-pile claim markers may serve legal ends, but once they are recorded there is little else that can be said about them. The prospects and shafts are either shallow, or too dangerous to enter (let alone study). When trash is associated with these, it is invariably limited and superficial, indicating a very brief occupation; little remains to be learned from these sites after initial recording. Thus, they are considered no more significant than other locations recorded as isolated finds.

Sites Eligible to the NRHP

In the case of sites (see Table 2), we believe that seven are well enough documented from survey data alone to consider them eligible for the NRHP. These are discussed briefly below; more detailed information on each site is contained in both Appendix 2 and the Data Compendium.

With regards to the major prehistoric sites, so little work has been done in the area that any site with substantial buried remains is likely to add greatly to our understanding of local prehistory. While this may sound like the "sin" of inductivism, it is also true that the less you know about an archaeological zone, the less you know about what questions to ask. In the case of middle Queen Creek, our "knowledge" of prehistory consists of survey data, heavily supplemented by extrapolations from regions to the east and west. An excavation project which yielded a substantial amount, variety, and depth of remains would provide the much-needed basis for defining area-specific research problems.

Still, there are some specific (though tentative) research problems which can be suggested on the limited data now available:

--Affiliation: in this volume, tentative affiliations have been suggested for the sites, leading to the conclusion that the area was colonized by the Hohokam. Another conclusion was advanced to the effect that the Classic period represents a continuation of Hohokam use of the area, rather than process of ethnic or cultural replacement. These tentative statements can be considered hypotheses which must be tested through additional lines of evidence (pottery from controlled contexts, feature styles, artifact styles, burial and other social practices, etc.).

--Function: again, this report contains some preliminary attempts to classify sites according to functional types. We can ask, however, how accurate this "model" of local functional variability really is. Testing the model will require analysis of functional feature and artifact types, along with studies of food remains and related biological data, from controlled contexts.

--Location: interpretations of site location strategies were clearly limited by the nature of existing data, which is derived from survey alone. A better understanding of site function, as just discussed, would make it much more productive to compare the locations of sites with the distribution of natural resources--since we would better understand which resources were most critical to local peoples.

AZ U:11:14 (ASM). This property is the most substantial of the mining exploration loci found at Whitlow Ranch Dam (Figure 5), and we believe that a combination of documentary research and controlled surface artifact collections would add to our

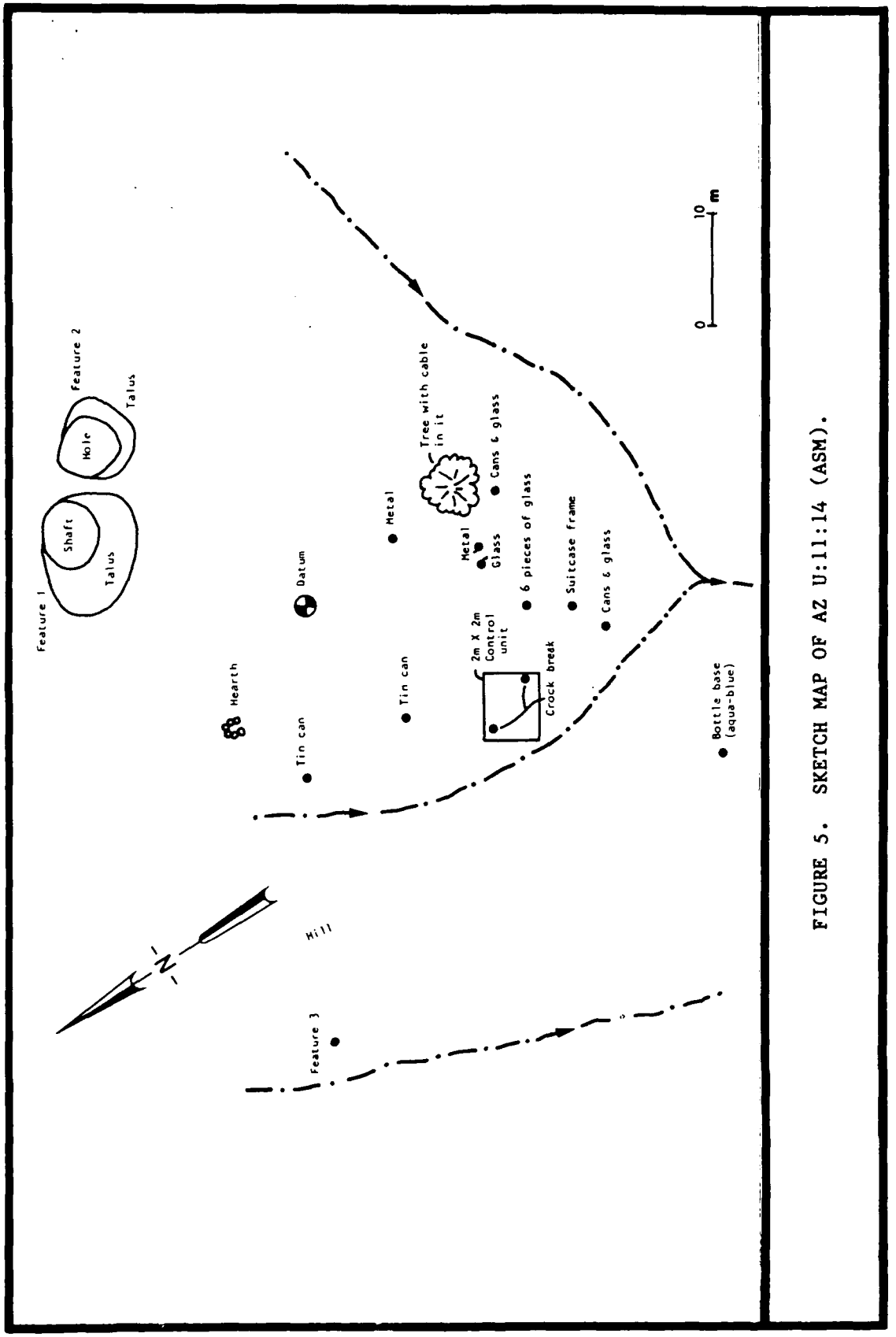


FIGURE 5. SKETCH MAP OF AZ U:11:14 (ASM).

knowledge of historic mining exploration. All too much of existing mining history has focused on ventures which reached the production stage; AZ U:11:14 (ASM) offers an opportunity to look at an attempt to hit paydirt that ultimately failed.

Specifically, we can ask: what is the structure of a mining effort at this early stage of development? What sorts of resources did miners have at this "pre-paydirt" stage? How did they live? Finally, how do these patterns compare to those identified archaeologically at "going" mining operations (e.g. Teague 1980, Ayres 1984)?

AZ U:11:22 (ASM). The area of prehistoric occupation of the site is large (1500 by 200 m; Figure 5), and though disturbed is highly likely to contain subsurface deposits from the Hohokam occupation of middle Queen Creek. Seven distinct artifact concentrations (A through G; see Figure 6) were identified within the site area (Table 6). The concentrations suggest that the southern margin of Queen Creek was intensely used. The length of occupation cannot be determined though the surface artifactual material suggests Classic period use.

It could not be determined on the survey level whether or not more than one site is actually represented within the current boundaries. A thin, but consistent scatter of cultural material occurred across the entirety of the area, and between the various concentrations. Simply based on the presence/absence of redwares, it would appear the concentrations A, D, and F may be contemporaneous. Obversely, concentrations B, C, E, and G may represent either isolated use episodes associated with some unspecified occupation or limited function activity areas associated with one or another of concentrations A/D/F.

The value of the prehistoric component as a resource is indicated by the presence of a variety of artifact types (pottery, chipped stone tools, other forms of chipped stone, and ground stone), and the presence of temporally diagnostic artifacts (redwares). Such data, along with feature information, would be highly useful to addressing the research problems previously defined, in addition to providing data useful to initial local synthesis and problem definition.

In addition, the site contains a historic component (see Table 6, concentrations D1, E1, and G1). The artifacts associated with the three historic concentrations suggest that only concentration E1 is probably associated with the early railroad period. Materials identified in areas D1 and G1 post-date World War II. As for the features, excepting the concrete slab and buried cable guide at G1, the remainder are clearly associated with the narrow gauge railroad which bisects the site east-west.

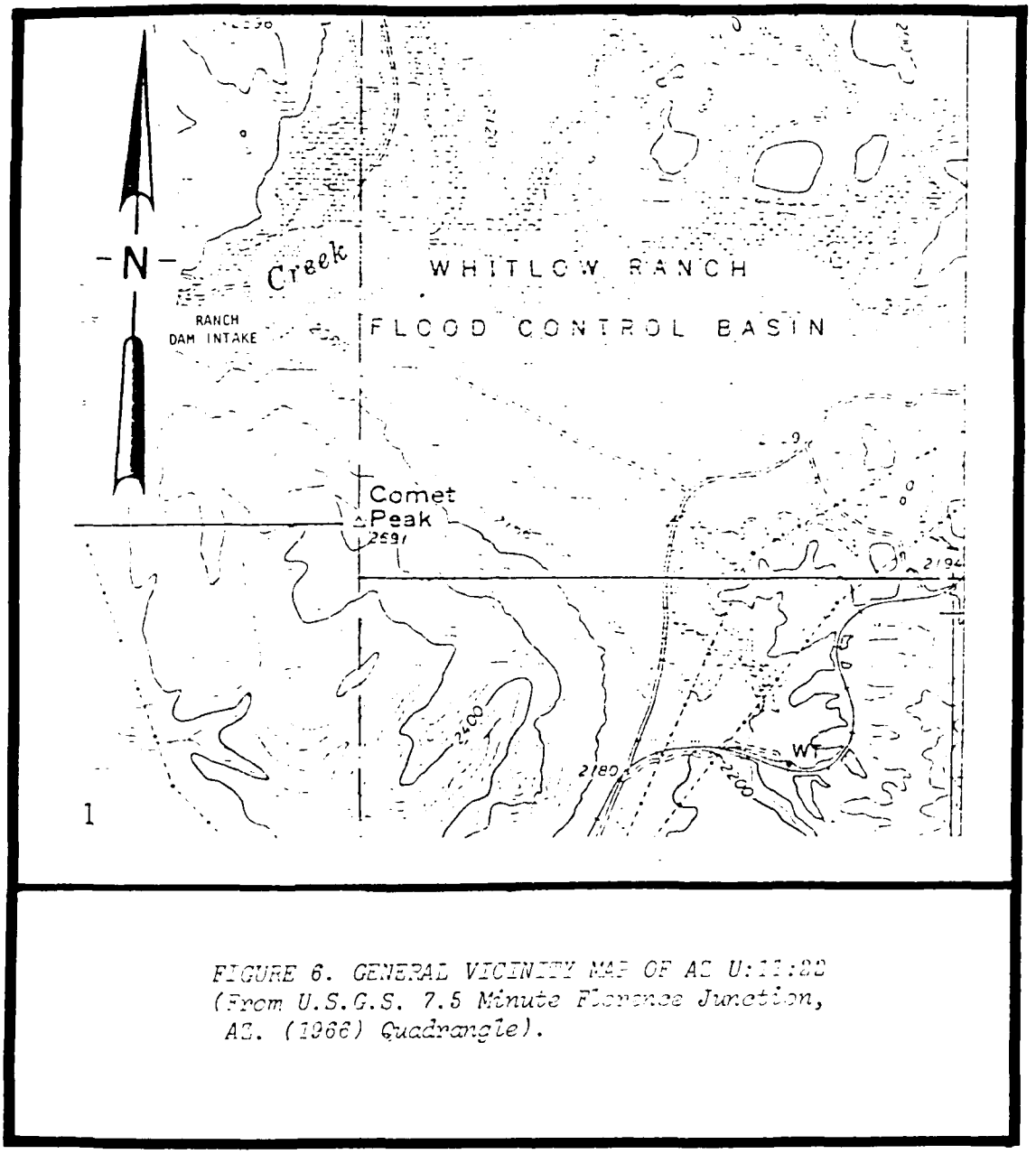


FIGURE 6. GENERAL VICINITY MAP OF AZ U:11:82 (From U.S.G.S. 7.5 Minute Florence Junction, AZ. (1966) Quadrangle).

TABLE 6. SUMMARY OF AZ U:11:22 (ASM) CONCENTRATIONS

Concentration Designation	Size (in meters)	Depth (in cm)	Artifact Density	Comments
A	100 x 100	5-30	+1000; ceramics include plain and redware; flakes and groundstone also present	Probable trash mound; area is being pot-hunted, and disturbed by bulldozing and berms
B	120 x 200	n/a	+1000; plainware, flakes, unifacial scraper and obsidian nodules	Activity and habitation area; disturbance fom camping and berms
C	70 x 50	n/a	+1000; plainware and chipped stone present	Activity and habitations area
D	130 x 100	n/a	+1000; Prehistoric: plainware and redware, flakes, cores, tools	Prehistoric: possible mounds, definite activity and habitation areas
D1	see D	n/a	Historic: datable artifacts noted are post 1960s	Historic: four concrete and iron post pilings possibly associated with narrow gauge railroad construction
E	50 x 60	n/a	+1000; Prehistoric: plainware, flakes, utilized flakes hammerstones, manos and metates	Prehistoric: rock ring (possible hearth); activity and habitation area
E1	see E	n/a	Historic: Hole-in-caps cans, STA glass fragments, mold blown amber beer bottles (ca. 1880s-1915)	Historic: no features, but possible camp location or work station

TABLE 6. SUMMARY OF AZ U:11:22 (ASM) CONCENTRATIONS

Concentration Designation	Size (in meters)	Depth (in cm)	Artifact Density	Comments
F	70 x 70	n/a	+1000; plain and redware, lakes and battered cobbles, groundstone also present	Activity and habitation area
G	150 x 80	n/a	+1000; Prehistoric: plain-ware, chipped stone	Prehistoric: habitation and activity area
G1	see G	n/a	Historic: light scatter	Historic: features present include four concrete and metal pilings, rock pile, narrow gauge railroad bed, 2 x 1 m concrete slab, and large partially buried cable guide

AZ U:11:25 (ASM). This site is a small pueblo, with about 21 rooms, two outlyers (Features 1 and 20, and one possible trash mound (Feature 3) (Figure 7). Locations such as AZ U:11:25 (ASM) almost invariably contain remains useful to a variety of research problems (for example, the ones addressed on page 41). Overall, the site can be characterized as fairly large (for the area), with a substantial number of artifacts and artifacts types present (including Classic period redwares), architectural features and subsurface deposits. The site has been badly disturbed by looting but (as has been learned in recent years) even highly disturbed pueblo sites can be made to yield significant new information. We therefore believe that AZ U:11:25 (ASM) is clearly eligible for the National Register of Historic Places.

AZ U:11:29 (ASM). This property is a mostly intact example of a hilltop fortified site with a standing wall and interior rooms (Figures 8 - 10). Surface artifacts identified during survey were restricted to Gila Plain; Gila Plain, Wingfield variety; and a thin-walled brownware. On this basis alone it is suggested that the initial occupation of the hilltop may have occurred during the Sedentary or Classic Hohokam, with a re-use of the area during the Protohistoric. The evidence is admittedly very sparse; however the re-use of hilltop fortified locations has been documented elsewhere (Spoerl and Gumerman 1984) for the same periods.

More careful study of the surface remains at this site would, by itself, be an important contribution to local prehistory. There may or may not be a subsurface component at this site; if there is, it would only enhance the research value of the location. While remains from a hilltop fort might not yield much information about day-to-day adaptive strategies, additional research would be useful for confirming the functional nature of the site and for more precise statements of cultural and temporal affiliation.

Especially noteworthy, in terms of NRHP eligibility, is the apparent reuse of the site in the Protohistoric period. This makes the site one of the few identified protohistoric locations in central and southern Arizona. A controlled collection and analysis of the pottery from this site might enable a researcher to make a more definitive statement concerning the possible temporal periods represented at the site. In short, the research value of AZ U:11:29 (ASM) marks it as clearly eligible for the NRHP.

AZ U:11:30 (ASM). This small pueblo, about 13 rooms (Figure 11), is considered eligible for the NRHP for the same reasons as applied to AZ U:11:25 (ASM): extensive remains, a variety of artifact types, the presence of diagnostic items, including obsidian projectile points, redwares and Gila and Pinto polychromes) the existence of known architectural features, and

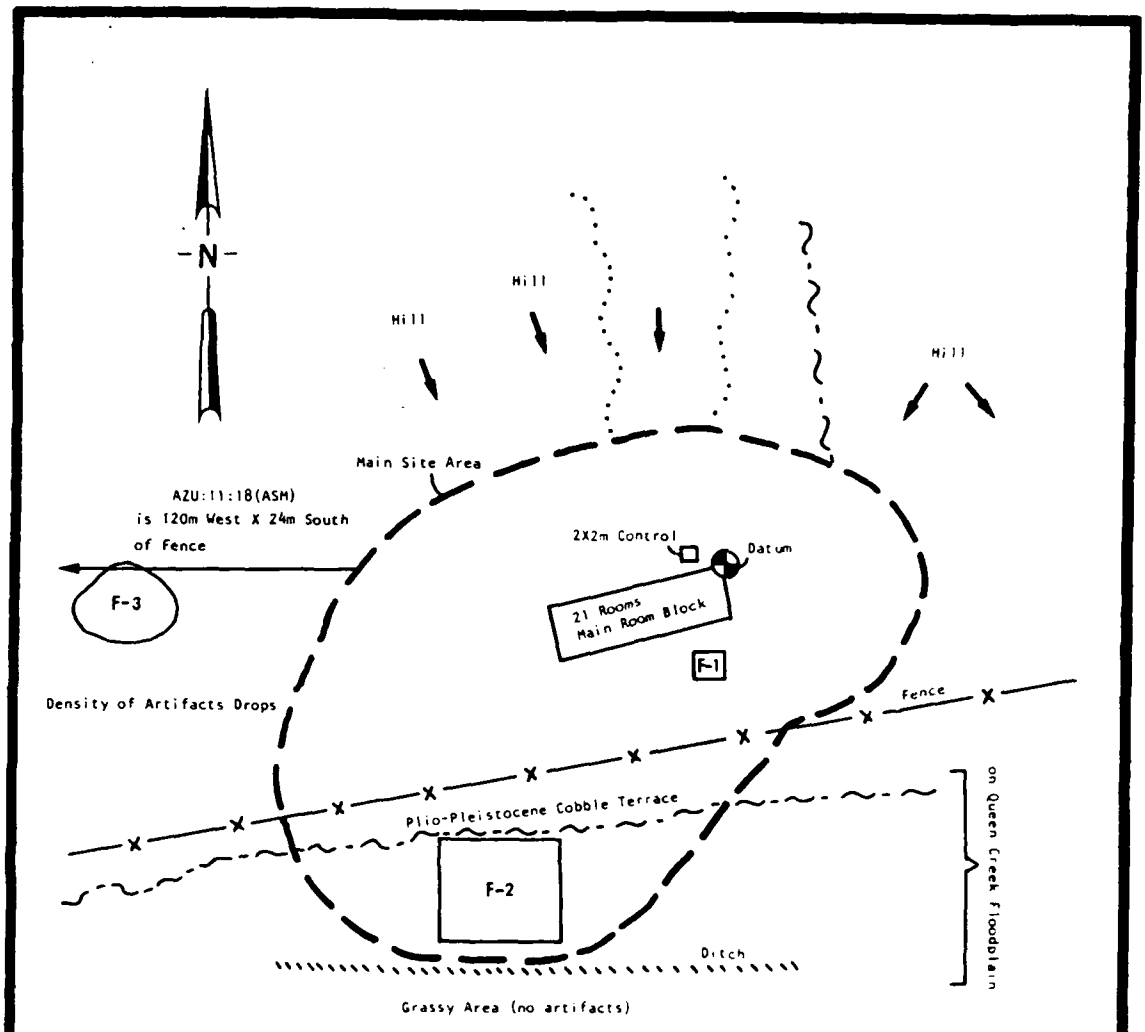


FIGURE 7. SKETCH MAP OF AZ U:11:25 (ASM).

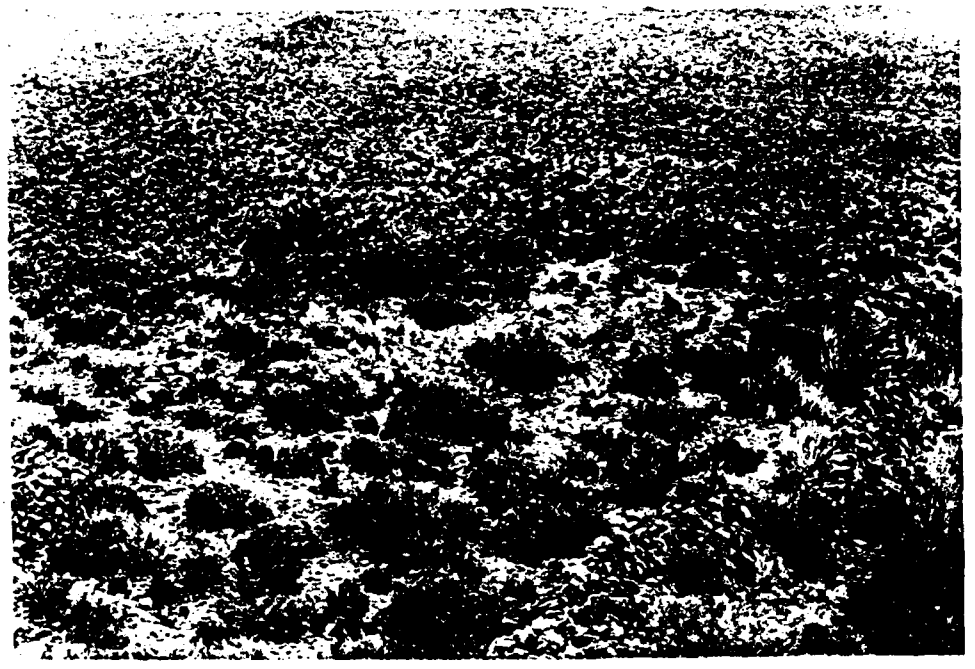


FIGURE 8. GENERAL VIEW OF AZ U:11:29 (ASM) ENCIRCLING WALL.

FIGURE 9. CLOSE-UP OF FEATURE 3 AT AZ U:11:29 (ASM).

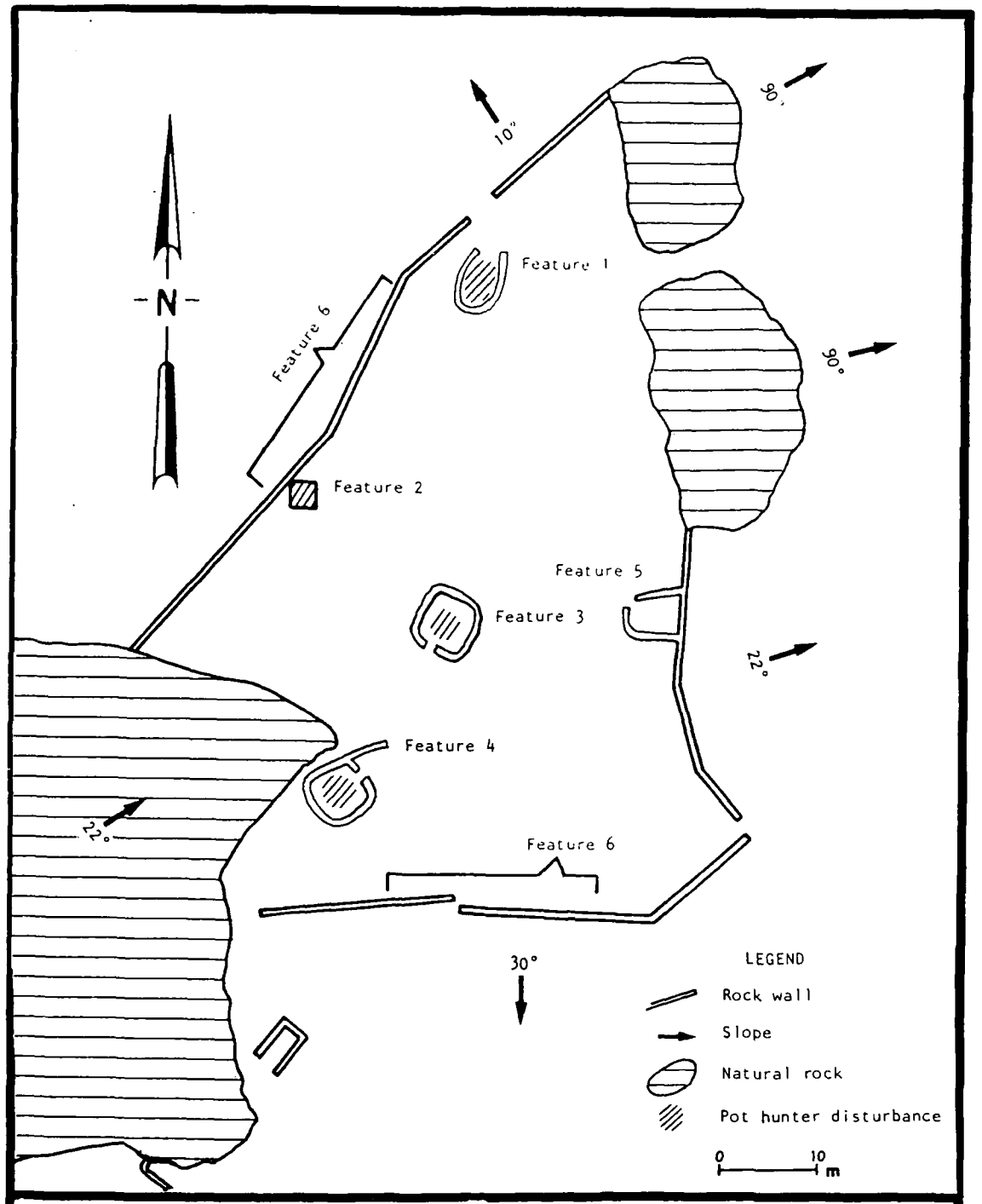


FIGURE 10. SKETCH MAP OF AZ U:11:29 (ASM).

the presence of subsurface deposits suitable for excavation. The presence of the polychromes within the collection clearly suggests that the occupation may be related to the Casa Grande phase of the Classic. If this is accurate then the site may represent one of the "linchpins" in the areal settlement pattern for that phase.

AZ U:11:38 (ASU). This is the only petroglyph site known for the Whitlow Ranch Dam area. Two concentrations of petroglyphs (designated Features 1 and 2) were identified at the location. Feature 1 is on a sheer rock face of Pima schist which, at present, is approximately two meters above the edge of an unnamed wash south of Queen Creek. Of the distinguishable glyphs on the panel, five are either deer or bighorn sheep, six are coyotes, and one is a stick figure (Figure 12).

Feature 2 is comprised of panels on two adjacent boulders in the wash downslope from the Feature 1 panel. At least eight stick figures are identifiable on the panels. Overall, the figures of Feature 2 are less well-defined and more eroded than those of Feature 1. Additional, more careful documentation of the site would add to our knowledge of local and regional patterns of rock art. A particular concern of further research should be to attempt a precise determination of the affiliation and the age of the rock art (both of which are unknown at present), and to relate its presence, if possible, to the adaptive and social activities taking place in the surrounding portion of middle Queen Creek.

Sites Not Eligible to the NRHP

We believe that two sites can be classed as not eligible for the NRHP, based on survey data alone:

AZ U11:24 (ASM). This site is a small, probably superficial artifact scatter comprised of relatively few items, none of them diagnostic (Figure 13). There are no associated features and the site appears to be heavily deflated.

AZ U:12:43 (ASM). The site is a small, badly deflated artifact scatter comprised of relatively few items, none of them diagnostic. There are no associated features.

Sites of Indeterminate NRHP Status

For the remaining sites, we are unable to recommend either for or against a determination of eligibility. As is often the case in an area which is not well known, our lack of understanding about local sites makes the ambiguous ones even harder to evaluate. There appear to be a number of one- to two-room habitation or farm house sites present in the WRD area, the majority of which date to the Classic period (an evaluation based

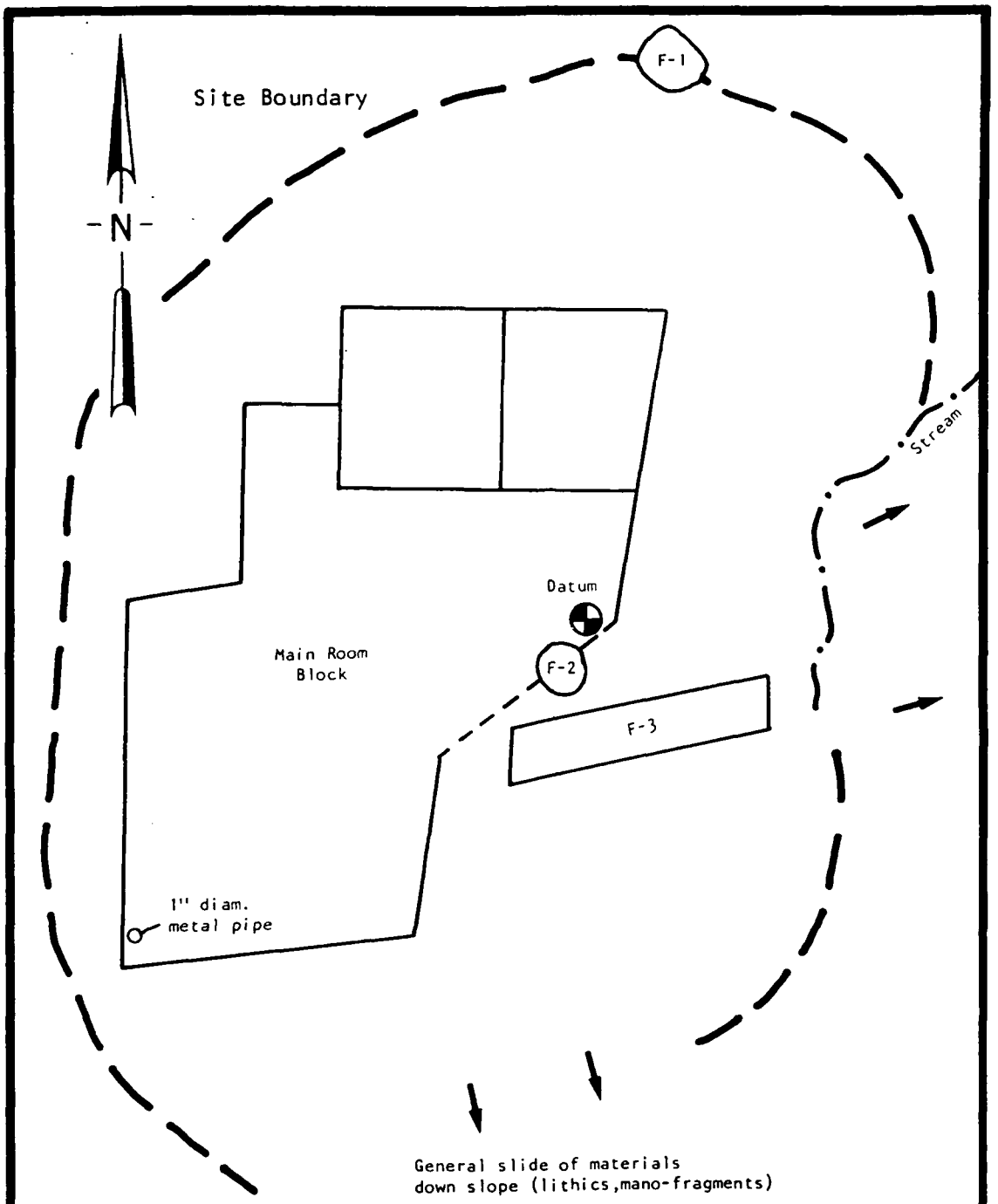


FIGURE 11. SKETCH MAP OF AZ U:11:30 (ASM).

LEGEND

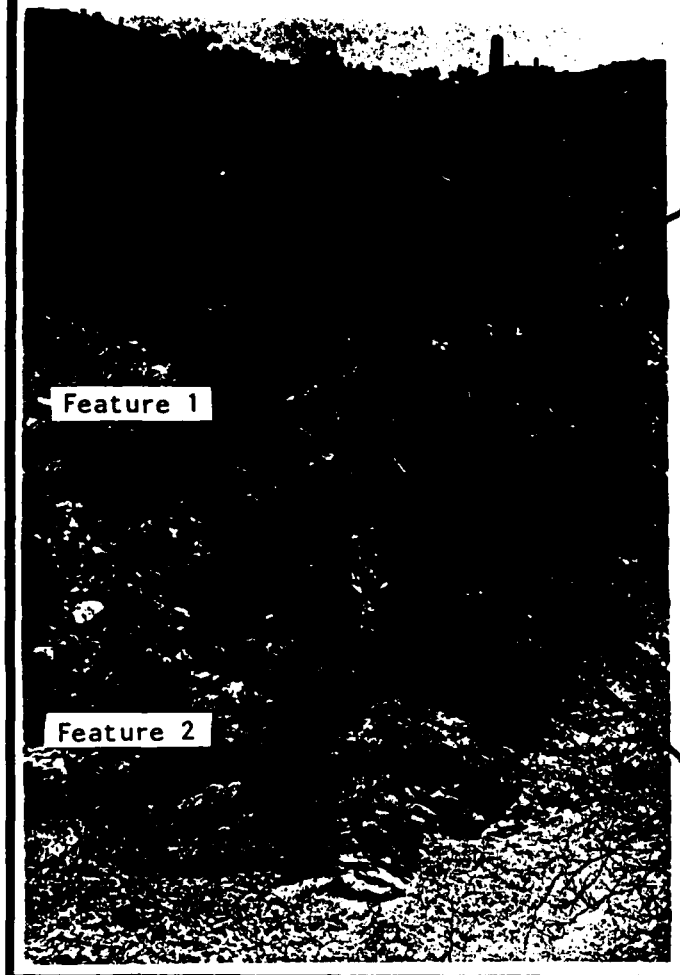
Slope

F-1 = 1.7m X 2.1 rockpile

F-2 = 1.3m X 1.5m rockpile

F-3 = 8m X 1.5m possible trash mound

0 10 m



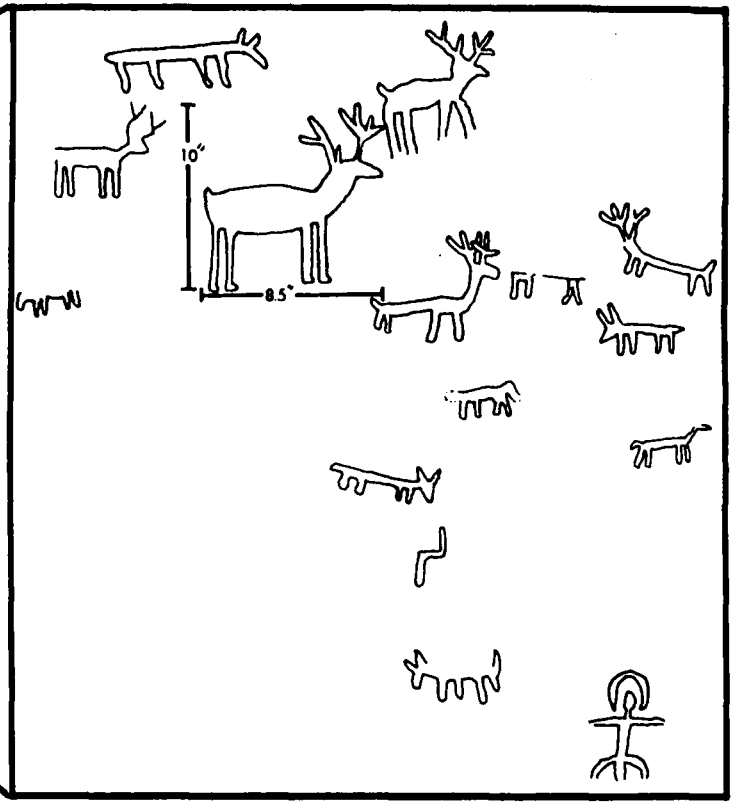


FIGURE 12. VIEW OF AZ U:11:38 (ASU) AND SKETCH OF FEATURE 1.

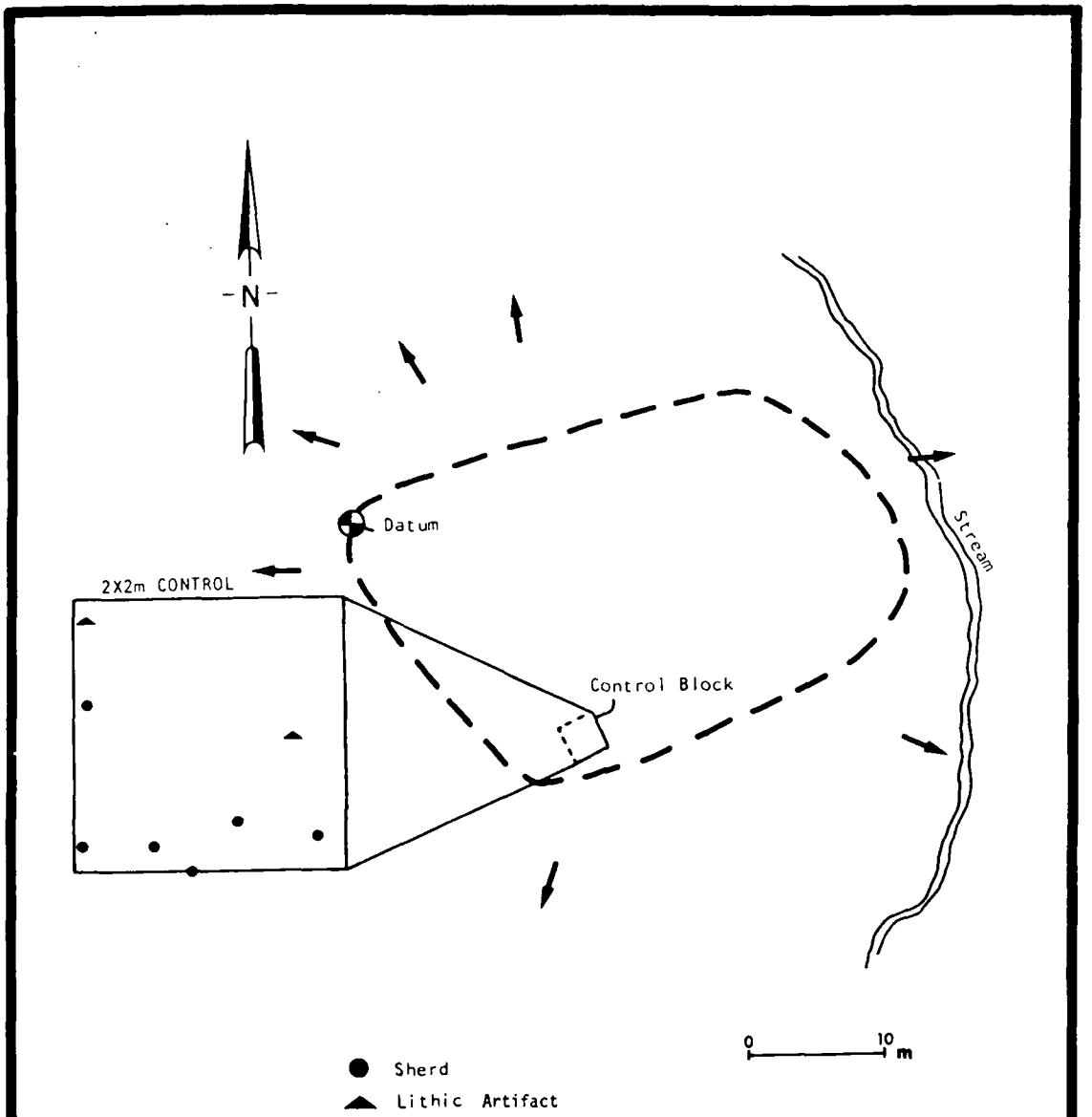


FIGURE 13. SKETCH MAP OF AZ U:11:24 (ASM). Control block is representative of overall low artifact density at site.

on the presence of redwares). Whether or not these occupations are more Hohokam or more "Salado" cannot be determined at this time. There also seem to be at least a few true limited-activity sites, although their function is unclear. For both habitation/farm sites and limited activity areas, the information potential of a given location is strongly dependent on the existence of subsurface deposits, and the survey data are largely silent on this point.

We therefore recommend site testing as the next step in management of a number of the sites at Whitlow Ranch Dam (see Table 2). Although the specific approach used in testing might vary from site to site (see Appendix 1), the overall goal would be the same: to better understand the nature and extent of remains at sites which, for now, are somewhat ambiguous.

Impacts to Sites and Recommended Management Responses

Flood control dams such as Whitlow Ranch are designed for preventative control of periodic flooding. It is often common for the floodpool to contain very little water; obversely, it can also experience long periods of inundation.

The functional nature of Whitlow Ranch Dam directly affects the impact to archaeological sites. Although the spillway elevation at Whitlow Ranch Dam is at 2166 ft (660.2 m) AMSL, it is unlikely that the reservoir will ever fill to that level. In fact, 23 years of records for Whitlow Ranch Dam (Helen Wells, personal communication) indicate that the highest reservoir level reached was 2111 ft (643.4 m) AMSL. Moreover, flood levels have exceeded 2100 ft (642.2 m) in only three of the 23 years. This suggests that any sites in the flood basin, but above 2120 ft (646.2 m) AMSL, are relatively unlikely to be inundated.

Below 2120 ft (646.2 m) AMSL, however, sites are probably in fairly great danger. The repeated flooding and draining in a flood control reservoir can cause substantial damage. Examples of such deleterious effects were documented at Painted Rock Reservoir in Arizona, where flood waters were let out very slowly after a major flood (cf. Phillips and Rozen 1981).

Also, wave action seems to be most damaging on soft sediments, and on sloping or prominent points (ridge spurs or knolls) in local terrain. The sediments at Whitlow Ranch Dam are generally very rocky and appear to resist the effects of wave action. However, many of the sites at Whitlow Ranch Dam are on localized rises or knolls, and are probably highly susceptible to erosion during inundation episodes.

Other effects worth considering are siltation and changes in vegetation. At Whitlow Ranch Dam, silting has apparently occurred only in the lowest portions of the flood basin, but continued silting will conceal some sites and effectively destroy their research value. In addition, the Queen Creek valley bottom now supports a jungle-like plant cover which conceals sites just as effectively as ten feet of silt. Any sites within the valley bottom should be considered lost for good; and, should the heavy plant growth spread, it will lead to the further loss of cultural resources.

Given the factors just reviewed, we believe that all sites below 2120 ft (646.2 m) AMSL will sooner or later be destroyed as a result of normal dam operation. The locations in question include: AZ U:11:11, U:11:16, U:11:18, U:11:22, and U:11:25 (all ASM). Of these, three (AZ U:11:11, U:11:16, and U:11:18) have been judged as requiring testing as part of further evaluation; therefore, testing should proceed at these sites. Sites AZ U:11:22 and U:11:25 are believed to be eligible for the NRHP, so the Corps should plan for impact mitigation studies at these two sites. We recommend that a preliminary testing program be carried out at both sites to verify their eligibility and to allow preparation of an informed data recovery program.

Sites between 2120 ft (646.2 m) and 2166 ft (660.2 m) ASML are in much less danger, as the possibility of inundation is relatively slight. Moreover, the damage caused by one or two inundations over the life of the dam may be minimal. For this reason, we recommend that a sample of the sites be checked after any inundation within this elevation range; if deterioration from flooding is noticeable, a mitigation program should be planned but otherwise the sites can be left undisturbed. The possibly significant or significant sites within these areas include: AZ U:11:12 (ASM) through U:11:15 (ASM), U:11:17 (ASM), U:11:19 (ASM) through U:11:21 (ASM), U:11:23 (ASM), U:11:26 (ASM) and U:11:27 (ASM), U:12:45 (ASM), U:12:46 (ASM) (Anglo-American period component), U:12:47 (ASM) and AZ U:11:26 (ASU). Sites AZ U:11:24 (ASM) and U:12:43 (ASM), and the Hohokam component of U:12:46 (ASM) are also in this elevation range but are not considered significant.

Finally, sites above 2166 ft (660.2 m) AMSL will never be inundated and so are not of concern relative to operation of the dam. Thus, no further work need be conducted at those sites unless new or different types of activity take place at Whitlow Ranch Dam. The sites in question are: AZ U:11:28 (ASM) through U:11:31 (ASM), U:12:44 (ASM) (Anglo-American period component), U:12:48 (ASM), U:12:49 (ASM), and AZ U:11:38 (ASU). The AZ U:12:44 (ASM) Hohokam component is also in this range, but is not considered significant.

We may note that the other significant impact to sites--besides dam construction and operation--is vandalism.

It is not clear to us whether monitoring and prevention of site vandalism is the responsibility of the Corps or of the Forest Service, but we would hope that one of these two agencies would assume the task of curtailing such activity at Whitlow Ranch Dam. Beyond restricting access, it is not clear what can be done, but at the least the current survey data can be used to monitor the extent of new pothunting activity.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

1. A mixture of intensive (transect) archaeological survey and intensive archaeological reconnaissance (non-transect study) revealed the presence of 30 prehistoric and historic sites at Whitlow Ranch Dam. Two of these sites had previously been recorded by ASU, while a third ASU site could not be relocated. In addition, 163 isolated finds were located.

No evidence of preceramic cultures was located. A minor Preclassic Hohokam occupation was documented for the Whitlow Ranch Dam area. During the Classic period (defined by the presence of redwares at sites), at least three small villages were present (AZ U:11:22, U:11:25, and U:11:30 [all ASM]). Of these, U:11:25 (ASM) and U:11:30 (ASM) are small Classic period pueblos; at the third (U:11:22 [ASM]), the nature of habitation could not be determined. In addition, nine small sites were found which had one or two masonry rooms. These small sites may have been either small habitations or field houses also dating to the Classic.

A few limited activity loci were also defined. The exact function and temporal affiliation of these loci is unclear, although some included features which are probably related to aboriginal farming practices. Features related to farming were also found at a few of the habitation sites.

Our tentative conclusions from these patterns is that for the first part of the Hohokam culture sequence, the middle Queen Creek area was little used. No habitation sites were built, and such limited activities as may have occurred were not substantial enough to be obvious from survey data. There is a possibility, however, that early limited activites did not involve the use of decorated pottery, so the corresponding sites may not be directly identifiable from survey data alone.

Initial colonization may have begun during the end of the Preclassic sequence (in the Sedentary period), but substantial occupation did not take place until the Classic period. It is interesting that the pattern of occupation has a "Puebloan" flavor to it, with its mix of field houses (or individual habitations) and small villages. However, it is now

clearer than ever that not all Hohokam--perhaps not even the majority--lived in large villages such as Snaketown (cf.Teague and Crown 1984). Thus, the settlement pattern at Whitlow Ranch is as easily Hohokam as it is Anasazi or Mogollon. Additional characteristics of the local Classic period occupation include the use of masonry structures and of a pottery assemblage primarily composed of plain brownwares and redwares. The lithic assemblage appears to be the usual Hohokam type, ie. mostly simple cores and flakes. Presumably, a mixed economy was in place. Arable land was found along Queen Creek, and some features suggested the presence of farm plots using moisture-enhancing techniques.

The Queen Creek Hohokam took part in a process of culture change which is visible as the Classic period. This shift involved the adoption of above-ground clusters of habitations, of redware pottery, and probably of other traits not so easily visible to archaeologists. The shift affected not only the Hohokam, but groups to the east and south as well. It would be interesting to know how a local group such as the Queen Creek Hohokam articulated with this inter-cultural process of change, and why.

One fortified hilltop site was located. It was presumably built during the Hohokam occupation of the area, but thin brownwares at the site suggest reuse by a Protohistoric group, most likely the Yavapai. Also, one aboriginal rock art site was relocated; neither the affiliation nor the age of the features at this site are known.

Middle Queen Creek was abandoned at some point during the Classic period, probably between A.D. 1300 (based on the presence of Salado polychromes) and A.D. 1450 (the date for general abandonment of the region). The reason for abandonment of the area is completely unknown, as it is for most parts of the Southwest.

Temporal and functional assignments made for aboriginal sites should be considered tenuous. Additional research would do well to focus on clearer definition of temporal and functional variability at Whitlow Ranch Dam.

European-American sites date exclusively to the Anglo-American period, and date no earlier than ca. 1880. Sites of this culture and period are related to mining, ranching and the narrow gauge railroad built along Queen Creek.

2. Table 7 summarizes the NRHP status of all cultural properties found or relocated during the course of the Whitlow Ranch Dam project.

TABLE 7. SUMMARY OF SITE AND ISOLATED FIND NRHP EVALUATIONS.

Eligible to the NRHP	Not Eligible to the NRHP	NRHP Eligibility Undetermined
AZ U:11:14 (ASM)	AZ U:11:24 (ASM)	AZ U:11:11 (ASM)
AZ U:11:22 (ASM)	AZ U:12:43 (ASM)	AZ U:11:12 (ASM)
AZ U:11:25 (ASM)	All Isolated Finds	AZ U:11:13 (ASM)
AZ U:11:29 (ASM)		AZ U:11:15 (ASM)
AZ U:11:38 (ASU)		AZ U:11:16 (ASM)
AZ U:12:44 (ASM)[a]		AZ U:11:17 (ASM)
AZ U:12:46 (ASM)[a]		AZ U:11:18 (ASM)
AZ U:12:48 (ASM)		AZ U:11:19 (ASM)
		AZ U:11:20 (ASM)
		AZ U:11:21 (ASM)
		AZ U:11:23 (ASM)
		AZ U:11:26 (ASM)
		AZ U:11:26 (ASU)
		AZ U:11:27 (ASM)
		AZ U:11:28 (ASM)
		AZ U:11:31 (ASM)
		AZ U:12:44 (ASM)[b]
		AZ U:12:45 (ASM)
		AZ U:12:46 (ASM)[b]
		AZ U:12:47 (ASM)
		AZ U:12:48 (ASM)
		AZ U:12:49 (ASM)

[a]Hohokam component
[b]Anglo-American component

3. It should be noted that where testing is recommended, this merely represents the indicated next step in site evaluation. Not all apparently eligible or ambiguous sites are threatened by operation of Whitlow Ranch dam; those that are not threatened demand no further concern at this time.

We have divided the eligible and possibly eligible sites into three categories, based on the likelihood of inundation related impacts. The first category includes sites below 2120 ft (642.6 m) AMSL which we believe are in fairly great danger of damage or destruction due to inundation. These are sites AZ U:11:11, U:11:16 , U:11:18, U:11:22 and U:11:25 (all ASM). All should be tested on the assumption that a data recovery program is necessary at Whitlow Ranch Dam. AZ U:11:11 (ASM), U:11:16 (ASM) and U:11:18 (ASM) (all Classic period Hohokam) should be tested in order to obtain data needed for evaluation of their significance. AZ U:11:22 (ASM) and U:11:25 (ASM) (both dual component: Classic Hohokam and Anglo-American) are considered significant cultural properties, and are recommended for testing as the initial step towards data recovery studies.

The overall level of effort necessary for testing at these sites is probably small. It would probably be best for offerors to design their own testing program, based on information in this report and in the data compendium, rather than specify levels of effort and research approaches.

Nonetheless, certain steps will have to be taken and these are outlined below.

Recommended Testing Program

The five sites in category 1 are summarized on Table 8. Of these, all but AZ U:11:25 (ASM) must have some work done at them which is directed toward the definition of subsurface deposits. We would recommend a three stage approach to all of the sites: controlled surface collection, systematic internal shovel or backhoe testing, and intensive testing of selected areas. The order for the stages should vary depending on the site characteristics. For example, AZ U:11:16 (ASM) may be deflated. If this is the case, then a controlled surface collection (CSC) would be of minimal value. Therefore, systematic shovel testing should be conducted to determine if the site retains any integrity. If so, the controlled collections should be implemented; if not, no further work should be conducted.

In the instance of the remaining four sites, the CSC should be completed first. This would be particularly crucial for AZ U:11:22 (ASM), where more than one occupational locus is present. Some determination of the interrelationship, if any, between the loci should be possible.

Table 8: Summary of Category 1 Sites

SITE (All ASM)	SIZE (in meters)	TEMPORAL AFFILIATION	ASSOCIATED FEATURES	DEGREE OF DISTURBANCE
U:11:11	200x80	Classic	1 room stone structure(?), trash mound(?), rock pile	30%
U:11:16	70x50	Classic	possible rock ring	unknown, may be deflated
U:11:18	65x50	Classic	rock alignments (possible structure)	40%
U:11:22	1500x200	Classic Anglo-American	possible mounds; various historic features (see Table 6)	50%
U:11:25	120x70	Classic	21 room pueblo, two 1-room outlyers, trash mound	60%

Based on the CSC results, a limited shovel pitting program should be concentrated within the core of each locus. The cores will be defined on the basis of artifact density contours. More limited testing should also be implemented in the areas between cores in order to determine whether or not subsurface deposits or features are present in these areas. Intensive testing of a representative range of feature types or deposits can then be recommended on the basis of the two preceeding stages.

Time and cost estimates will, of course, be dependent on CSC technique, testing interval and intensity of effort. But by approaching the evaluation in a sequential manner, both expenditures should be kept to a minimum. Each level of work should, of course, be thoroughly documented. The permanent datums placed at each site during survey should be used to tie all CSC units or lines, subsurface tests, etc., to a transit based plan map of each property. A complete photographic record

should be maintained, and, at a minimum, representative profiles of any excavation unit should be completed.

The second category includes sites which could some day be affected by inundation, but which appear to be in no immediate danger. These sites are AZ U:11:12 (ASM) through U:11:15 (ASM), U:11:17 (ASM), U:11:19 (ASM) through U:11:21 (ASM), U:11:23 (ASM), U:11:26 (ASM) and U:11:27 (ASM), U:12:45 (ASM), U:12:46 (ASM) (Anglo-American period component), and U:11:47 (ASM). Of this grouping, three sites (AZ U:11:14, U:11:23, U:11:46) (all ASM) are considered eligible to the NRHP; the remaining sites require additional work prior to NRHP determination. These sites require no special attention until it becomes apparent that inundation is affecting their integrity. Until an inundation episode exceeding 2120 ft (646.2 m) AMSL occurs, probably nothing needs to be done. After any such episode, however, a Corps archaeologist (or contractor) should visit the area, site forms in hand, and compare pre- and post-inundation site conditions. This probably represents all the site monitoring that is necessary for the forseeable future.

The third and last category represents sites which will never be inundated, and require no further attention with regard to monitoring existing dam related impacts. These are AZ U:11:28 (ASM) through U:11:31 (ASM), U:12:44 (ASM; Anglo-American component), U:12:48 (ASM), U:12:49 (ASM) and AZ U:11:38 (ASU).

4. In addition to dam-related impacts, the survey crew noted a variety of natural and cultural impacts to sites including grazing, erosion, site re-use, and vandalism (pothunting). Of these non-dam impacts, the most serious is vandalism and we recommend that the Corps and Forest Service work together to reduce the probability of future vandalism. One approach that we suggest is to restrict access on the many small roads traversing the study area, possibly by locked gates. It is also unclear to us whether all the roads currently in existence at Whitlow Ranch Dam are necessary; returning some to the natural state may be a desirable means of reducing access.

5. Based on Corps preference and the availability of funds, it would also be useful to do limited testing at a few of the sites recommended for testing in Table 2, but not in any immediate danger. This would assist in the evaluation of specific sites, generally clarify the functional and temporal nature of of the sites at Whitlow Ranch Dam, and allow insight into the best approach to managing the remaining sites between 2120 and 2166 ft (646.2 - 660.2 m) AMSL. For example, testing of two Type I sites and two Type IV sites, combined with controlled collections from AZ U:11:29 (ASM) and careful photodocumentation of Site AZ U:11:38 (ASU) would provide data on a good cross-section of Whitlow Ranch Dam sites. Again, once the Corps identified the sites to be tested it might consider allowing offerers to define their own specific research goals and approaches.

6. The original research program called for locating sites within plus or minus five feet (1.5 m) of actual elevation above mean sea level. Despite the field crew's best efforts, we found that it was difficult to relate the highly broken terrain at Whitlow Ranch to the 40 ft (12.3 m) contour interval on USGS maps of the area. As a practical reality, an error of at least 10 feet should be assumed in statements on site elevation. The Corps may wish to have the site datums shot in with surveying instruments at some in the future. This is not a high priority, however.

7. Finally, the survey crew noted a number of deep prospect holes and shafts in the study area. These pose a danger to the public, and should either be fenced off or, in the case of inactive claims, be sealed up.

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APPENDIX 1

Whitlow Ranch Dam Survey Site Summaries

APPENDIX 1

WHITLOW RANCH DAM SURVEY SITE SUMMARIES

NEWLY DISCOVERED SITES

PERMANANENT NO.: AZ U:11:11 (ASM)
FIELD SITE NO.: 1
DESCRIPTION: Artifact scatter (sherds; chipped stone tools, cores, and flakes; ground stone) with associated 1 room stone structure (?), trash mound (?), and rock pile.
SIZE: 200 x 80 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: terrace next to Queen Creek floodplain.
AFFILIATION/AGE: Hohokam; Classic period component indicated by red-wares.
EST. PERCENT REMAINING: 70.
EVALUATION/REMARKS: This site could be significant if subsurface remains are present. However, amount of erosion and silting over is unknown. Should be tested to establish nature and extent of subsurface remains.

PERMANENT NO.: AZ U:11:12 (ASM)
FIELD SITE NO.: 2
DESCRIPTION: Artifact scatter (sherds and chipped stone).
SIZE: 17 x 16 m.
DEPTH: At least 38 cm?
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: Flat area on knoll, in hills north of Queen Creek.
AFFILIATION/AGE: Hohokam; Classic period component indicated by Gila Red.
EST. PERCENT REMAINING: 60.
EVALUATION/REMARKS: This would seem to be a rather unimportant site, except that the field crew detected the presence of subsurface remains. Such remains would add greatly to the significance of the site. The site should therefore be tested to determine nature and extent of subsurface deposits.

PERMANENT NO.: AZ U:11:13 (ASM)
FIELD SITE NO.: 3
DESCRIPTION: Artifact scatter (sherds, chipped stone, and ground stone) with possible habitation or agricultural features associated. Features 1 and 5 are possible check dams; Feature 2 is a small ashy area; Feature 3 is a rock circle; Feature 4 is a rock pile; Feature 6 is a possible rectangular rock structure.
SIZE: 105 x 105 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 1000-9999.
TOPOGRAPHIC SETTING: heavily dissected area in hills north of Queen Creek.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of Gila Red.

AZ U:11:13 (ASM) (CONT'D)
EST. PERCENT REMAINING: 80.
EVALUATION/REMARKS: this site could yield useful information once the features were better defined and the extent of subsurface remains was determined. Thus, testing of this site is recommended.

(FIELD SITE NO. 4 NOT USED)

PERMANENT NO.: AZ U:11:14 (ASM)
FIELD SITE NO.: 5
DESCRIPTION: mine shaft and prospect, with associated trash.
SIZE: 115 x 90 m.
DEPTH: superficial (for artifacts).
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: slope; at base of hill.
AFFILIATION/AGE: Anglo-American Period, ca. 1880s-1900.
EST. PERCENT REMAINING: 50.
EVALUATION/REMARKS: a combination of documentary research and artifact collections could yield useful information about historic mining in the Whitlow Ranch Dam area. For safety's sake, however, the shaft itself should probably be fenced off or sealed.

PERMANENT NO.: AZ U:11:15 (ASM)
FIELD SITE NO.: 6
DESCRIPTION: artifact scatter (sherds, chipped stone, ground stone).
SIZE: 50 x 40 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: knoll between two higher hills.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of redwares.
EST. PERCENT REMAINING: 80.
EVALUATION/REMARKS: site could yield useful information if subsurface remains are present. Site therefore should be tested to determine nature and extent of subsurface deposits.

PERMANENT NO.: AZ U:11:16 (ASM)
FIELD SITE NO.: 7
DESCRIPTION: artifact scatter (sherds, chipped stone, and ground stone) which may be associated with possible rock ring.
SIZE: 70 x 50 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 1000-9999.
TOPOGRAPHIC SETTING: on two knolls, in hills north of Queen Creek floodplain.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of redwares.
EST. PERCENT REMAINING: unknown; may be heavily deflated.
EVALUATION/REMARKS: if site is in fact heavily deflated, its research potential is probably minimal. However, testing is recommended to verify the lack of subsurface remains.

PERMANENT NO.: AZ U:11:17 (ASM)
FIELD SITE NO.: 8
DESCRIPTION: artifact scatter (sherds, chipped stone, ground stone, and

AZ U:11:17 (ASM) (CONT'D)
shell) associated with possible agricultural or habitation features. Feature 1 is a rock pile; Feature 2 is a check dam; Feature 3 is a rock and dirt pile or trash mound; Features 4 and 5 are rock alignments (either structures or check dams).
SIZE: 75 x 60 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 1000-9999.
TOPOGRAPHIC SETTING: knoll top in dissected, hilly area north of Queen Creek.
AFFILIATION/AGE: Hohokam. Preclassic component suggested by red-on-buff pottery; Classic component indicated by presence of redwares.
EST. PERCENT REMAINING: 90.
EVALUATION/REMARKS: this site could yield useful information on both agriculture and habitation site activities. First, however, it should be tested to secure more positive identification of the features noted during survey, and to determine the nature and extent of subsurface. deposits.

(FIELD SITE NO. 9 NOT USED)

PERMANENT NO.: AZ U:11:18 (ASM)
FIELD SITE NO.: 10
DESCRIPTION: artifact scatter (sherds, chipped stone, and ground stone) with associated rock alignment (possible structure).
SIZE: 65 x 50 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: Terrace on north side of Queen Creek floodplain.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of redwares.
EST. PERCENT REMAINING: 60.
EVALUATION/REMARKS: site could yield useful information if subsurface deposits were present. Site should therefore be tested to determine nature and extent of subsurface deposits.

(FIELD SITE NO. 11 NOT USED)

PERMANENT NO.: AZ U:11:19 (ASM)
FIELD SITE NO.: 12
DESCRIPTION: sherd scatter, associated with remains of what is probably a one-room structure.
SIZE: 43 x 40 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: slope of knoll, and to a lesser extent top of knoll also; in dissected hills north of Queen Creek.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of redwares.
EST. PERCENT REMAINING: 80? (but site may be deflated).
EVALUATION/REMARKS: If site is deflated, it would have little research value. Otherwise, it has the potential to yield useful information on local small habitation (?) sites. Site should therefore be tested to determine nature and extent of subsurface deposits. The limited range

AZ U:11:19 (ASM) (CONT'D)
of artifact types at this site is interesting, but is more likely due to natural (post-occupational) than cultural factors.

PERMANENT NO.: AZ U:11:20 (ASM)
FIELD SITE NO.: 13
DESCRIPTION: artifact scatter (sherds and chipped stone).
SIZE: 35 x 25 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: flat hilltop in heavily dissected uplands.
AFFILIATION/AGE: Hohokam.
EST. PERCENT REMAINING: 80.
EVALUATION/REMARKS: this site seems unlikely to yield a significant amount of useful information on local prehistory. Still, the issue of subsurface remains should be settled. Two or three small shovel tests should be enough to indicate whether the site is superficial.

PERMANENT NO.: AZ U:11:21 (ASM)
FIELD SITE NO.: 14
DESCRIPTION: artifact scatter (sherds and chipped stone) associated with a rock pile (possible agricultural feature).
SIZE: 23 x 22 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: terrace above wash that drains into Queen Creek.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of Casa Grande Red-on-buff.
EST. PERCENT REMAINING: 70.
EVALUATION/REMARKS: This site should be tested to determine nature and extent of subsurface deposits, if any.

PERMANENT NO.: AZ U:11:22 (ASM)
FIELD SITE NO.: 15
OTHER DESIGNATIONS: "The Big Site"
DESCRIPTION: a two-component site, with 7 loci observed within the site boundaries. First component is a large artifact scatter: sherds, chipped stone tools, other chipped stone, and ground stone. Second component is a historic trash scatter associated with remains of a historic narrow gauge railroad. Four of the [illegible] within the site were prehistoric; three were mixed prehistoric and historic.
SIZE: 150 x 20[illegible] m.
DEPTH: unknown, presumed variable.
EST. SIZE OF ASSEMBLAGE: 1,000 plus.
TOPOGRAPHIC SETTING: on flat terrace [illegible]
AFFILIATION/AGE: Hohokam, Classic period [illegible] presence of redwares; Anglo-American period [illegible]
EST. PERCENT REMAINING: [illegible]
EVALUATION/REMARKS: despite disturbance the [illegible] subsurface aspects of this site, the extent of [illegible] that this site could yield useful information [illegible] by no other means than controlled surface [illegible] considered a significant property. [illegible] carried out at White Tanks, if [illegible]

AZ U:11:22 (ASM) (CONT'D)
that the nature of subsurface remains was determined for planning/ management needs.

(FIELD SITE NO. 16 NOT USED)

PERMANENT NO.:AZ U:11:23 (ASM)
FIELD SITE NO.: 17
DESCRIPTION: artifact scatter (sherds and chipped stone) and a two room (plus) rock structure.
SIZE: 30 x 15 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 1-9.
TOPOGRAPHIC SETTING: terrace or flat, at base of Comet Peak.
AFFILIATION/AGE: Hohokam.
EST. PERCENT REMAINING: 30.
EVALUATION/REMARKS: although the site is a small one, it could yield useful information on small habitation sites/field houses if buried remains are present. The site should therefore be tested to determine the nature and extent of subsurface deposits.

(FIELD SITE NO. 18 NOT USED)

(FIELD SITE NO. 19 NOT USED)

PERMANENT NO.: AZ U:11:24 (ASM)
FIELD SITE NO.: 20
DESCRIPTION: artifact scatter (sherds, chipped stone, and ground stone).
SIZE: 40 x 25 m.
DEPTH: unknown; probably superficial.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: flat or terrace at base of Comet Peak.
AFFILIATION/AGE: Hohokam.
EST. PERCENT REMAINING: 50; site appears to be deflated.
EVALUATION/REMARKS: Given the low number of artifacts at the site, the probable lack of subsurface remains, the absence of visible features, the lack of diagnostic remains, and the apparent deflation of site deposits, this site cannot be considered significant.

(FIELD SITE NO. 21 NOT USED)

PERMANENT NO.: AZ U:11:25 (ASM)
FIELD SITE NO.: 22
DESCRIPTION: Pueblo; ca. 21 room structure with cobble/adobe walls, two 1-room outlyers, trash mound. Associated artifacts include sherds, flakes, cores, hammerstones, schist pestles, sandstone palette fragments, and a polishing stone.
SIZE: 120 m x 70 m.
DEPTH: at least 1.1 m.
EST. SIZE OF ASSEMBLAGE: 1000-9999.
TOPOGRAPHIC SETTING: terrace and adjacent floodplain of Queen Creek.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of redwares.

AZ U:11:25 (ASM) (CONT'D)
EST. PERCENT REMAINING: 40; almost all rooms have been vandalized.
EVALUATION/REMARKS: sites of this nature are among those most likely to yield information on a variety of research issues in prehistoric archaeology. Moreover, archaeologists have learned that even highly disturbed sites of this kind can be made to yield new and useful information, especially in areas--such as the present one--where existing data are limited. This site must therefore be considered a significant cultural property.

PERMANENT NO.: AZ U:11:26 (ASM)
FIELD SITE NO.: 23
DESCRIPTION: artifact scatter (sherds, chipped stone, and groundstone) and two 1-room masonry structures.
SIZE: 52 x 32 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: Flat or terrace at base of hill; overlooking other, lower terraces along Queen Creek.
AFFILIATION/AGE: Hohokam; Classic period component indicated by redwares.
EST. PERCENT REMAINING: 70.
EVALUATION/REMARKS: If subsurface remains are present, this site could yield useful information on small habitation/field house loci. The site should therefore be tested to determine nature and extent of subsurface deposits.

(FIELD SITE NO. 24 NOT USED)

PERMANENT NO.: AZ U:11:27 (ASM)
FIELD SITE NO.: 25
DESCRIPTION: artifact scatter (sherds and chipped stone) associated with a rock alignment (possibly a structure, or else an agricultural feature).
SIZE: 40 x 23 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: flat bench between two washes, in area of dissected hills.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of redwares.
EST. PERCENT REMAINING: 80.
EVALUATION/REMARKS: before this site can be fully evaluated, the nature of the rock alignment needs to be established more clearly. Also, the nature and extent of subsurface deposits should be determined. Thus, a testing program is recommended for this site.

PERMANENT NO.: AZ U:11:28 (ASM)
FIELD SITE NO.: 26
DESCRIPTION: artifact scatter (sherds, chipped stone, hammerstones).
SIZE: 150 x 40 m.
DEPTH: 5-10 cm?
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: flat terrace top in highly dissected upland area.
AFFILIATION/AGE: Hohokam; Classic period component indicated by

AZ U:11:28 (ASM) (CONT'D
redwares, including Gila Red.
EST. PERCENT REMAINING: 80.
EVALUATION/REMARKS: although the variety of surface artifacts is restricted, this site could yield useful information on limited activity loci if--as the survey data indicate--there is at least a little site depth present. A series of shovel tests should be enough to confirm the presence of subsurface remains.

(FIELD SITE NO. 27 NOT USED)

(FIELD SITE NO. 28 NOT USED)

PERMANENT NO.:AZ U:11:29 (ASM
FIELD SITE NO.: 32
DESCRIPTION: "fortified" site. On the peak of a hill, an [illegible] wall (Feature 6) was found, and within it five rooms (features 1-). Sherds were present, including thin brownwares which appeared to be protohistoric or early historic. Such late pottery could reflect Yavapai re-use of a prehistoric hilltop site.
SIZE: 100 x 80 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: peak.
AFFILIATION/AGE: (1) Hohokam; (2) Protohistoric/Early Historic (Yavapai?).
EST. PERCENT REMAINING: not estimated; in generally good condition despite possible disturbance.
EVALUATION/REMARKS: as a fairly well preserved example of a hilltop "fortified" site, this locality must be considered significant. The importance of the site is enhanced by the apparent presence of Protohistoric or Historic period pottery, which has rarely been documented in southern Arizona. Given the tendency of modern persons to scavenge surface materials off such sites, or to dig in them, it would be highly useful to obtain a controlled surface collection of the sherds from this site in the near future.

PERMANENT NO.:AZ U:11:30 (ASM)
FIELD SITE NO.: 37
DESCRIPTION: small stone-walled pueblo. About 13 rooms, associated with a possible trash mound, two rock piles, and an artifact scatter (sherds, flakes, obisidian nodules, obsidian projectile points).
SIZE: 35 X 25 m.
DEPTH: unknown; subsurface remains presumed to exist.
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: flat hilltop, with some material washing onto adjacent slopes.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of redwares, Gila Polychrome, and Pinto Polychrome.
EST. PERCENT REMAINING: 75.
EVALUATION/REMARKS: sites of this nature are among those most likely to yield useful information on prehistory. Therefore, despite the lack of specific information on subsurface remains, we feel confident in stating that this site represents a significant cultural resource.

PERMANENT NO.:AZ U:11:31 (ASM)
FIELD SITE NO.: 39
DESCRIPTION: artifact scatter (sherds, scrapers, flakes).
SIZE: 60 x 40 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: top of large hill, north of Queen Creek.
AFFILIATION/AGE: Hohokam; Preclassic occupation suggested by presence of red-on-buff pottery and absence of redwares. A Sedentary period occupation is possible, given the physical attributes of the red-on-buff pottery noted (diagnostic design elements were not present).
EST. PERCENT REMAINING: 50.
EVALUATION/REMARKS: surface collection of this site would probably exhaust its research potential, unless subsurface remains are present. We therefore recommend, as a testing program, a controlled surface collection combined with a series of three to five shovel tests. An evaluation of the site's additional research potential could then be made.

PERMANENT NO.: AZ U:12:43 (ASM)
FIELD SITE NO.: 29
OTHER DESIGNATIONS: initially recorded as IF-156 during this survey.
DESCRIPTION: artifact scatter (sherds, flakes, cores, and mano).
SIZE: 30 x 10 m.
DEPTH: at least 5 cm., although site appears to be badly deflated.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: flat top of bench above Hewitt Canyon Wash.
AFFILIATION/AGE: Hohokam.
EST. PERCENT REMAINING: 30.
EVALUATION/REMARKS: although there may be subsurface deposits left at this site, its small size, lack of diagnostic artifacts, lack of visible features, and badly deflated condition lead us to conclude that it lacks significance as a cultural property.

(FIELD SITE NO. 30 NOT USED)

(FIELD SITE NO. 31 NOT USED)

PERMANENT NO.:AZ U:12:44 (ASM)
FIELD SITE NO.: 33
DESCRIPTION: artifact scatter (sherds, chipped stone, groundstone) associated with two definite and one possible rock clusters. Also, a historic feature which is possibly an old utility pole.
SIZE: 26 by 15 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: on hillslope overlooking terraces next to Queen Creek.
AFFILIATION/AGE: (1) Hohokam, Classic period component indicated by redwares; (2) Anglo-American period.
EST. PERCENT REMAINING: 70.
EVALUATION/REMARKS: this site should be tested to allow adequate evaluation of its significance. A 1 by 1 m test pit placed at one of the rock clusters, and two to three shovel tests, should be sufficient, and most likely will show that no further work is necessary at the site.

PERMANENT NO.: AZ U:12:45 (ASM)
FIELD SITE NO.: 34
DESCRIPTION: two component site. First component is historic structure, with various possible functions (station house for narrow gauge railroad; cistern house; ranch house), mine claim marker, and bottle break. Second component is an aboriginal(?) check dam.
SIZE: 28 x 13 m.
DEPTH: Unknown; standing architecture present.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: terrace next to Queen Creek.
AFFILIATION/AGE: (1) Hohokam? (check dam); (2) Anglo-American period.
EST. PERCENT REMAINING: 60.
EVALUATION/REMARKS: the aboriginal component is an isolated and minimal structure which cannot be considered significant. With regards to the historic component, the lack of associated trash is interesting. The site should be tested in order to determine the nature and extent of subsurface remains, if any. As part of the testing program, preparation of a plane table map (or one of equivalent accuracy) is recommended, along with archival research. The results of this program can then be used to evaluate the significance of the historic component.

PERMANENT NO.:AZ U:12:46 (ASM)
FIELD SITE NO.: 35
DESCRIPTION: two component site. The first component is an artifact scatter (sherds, chipped stone, and ground stone). The second component includes historic trash, a metal utility pole, and a set of concrete pylons.
SIZE: 65 x 37.5 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: hill slope and adjacent terrace, next to Queen Creek.
AFFILIATION/AGE: (1) Hohokam; (2) Anglo-American period.
EST. PERCENT REMAINING: 70.
EVALUATION/REMARKS: the Hohokam component represents a small, disturbed series of artifacts with no diagnostic items or visible features. For this reason, the Hohokam component is not considered significant. The Anglo-American period component requires additional study in order to fully evaluate its significance. A testing program for the Anglo-American period component could include shovel testing, controlled surface collection, plane table mapping (or an approach of similar accuracy), and archival research.

PERMANENT NO.: AZ U:12:47 (ASM)
FIELD SITE NO.: 36
DESCRIPTION: ranch house, with associated trash.
SIZE: 60 x 25 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: terrace next to Queen Creek.
AFFILIATION/AGE: Anglo-American period, ca. 1900-1915.
EST. PERCENT REMAINING: 60.
EVALUATION/REMARKS: this site could be the remains of Hewitt Station, or the old Hewitt Ranch House. The associated historic artifacts suggest a date prior to construction of the historic railroad. On the

AZ U:12:47 (ASM) (CONT'D)
whole, this site could yield a great deal of useful information on historic life in the Southwest, if subsurface remains are associated with the structure. A testing program is therefore recommended for this site. The testing program should include preparation of a plane table map (or a map of similar accuracy), a surface collection program, a series of 1 by 1 pits and shovel tests, and archival research.

PERMANENT NO.:AZ U:12:48 (ASM)
FIELD SITE NO.: 38
DESCRIPTION: artifact scatter (flakes, utilized flakes, and hammerstones) associated with three rock piles. Two of the rock piles may be either structural or agricultural features; the third may be agricultural.
SIZE: 45 x 26 m.
DEPTH: unknown.
EST. SIZE OF ASSEMBLAGE: 100-999.
TOPOGRAPHIC SETTING: flat terrace top on north side of Queen Creek.
AFFILIATION/AGE: Hohokam.
EST. PERCENT REMAINING: 70.
EVALUATION/REMARKS: the lack of pottery at this site is rather unusual. If subsurface remains are present, this site could yield useful information on limited-activity loci in the Whitlow Ranch area. The site therefore should be tested to determine nature and extent of subsurface deposits. A 1 x 1 m test pit in one of the rock features, along with three to five shovel tests, should be sufficient.

PERMANENT NO.: AZ U:11:49 (ASM)
FIELD SITE NO.: 40.
DESCRIPTION: artifact scatter (sherds, flakes, utilized flakes, hammerstones, and mano fragments).
SIZE: 46.5 x 41 m.
DEPTH: unknown, but buried remains a distinct possibility.
EST. SIZE OF ASSEMBLAGE: 10-99.
TOPOGRAPHIC SETTING: knoll slope and base, extending onto terrace next to Queen Creek floodplain.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of redwares. Post-Colonial period occupation suggested by sherd with Gila shoulder.
EST. PERCENT REMAINING: 70.
EVALUATION/REMARKS: if subsurface remains are present, this location could yield useful information on the nature and function of limited activity areas. The site should therefore be tested to determine the extent of subsurface deposits, if any.

PREVIOUSLY REPORTED SITES

PERMANENT NOS.: AZ U:11:26 (ASU); AZ U:11:32 (ASM)
FIELD SITE NO: none.
DESCRIPTION: artifact scatter (sherds and chipped stone).
SIZE: 40 x 36 m.
DEPTH: unknown, most likely shallow or superficial.
EST. SIZE OF ASSEMBLAGE: 100-999.

AZ U:11:26 (ASU); AZ U:11:32 (ASM) (CONT'D)
TOPOGRAPHIC SETTING: knoll, at base of area of rugged uplands.
AFFILIATION/AGE: Hohokam; Classic period component indicated by presence of redwares.
EST. PERCENT REMAINING: 80.
EVALUATION/REMARKS: given the probable lack of subsurface deposits at this site, along with the relatively modest assemblage size and lack of visible features, we do not consider this site to be a significant cultural property.

FIELD SITE NO: none.
OTHER DESIGNATIONS: AZ U:11:27 (ASU)
REMARKS: this site could not be relocated; it appears to have been misplotted by the original survey.

PERMANENT NOS.: AZ U:11:38 (ASU); AZ U:11:33 (ASM)
FIELD SITE NO: none.
DESIGNATIONS: AZ U:11:38 (ASU)
DESCRIPTION: petroglyph panels: 2 sets of petroglyphs with deer, coyotes(?), stick figures.
SIZE: 5 x 5 m.
DEPTH: superficial.
EST. SIZE OF ASSEMBLAGE: no associated artifacts.
TOPOGRAPHIC SETTING: edge of wash in highly dissected uplands.
AFFILIATION/AGE: aboriginal.
EST. PERCENT REMAINING: 80 (some may have been lost through erosion).
EVALUATION/REMARKS: although this site is small, it represents a highly specialized form of limited activity site not otherwise represented in the Whitlow Ranch Dam survey area. Moreover, the greatest research utility of petroglyph sites is in comparative analysis of a number of sites, rather than intensive study of single locations. For this reason, we consider the site to be a significant property which can add materially to our knowledge of local prehistory.

APPENDIX 2

Concordance of Field and Permanent Site Numbers

APPENDIX 3

CONCORDANCE OF FIELD AND PERMANENT SITE NUMBERS

Field No.	Permanent No.
1	AZ U:11:11 (ASM)
2	AZ U:11:12 (ASM)
3	AZ U:11:13 (ASM)
5	AZ U:11:14 (ASM)
6	AZ U:11:15 (ASM)
7	AZ U:11:16 (ASM)
8	AZ U:11:17 (ASM)
10	AZ U:11:18 (ASM)
12	AZ U:11:19 (ASM)
13	AZ U:11:20 (ASM)
14	AZ U:11:21 (ASM)
15	AZ U:11:22 (ASM)
17	AZ U:11:23 (ASM)
20	AZ U:11:24 (ASM)
22	AZ U:11:25 (ASM)
23	AZ U:11:26 (ASM)
25	AZ U:11:27 (ASM)
26	AZ U:11:28 (ASM)
29	AZ U:12:43 (ASM)
32	AZ U:11:29 (ASM)
33	AZ U:12:44 (ASM)
34	AZ U:12:45 (ASM)
35	AZ U:11:46 (ASM)
36	AZ U:11:47 (ASM)
37	AZ U:11:30 (ASM)
38	AZ U:12:48 (ASM)
39	AZ U:11:31 (ASM)
40	AZ U:11:49 (ASM)
(none)	AZ U:11:32 (ASM); AZ U:11:26 (ASU)
(none)	AZ U:11:33 (ASM); AZ U:11:38 (ASU)

END

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