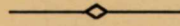


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(Glen Canyon Series Number 6)

PART III

The Glen Canyon Archeological Survey

By DON D. FOWLER

with a chapter, Pottery, by FLORENCE C. LISTER

CHARLES E. DIBBLE, *Editor*

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ANTHROPOLOGICAL PAPERS

The University of Utah Anthropological Papers are a medium for reporting to interested scholars and to the people of Utah research in anthropology and allied sciences bearing upon the peoples and cultures of the Great Basin and the West. They include, first, specialized and technical record reports on Great Basin archeology, ethnology, linguistics, and physical anthropology, and second, more general articles on anthropological discoveries, problems and interpretations bearing upon the western regions, from the High Plains to the Pacific Coast, insofar as they are relevant to human and cultural relations in the Great Basin and surrounding areas.

For the duration of the archeological salvage project for the upper Colorado River Basin which the University has undertaken by contract agreement with the National Park Service, reports relating to that research program are being published as a series within a series, bearing numbers in the general sequence of the papers as well as their own identifying numbers.

The Glen Canyon subseries will represent a wider range of the sciences and humanities than the parent series itself. The project provides for studies of the natural history of the Glen Canyon area and its inhabitants so that the relations of the prehistoric cultures and their settings will be understood in depth. As contact with Western peoples and cultures has had a varying effect upon the native Americans and the land, some papers will be concerned with the Colorado in the more recent past. Most of the Glen Canyon publications, however, will be archeological reports.

THE GLEN CANYON ARCHEOLOGICAL SURVEY

Part III

by

Don D. Fowler

with a Chapter, Pottery, by Florence C. Lister

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ANTHROPOLOGICAL PAPERS

Department of Anthropology
University of Utah

Glen Canyon Reservoir

Upper Colorado River Basin

The Glen Canyon Archeological Survey

Part III

as a part of the

Upper Colorado River Basin Salvage Program

in accordance with the

Memoranda of Agreement

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between the

U. S. National Park Service and the University of Utah

by

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with a Chapter, Pottery, by Florence C. Lister

University of Utah

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INTRODUCTION

Prior to 1957 little was known of the archeology of the area in and near the Glen Canyon of the Colorado River in southeastern Utah and northern Arizona. Difficulties of logistics and access limited a thorough survey and study in the area.

Archeological sites were recorded, however, as early as 1869. John W. Powell (1875) noted the ruins at both White and Red canyons during his pioneering explorations of the river. In 1932 Julian H. Steward, then at the University of Utah, recorded 25 sites in the main canyon during a two week reconnaissance (Steward, 1941; Birney, MS). During the 1930's the Rainbow Bridge-Monument Valley expeditions made several boat trips down both the San Juan and Colorado rivers and recorded several sites (Beals, Brainerd and Smith, 1945, 5; Hargrave, 1935, 23). In 1952, under the auspices of the Museum of Northern Arizona, Gene Foster began a series of surveys in the canyon area. This activity was continued in 1956 and 1957.

In 1957, the University of Utah, under contract agreement with the National Park Service, initiated intensive survey and limited excavations in the Glen Canyon proper and surrounding areas (Lister, 1958; Gunnerson, 1959 b). A similar operation on a larger scale was continued during the 1958 season (Fowler and others, 1959; Lipe MS).

The present report is concerned with the final phase of the University of Utah survey, which was continued during the 1959 season. The survey was concentrated in the upper Glen Canyon, between Hite, Utah, and the confluence of the San Juan and Colorado rivers. The field operation was concerned with two objectives: one, to complete the survey of the Glen Canyon proper, the lower part of the canyon having been surveyed during the 1958 season; and two, to enter from the river and thereby complete the survey of both sides of the canyon, including areas inaccessible to the land-based surveys of the 1958 season.

This report is descriptive in nature, following the format of previous survey reports on the Glen Canyon area. The section on pottery analysis was written by Florence C. Lister, who analyzed the majority of the ceramic collection. However, I assume responsibility for impressions and generalizations drawn from this and other data. Such

generalizations must be regarded as tentative, subject to conformation or rejection by the excavations completed or planned in the area. We have tried, where possible, to note similarities to and differences from the findings in the surrounding areas, both of survey and excavation. However, the majority of the data is drawn from surface finds only.

Data recorded by the Museum of Northern Arizona surveys was utilized by the University of Utah survey. We wish to thank Edward B. Danson, William Y. Adams and Maurice E. Cooley of the Museum for their help in providing site cards, maps and other data drawn from their work in the area.

Survey data sheets, photographs and collections are available to any qualified scientist at the archeological laboratory at the University of Utah.

THE AREA SURVEYED

The area covered by the 1959 survey was the Glen Canyon of the Colorado River in southern Utah from Hite to the San Juan River, including all tributary canyons entering on the left bank between these points, and the riverside terraces on both the left and right banks of the river. The Colorado River forms the boundary between San Juan County on the left bank and Garfield and Kane counties on the right bank.

Glen Canyon, although difficult of access, has long been known to tourists, miners and cattlemen. Guided river trips through the canyon began in the 1920's. Gold mining on the river side gravel terraces began in the 1880's. The mining operations subsequently proved unprofitable and were abandoned. A few cattle are grazed in some of the tributary canyons, usually in the winter. Recently, much of the area has been staked out in uranium claims. Several uranium mines are currently in operation in and near the heads of Red and Blue Notch canyons. For a detailed history of the area see Crampton (1959).

The Colorado River and its tributaries have cut deep, meandering gorges through Cretaceous, Jurassic and Triassic sedimentary beds that form a part of the Colorado Plateau physiographic province. At the upper end of Glen Canyon, between Hite and Warm Springs Creek, the canyon walls and floors are of the Triassic age, Moenkopi and Chinle formations. These siltstone and sandstone formations tend to erode easily with consequent large scale slumpage from the harder overlying formations. In this area the tributary canyons tend to be wider and more open than those further downstream.

Below Warm Springs Creek, canyon walls and floors are of the Jurassic age formations of the Glen Canyon group - Wingate, Kayenta and, principally, Navajo sandstones. In the Waterpocket Fold-Rincon area the canyon walls are of the earlier Triassic formations due to the uplifting of the Waterpocket Fold anticline. Below the confluence of the Escalante and Colorado rivers, these earlier formations again dip below river level and the canyon walls are again of Kayenta and Navajo sandstone.

The majority of the archeological sites recorded by the survey were in areas where the floors and walls of the canyons were of the Glen Canyon Group formations. This was especially true in areas of the thick bedded Navajo sandstone. The Navajo formation is a thick, cross bedded, reddish brown to light gray sandstone that forms high cliffs and large stripped surface areas (Cooley, 1958). Canyons cut through this formation are deep and narrow.

The canyon walls contain many alcoves, eroded along bedding planes and seep lines. High talus slopes usually lie at the foot of the cliffs and ledges. In many places in the canyons which are cut through the Navajo formation, seeps and springs are found.

Several of the left bank canyons contain remnants of alluvial depositions. The tops of these are many feet above the present streambed, which is at or near bedrock. One or more cycles of arroyo cutting appear to have taken place since the canyons were occupied by aboriginal inhabitants. Archeological sites are found on or above these remnants. This erosional phenomenon appears very similar to that described for the Tsegi region south of the Colorado River by Hack (1945, 151-58). Assuming erosional activity similar to that of the Tsegi area took place in the Glen Canyon tributaries, it appears likely that at the time of aboriginal occupation stream levels were near or at the level of the top of the alluvial depositions. Such areas could have supported horticultural activity and may have been one of the attractions of the region for the Indians.

Similarly, in Glen Canyon proper riverside sand terraces, also of alluvial origin, may have been cultivated. Such terraces, found at the mouths of canyons and on the inside of meanders, are partially flooded during the spring runoffs but otherwise are above river level. On many of the old river terraces and on the flat areas back from the canyon rim are numerous deposits of cobbles and gravels. Much of the gravel material on these terraces is silicious, principally chalcedony, and appears to have been utilized as a source of chipping stone. Detailed discussions of the geology and physiography of the Glen Canyon and surrounding area may be found in Cooley (1958 and 1959), Gregory (1917 and 1938), Gregory and Moore (1931) and Hunt (1956).

Vegetation in the canyons is sparse and is confined mainly to the sandy canyon bottoms and along the perimeters of the riverside terraces. In the better watered canyons, communities of box elder and cottonwood trees, scrub live oak, reeds, willows, tamarix, cattails and poison ivy are found. On the drier talus slopes and riverside terraces cactus, yucca, sagebrush, Russian thistles and a variety of grasses grow.

Commonly observed fauna includes flies, beetles, ants, mosquitos, lizards, chuckwallas, squirrels, porcupines, garter and gopher snakes, bank beaver, and occasionally, deer. Blue heron and several species of ducks are found along the river. For detailed biological and ecological data see Woodbury and others (1958, 1959 a, 1959 b).

The climate of the area is very arid. Annual precipitation is usually less than 7 in., with most of this falling in sporadic summer showers. Temperatures recorded at the weather station at Hite, Utah, show a mean annual temperature of 60.4^oF. with a recorded high of 114^oF. and a low of -1^oF. Daily summertime temperatures may fluctuate 30 to 40 degrees.

Overall, the Glen Canyon area presents a picture of barren stripped sandstone desert, towering mesas and buttes and numerous deep-cut meandering canyons. Inhabitable areas in and near Glen Canyon proper are few, confined to the floors of some of the canyons and on some of the riverside terraces. Historic occupation has been limited by this inhospitable physiography. Such occupation of the area as there was, was short lived or transient. It appears that this was also the case during aboriginal times, although a few of the left bank drainages were apparently more extensively occupied than most of the rest of the region.

THE DRAINAGES

To better facilitate an understanding of the archeological sites recorded in the upper Glen Canyon, we have delineated sub-areas, usually major tributaries within the upper Glen Canyon area. These major sub-areas include:

The Right Bank

Previous surveys by Lister (1958, 1959 a, 1959 b) had essentially completed the search on the right bank of Glen Canyon from the damsite to the mouth of the Dirty Devil River. The 1959 survey concentrated on specific terrace areas along the river and in two small drainages that were inaccessible to the parties working over-land.

The terraces and inner canyon walls of the right bank from Hite to the San Juan River are composed of a variety of formations. From Hite to the mouth of Warm Springs Creek the canyon walls are of the Triassic age, Moenkopi and Chinle formations, capped by those of the Glen Canyon group. In this area the riverside terraces are relatively broad, with sparse vegetation on them. Few sites are found on these terraces. Those recorded were small petroglyph panels on slump boulders and small open campsites on dunes.

The floors and lower walls of Seven Mile Creek and Warm Springs Creek are of the Chinle and Moenkopi formations capped by the Glen Canyon group. Both canyons contain high, steep talus slopes and large slump boulders brought down by the erosion of the softer underlying Triassic formations. Both canyons were surveyed to the end of their deep entrenchments, approximately three to four miles upstream. One small campsite was recorded at Warm Springs Creek.

From Warm Springs Creek to near the Waterpocket Fold the canyon walls are of the Glen Canyon group formations. In places the river terraces are wide and covered with gravel. In this area two clusters of five sites each were recorded - the first at the mouth of Smith Fork Canyon and the second in a series of alcoves at Mile 111-112.*

The uplifting of the Waterpocket Fold anticline exposed the earlier Triassic formations from Mile 101 to just above the confluence of the Escalante and Colorado rivers. In this area no sites were recorded on the right bank. A single campsite with associated pictographs was recorded at the mouth of the Escalante River.

Below the Escalante the canyon walls are principally Wingate sandstone. In the area between the Escalante River and Hidden Passage, scattered, small open campsites and chipping sites, as well as a large alcove and associated dune site (Fowler, 1959), were recorded in 1958.

Red Canyon - Little Rincon

This area extends from Mile 145 to 154 on the left bank. Red Canyon is a long open "box" canyon (Cooley, 1958, p. 27) draining the north side of Mancos Mesa. The lower four miles of the canyon contains a perennial stream, fed by springs. The floor and walls of the canyon and its tributary canyons, Blue and Rainbow, are formed by the Chinle and Moenkopi sediments. Vegetation is very sparse, consisting of sage and rabbitbrush in most of the canyon with clusters of willow and tamarix at the mouth. The adjoining Little Rincon is an abandoned river meander. The walls are of the Chinle and Moenkopi formations, capped by the three formations of the Glen Canyon group, which constitute the top of Mancos Mesa. The floor of the Little Rincon is covered by high, partially stabilized dunes. Several intermittent seeps are found at the base of the cliff walls. One extensive open pueblo was recorded near these seeps. Several small campsites or chipping sites were recorded on dunes near the river.

*Mile 00.0 etc. refers to river miles above Lees Ferry

At the mouth of Red Canyon an open pueblo site, as well as an alcove masonry site, was recorded. Two small campsites were recorded in upper Red Canyon about 15 miles from the river.

Cedar and Knowles canyons

These two drainages enter on the left bank of Glen Canyon between Mile 134 and 137. The walls and floors of these canyons are of the Kayenta formation capped by the Navajo formation. Both contain high, steep talus slopes which come down to the streambed on both sides of the canyons. In places these slopes are overlaid by stabilized dunes. Both canyons drain the southwest side of Mancos Mesa. No archeological sites were recorded in either of these drainages, although three small chipping sites were recorded on the gravel terraces of Olympia Bar which lies between the two canyon mouths.

Forgotten Canyon - California Bar

Forgotten Canyon enters the river on the left bank at Mile 132. The walls and floors of the canyon are of the Navajo formation. An intermittent stream flows in the lower five to six miles. Vegetation in the canyon includes willows, reeds, cattails, a few cottonwood trees and growths of scrub oak. The canyon drains a bench area southwest of Mancos Mesa. Approximately seven miles upstream the formations underlying the Navajo begin to appear. Above these on both sides of the canyon are high talus slopes overlaid by stabilized dunes. California Bar is a gravel covered sandstone bench above an alluvial sand terrace immediately downstream from the mouth of Forgotten Canyon. A total of 19 archeological sites were recorded in the two areas.

Little Ball (Beaver) Canyon

This canyon enters the river at Mile 130 on the left bank. The floor and walls of the canyon are of the Navajo formation capped by the Carmel and Entrada formations. The canyon is narrow and deep and contains an intermittent stream fed by many small seeps. Vegetation along the streambed is dense, consisting of willows, cottonwoods, cattails, reeds and poison ivy. A jump-up of several hundred feet about three miles upstream ends the deep entrenchment of the canyon. Three small sites were recorded near the mouth of the canyon.

Moqui Canyon

This canyon enters the river on the left bank at Mile 125. It is a long, deeply entrenched, meandering canyon draining the south side of Mancos Mesa. For the first ten miles upstream the walls and floor of the canyon are of the Navajo formation, capped by the Carmel formation. In the upper portion of the canyon and its North Gulch tributary, where it is still entrenched, the floor and lower walls are of the Kayenta formation, overlaid by high talus slopes from the Navajo formation. The lower six miles of the canyon contain a perennial stream fed by numerous seeps and springs. In the lower eight miles of the canyon there are remnants of alluvial soil deposits, which indicate that the stream level was 30 to 40 ft. higher at one time than at present. Vegetation includes cottonwoods, reeds, cattails and tamarix in the streambed and sage, yucca cactus and grasses on the alluvial remnants. Several short side canyons branch off in the lower seven miles. All of these end within one to two miles at high jump-ups above seep bells eroded in the Navajo sandstone walls. Twenty archeological sites were recorded in the canyon.

Lake Canyon

This canyon enters the river on the left bank at Mile 113. It drains an area north of the Nakai Dome. The walls and floor are of the Navajo formation. The canyon contains remnants of an alluvial deposition which, in the upper part of its entrenchment, are 200 to 300 ft. above the present streambed. A perennial stream flows through the entire length of the canyon. The stream gradient is steep; near the mouth of the canyon the streambed drops sharply to river level over a series of small cascades. Vegetation includes cottonwoods, scrub oak, willows, cattails and reeds near the streambed and sage, yucca, cactus and rabbitbrush on the alluvial remnants. Twenty-three sites were recorded in this canyon, including large open campsites on the alluvial areas.

Slickrock Canyon

This canyon enters on the left bank of the river at Mile 104.5. It drains a flat bench area northeast of the confluence of the San Juan and Colorado rivers. The floor of the canyon is of the Wingate formation of the Glen Canyon group. The streambed is entrenched in the Wingate and Kayenta formations. Above the streambed is a dune-covered bench

on both sides of the canyon which marks the top of the Kayenta formation. The walls of the canyon are of the Navajo formation capped with remnants of the Carmel. The Canyon boxes up approximately five miles upstream at the end of its deep entrenchment. The stream in the canyon is intermittent, fed by numerous seeps from the Navajo and Wingate formations. Vegetation near the streambed is dense, consisting of willows, cottonwoods, reeds and cattails. Sage, yucca and grasses cover the high dunes and talus slopes against the canyon walls. Six sites were recorded in this canyon.

Wilson Canyon - Rincon

Wilson Canyon enters the river on the left bank at Mile 101.5. It drains part of a bench area northeast of the confluence of the San Juan and Colorado rivers. The floor of the canyon is cut into the Wingate formation and the walls are of Wingate, Kayenta and Navajo sandstones. Approximately three miles upstream the canyon walls are of the Navajo formation, the other formations dip below the streambed level. The canyon has several branches on both sides. All of these branches box up at the end of the deep entrenchment with jump-ups several hundred feet above the streambed. The stream is intermittent, fed by seeps and springs. Vegetation is heavy in parts of the canyon, with cottonwoods, willows, scrub oak, cattails and reeds.

The Rincon, just downstream from the mouth of Wilson Canyon, is an abandoned river meander some 300 ft. above the present streambed at a point where the Colorado River cuts across and through the Water-pocket-Fold anticline. Due to the uplifting of the Fold the older Triassic age sediments and the underlying Permian age, White Rim member of the Cutler formation, are exposed at river level (Cooley, 1958). Seeps along the walls of the Rincon feed small, short intermittent streams. Vegetation is scanty, some sage and cactus with willows and tamarix along the river.

Twelve archeological sites were recorded in Wilson Canyon and two small sites were recorded in the adjoining Rincon.

FIELD PROCEDURE

The 1959 survey acted, in part, as an advance party for an excavation crew of ten men, checking on previously reported sites and locating new ones for excavation. The survey party reported back to the excavation party every 14 to 21 days. On the basis of these reports moves were made to new areas by the excavation party.

The field party left Salt Lake City for Red Canyon, via Hite, Utah, on June 14, 1959, and returned from the field on August 31, 1959. Transportation to Red Canyon was by truck and carryall. River transportation was by motor boats and rubber rafts. The survey party of two was equipped with a single motor, flat bottom boat and a seven-man rubber life raft. The raft served as a cargo carrier and was cached along the river whenever the motor boat was taken back upstream for supplies.

The survey was carried out by a party of two. Members of the excavation crew rotated as the second member of the party. Members of the survey party during the season included the field supervisor, Don D. Fowler, graduate student in anthropology, University of Utah, and the following field assistants: Wilfred Husted, graduate student in anthropology, University of Colorado; Robert Kiste, under-graduate student in anthropology, University of Indiana; and Richard Ross, graduate student in anthropology, University of Colorado.

Blanding, Utah, served as supply center and contact point with Salt Lake City. Trips were made into Blanding about every 21 days, in conjunction with the excavation crew. Specimens, film and records were forwarded to Salt Lake City and fresh supplies of gasoline and food were obtained.

Actual survey operations were carried out by floating downstream to a canyon mouth or riverside terrace, establishing a temporary camp and then surveying all areas accessible from the camp. Wherever necessary, the party packed into an area, carrying two to three days supplies - water, cameras, specimen bags and data sheets, plus a minimum of personal equipment. Standard recordation procedures were followed. Both black and white and color photographs were taken of all sites recorded.

A second assignment of the survey party was to copy, by means of rubber latex molds, any large petroglyph panels and historical markers found in the upper canyon. Lotol Creme liquid latex was used. Several coats of the latex were painted over a panel, allowed to dry and then stripped off and trimmed. The molds are to be utilized in making plaster replicas of the panels and markers.

ARCHEOLOGY

The archeology of the area surveyed in 1959 was found to differ markedly from sites in the lower Glen Canyon (below the confluence of the San Juan and Colorado rivers). This difference was noted both in the types of sites and in the ceramic collections from the sites.

A total of 134 sites were recorded by the survey; of this number, 20 had been previously reported (Fowler, 1959). These sites are herein reported again to present a more complete picture of the area.

We have noted previously the physiography of the Glen Canyon and its tributaries. Site location and distribution were found to correlate closely with physiography, that is, specific types of sites were located on and/or in specific physiographical features. The majority of the sites recorded were in or on areas where the walls and floors of the canyons were of the Navajo formation. Several factors appear to be relevant here. First, as we have noted, the Navajo formation contains numerous alcoves and overhangs eroded along bedding planes and/or seep lines. These alcoves provided shelters in which to camp or to build permanent structures and were extensively utilized. Second, the Navajo formation is a good aquifer; numerous seeps and springs are found in canyons cut through it. In several such canyons these seeps and springs maintain intermittent or perennial streams. Third, dunes and alluvial deposited soils occur in these canyons, which could have been used for horticultural practices. At the present time, several canyons contain remnants of these alluvial deposits, the narrow streams flowing on or near bedrock. The location of extensive open sites on these remnants, and in alcoves and on talus slopes above them, may indicate that at the time of aboriginal occupation, stream levels were at or near what is now the top of these alluvial remnants. If so, certain of the canyons, notably Moqui, Lake and Forgotten canyons, would have contained extensive areas suitable for horticulture. The numerous habitation sites found in these canyons appear to bear out this thesis. Similar conditions have been noted in other parts of the Glen Canyon area, particularly in the tributary drainages of the Escalante River (Gunnerson, 1959 b).

In the canyons cut through other formations few or no sites are found; in several of these there are no favorable site locations. High talus slopes and/or dunes extend from the canyon walls down to the streambeds. Water in these canyons is scarce or is present only from the runoff of infrequent rains.

Habitable areas thus appear to be limited by physiographical phenomena in the Glen Canyon area. Site location was determined by water and arable land. In areas lacking these, sites, when found, were small and indicate transient camping sites or chipping areas.

Sites recorded by the survey can be grouped into eight categories. These include:

1) Alcove sites, no masonry. Included in this category are sites in alcoves or rock shelters with no visible masonry structures. In Table 4 these sites are referred to as campsites or habitation sites in alcoves. Such sites appear to have been used only briefly or perhaps recurrently as sheltered camping areas. Twenty-two such sites were recorded by the survey.

2) Granaries or storage structures. Six small, masonry granaries were recorded. These were built in small alcoves or constructed by walling up small holes between ledges in the face of a cliff. No other evidence of occupation was found in association with these structures.

3) Open campsites or chipping areas. These sites, of which 31 were recorded, were located on dunes or alluvial terraces, usually at the base of or near cliffs and benches. Such sites had both pottery and chipped stone artifacts on the surface and, usually, evidence of campfires. Occasionally groundstone artifacts or fragments were observed. Several of these sites were quite extensive and appear to have been occupied recurrently over a long period of time. The presence of sherds, hearth areas and groundstone artifacts differentiates these sites from chipping areas.

4) Chipping areas or workshops. Fifteen sites of this type were recorded. These sites, usually small, were found in open areas and beneath overhangs on or near gravel terraces or on gravel covered areas above the rim of the canyon. Much of the gravel on these areas is silicious material and appears to have been a major source of chipping stone.

Two of the lithic sites recorded were on alluvial sand terraces near the river. Both sites were covered by 2 to 3 ft. of sterile fill and both contained 3 to 4 ft. of deposition - charcoal, flakes and a few broken tools. The age and affiliation of these sites, as of most of the open, surface sites recorded, has not yet been determined.

5) Open masonry sites. This category includes structures of wet or drylaid masonry construction built in open areas - on knolls, benches or alluvial terraces. Five such sites were recorded.

6) Petroglyphs. Five panels of petroglyphs were recorded. These panels were not associated with other evidence of occupation. Several sites in other categories had associated petroglyph and/or pictograph panels and are not included in this tally.

7) Pecked steps and finger holds. Six series of steps and finger holds with no associated evidence of occupation were recorded. These usually were a means of access to an area or provided a route around an obstacle.

8) Masonry sites. These were in alcoves or at the top of talus slopes, beneath overhanging cliffs. Included were sites containing wet and/or drylaid masonry structures. Sites were usually built on and in the exfoliation from the alcoves or overhangs in and beneath which they were situated. Some alcoves contained no talus and in these, structures were built on the flat or sloping bedrock floors, utilizing retaining walls. Types and quality of masonry ranged from loose piles of uncoursed, dry-laid spalls, which probably were little more than windbreaks, to coursed, carefully laid spall and adobe structures with plastered interior and exterior walls. Fifty-four sites of this type were recorded.

Masonry sites constituted the largest single category recorded by the survey. Of the 54 masonry sites recorded, 48 were found in the left bank tributary canyons. Three types of masonry construction were noted:

1) Drylaid structures (Fig. 10). In several alcoves and on one open site, structures of loosely piled, unmortared slabs were observed. Many of these were partially collapsed or had been disturbed by pot-hunters. Most were low, 2 to 4 ft. at maximum height, and probably served as little more than temporary windbreak walls. No evidence of roofing was observed. Generally these walls outlined D-shaped or roughly circular rooms, no more than 6 to 8 ft. across. Some were semi-subterranean, others appear to have been built on the talus or sand surface of the alcove floors.

2) Uncoursed, wet-laid masonry. The majority of the masonry structures recorded were of this type. The masonry was of irregularly shaped spalls set in adobe mortar. The spalls varied greatly in size and showed little or no evidence of deliberate shaping or coursing. Small rocks, and occasionally corn cobs, were used as chinking material between the larger blocks. Most of the spalls utilized in this type of masonry were flat slabs which occur naturally in the exfoliation from the Navajo and Kayenta formations. Room shapes included rectangular, circular and D-shaped. The latter, built usually as semi-subterranean rooms, occurred most often. At several of the larger masonry sites, a row of contiguous D-shaped rooms constituted the major architectural feature. This type of masonry was also used in granary construction. The masonry was usually unplastered (Figs. 5 and 7).

3) Coursed and shaped wet-laid masonry. This type of masonry was recorded at several sites, the majority of them located in Lake and Forgotten canyons. The term coursed is perhaps somewhat inaccurate here since the spalls used in the masonry were not as carefully shaped or, in most instances, laid in regular rows as is the masonry of classic Mesa Verde or Chaco Canyon sites. Shaping was limited to making the interior and exterior wall surfaces even. Sherds, cobs and small rocks were used for chinking and both interior and exterior walls were plastered. This type of construction was utilized in square or rectangular above ground rooms and, in some Lake Canyon sites, in retaining walls (Fig. 9).

Jacal construction was noted at three sites. In all instances the jacal was limited to a single exterior wall with other walls of spall and adobe construction.

Several structures with intact or partially intact roofs were recorded. Roofs were constructed in four stages. Large beams of cottonwood were covered with layers of poles, small willows and reeds, with each layer placed at right angles to the one below, and a layer of mud or adobe was placed over these. Roofs of granaries, rooms and kivas were constructed in this manner (Figs. 5 and 9).

Doorways of rooms and granaries were rectangular, with lintels and posts of willow or cottonwood, and sills of sandstone slabs. Doorways into rooms were usually set in the walls 1 to 2 ft. above the floor. At three sites thin sandstone slabs, shaped to fit the rectangular entranceways were observed. The majority of the granaries had adobe rims around the doorways (Fig. 11).

MATERIAL CULTURE

Chipped stone artifacts

A total of 808 chipped stone artifacts were collected by the survey. Of this total 504 specimens are flakes having no evidence of secondary chipping or of use. The remaining 304 specimens are classified into the several categories listed in Table 1. A typological system similar to those employed by Jennings (1957) and Woodbury (1954) was utilized. These categories are intended to be descriptive and not to imply specific usage of a given artifact. All of the chipped stone implements recovered by the survey are of chalcedonous materials, principally chert and jasper. Differentiation between blades and points was made on the basis of the presence or absence of tangs or stems on the base of the tool.

Points. These are classified as stemmed blades, the stem or tang formed by notching at or near the base. Six whole points were collected. Of these, five are diagonal corner notched with stems narrower than the blade. Stem bases are both round and straight. The blades of the points are triangular, with straight sides (Fig. 3). The sixth specimen is side and basal notched, with the stem wider than the blade. Similar small points were collected in the San Juan Triangle area (Weller, 1959, Fig. 17, t-w) and on the Kaiparowits Plateau (Gunnerson, 1959 a, Fig 36, n). The diagonal corner notched points are similar to those found in all areas adjacent to the Glen Canyon. They occurred on both pottery and non-pottery sites.

Blades. This category includes bifacially chipped stone implements without stems or tangs. One hundred and eighty five blades or blade fragments were collected by the survey. For convenience of classification the blade category is subdivided into small and large blades; the dividing line is at 5 cm. in length.

a) Small blades. Small blades are symmetrical, with either convex or straight sides. Bases include round, straight, asymmetrical and concave. The majority of the specimens have straight bases. Chipping varies but is generally well executed. Serration of edges occurs on three specimens. Small blades range from 1.8 to 4.8 cm. in length and from 1.3 to 2.0 cm. in width.

Table 1. Types of chipped stone artifacts

Points

Diagonal, corner notched	5
Side notched	1

Blades

Large, round base	3
Large, straight base	4
Large, asymmetrical base	3
Small, concave base	2
Small, straight base	8
Small, round base	10
Small, asymmetrical base	5
Blades, fragmentary	151

Scrapers

Side	34
End	2
Double edge	4

Drills

Expanded base	8
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Retouched flakes 55

Choppers and hammerstones 9

Flakes

Unworked	504
Total	<u>808</u>

b) Large blades. Only three complete large blades were collected. The majority of the specimens in this category are basal fragments. In general the larger blades are less finely worked than those of the small category. Many show only primary flaking with little or no secondary retouching. Sides are straight or convex with the latter predominating. Bases are straight, round or asymmetrical, the round base being the most common form. Again, as for small blades we must note that the majority of the specimens collected are fragmentary and little can be done with these typologically except to place them in a general blade category. Overall, the blades correspond to those collected by other surveys in the Glen Canyon area.

Drills. Seven specimens have been classified as drills. All have expanded bases, with both concave and convex shoulders occurring on the bases. The drills range in size from 2.9 to 7 cm. in length and 1.4 to 2.9 cm. in width at the base.

Scrapers. Implements of this category have been divided into three classes. The most common are side scrapers, roughly rectangular flakes or cores with one of the long sides retouched. End scrapers are smaller in size and have retouched or use edges along the short axis of the artifact. Seven specimens have two retouched or use edges, usually side and end. These have been classified as double edged scrapers.

Retouched flakes. Several small irregularly shaped flakes collected have one or more edges beveled by secondary pressure flaking. The flaking is usually on the opposite side from the fracture plane of the flake. Such flakes probably were used for scraping or abrading operations. Others are probably "rejects" or incomplete blades or points.

Hammerstones and choppers. Artifacts of this category include various size pebbles or cores having flakes knocked off one end and/or battered edges indicating pounding or pecking.

Groundstone artifacts

Groundstone artifacts collected or observed include manos, metates, grinding slabs, ground and pecked depressions in bedrock and one maul.

Manos. Three specimens were collected. All are small, rectangular one hand type, with one grinding surface. Several others were observed in the field. Those observed included both one hand and two hand types, usually rectangular, with one or two parallel grinding surfaces. All are made of fine grained sandstone.

Metates. No metates were collected by the survey. Several were observed and photographed in the field. Those observed were of the flat, pecked block variety, some with circular basin-shaped depressions. No troughed specimens were observed. All were made of fine grained sandstone. At three sites metates were observed in mealing bins. In all three instances the metates were flat slabs, set in mortar against a sandstone slab placed in the bins at an angle (Fig. 14).

Grinding slabs. Flat, irregularly shaped sandstone slabs with evidence of grinding on one face were noted at three sites. Such slabs were probably used for a variety of grinding or milling operations.

Ground and pecked depressions in bedrock. Pecked and ground depressions in sandstone bedrock or on the faces of large spalls were noted at a few masonry sites (Fig. 13). One pecked, shallow, basin-shaped depression might have been a bedrock metate. A circular depression, 6 in. in dia. by 6 in. deep, at the same site might have served as a mortar. At other sites rubbed grooves of varying widths were noted. These probably served as awl and/or ax sharpeners.

Maul. A full grooved sandstone maul was collected. The specimen measures 12.2 cm. in length and 6.6 cm. in dia. at the groove (Fig. 2).

Worked organic materials

Worked organic materials collected include the following:

Basketry. A single basketry fragment was collected by the survey.

Horn. A single digging stick blade of mountain sheep horn was collected. The specimen measures 16 cm. in length and 4.6 cm. at its widest point (Fig. 2).

Wooden spindle. A whole spindle with attached whorl was collected. The whorl is of wood and measures 3.7 cm. in dia. The spindle is 56 cm. long (Fig. 2).

Wooden sickle. A wooden sickle, measuring 43 cm. in length and 5.5 cm. at the widest part of the blade, was collected. The implement is crescent-shaped with both sides of the blade smoothed to a cutting edge (Fig. 2).

Yucca. Three knotted strips of yucca fiber of unknown usage were collected. Loom anchors constructed of yucca, cobs and willows were observed at one site.

Domesticated vegetal

Numerous corn cobs and gourd fragments were collected at several sites. Twenty-four whole gourds were observed at one site in Lake Canyon.

POTTERY ANALYSIS

by

Florence C. Lister

The 1959 Fowler reconnaissance covered areas bordering the Colorado River which appear to straddle boundaries between aboriginal cultures. The survey hoped to realize two primary goals. The first was to discover a meeting of diverse pottery traditions along the Upper Colorado River drainage network. It was hoped that sufficient search would reveal a blend of ceramic types identified with nearby centers of Anasazi development, namely the Kayenta hearth to the south, eastward the Mesa Verde center, the Fremont and so-called northern peripheral Pueblo cultures of Utah to the north and west. Analysis shows that a wide range of Kayenta and Mesa Verde pottery was encountered, often in apparent contemporaneity in a single site. However, Chaco types do not appear to have reached the Colorado River, even though a broad distribution is recognized among Mesa Verde settlements as far northwest of Chaco Canyon as the Ackmen-Lowry vicinity of southwestern Colorado. Nor does Fremont or other Utah Desert Gray Ware seem to have drifted eastward by trade from their westerly centers of manufacture in any appreciable numbers. Only seven Turner Gray-Variety II sherds were noted.

The second goal was to show that the full range of Anasazi Pueblo culture existed from Basketmaker II through Pueblo III. Achieving this goal would require recording 1000 years or more of pottery development. This latter goal was not achieved.

Although Basketmaker II sites representing a formative stage of that culture are thought to exist in Moqui Canyon, and the classic Basketmaker caves of the Grand Gulch are not many miles distant, no fragments of the best-tempered unfired proto-pottery which is sometimes associated with such remains were recovered. Obviously, unfired clay containers would not have endured in the open, and no dry caves containing Basketmaker refuse were found.

The next stage of cultural development, that called Modified Basketmaker or Basketmaker III, the first one in which purposefully fired pottery appears, is represented in the survey material, but only slightly. To date, surveys and excavations have produced a mere 175

sherds of a type considered a hallmark of this early period in the Kayenta-Lino Gray, a plain gray pottery with rather fine quartz sand temper. (Most of these fragments were recovered by the 1958 Triangle survey of the desolate section between the Colorado and the San Juan rivers.) Forty-six sherds appear in the collection of the survey presently being considered. Other sherds, similar in appearance but possessing a temper of crushed rock, are classified as Chapin Gray, the northern San Juan counterpart of Lino Gray. As would be expected considering the area dealt with, Chapin Gray is more numerous in the current tabulations. Unfortunately, neither of these two types, when represented solely by sherds, can be considered as accurate time indicators. Their simple, squat forms evolved, in Pueblo I times, into more elaborate shapes with certain banded, gouged, or manually textured embellishments at the neck. Therefore, unless one obtains rim sherds, it is impossible to distinguish Basketmaker III grays from Pueblo I, II, or, sometimes, III grays. In the present instance, it seems quite likely that some of the plain gray sherds represent early occupation and that there might have been a sparse habitation of the area by about A. D. 600-700, although no site produced gray or black-on-gray pottery exclusively. Basketmaker III people are known to have been south of the San Juan and east to Alkali Ridge. But it is the history of most Modified Basketmaker sites that they were reoccupied at a later date by Pueblo folk whose trash would be most obvious on the surface.

Pueblo I pottery is virtually non-existent in the 1959 Fowler survey area. As noted above, some of the grays may be assignable to this time. Indeed a few grays have been called examples of neck banding with a mental footnote that they might just as well have been unindented portions of corrugated styles. Inasmuch as almost no red or black-on-white decorated wares of this period occur, it presumably must be inferred that the region lay uninhabited.

Previous excavations of the Upper Colorado River demonstrate that by the end of Pueblo I a general expansion was under way from the exploding cores of Anasazi centers. The relatively isolated three or four unit dwelling became the typical settlement pattern. From results of pottery studies of both the 1958 and 1959 survey collections made along the Colorado River, it would appear that this was the era when small bands worked their way north from the Navajo Mountain-Monument Valley regions and met others moving westward out of southwestern Colorado and southeastern Utah. Together they settled at the river's edge, perhaps only during certain seasons of the year, sometimes placing their dwellings in close proximity, other times sharing a

village. Conservative as they were, they tenaciously continued the architectural, ceramic, and other fashions of material culture they had known previously but adapted where necessary to environmental restrictions.

The pottery recovered reflects much of this change; frequent variation in materials used is seen but never in painted or textural designs applied. So it is not uncommon to find McElmo Black-on-white pottery tempered only with crushed rock or occasionally decorated with iron pigments, whereas at "home" on the Mesa Verde it most often contained a goodly amount of crushed potsherd and was painted with lustrous carbon paint. Nonetheless, the design elements used, their general layout and the style of execution, do not differ markedly from the norm described for the type.

Likewise, corrugated pottery, a Pueblo II culinary ware innovation of immense popularity by well established northern San Juan custom, would normally have been tempered with crushed rock. In the Glen Canyon collections it often was not so tempered. Sand from the river's bars and riffles was so easily obtainable that even at the expense of weakening the finished product it may have been utilized. Or it may be that in careless and haphazard crushing of the weathered sandstone, found on the skirts of cliffs, many granules remained unfractured. In cross section, therefore, against a background core of crushed rock particles of varying sizes, there appear rounded grains often as numerous as in pottery deliberately manufactured with inclusions of quartz non-plastics. But decorative treatment of coils was the same regardless of whether the pottery was produced (at Site 42Sa364) on the Colorado River or (at Site 499) on Chapin Mesa in Mesa Verde National Park.

All of these differences inspire provocative questions as to whether they represent peripheral lag, ineptitude or inventiveness of individual potters, indifference to or flexibility of standards, or undisguised divergence. If answers can be obtained at all, they can only be secured through excavation. Archeological survey can be no more than suggestive.

Utilization of the area during Pueblo II-III times is indicated by the presence of sherds of pottery types known to have been made at those periods in other localities. Utility wares were overwhelmingly of the corrugated varieties rather than the plain surfaced grays (by Pueblo II comprising only .05% of the total). Black-on-whites

pertaining to both the Kayenta and the Mesa Verde ceramic clusters were present with an increase in number of sherds from early to late types, and, as one progressed upstream there was a shift in concentration from the former to the latter. The Kayenta types collected range from Pueblo II, Black Mesa Black-on-white, to Pueblo III, Kayenta Black-on-white. Mesa Verde types extend from Pueblo II, Cortez Black-on-white, to Mesa Verde Black-on-white - Mesa Verde Variety.

It will be noted that San Juan Red Ware was extremely rare. The reason for its absence, even in Mesa Verde towns, lies in the fact that they were occupied during a period when well made types, such as La Plata Black-on-red and Abajo Red-on-orange, inexplicably had fallen from favor. Such few San Juan Red sherds as do appear may perhaps be explained as heirloom pieces or drift from earlier nuclei located elsewhere. The Kayenta-allied villages of the area, therefore, must be considered the suppliers of all the red pottery found in the trash heaps of their own yards as well as in those of their Mesa Verde-allied neighbors.

Lack of pottery later than Kayenta Black-on-white, Mesa Verde Black-on-white, or Kayenta Polychrome points to abandonment of this outlying region at about the closing years of Pueblo III, perhaps A. D. 1300. Three Jeddito Black-on-yellow and one Jeddito Corrugated sherds (Pueblo IV) may have been portions of pots left behind by hunters who had penetrated the lonely empty canyons far to the north of their homeland.

Some comment is required on the typological problems met in this particular lot of pottery. Much of the collection falls within a Pueblo II-early Pueblo III period, as does that of all other survey collections. Possibly because of a sensitive cycle of borrowing, copying, rejecting - in short, trial and error - elasticity of treatment and fluidity of style are characteristic of the period. As a result, many of the earlier decorated wares came to have numerous superficial similarities. This makes sharp delineation into types which can be applied rigidly to specific areas within a larger culturally compatible region difficult, if not impossible.

Yet differences between the pottery of the two principal areas involved (Kayenta and Mesa Verde) were several and significant. For the 500 year evolution of pottery making in the Kayenta region through Pueblo III times, potters used paint made of vegetal matter to decorate black-on-white vessels and kneaded quartz sands into their clays.

Through Pueblo II times, craftswomen north of the San Juan worked, as a general rule, with mineral pigments, using crushed rocks (often of igneous origin) as temper. Little basic alteration in methods of manufacture was made as Kayenta Pueblo III flowered, with change actually being no more than refinement of technique and firm conventionalization of design. Pottery became progressively thinner. Carbon paint and sand temper continued in vogue. By contrast, decided change took place with the ushering in of Pueblo III in the northern San Juan. First, experimentation with sherd tempering had begun in mid Pueblo II with the development of a type now called Mancos Black-on-white. Next, carbon paint almost entirely replaced mineral paint on a somewhat later variety of the Mesa Verde White Ware known as McElmo Black-on-white. Pottery became thicker.

To attempt now to cope with this melange, to bring scientifically acceptable orderliness out of the confusing welter of minutiae of design differences, temper variation, or surface manipulations seems pregnant with needless complexity. In particular, there appears to be an over-emphasis on subjective analysis in dealing with Tusayan black-on-white wares, where types have been distinguished on the basis of skill or lack of it in execution of certain "typical" elements. A number of types (Black Mesa, Sosi, Dogoszhi, Flagstaff, etc.) properly might be lumped into one category - a Tusayan Pueblo II black-on-white - but with variations attributable to particular potters pinpointed in specific areas and/or time. Yet, in order to create an intelligent aggregate, one must be totally aware of all its component parts. So I follow Colton's classification, breaking down Tusayan Pueblo II types on basis of design, even where such division is highly questionable.

At present Mesa Verde pottery is being restudied by National Park Service personnel but since their recommended reorganization of types has not appeared as yet in the literature, I have not felt it desirable to follow their system in this analysis. They have discarded several types, and have incorporated others as variations of larger groupings. The specific types involved are not significant in this collection.

POTTERY

On the basis of the ceramic analysis as described in the preceding chapter it is possible to outline roughly the aboriginal occupation of the upper Glen Canyon. Pottery, at present, is the most sensitive indicator available as to time of occupation and cultural influence.

Table 2 lists the wares and types within wares collected by the 1959 survey. Table 3 lists the percentage distribution of pottery by area. Ninety-eight percent of the pottery sites recorded were found in these areas.

Right Bank

A total of 95 sherds were collected on the right bank, at seven sites. The majority of these are Tusayan Gray Ware, Tsegi Series, including Tusayan Corrugated and Moenkopi Corrugated. These types are placed by Colton (1955) in the Pueblo II-Pueblo III stage and dated at A.D. 950-1275 for the former and A.D. 1050-about 1275 for the latter type. Other gray wares found on the right bank include five sherds classified as Turner Gray-Variety II. This type is assignable to the Fremont region north of the Colorado River.

White wares collected on the right bank include Sosi Black-on-white, a Tusayan White Ware, Kayenta Series dated by Colton (1955) at about A.D. 1070-1150 and four sherds assignable only to the Mesa Verde White Ware category, a Pueblo III ware (Abel, 1955). Red wares are represented by only three sherds classified as Tsegi Orange Ware, Tsegi Series.

Overall, the pottery collected on the right bank confirms the findings of other surveys along the right bank - few pottery sites with the majority of the wares found of Kayenta origin.

Red Canyon - Little Rincon

A total of 690 sherds were collected at seven sites in this area. Three adjacent sites in the Little Rincon yielded Kayenta Gray, White and Red Ware of the Pueblo II-Pueblo III stage. Four Mancos Corrugated sherds, a Mesa Verde Ware dated by Abel (1955) at about A.D. 900-1200 were collected at one of the sites. Two sites near the mouth of Red

Table 2. Pottery analysis by types

TUSAYAN GRAY WARE

Tsegi Series:

Lino Gray	46
Kiet Siel Gray	178
Tusayan Corrugated	881
Moenkopi Corrugated	419

Johnson Series:

Johnson Gray	3
Johnson Corrugated	8

TUSAYAN WHITE WARE

Kayenta Series:

Dogoszhi Black-on-white	8
Shato Black-on-white	1
Black Mesa Black-on-white	15
Sosi Black-on-white	46
Tusayan Black-on-white	62
Flagstaff Black-on-white	12
Kayenta Black-on-white	21
Tusayan white wares	100

TSEGI ORANGE WARE

Tusayan Black-on-red	54
Tsegi Orange	94
Tusayan Polychrome	93
Cameron Polychrome	2
Dogoszhi Polychrome	2
Citadel Polychrome	20
Tsegi orange wares	83

MESA VERDE GRAY WARE

Chapin Gray	26
Mancos Gray	18
Twin Trees Plain	3
Hovenweep Gray	58
Mancos Corrugated	479
Mesa Verde Corrugated	10

MESA VERDE WHITE WARE

McElmo Black-on-white	107
Mesa Verde Black-on-white	13
Mesa Verde Polychrome	8
Mesa Verde white wares	89

SAN JUAN WHITE WARE

Mancos Black-on-white	28
Morfield Black-on-white	13
Chapin Black-on-white	5
Cortez Black-on-white	3
Twin Trees Black-on-white	22
San Juan white wares	39

SAN JUAN RED WARE

La Plata Black-on-red	2
San Juan Red Ware (Eastern Series)	7

UTAH DESERT GRAY WARE

Fremont Series:

Turner Gray-Variety II	7
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JEDDITO YELLOW WARE

Jeddito Black-on-yellow	32
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AWATOBI YELLOW WARE

Jeddito Corrugated	3
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UNIDENTIFIED SHERDS

Black-on-gray, sherd and crushed rock temper	16
Black-on-gray, crushed rock temper, carbon paint	5
Unidentified black-on-white	1

Total	3142
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Table 3. Percentage distribution of pottery by area*

	Number of pottery sites	Tusayan Gray Ware	Tusayan White Ware	Tsegi Orange Ware	Mesa Verde Gray Ware	Mesa Verde White Ware	San Juan White Ware	Other
Right Bank	7	76.0	7.3	4.2	5.3	5.2	0	2.0
Red Canyon- Little Rincon	7	31.2	9.3	2.0	33.4	4.5	17.4	2.2
Forgotten Canyon	7	77.0	6.6	4.4	6.1	3.7	1.0	1.2
Moqui Canyon	15	43.5	11.0	9.0	22.4	8.7	1.8	3.6
Lake Canyon	17	25.1	6.9	23.6	31.4	7.7	3.8	1.5
Slickrock Canyon	4	41.6	9.6	19.9	17.3	10.6	1.0	0
Wilson Canyon - Rincon	13	57.6	19.4	12.4	6.9	0	0	3.7

*Percentages rounded to nearest tenth

Canyon yielded a mixture of Kayenta Gray Ware and Mesa Verde Gray Ware of the Pueblo II-Pueblo III stage, with a predominance of the latter. San Juan White Ware also was present in significant amounts at these sites although the majority are too weathered to permit further classification into types. The few sherds of Tusayan White Ware and Tsegi Orange Ware collected correspond to the dates and stages of the gray wares present on the sites.

Forgotten Canyon

Seven pottery sites were recorded in this canyon. A total of 870 sherds were collected. The majority of these are Tusayan Gray Ware, principally Moenkopi Corrugated and Tusayan Corrugated, and a few plain gray sherds classified as Kiet Siel Gray. Other gray wares include 53 sherds, all classified as Mancos Corrugated.

White wares are represented by both Tusayan White Ware and Mesa Verde White Ware. Tusayan White Ware includes Tusayan Black-on-white dated by Colton (1955) as Pueblo III, about A.D. 1225-1300 and Kayenta Black-on-white dated as late Pueblo III, about A.D. 1250-1300. Mesa Verde White Ware includes McElmo Black-on-white, Mesa Verde Black-on-white and a few Mesa Verde Polychrome sherds. These types are dated by Abel (1955) at about A.D. 1130-1300. A few sherds classified as San Juan White Ware, including one sherd typed as Cortez Black-on-white, an early Pueblo II type (Abel, 1955), were collected.

Red wares collected are Tsegi Orange Ware including three sherds typed as Citadel Polychrome, a late Pueblo II-early Pueblo III (?) type, dated at about A.D. 1125-1175 and four sherds typed as Tusayan Polychrome, dated about A.D. 1150-1300 (Colton, 1955). A single Medicine Black-on-red sherd was collected in this canyon. This type is dated by Colton (1955) at A.D. 1050-1100.

Moqui Canyon

A total of 690 sherds were collected at fifteen sites in this canyon and its tributaries. Gray wares collected include Tusayan and Mesa Verde Gray Ware. Tusayan Gray Ware is predominately Tusayan Corrugated and Moenkopi Corrugated. There are, however, significant amounts of the earlier Lino Gray type, dated at about A.D. 500-700 by Colton (1955) and the later Kiet Siel Gray dated at about A.D. 1274-1300. The Mesa Verde Gray Ware is, for the most part, typed as Mancos Corrugated.

A few sherds of the earlier Chapin Gray type were collected. Abel (1955) places this type in the about A. D. 450-900 time span.

One other gray ware collected was represented by a few sherds classified as Johnson Corrugated of the Tusayan Gray Ware, Johnson Series. The validity of this type is questionable. It was first described by Steward (1941, 307) as a separate type, but this has been questioned by Colton (1955, 31) who tends to regard it as simply a variety of Tusayan Corrugated. Small amounts of these sherds have been collected in other parts of the Glen Canyon. Their presence can only be noted here as perhaps indicating some influence from the Johnson-Paria region to the west of Glen Canyon.

Both Tusayan White Ware, Kayenta Series and Mesa Verde White Ware were collected in Moqui Canyon. The Tusayan White Ware includes Pueblo III, Flagstaff Black-on-white, Tusayan Black-on-white and a few of the earlier late Pueblo II-early Pueblo III Sosi Black-on-white types. Two recognizable Mesa Verde White Ware types were collected, McElmo Black-on-white and Mesa Verde Black-on-white. Both are considered by Abel (1955) to be Pueblo III types. A small amount of San Juan White Ware was collected but no recognizable types could be established.

Red wares present include a variety of Tsegi Orange Ware, principally Tusayan Black-on-red, Citadel Polychrome and Tusayan Polychrome.

Other wares collected include three sherds classified as Jeddito Yellow Ware, considered by Colton (1956) to derive from the Pueblo III-(?) Pueblo IV stage, with a beginning date of around A. D. 1250, and a single sherd classified as Jeddito Corrugated, an Awatobi Yellow Ware type made between A. D. 1300-1400 (Colton, 1956). The presence of these two types in Moqui Canyon and in other parts of the Glen Canyon area, Scorup Canyon and the Rincon (see Table 4), and in the San Juan Triangle (Weller, 1959) serves to indicate some movement into or through the area, probably by migrant Hopis, after A. D. 1300.

Lake Canyon

A total of 665 sherds were collected at seventeen sites in this canyon. Two types of sites were recorded, small masonry structures in alcoves, and extensive open campsites on the remnants of the alluvial fill along the sides of the canyon. Pottery from the masonry sites and some of the open sites is a mixture of Mesa Verde and Tusayan wares

ranging from early Pueblo I to late Pueblo III in time. At other of the open sites the pottery is from only one or the other of the traditions. The latter sites were generally smaller and probably represent a single occupation over a limited time span, while the larger sites appear to represent recurrent occupation by the carriers of both traditions.

The full range of Tusayan Gray Ware is represented in the collection from Lake Canyon, in several instances on a single site. The majority of the sherds are the Tusayan Corrugated and Moenkopi Corrugated types but there are significant amounts of the earlier Lino Gray type and the later Kiet Siel Gray type present. Similarly, the Mesa Verde Gray Ware includes the early Chapin Gray and Twin Trees Plain types, considered by Abel (1955) to derive from Basketmaker III-Pueblo I times, about A.D. 450-900. The majority of the Mesa Verde Gray Ware is Mancos Corrugated. A few sherds are classified as Hovenweep Gray, dated by Abel (1955) as late Pueblo III, about A.D. 1250-1300. Five sherds of the Johnson Corrugated type were also collected.

A full range of Tusayan White Ware, Kayenta Series was collected including Black Mesa, Sosi, Dogoszhi, Flagstaff, Tusayan and Kayenta black-on-whites and a single Shato Black-on-white sherd. Also collected was Mesa Verde White Ware, including McElmo Black-on-white, Mesa Verde Black-on-white and Mesa Verde Polychrome. A few sherds of the earlier San Juan White Ware were collected including Chapin Black-on-white, Twin Trees Black-on-white, Cortez Black-on-white and Morfield Black-on-gray.

A significantly large percentage (23.6%) of the sherds collected in Lake Canyon are Tsegi Orange Ware, Tsegi Series including the earlier Tusayan Black-on-red, Cameron Polychrome and Citadel Polychrome types and the later Tusayan, Dogoszhi and Kayenta polychromes. No recognizable San Juan Red Ware was collected, although several contemporaneous white and gray wares were found.

Slickrock Canyon

A total of 397 sherds were collected at three sites in this canyon. Sherds collected at these sites represent a mixture of Kayenta and Mesa Verde wares, as in Lake Canyon, although here the Kayenta wares were predominant.

Gray wares collected include Tusayan Corrugated and Moenkopi Corrugated and Kiet Siel Gray types of the Tusayan Gray Ware and

Mancos Corrugated and Hovenweep Gray from the Mesa Verde Gray Ware tradition. No earlier gray wares were collected.

White wares include Tusayan, Flagstaff and Kayenta black-on-whites of the Tusayan White Ware, Kayenta Series. Mesa Verde White Ware includes Pueblo III Mesa Verde Black-on-white and Mesa Verde Polychrome types. A few sherds classified as Mancos Black-on-white of the San Juan White Ware dated by Abel (1955) at about A.D. 950-1150 were collected.

Red wares collected are all Tsegi Orange Ware, Tsegi Series types dated by Colton (1955) at mid Pueblo II-early Pueblo III and Pueblo III. Types are Tusayan Black-on-red, Tusayan Polychrome, Tsegi Red-on-orange and Tsegi Black-on-orange.

Wilson Canyon - Rincon

Seven pottery sites yielding a total of 690 sherds were recorded in this area. Wares collected are predominantly of the Kayenta tradition. The majority of the sherds collected are Tusayan Gray Ware, Tsegi Series; types include Tusayan Corrugated and Moenkopi Corrugated and a few sherds classified as Kiet Siel Gray. A few Mesa Verde Corrugated sherds were collected at one site along with a coarse plain gray ware which has tentatively been classified as Hovenweep Gray.

White wares collected are all classified as Tusayan White Ware, Kayenta Series. Types include Black Mesa Black-on-white, a Pueblo II type, Sosi Black-on-white, Flagstaff Black-on-white and, at one site, Tusayan Black-on-white.

Red wares are all Tsegi Orange Ware, Tsegi Series. Most of the sherds collected are too weathered to permit further classification into types.

Several sherds, probably from the same pot, of Jeddito Corrugated, a type of Awatobi Yellow Ware, dated, as mentioned above, between A.D. 1300-1400 (Colton, 1956) were collected.

Summary

Generally the ceramic collection from the 1959 survey confirms what was previously known about the Glen Canyon area. That is, first, that the major occupation appears to have been in the Pueblo II-Pueblo III

period; second, that Kayenta influence extended up the left bank of Glen Canyon to the upper end of the canyon although it is now recognized that this influence was not as predominant as had been previously postulated (Fowler, 1959, 503); and, third, the relatively large amount of late Pueblo III types found in the tributaries on the left bank above the San Juan River appears to substantiate a previous speculation that some groups lingered there after the rest of the area had been abandoned (Fowler, 1959, 502).

The 1959 findings also added some new dimensions to the archeology of the area. Principal among these was the occurrence of Pueblo I-early Pueblo II types in some of the left bank tributaries. Previously, few, if any, recognizable Pueblo I types, either of the Kayenta or Mesa Verde traditions, had been found in the Glen Canyon proper or its immediate tributaries.

The few sherds assignable to other traditions and time levels that were collected, only serve, at present, to indicate small amounts of influence into the Glen Canyon area. The occurrence of Johnson Corrugated indicates some influence from the Johnson-Paria area to the southwest. This type is, of course, still questionable. It may be an aberrant Tusayan Corrugated without a strictly definable geographical origin.

The few Turner Gray-Variety II sherds collected may indicate contact or trade with the Fremont peoples to the north or travel into the Glen Canyon by Fremont peoples. The later Jeddito Corrugated and Jeddito Black-on-yellow sherds collected probably indicate some movement through the area by Hopis after it was generally abandoned by the Pueblo groups. To date no sherds of these types have occurred except on the surface of sites (W. D. Lipe, personal communication).

IMPRESSIONS

A survey activity is, of course, the first step toward gaining an understanding of the archeology of an area. It serves two purposes. One is simply to locate sites; the other, to define broad problems of distribution, time level and cultural affiliation, from an analysis of the materials and data collected. Such problems can then be attacked by systematic excavation of key sites. The 1959 survey data has posed several general and specific problems. Before posing these let us recapitulate and summarize briefly the information gained by the survey.

As we have noted previously the upper Glen Canyon area is a system of deeply entrenched canyons cut through deep sedimentary sandstone beds. The area, as a whole, is a virtual rock desert. Only in some of the canyon bottoms and along the edges of the Colorado River is there enough water to support any but the hardiest of desert flora and fauna. The Navajo and Wingate formations are good aquifers and where streams have down cut through these there occur springs and seeps which feed intermittent and, rarely, perennial streams.

In a few of the canyons in which the walls are of the Navajo formation there are, at present, remnants of alluvial depositions. These alluvial deposits appear to have filled the canyons at one time. There is some archeological evidence that at the time of aboriginal occupation these alluvial depositions were at or near their maximum depth, with stream levels at or near what is now the tops of the remnants (Gunnerson, 1959 b, 1). Such areas could well have been utilized for horticultural purposes. The occurrence of permanent habitation sites containing domesticated vegetal remains in these canyons suggests such an interpretation. In the Glen Canyon proper there are numerous wide alluvial terraces along the river edge, on the inside of river meanders and at the mouths of tributary canyons. It appears likely that some of these areas were also cultivated. Again, the occurrence of habitation sites on or adjacent to the terraces constitutes the primary evidence (Fowler, 1959; Lipe, MS).

Two other resources appear to have drawn the Indians into the area. One of these was the gravel covered areas found on the river terraces and on some bench areas back from the canyon rim. Much of this gravel is of silicious material and appears to have been utilized as a source of chipping stone. The second resource was presumably large game animals - mountain sheep and deer - which inhabited the tributary

canyons. Excavations in the canyons yielded numerous animal bones which have been identified by Durrant (Durrant and Dean, 1959, 100; Lipe, MS) as mountain sheep and deer. Deer are still to be seen in the tributary canyons. Several head were observed by the survey party in Forgotten, Moqui, Little Ball, Lake and Wilson canyons.

As outlined in a previous chapter, eight classes of sites were recorded. The majority of the sites are masonry structures in alcoves or on talus slopes beneath overhanging cliffs. The number of structures on these sites varies from one to eleven. Types of masonry structures include:

1. Circular or D-shaped semi-subterranean rooms, measuring 6 to 15 ft. across. The walls of these rooms were constructed of unshaped uncoursed spalls set in mud mortar. At four sites rooms of this type were recorded with roofs intact. These were larger, more carefully constructed; one had a plastered interior wall. Two of these structures were identified as kivas after excavation (W. D. Lipe, personal communication).

2. Drylaid circular or semicircular rooms were recorded in several alcove sites. Analysis of the pottery from these sites shows no time difference and it is likely that these sites represent campsites, perhaps of seasonal occupation.

3. Square or rectangular shaped structures with intact roofs were recorded at five sites (Fig. 9). The masonry of these rooms was well made; construction was of shaped spalls set in mud mortar with chinking of small rocks, cobs and sherds. The interior and exterior walls were plastered with mud. At one site in Forgotten Canyon, site 42Sa598, two contiguous rooms of this type were built adjacent to a series of the D-shaped semi-subterranean type rooms.

At six sites in Lake Canyon a construction technique was utilized which is anomalous to the rest of the area. Here structures were built on sloping bedrock floors of small alcoves. Retaining walls were built at the front of the alcoves and level floors of dirt and mud were built in behind the walls. At two of the sites this construction was carried to two levels, the second behind and above the first. Structures at these sites were rectangular, with entranceways built into the side walls.

Jacal construction was noted at three sites, the use of jacal limited to a single exterior wall at all three sites.

4. Open masonry sites. Five open masonry sites were recorded. Two of these, in the Red Canyon - Little Rincon area were extensive pueblo sites, similar to the open sites recorded in the San Juan Triangle area (Weller, 1959). The other three sites were drylaid outlines of rooms built on knolls or rock benches.

Storage structures were of three types:

1. Rectangular or semicircular, roofed granaries with adobe rimmed doorways. These structures were recorded at most of the alcove and talus slope masonry sites.

2. Spall and mud constructed granaries built in small openings or small alcoves in cliff or bench faces. These were not associated with other structures or evidence of occupation. Three such structures were recorded.

3. Slab lined pits or cists. Three structures of this type were noted. Two of them are on open dune campsites and could have been used as firepits.

Open campsites were recorded on the riverside alluvial terraces and on the remnants of the alluvial depositions in some of the tributary canyons. Several large open campsites were found in Lake Canyon and one extensive campsite on a dune was recorded in Slickrock Canyon. Pottery collected from these sites ranges from Pueblo I to late Pueblo III in time, with nearly equal amounts of Mesa Verde and Kayenta sherds present on the sites. These sites probably indicate a long recurrent occupation of the area. Other smaller open campsites were recorded in Lake and other canyons. Sherds from these sites are, in most instances, from one tradition and do not represent long time spans. Such sites probably represent a single occupation for a short time.

Chipping sites or workshops were recorded on or near the gravel covered river terraces. The majority of these were small and appear to represent a place where a few tools were made or roughed out and then the area abandoned. Three sites, two at the mouth of Hall Creek and one across the river on Boston Bar were extensive. In both areas flakes and broken implements were scattered for about one quarter mile along the sandstone benches. These sites were probably visited recurrently over long periods of time. The site on Boston Bar, site 42Sa608, on the left bank contained both Mesa Verde and Kayenta pottery ranging in time from Pueblo I to mid-Pueblo III.

Both petroglyphs and pictographs, in a variety of motifs, were recorded in association with campsites and masonry structures. A few petroglyph panels or single figures pecked on boulders or cliff faces were noted with no other evidence of occupation. Petroglyph motifs include stylized mountain sheep, deer, human, bird, snake, hand, feet, and sandal figures and a variety of geometric designs (Fig. 17). The motifs of the panels recorded in the upper Glen Canyon are similar to those found in the lower canyon.

Pictographs were always associated with campsites or masonry sites. Figures were painted in both red and white pigments. Several large "warrior" figures were recorded in Forgotten Canyon (Fig. 15) and similar figures were seen at one site in Moqui Canyon. A series of red pigment "horned men" figures at the mouth of the Escalante River is similar to Fremont motifs. Other pictograph figures include hand prints and concentric circle motifs.

Only general statements can be made about many of the artifacts collected by the survey. The majority of the chipped stone implements collected are fragmentary. The whole artifacts that were collected, both those associated with pottery and those not, are typologically similar to implements collected in the lower canyon and in adjacent areas. At present, not enough chipped stone implements have been collected to allow a valid typological analysis.

Pottery is at present the most sensitive indicator of time and cultural influence available. We have indicated previously the variety of wares and types collected in the upper Glen Canyon tributaries. On the basis of the age and affiliation of these wares we can tentatively outline what appears to have been the major aboriginal occupation of the area. The few Pueblo I types collected indicate some earlier intrusion into the left bank tributaries than was the case in other parts of the Glen Canyon region. The most intensive occupation appears to have been during the late Pueblo II-early Pueblo III stage. Carriers of both the Mesa Verde and the Kayenta traditions appear to have occupied the same areas, often the same sites. The mixture of Mesa Verde and Kayenta wares, both utility and decorated types, in Moqui and, particularly, in Lake Canyon poses problems that cannot be resolved on the basis of survey collections alone. Continued excavations in these areas should clarify this problem. The relatively large amounts of middle and late Pueblo III wares found in the area suggest that some groups lingered in the upper tributaries after the rest of the region was abandoned.

The few Pueblo IV sherds collected at campsites indicate some movement into or through the area after A. D. 1300.

The few Johnson Corrugated sherds collected may indicate contact or trade with the Johnson-Paria region to the southwest, although, at present, the delineation of Johnson Corrugated as a valid type is questionable.

Findings of the 1959 survey generally agree with previous conclusions about the aboriginal occupation of the Glen Canyon area although some new dimensions have been added. What can be said about the prehistory of the upper Glen Canyon on the basis of present knowledge is as follows:

1. Some movement into the left bank tributaries above the San Juan River in late Basketmaker III-early Pueblo I times.
2. Continuing, or more probably recurrent, occupation of the area during Pueblo II times with the maximum occupation occurring during the late Pueblo II-mid Pueblo III stage.
3. Some lingering occupation in the upper left bank tributaries in late Pueblo III times after the rest of the Glen Canyon region had been abandoned.
4. A mixture of both Mesa Verde and Kayenta traditions in the upper left bank area from the beginning to the end of the Pueblo occupation. The exact nature of this mixture is at present undefined and should be resolved by excavations in Lake and Moqui canyons.
5. Occupation of the tributary canyons was probably seasonal with groups moving down from the adjacent highland areas to farm and hunt in the canyons, and to utilize the chalcedony gravel on the river terraces.
6. There was some movement through the area by migrant Hopis in the 1390's and possibly later.

Problems arising out of the findings of the 1959 survey include:

1. Age and cultural affiliation of lithic sites. Many of these were probably contemporaneous with the Pueblo occupation. However, a few buried lithic sites have been recorded in the main canyon. These may represent an earlier occupation. Adams and Adams (1959, 36) suggest

that some of the lithic sites recorded by them in the San Juan Canyon, which are similar to those found in the Glen Canyon, may be evidence of early man and/or non-pottery making groups. However, they conclude that this remains to be demonstrated as it also does in the Glen Canyon.

2. A clarification of the meeting of the Mesa Verde and Kayenta traditions in the upper left bank tributaries, particularly in Lake Canyon which appears to exhibit the most intensive "dual" occupation over the longest time period.

3. Clarification of archeological interpretations by determining rate of deposit and age of the alluvial depositions in several of the tributary canyons.

4. Further clarification of the relation of the Glen Canyon area to the Johnson-Paria area and to the Fremont area to the north.

5. The occurrence of non-Pueblo peoples in the Glen Canyon. This may in part be correlated with the problem of lithic sites. There is, however, some other scant evidence of non-Pueblo Indians in the region. Further search for better evidence of such groups should be carried out.

Certain of these, and other problems, are being brought into clearer focus by continuing analysis of collected materials and data and distribution studies at the archeological laboratory of the University of Utah. Results from this work combined with what is known from the initial surveys should serve well to guide future search and excavations which will give a more complete picture of the archeology of the Glen Canyon region.

Table 4. Sites, locations and archeological materials

Site Number	Location	Description	Materials collected or observed
42Ga52	Mi. 148. 1 R. B. *	Open chipping sites or campsites on stabilized dunes near base of cliffs. Area: 300 yds. by 1/2 mi.	Stone artifacts: Points, corner-notched, concave base, 2; blades, 7; scraper, 1; flakes, 6. Pottery: Moenkopi Corrugated, 7; Mancos Corrugated, 2; Black Mesa B/W, 3.
42Ga357	Ticaboo Creek	Petroglyph panel on face of ledge above streambed.	Petroglyphs: Pecked animal and geometric figures.
42Ga358	Ticaboo Creek	Petroglyph panel on slump boulder.	Petroglyphs: Pecked linear and geometric figures.
42Ga359	Mi. 157. 8 R. B.	Petroglyph panel on slump boulder.	Petroglyphs: Pecked animal and geometric figures.
42Ga360	Mi. 145 R. B.	Campsite on dune. Artifacts visible in blowout areas. Area: 50 by 50 yd.	Stone artifacts: Blade, 1; blade fragments, 8; scrapers, 2; flakes, 11. Pottery: Tusayan Corrugated, 2; Mancos Corrugated, 1; Johnson Corrugated, 1; Dogoszhi B/W, 1.
42Ga361	Warm Spring Creek	Campsite on talus slope. Hearth area against large boulder. Area: 20 by 30 ft.	Stone artifacts: Flakes, 2. Pottery: Tusayan Corrugated, 23; McElmo B/W, 1.

*In Location column Mile 00.0 etc. refers to river miles above Lees Ferry; R. B. and L. B. to right bank or left bank of the river facing downstream.

Site Number	Location	Description	Materials collected or observed
42Ga362	Mi. 138.5 R. B.	Granary on talus slope. Drylaid wall 2-3 ft. high built against cliff face. Area: 5 by 5 ft.	No collections made.
42Ga363	Mi. 139 R. B.	Petroglyph on cliff face.	Petroglyph: Pecked sheep or deer figure.
42Ga364	Smith Fork Canyon	Campsite in alcove. Probable collapsed drylaid granary in alcove. Pecked block metate on site. Area: 50 by 200 ft.	Stone artifacts: Flakes, 3. Pottery: Turner Gray-Variety II, 5.
42Ga365	Smith Fork Canyon	Drylaid walls in large belled alcove. Alcove floor covered by large dune. Area: 200 by 200 ft.	No collections made.
42Ga366	Smith Fork Canyon	Semicircular drylaid walls on sandstone knoll. Area: 30 by 30 ft.	No collections made.
42Ga367	Mi. 132 R. B.	Semicircular spall and adobe masonry structures in small alcove at base of cliff. Bedrock mortar and abrading grooves on large sandstone slab. Hearth areas eroding from sand terrace. Extensive petroglyph panels on cliff face. Area: 1/4 mi. along base of cliff.	Stone artifacts: Blade fragment, 1; scraper, 1; flakes, 9. Pottery: Tusayan Corrugated, 36; Mesa Verde white wares, 2; Tusayan B/R, 1. Petroglyphs: Human, animal and geometric figures.

Site Number	Location	Description	Material collected or observed
42Ga368	Mi. 131.7 R. B.	Partially collapsed spall and adobe masonry walls on ledge in high alcove. Weathered steps up cliff face to alcove. Area: 8 by 70 ft.	Groundstone: Mano, 1. Flakes, charcoal and bone fragments observed.
42Ga369	Mi. 130.5 R. B.	Open campsite on dune at base of sandstone bench. Historic mining camp at base of dune. Area: 100 by 100 ft.	Stone artifacts: Blade, 1; scraper, 1; flakes, 19. Pottery: Moenkopi Corrugated, 2; Mesa Verde white wares, 1.
42Ka270	Mi. 118.4 R. B.	Campsite or chipping site in mouth of cave. Smoke blackening on cave ceiling. Floor partially covered with sand and spalls. Concentrations of flakes on rock benches below cave. Area: 40 by 80 ft.	Stone artifacts: Blades, 6; fragmentary, 4; scrapers, 4; choppers, 2; flakes, 15. Pottery: Mancos Corrugated, 2; Dogoszhi B/W, 2; Tsegi orange wares, 1.
42Ka271	Mi. 118.4 R. B.	Chipping site or campsite on dune at base of sandstone bench. Area: 25 by 200 ft.	No collections made. Flakes and burned rocks observed.
42Ka513	Stanton Canyon	Granary in small, shallow alcove. Masonry of spalls and adobe, doorposts and lintel of cottonwood. Historic mining camp on bench below granary. Area: 4 by 6 ft.	No collections made. Flakes observed.

Site Number	Location	Description	Material collected or observed
42Ka514	Mi. 125 R. B.	Chipping area or workshop on ledge above gravel terraces. Flakes on dune beneath ledge. Area: 10 by 20 ft.	Stone artifacts: Blade fragment, 1; flakes, 2. Numerous flakes observed.
42Ka515	Mi. 111 R. B.	Chipping site or workshop on talus slope beneath overhanging ledge. Area: 10 by 50 ft.	Stone artifacts: Blade fragments, 3; scrapers, 3.
42Ka516	Mi. 111 R. B.	Chipping site or workshop on sandstone bench in front of shallow alcove. Gravel terrace below bench. Area: 50 by 50 ft.	Stone artifacts: Blade fragments, 3.
42Ka517	Mi. 111 R. B.	Masonry structures in shallow alcove. Two semicircular rooms, masonry of spalls and adobe mortar. Ventilator in wall of one room. Two semicircular granaries, adobe rimmed doorways. Site has been pothunted. Area: 15 by 120 ft.	Stone artifacts: Chopper, 1; flakes, 1. Pottery: Monekopi Corrugated, 2; Tsegi R/O, 1. Charcoal, organic debris observed.

Site Number	Location	Description	Material collected or observed
42Ka518	Mi. 111.5 R. B.	Drylaid masonry walls in inaccessible alcove above large seep bell. Steps or other access into alcove eroded away. Area: About 50 by 30 ft.	No collections made. Flakes and charcoal observed.
42Ka519	Mi. 111.6 R. B.	Outline of basket cist in small alcove. Basket impressed clay outlining cist. Area: 4 by 4 ft.	Four pieces basket impressed clay collected.
42Ka520	Mi. 111.7 R. B.	Campsite in mouth of large belled alcove. Alcove floor covered by spalls and sand. Area: 10 by 15 ft.	No collections made. Mano and cob observed.
42Sa364	Mi. 150.4 L. B.	Open masonry site. L-shaped structure on gravel covered sandstone bench overlooking river. Two 8 ft. standing walls indicate two stories. Masonry of rough coursed sandstone slabs chinked with mud. Wings of structure 40 by 15 ft. and 36 by 12 ft. In angle of wings is a circular depression 30 ft. in dia. by 2 1/2 ft. deep. Remains of four walls, two stories high, built against face of ledge below structure. Extensive sherd area on talus below ledge. Area: 50 yd. sq.	Stone artifacts: Blade, 1; scrapers, 3; flakes, 2. Pottery: Tusayan Corrugated, 32; Mancos Corrugated, 108; gray ware, sand temper, 2; gray ware, crushed rock temper, 51; Mancos Gray, 5; Tusayan Polychrome, 1; Tsegi orange wares, 1; Black Mesa B/W, 30; Dogoszhi B/W, 10; Flagstaff B/W, 2; Tusayan white wares, 2; San Juan white wares, 99; McElmo B/W, 15; Mancos B/W, 2; Mesa Verde white wares, 9; Puerco B/W, 2; b/g, sand temper, 1; b/g, crushed rock temper, 6.

Site Number	Location	Description	Materials collected or observed
42Sa365	Mi. 148.5 L. B.	Open campsite on sand terrace. Petroglyphs on face of large boulder at edge of site. Area: 30 by 50 yd.	Stone artifacts: Scraper, 1; flakes, 3. Pottery: Tusayan Corrugated, 28; Mancos Corrugated, 49; gray ware, crushed rock temper, 7; Tusayan Polychrome, 2; Tsegi orange wares, 1; Black Mesa B/W, 2; Dogoszhi B/W, 1; Flagstaff B/W, 4; Tusayan white wares, 1; McElmo B/W, 5; San Juan white wares, 19; Mesa Verde white wares, 2; b/g, sand temper, 1; b/g, crushed rock temper, 5. Petroglyphs: Human and geometric figures.
42Sa366	Forgotten Canyon	Masonry structures on talus slope beneath overhanging ledge. Collapsed masonry and jacal outlining five rooms. Extensive sherd area on talus slope below structures. Site has been pothunted. Area: 150 ft. along cliff face.	Stone artifacts: Point, diagonal corner notched, 1; fragmentary, 1; blade, 1; fragmentary, 4; scrapers, 3; hammerstone, 1; flakes, 30. Pottery: Tusayan Corrugated, 338; Moenkopi Corrugated, 56; Mancos Corrugated, 5; Kiet Siel Gray, 9; Lino Gray, 5; corrugated, crushed igneous rock temper, 5; Tusayan B/R, 4; Tsegi R/O, 3; Tsegi orange wares, 8; Black Mesa B/W, 6; Sosi B/W, 5; Tusayan white wares, 17. Groundstone: Mano fragments, 2.

Site Number	Location	Description	Materials collected or observed
42Sa367	Mi. 132 L. B.	Drylaid masonry walls defining two rooms at top of talus slope in high arching alcove, 200 ft. above streambed. Site has been pothunted. Area: 25 by 50 ft.	Pottery: Tusayan Corrugated, 10; Moenkopi Corrugated, 2; Mancos Corrugated, 4; Turner Gray-Variety II, 3; Tusayan B/R, 1; Black Mesa B/W, 2.
42Sa368	Mi. 132. 2 L. B.	Open campsite on sand terrace at base of cliff. Scattered petroglyphs on cliff face. Area: 200 by 200 ft.	Stone artifacts: Scrapers, 2. Pottery: Tusayan Corrugated, 150; Moenkopi Corrugated, 43; Mancos Corrugated, 17; Kiet Siel Gray, 6; Lino Gray, 2; gray ware, crushed rock temper, 5; Twin Trees Plain, 1; Tusayan B/R, 8; Citadel Polychrome, 1; Tsegi orange wares, 8; Medicine B/R, 1; Black Mesa B/W, 2; Flagstaff B/W, 4; Sosi B/W, 3; San Juan white wares, 5; Mesa Verde white wares, 7; Cortez B/W, 1. Petroglyphs: Linear and geometric figures.

Site Number	Location	Description	Materials collected or observed
42Sa369	Mi. 127.3 L. B.	Open chipping or campsite on alluvial sand terrace at base of cliff. Ash and charcoal fill 2 to 3 ft. deep visible in cut-bank. Area: 20 by 30 ft.	Stone artifacts: Points, corner notched, 2. Quantities of flakes observed.
42Sa370	Moqui Canyon	Masonry structures in alcove. Collapsed drylaid slab walls defining three rooms on top of talus slope. Site has been pot-hunted. Area: 30 by 90 ft.	Stone artifacts: Blade, 1; flakes, 9. Pottery: Tusayan Corrugated, 9; Moenkopi Corrugated, 2; gray ware, sand temper, 9; gray ware, crushed rock temper, 1; Turner Gray-Variety II, 1; Twin Trees Plain, 1; Tsegi orange wares, 3; McElmo B/W, 2; Mesa Verde white wares, 2.
42Sa371	Moqui Canyon	Masonry site in alcove. Three rooms on ledge in alcove 300 ft. above streambed. Double walls of spalls and mud mortar, chinked with small stones. Interior walls mud plastered. One room with intact roof of willow beams overlaid with poles and adobe. Access by series of pecked steps. Area: 10 by 120 ft.	Pottery: Mancos Corrugated, 6. Squash rinds and cobs observed.

Site Number	Location	Description	Materials collected or observed
42Sa372	Mi. 119.1 L. B.	Chipping site or campsite on sand terrace at base of cliff. Scattered petroglyphs on cliff face. Area: 200 by 300 ft.	Flakes and fire-cracked rocks observed.
42Sa373	Lake Canyon	Masonry site in small alcove. Four sandstone slab, adobe plastered structures, chinking of sherds and cobs. Well preserved room with intact roof of poles and adobe, roof entrance and ventilator window. Trash area 100 ft. upstream. Probable fake pictographs on cliff wall near site. Site has been pothunted. Area: 25 by 200 ft.	Stone artifacts: Blade fragment, 1; hammerstone, 1. Pottery: Tusayan Corrugated, 14; Moenkopi Corrugated, 1; gray ware, sand temper, 5; Paria Gray, 2; Tsegi orange wares, 5; San Juan white wares, 1. Domesticated vegetal: Gourd fragments and corn cobs observed.
42Sa374	Lake Canyon	Masonry site in large belled alcove. Crude drylaid walls defining eight rooms. Trash areas and burned earth near walls. Site has been pothunted. Area: 50 by 700 ft.	Pottery: Tusayan Corrugated, 6; Moenkopi Corrugated, 2; Mancos Corrugated, 1.

Site Number	Location	Description	Materials collected or observed
42Sa375	Lake Canyon	Masonry site in alcove. Nine circular drylaid slab walled rooms on talus slope in large alcove. Site partially covered by spalls and sand dune. Site has been pothunted. Area: 80 by 120 ft.	Stone artifacts: Scraper, 1. Pottery: Moenkopi Corrugated, 8; gray ware, sand temper, 2; Tusayan white wares, 1; San Juan white wares, 2; Kayenta B/W, 1; unidentified b/w, carbon paint, crushed rock temper, 3. Squash rinds, cobs, yucca fiber observed.
42Sa376	Mi. 107 L. B.	Scattered chipping or camp areas on sand terrace along base of cliffs. Possible clusters of crude rooms. Area: About .5 mi. along base of cliffs.	Stone artifacts: Blades, 6; scrapers, 2; hammerstone, 1; flakes, 11. Pottery: Tusayan Corrugated, 4; Moenkopi Corrugated, 6; Mancos Corrugated, 2; gray ware, sand temper, 8; Turner Gray-Variety II, 1; corrugated crushed igneous rock temper, 1; Tsegi orange wares, 9; Tusayan Polychrome, 3; Tusayan B/W, 5; Dogoszhi B/W, 1; Tusayan white wares, 3; Kayenta B/W, 3; McElmo B/W, 1; Mancos B/W, 1; San Juan white wares, 1; Mesa Verde white wares, 2; b/g, sand temper, 1; unidentified b/w, carbon paint, 3.

Site Number	Location	Description	Materials collected or observed
42Sa377	Wilson Canyon	Masonry site in alcove. Seven spall and adobe masonry rooms on narrow ledge in alcove 100 ft. above streambed. Partial roofs of poles and mud. Retaining wall at one end of site. Area: 7 by 300 ft.	Stone artifacts: Flakes, 5. Pottery: Tusayan Corrugated, 5; Moenkopi Corrugated, 15; Mancos Corrugated, 3; Kiet Siel Gray, 3; gray ware, sand temper, 11; Paria Gray, 1; Johnson Gray, 1; Tsegi R/O, 1; Tusayan Polychrome, 3; Tusayan B/W, 5; Tusayan white wares, 1; Mesa Verde white wares, 1. Organic materials: Cobs, 2; bone fragments, 4.
42Sa378	Wilson Canyon	Masonry site in alcove. Semi-circular slab and adobe masonry room on ledge in small alcove. Door in wall. Partial roof of poles, reeds and mud. Area: 10 by 30 ft.	Pottery: Moenkopi Corrugated, 3; Tusayan B/R, 3. Organic material: Corn cobs, 6.
42Sa379	Wilson Canyon	Habitation or campsite on talus slope. Drylaid vertical slab walls outlining one room. Area: 8 by 11 ft.	No collections made.
42Sa380	Wilson Canyon	Masonry site in alcove. Drylaid masonry room, walls partially collapsed. Room 6 ft. sq. Area: 6 by 25 ft.	Pottery: Moenkopi Corrugated, 4.

Site Number	Location	Description	Materials collected or observed
42Sa381	Wilson Canyon	Habitation or campsite on talus slope. Exposed pottery and charcoal stratum. Area: 20 by 25 ft.	Stone artifacts: Flakes, 2. Pottery: Mancos Corrugated, 1; Dogoszhi B/W, 6.
42Sa413	Red Canyon	Masonry structures in alcove. Semicircular room, spall and adobe mortar. Doorway and ventilator intact. Small granary or cist of similar construction adjacent to room. Site has been pothunted. Area: 25 by 70 ft.	Stone artifacts: Point, diagonal corner notched, 1; flakes, 2. Pottery: Moenkopi Corrugated, 2.
42Sa533	Moqui Canyon	Masonry structures on ledge. Two drylaid masonry rectangular rooms. Two semicircular adjoining granaries or cists. Site partially covered by sand. Area: 40 by 60 ft.	Stone artifacts: Blade fragment, 1; flakes, 75. Pottery: Mancos Corrugated, 15; Chapin Gray, 8; Citadel Polychrome, 1; Tsegi orange wares, 15; McElmo B/W, 5; San Juan white wares, 1.
42Sa535	Moqui Canyon	Campsite or habitation site in alcove. Charcoal and pottery stratum visible in washed out areas at top of talus slope, beneath arching alcove. Area: 8 by 50 ft.	Stone artifacts: Blade, 1; expanded base drill, 1; flakes, 16. Pottery: Mancos Corrugated, 7; Tusayan Corrugated, 5; Chapin Gray, 1; Turner Gray-Variety II, 1; McElmo B/W, 1. Organic material: Gourd fragments, 3.

Site Number	Location	Description	Materials collected or observed
42Sa556	Little Rincon	Open campsite or chipping site on dune. Artifacts eroding from blowout areas of dune. Area: 50 by 50 ft.	Stone artifacts: Blade, 1; flakes, 6. Pottery: Mancos Corrugated, 6; Kiet Siel Gray, 1; Lino Gray, 1; Chapin Gray, 1; Mancos B/W, 1.
42Sa557	Little Rincon	Open campsite on dune. Flakes, charcoal and burned rocks eroding from blowout areas. Area: 10 by 10 ft.	Stone artifacts: Scrapers, 2.
42Sa558	Little Rincon	Open campsite on dune at edge of river. Artifacts and charcoal eroding from dune. Area: 50 by 100 ft.	Stone artifacts: Point, side notched, fragment, 1; expanded base drill, 1; flakes, 10. Groundstone: Mano, 1. Organic material: Bone fragments, 3.
42Sa559	Little Rincon	Open campsites and chipping areas on dunes at edge of river. Area: About 1/2 mi. along river.	Stone artifacts: Flakes, 14. Pottery: Tusayan Corrugated, 44.
42Sa560	Little Rincon	Open campsite on dune, near cliff. Hearth areas and artifacts visible in eroded areas of dune. Area: 50 by 200 ft.	Stone artifacts: Blade fragments, 4; scraper, 1; flakes, 11. Pottery: Mancos Corrugated, 4; Tusayan Corrugated, 9; Gray ware, sand temper, 1; Tusayan B/R, 2; Tusayan white wares, 1.

Site Number	Location	Description	Materials collected or observed
42Sa561	Red Canyon	Masonry structure in alcove. Drylaid masonry wall in shallow alcove near streambed. Scattered petroglyphs on ledge face near alcove. Site covered by mud runoff. Area: 10 by 15 ft.	No collections made. Petroglyphs: Human and animal figures.
42Sa562	Red Canyon	Campsite in shallow alcove. Possible low, windbreak walls in low, shallow alcove in sandstone bench. Flakes and charcoal eroding from fill. Area: 25 by 25 ft.	Stone artifacts: Blade, 1; scraper, 1; flakes, 15.
42Sa563	Mi. 156 L. B.	Campsite or chipping site in rockshelter. Shallow overhang containing flakes and charcoal on floor. Possible drylaid cist or granary at back of shelter. Scattered petroglyphs on ledges and slump boulders near shelter. Area: 20 by 250 yd.	Stone artifacts: Blade, 1; chopper, 1; flakes, 17. Pottery: Chapin Gray, 1. Petroglyphs: Geometric figures.

Site Number	Location	Description	Materials collected or observed
42Sa564	Mi. 155.8 L. B.	Open masonry site. Three dry-laid rooms built between two large slump boulders on sand terrace. Small spall and adobe wall fragment in nearby shallow overhang. Petroglyphs on boulders and on ledge faces at edge of terrace. Area: 100 by 200 ft.	Stone artifacts: Flakes, 3. Pottery: Tusayan Corrugated, 6; Mancos B/W, 2; Mesa Verde white wares, 1.
42Sa565	Moqui Canyon	Open campsite on dune. Artifacts and charcoal eroding from dune at edge of streambed. Area: 50 by 75 ft.	Pottery: Jeddito Corrugated, 1.
42Sa566	Mouth of Scorup Canyon	Masonry structures in alcoves. Three semicircular spall and adobe rooms in shallow alcoves in ledges at mouth of canyon. Six separate pictograph and petroglyph panels on ledge faces near structures. Sherd and flake areas on sand terrace below ledges. Area: 1/4 mi. by 100 yd.	Stone artifacts: Blades, 2; fragmentary, 2; scraper, 1; chopper, 1; flakes, 18. Pottery: Mancos Corrugated, 40; Tusayan Corrugated, 5; Chapin Gray, 1; gray ware, sherd and crushed rock temper, 9; Tsegi Orange wares, 2; Mancos B/W, 3; McElmo B/W, 19; Mesa Verde B/W, 1; Mesa Verde Polychrome, 3; Mesa Verde white wares, 3; San Juan white wares, 8. Petroglyphs and pictographs: Human, animal and geometric figures.

Site Number	Location	Description	Materials collected or observed
42Sa567	Mi. 154 L. B.	Masonry site in alcove. Single spall and adobe wall built across front of shallow alcove near top of ledge. Alcove floor covered by mud runoff from ledges above. Artifacts on rock bench below alcove. Area: 50 by 100 ft.	Stone artifacts: Blade, 1; flake, 1. Pottery: Mancos Corrugated, 3; McElmo B/W, 1.
42Sa568	Mi. 154.5 L. B.	Open campsite on sand terrace. Charcoal and artifacts eroding from sage brush covered sand terrace. Area: 50 by 50 yd.	Stone artifacts: Flakes, 2. Pottery: Mancos Corrugated, 13; Tusayan Corrugated, 5; San Juan white wares, 1; Jeddito B/Y, 29. Mano and metate fragments observed.
42Sa569	Forgotten Canyon	Campsite in small alcove. Hearth areas and piles of reeds in shallow alcove above streambed. Area: 25 by 30 ft.	No collections made. Burned wood and reeds observed.
42Sa570	Forgotten Canyon	Firepit in alcove. Shallow, slab lined firepit in small alcove 60 ft. above streambed. Area: 8 by 25 ft.	No collections made. Charcoal observed.

Site Number	Location	Description	Materials collected or observed
42Sa571	Mi. 131.7 L. B.	Masonry site in alcove. Drylaid masonry wall outlining single room in shallow alcove near river. Artifacts eroding from talus slope below room. Area: 50 by 50 ft.	Stone artifacts: Scraper, 1; flakes, 13. Pottery: Gray ware, sand temper, 1; Tusayan B/R, 5.
42Sa572	Mi. 131.5 L. B.	Campsite in alcove. Artifacts eroding from loose sand fill in shallow alcove at base of sandstone bench. Area: 20 by 60 ft.	Stone artifacts: Blade fragment, 1; flakes, 8. Pottery: Tusayan Corrugated, 1; Chapin Gray, 2; gray ware sand temper, 1; McElmo B/W, 1. Mountain sheep horns observed, 5.
42Sa573	Little Ball Canyon	Campsite on talus slope. Open campsite on flat area at top of talus slope. Artifacts and charcoal eroding onto slope below. Area: 12 by 30 ft.	Pottery: Mancos Corrugated, 54; Moenkopi Corrugated, whole olla, 1; Tsegi orange wares, 1; McElmo B/W, 2.
42Sa574	Little Ball Canyon	Steps. Series of steps on face of cliff leading to high alcove, too weathered for safe climbing.	No collections made.

Site Number	Location	Description	Materials collected or observed
42Sa575	Little Ball Canyon	Campsite in alcove. Hearth areas at top of talus slope beneath high arching alcove. Area: 10 by 25 ft.	No collections made. Charcoal and burned wood observed.
42Sa576	Moqui Canyon	Crude drylaid slab rooms in large belled alcove. Extensive trash deposits in front of rooms. Scattered petroglyphs and abrading grooves on large spalls. Site has been pothunted. Area: 50 by 200 ft.	Stone artifacts: Blade, 1; fragments, 4; flakes, 11. Pottery: Johnson Corrugated, 2; Mancos Corrugated, 14; Moenkopi Corrugated, 7; Tusayan Corrugated, 30; Chapin Gray, 6; Kiet Siel Gray, 2; Lino Gray, 1; gray ware, sherd and crushed rock temper, 1; b/g, crushed rock temper, 3; Tusayan white wares, 1; San Juan white wares, 3. Organic material: Cobs, 10; gourd fragments, 5; bone fragments, 6. Petroglyphs: Animal and geometric figures.
42Sa577	Moqui Canyon	Structures on talus slope. Two spall and adobe, rectangular, semisubterranean rooms at top of high talus slope. Four rectangular cists adjoining rooms. Few roof beams still in place, others collapsed. Series of weathered steps cut in face of rock bench up to foot of talus slope. Area: 6 by 40 ft.	Stone artifacts: Flakes, 6. Pottery: Mancos Corrugated, 5; Moenkopi Corrugated, 2; Tusayan Corrugated, 4; gray ware, sand temper, 7; Tusayan Polychrome, 3; Mesa Verde B/W, 2. Organic materials: Cobs, 6; bone fragment, 1.

Site Number	Location	Description	Materials collected or observed
42Sa578	Moqui Canyon	Campsite or habitation site on talus slope beneath high, arching alcove. Artifacts eroding from sand at top of talus slope. Site has been pothunted. Area: 20 by 150 ft.	Stone artifacts: Blade fragments, 2; scraper, 1; flakes, 15. Pottery: Mancos Corrugated, 39; Johnson Gray, 3; Kiet Siel Gray, 5; Lino Gray, 2; Dogoszhi Polychrome, 2; Flagstaff B/W, 3; Tusayan B/W, 1; McElmo B/W, 1. Manos and mano fragments observed.
42Sa579	Mi. 125.8 L. B.	Chipping site on rock bench at base of cliff. Scattered petroglyphs on cliff face. Pecked, block metate on site. Area: 50 by 50 ft.	Stone artifacts: Blade fragments, 6; flakes, 13. Groundstone: Mano, 1. Petroglyphs: Animal and geometric figures.
42Sa580	Mi. 126.5 L. B.	Petroglyph panels in belled alcove. Series of glyphs on walls of deep, belled alcove at base of rock bench. No other artifacts visible.	Petroglyphs: Human, animal and geometric figures.

Site Number	Location	Description	Materials collected or observed
42Sa581	Mi. 125.5 L. B.	Chipping site or campsite in alcove. Scattered flakes in high, shallow alcove at top of talus slope. Floor of alcove overlaid by recent spalling. Area: 20 by 50 ft.	Stone artifacts: Flakes, 5.
42Sa582	Mi. 124 L. B.	Buried lithic site at base of cliff. Strata of charcoal and flakes visible in cutbanks of alluvial terrace. Area: 50 by 70 ft.	Stone artifacts: Scrapers, 2; flakes, 6.
42Sa583	Moqui Canyon	Masonry site in alcove. Four rooms outlined by drylaid masonry walls. Two probable cists dug into talus at front of alcove. Dune on floor of alcove. Extensive trash deposits. Site has been pothunted. Area: 75 by 100 ft.	Stone artifacts: Blade fragments, 4; chopper, 1; flakes, 6. Pottery: Mancos Corrugated, 14; Moenkopi Corrugated, 26; Tusayan Corrugated, 8; gray ware, sand temper, 4; Tusayan Polychrome, 2; Tsegi orange wares, 1; Flagstaff B/W, 2; Sosi B/W, 8; Tusayan white wares, 2; Mesa Verde white wares, 2.

Site Number	Location	Description	Materials collected or observed
42Sa584	Moqui Canyon	Campsite or habitation site in deep, belled alcove. Trash deposits visible in eroded areas at mouth of alcove. Site has been pothunted. Area: 200 by 100 ft.	Pottery: Mancos Corrugated, 7; Moenkopi Corrugated, 6; Kiet Siel Gray, 2; gray ware, sherd and crushed rock temper, 1; Mesa Verde white wares, 1; San Juan white wares, 1.
42Sa585	Moqui Canyon	Masonry site on talus slope. Four spall and adobe semi-circular rooms at top of talus slope beneath high slightly overhanging cliff. Fallen roof beams in one room. Abrading grooves on spalls. Four large white pigment pictographs on cliff face above rooms. Extensive sherd area on alluvial terrace below talus slope. Area: 100 by 100 yd.	Stone artifacts: Blades, 4; fragmentary, 15; scrapers, 2; flakes, 14. Pottery: Mancos Corrugated, 21; Moenkopi Corrugated, 43; Tusayan Corrugated, 26; Kiet Siel Gray, 22; b/g, sherd and crushed rock temper, 6; Lino Gray, 5; Citadel Polychrome, 5; Tusayan Polychrome, 7; Tusayan B/R, 5; Tsegi Orange, 6; Tsegi orange wares, 2; LaPlata B/R, 1; San Juan red wares, 1; Tusayan B/W, 7; Flagstaff B/W, 1; Sosi B/W, 7; Tusayan white wares, 8; McElmo B/W, 16; Mesa Verde white wares, 16; San Juan white wares, 7; Jeddito Yellow wares, 3.
42Sa586	Moqui Canyon	Steps cut in face of sand stone cliff up to high alcove. Steps too weathered to permit safe climbing.	No collections made.

Site Number	Location	Description	Materials collected or observed
42Sa587	Moqui Canyon	Steps cut in cliff face up to high alcove. Lower steps eroded away.	No collections made.
42Sa588	Moqui Canyon	Masonry site in alcove. Six contiguous semicircular rooms on talus slope beneath low overhanging alcove. Extensive trash areas outside rooms and on talus slope below rooms. Area: 150 by 150 ft.	Stone artifacts: Blades, 4; fragmentary, 26; expanded base drill, 1; scrapers, 2; flakes, 22. Pottery: Mancos Corrugated, 16; Moenkopi Corrugated, 9; Tusayan Corrugated, 15; Kiet Siel Gray, 3; Lino Gray, 2; Tusayan Polychrome, 3; Tsegi Orange, 1; Tsegi orange wares, 5; Black Mesa B/W, 7; Tusayan B/W, 8; Tusayan white wares, 11; McElmo B/W, 3; Mesa Verde white wares, 5. Organic materials: Gourd fragments, 6; bone fragment, 1.
42Sa589	Moqui Canyon	Masonry site on talus slope. Three contiguous, semicircular rooms at top of talus slope beneath high slightly overhanging cliff. Site partially buried by exfoliation. Area: 50 by 100 ft.	Pottery: Mancos Corrugated, 2; Moenkopi Corrugated, 3; McElmo B/W, 1; Mesa Verde B/W, 1. Charcoal and flakes observed.

Site Number	Location	Description	Materials collected or observed
42Sa590	Moqui Canyon	Campsite or habitation site in alcove. Outline of probable dry-laid masonry room at top of dune in low, belled alcove. Heavy vegetation at mouth of alcove. Area: 20 by 30 ft.	Pottery: Gray ware, sand temper, 2. Flakes and charcoal observed.
42Sa591	Forgotten Canyon	Campsite or habitation site in alcove. Low, drylaid wall fragment on large spall. Mealing bin on alcove floor behind spall. Metate in place. Shallow fire-pit and burned rocks at one end of alcove. Flakes and charcoal on talus slope below alcove. Area: 300 by 50 ft.	No collections made.
42Sa592	Forgotten Canyon	Vertical steps cut in face of rock bench. Steps provide route around series of deep, narrow potholes in streambed below.	No collections made.
42Sa593	Forgotten Canyon	Series of horizontal steps along steep cliff face. Steps provide route around series of potholes in streambed below.	No collections made.

Site Number	Location	Description	Materials collected or observed
42Sa594	Forgotten Canyon	Masonry site in alcove. Roofed, spall and adobe granary within high alcove. Adobe rimmed doorway. Abrading grooves on large spalls. Collapsed drylaid retaining wall at front of alcove. Area: 20 by 200 ft.	No collections made. Mano fragments observed.
42Sa595	Forgotten Canyon	Masonry site on talus slope. Semicircular drylaid wall outlining room at top of high talus slope. Two roofed, spall and adobe granaries near room. Vertical slab lined cist adjoining room. Area: 30 by 100 ft.	Stone artifacts: Flakes, 7. Cobs and hammerstones observed.
42Sa596	Forgotten Canyon	Open masonry site. Drylaid masonry wall remnants outlining 20 by 20 ft. structure on sandstone bench. Doorway in west wall. Sherds on dune below walls. Area: 20 by 50 ft.	Stone artifacts: Blade fragment, 1. Pottery: Moenkopi Corrugated, 2; Tusayan Corrugated, 1; Tusayan B/W, 1.

Site Number	Location	Description	Materials collected or observed
42Sa597	Forgotten Canyon	Masonry site on talus slope. Spall and adobe structures at top of high talus slope. Probable kiva, roof intact, roof entrance-way and ventilator. Circular roofed above ground room, doorway in wall. Interior wall mud plastered. Two partially collapsed, roofed granaries; drylaid wall outlining rectangular room. Slab lined firepit and slab lined mealing bin inside room. Metate in place. Abrading grooves on large spalls. Area: 30 by 200 ft.	Stone artifacts: Flakes, 7. Pottery: Moenkopi Corrugated, 4; Tsegi Orange, 1; Tusayan Polychrome, 1; Flagstaff B/W, 1; Tusayan white wares, 1.

Site Number	Location	Description	Materials collected or observed
42Sa598	Forgotten Canyon	<p>Masonry site in alcove. Eleven masonry structures on talus slope beneath high overhanging alcove. Masonry of coursed spalls and adobe. Two contiguous rectangular rooms, intact roofs, mud plastered interior and exterior walls, slab lined firepit in one room. Five contiguous D-shaped rooms, roofs collapsed. Ventilator in wall of one room. Circular roofed kiva, ventilator and deflector intact, roof entrance-way with pole ladder in place. Three partially collapsed granaries or cists near rooms. Drylaid retaining or defensive wall at front edge of talus slope. Large red and white pigment pictographs on wall of alcove. Petroglyph panel on alcove wall inside kiva.</p> <p>Area: 30 by 150 ft.</p>	<p>Stone artifacts: Blade fragments, 4; flakes, 3.</p> <p>Pottery: Mancos Corrugated, 24; Moenkopi Corrugated, 15; Tusayan Corrugated, 12; Kiet Siel Gray, 6; Lino Gray, 1; Tusayan Polychrome, 1; Tsegi Orange, 4; Kayenta B/W, 11; Tusayan white wares, 5; McElmo B/W, 20; Mesa Verde white wares, 7; San Juan white wares, 3.</p> <p>Pictographs: 3-4 ft. figures of men with shields and clubs.</p> <p>Organic debris and groundstone implements observed.</p>

Site Number	Location	Description	Materials collected or observed
42Sa599	Forgotten Canyon	Granary in shallow alcove beneath low overhanging ledge. Drylaid masonry, wall partially collapsed. Area: 3 by 3 ft.	No collections made.
42Sa600	Forgotten Canyon	Chipping site or campsite on dune at mouth of large belled alcove. Charcoal area eroding from dune. Area: 50 by 100 ft.	Stone artifacts: Blade fragment, 1; flakes, 10.
42Sa601	Forgotten Canyon	Campsite or habitation site at top of high talus slope beneath slightly overhanging cliff. Hearth areas at one edge of slope. Abrading grooves on large spalls. Area: 15 by 300 ft.	Pottery: Mancos Corrugated, 3. Charcoal and bone fragments observed.
42Sa602	Forgotten Canyon	Campsite on talus slope beneath high shallow overhang. Area heavily overlaid by recent spalling. Area: 30 by 100 ft.	No collections made. Burned stick, charcoal and corn husks observed.
42Sa603	Mi. 123 L.B.	Chipping site on sand terrace at base of gravel covered benches. Area: 50 by 50 ft.	Stone artifacts: Blade, 1; fragment, 1; scraper, 1; flakes, 3.

Site Number	Location	Description	Materials collected or observed
42Sa604	North Gulch of Moqui Canyon	Campsite or habitation site in high crescentic alcove. Charcoal and burned sticks under large recent spalls. Area: 20 by 200 ft.	Stone artifacts: Blade fragment, 1. Charcoal and organic debris observed.
42Sa605	North Gulch of Moqui Canyon	Masonry structures on rock bench and in alcove. Two roughly circular drylaid walls, about 15 ft. in dia. on sandstone bench above streambed. Two drylaid granaries or small rooms in high shallow alcoves above bench. Weathered steps on cliff up to one alcove. Area: 50 by 200 yd.	No collections made. Two hammerstones and several bone fragments observed.
42Sa606	North Gulch of Moqui Canyon	Masonry structures in alcove. Two D-shaped drylaid rooms in high crescentic alcove. Extensive trash deposits outside rooms. Area: 30 by 150 ft.	Stone artifacts: Flakes, 6. Pottery: Kiet Siel Gray, 2; Tsegi Orange, 2; McElmo B/W, 1; Mesa Verde white wares, 1; b/w, crushed igneous rock temper, carbon paint, 1; b/g, sherd and crushed rock temper, 2. Organic material: Cobs, 8; bone fragments, 6.

Site Number	Location	Description	Material collected or observed
42Sa607	Mi. 119.3 L. B.	Chipping site or campsite on sand terrace at base of sandstone bench. Scattered petroglyphs on face of bench. Area: 30 by 100 ft.	Pottery: Mancos Corrugated, 1. Numerous flakes observed.
42Sa608	Mi. 117 L. B.	Chipping site or campsite on dune at base of gravel covered benches. Artifacts concentrated near shallow overhang at base of bench. Area: 100 yd. by 1/4 mi.	Stone artifacts: Point, diagonal corner notched, 1; blade, 1; fragments, 8; scrapers, 5; flakes, 2. Pottery: Mancos Corrugated, 1; Tusayan Corrugated, 1; Twin Trees Plain, 1; Kiet Siel Gray, 1; Lino Gray, 1; Turner Gray-Variety II, 1; Citadel Polychrome, 1; Tusayan Polychrome, 2; Tsegi Orange, 4; San Juan Red Ware, Eastern Series, 6; Mesa Verde white wares, 1; San Juan white wares, 1.
42Sa609	Lake Canyon	Drylaid masonry structure on ledge near streambed. Site has been pothunted. Area: 10 by 10 ft.	No collections made.
42Sa610	Lake Canyon	Series of badly weathered steps on cliff face. Steps lead up to a high, now inaccessible alcove.	No collections made.

Site Number	Location	Description	Materials collected or observed
42Sa611	Lake Canyon	Campsite or chipping site on rock ledge. Scattered sherds and flakes on narrow rock ledge at seep-line in cliff face. Area: 20 by 40 ft.	Pottery: McElmo B/W, 1; Mancos B/W, 2; Mesa Verde white wares, 2; Morfield B/G, 1.
42Sa612	Lake Canyon	Open campsite on alluvial bench 30 ft. above streambed. Sherds and flakes eroding from dune on bench. Area: 30 by 50 ft.	Pottery: Tusayan Corrugated, 5; Tsegi Orange, 1.
42Sa613	Lake Canyon	Masonry site in alcove. Two drylaid rectangular structures on talus slope in long, shallow alcove. Some trash deposits visible in potholes. Site has been pothunted. Area: 20 by 250 ft.	Organic material: Cobs, 2; bone fragment, 1.
42Sa614	Lake Canyon	Spall and adobe granary in small alcove near top of cliff. Square doorway, lintel and posts of willow. Area: 4 by 6 ft.	No collections made.

Site Number	Location	Description	Materials collected or observed
42Sa615	Lake Canyon	Masonry structures in alcove. Four visible structures of spall, adobe and jacal construction in inaccessible alcove, about 30 ft. above top of alluvial terrace. Artifacts on terrace below site. Area: About 15 by 50 ft.	Pottery: Sosi B/W, 1; Tusayan white wares, 2.
42Sa616	Lake Canyon	Masonry structures in alcove. Remnants of two adjoining D-shaped rooms, spall and adobe masonry. Beam holes in wall. Three adjoining circular granaries. Drylaid retaining wall at front of alcove. Pictographs on alcove wall. Site has been pothunted. Area: 20 by 60 ft.	Stone artifacts: Blade fragments, 2; scraper, 1; flakes, 14. Pottery: Johnson Corrugated, 5; Kiet Siel Gray, 1; McElmo B/W, 1. Organic material: Cob, 1; corn husks, 5. Pictographs: Negative painted handprints.
42Sa617	Lake Canyon	Open campsite on alluvial bench. Slab lined firepit and artifacts on eroding alluvial bench. Area: 30 by 40 ft.	Stone artifacts: Blade, 1; scrapers, 2; flake, 1. Pottery: Moenkopi Corrugated, 8; Tusayan Corrugated, 20.
42Sa618	Lake Canyon	Spall and adobe wall remnant in shallow alcove. Access to alcove eroded away.	No collections made.

Site Number	Location	Description	Materials collected or observed
42Sa619	Lake Canyon	Masonry structures in alcove. Four contiguous spall and adobe structures in low, belled alcove. Rooms built up behind retaining walls. Single wall along entire front of alcove. Numerous whole gourds on floor. Roof smoke blackened. Area: 40 by 50 ft.	Stone artifacts: Scraper, 1. Pottery: Mancos Corrugated, 1; Kiet Siel Gray, 3; Tsegi Orange, 3; Twin Trees B/W, 1. Organic materials: Cobs, 8; gourds, 2.
42Sa620	Lake Canyon	Open campsite on dune at base of cliff. Artifacts eroding from dunes. Scattered petroglyphs on cliff face. Area: 50 by 50 yd.	Pottery: Mancos Corrugated, 76; Tusayan Corrugated, 18; Twin Trees Plain, 1; Chapin Gray, 4; Kiet Siel Gray, 3; Lino Gray, 9; Tusayan Polychrome, 2; Tusayan B/R, 3; Tsegi orange wares, 6; Chapin B/W, 3; Cortez B/W, 2; McElmo B/W, 5; Mesa Verde white wares, 3; Dogoszhi B/W, 1; Tusayan white wares, 2. Numerous flakes observed.
42Sa621	Lake Canyon	Open campsite on alluvial bench above streambed. Unlined hearths visible in blowout areas. Area: 50 by 50 ft.	Pottery: Mancos Corrugated, 5; Tusayan Corrugated, 4; Tusayan Polychrome, 6; Tsegi Orange, 2; Sosi B/W, 2.

Site Number	Location	Description	Materials collected or observed
42Sa622	Lake Canyon	Masonry structures in alcove. Rectangular spall and adobe room in small alcove. D-shaped granary adjacent to room. Drylaid retaining wall at front of alcove. Access by series of weathered steps from top of alluvial bench below. Area: 30 by 30 ft.	Pottery: Mancos Corrugated, 2; Tusayan Corrugated, 2; Moenkopi Corrugated, 2; Kiet Siel Gray, 9; Tusayan Polychrome, 2; Tusayan B/R, 2; Tsegi orange wares, 4; McElmo B/W, 1; Mesa Verde white wares, 2. Flakes, cobs and charcoal observed.
42Sa623	Lake Canyon	Open campsite on dune. Artifacts and charcoal eroding from dune on alluvial bench. Site cut by runoff gully. Area: 50 by 100 ft.	Stone artifacts: Point, diagonal corner notched, 1; blade, 1; fragment, 1; flakes, 3. Pottery: Mancos Corrugated, 50; Tusayan B/R, 1; Tsegi orange wares, 1; Shato B/W, 1. Charcoal and burned rocks observed.

Site Number	Location	Description	Materials collected or observed
42Sa624	Lake Canyon	Masonry structures in alcove. Two rectangular spall and adobe rooms on rock ledge in high alcove. Adobe rimmed doorway in wall of one structure. Wall of second structure partially collapsed. Bedrock metates and abrading grooves on sandstone bench below alcove. Scattered petroglyphs on cliff wall. Area: 25 by 300 ft.	Stone artifacts: Flakes, 3. Pottery: Mancos Corrugated, 11; Tusayan Corrugated, 1; Kiet Siel Gray, 6; Hovenweep Gray, 1; Lino Gray, 4; Tusayan B/R, 1; McElmo B/W, 2; Mesa Verde white wares, 3; San Juan white wares, 1; Tusayan white wares, 2. Organic material: Cobs, 3; bone fragments, 2. Petroglyphs: Geometric figures.
42Sa625	Lake Canyon	Probable open campsite on sandstone bench at base of cliff. Sherds scattered on loose talus on slope. Area: 40 by 40 ft.	Pottery: Moenkopi Corrugated, 1; Sosi B/W, 2; McElmo B/W, 3; Mesa Verde white wares, 3.
42Sa626	Lake Canyon	Wall fragment on high inaccessible ledge above alluvial bench. Masonry appears to be spall and adobe. May have been a lookout.	No collections made.

Site Number	Location	Description	Materials collected or observed
42Sa627	Lake Canyon	Open campsite on alluvial bench near base of cliff. Heavy concentration of artifacts and charcoal eroding from runoff gullies across bench. Area: 50 by 100 ft.	Stone artifacts: Blades, 4; fragments, 6; flakes, 3. Pottery: Mancos Corrugated, 23; Tusayan Corrugated, 30; Chapin Gray, 1; Lino Gray, 1; Cameron Polychrome, 1; Citadel Polychrome, 12; Tusayan Polychrome, 21; Tusayan B/R, 28; Tsegi Orange, 32; Tsegi orange wares, 24; McElmo B/W, 1; Chapin B/W, 1; Mesa Verde white wares, 2; San Juan white wares, 2; Black Mesa B/W, 1; Dogoszhi B/W, 1; Kayenta B/W, 9; Sosi B/W, 9; Tusayan white wares, 5. Mano fragments observed.

Site Number	Location	Description	Materials collected or observed
42Sa628	Lake Canyon	Open campsite on dune at base of sandstone bench. Deep runoff gully bisects dune. Ash lenses visible in cutbank. Area: 50 by 50 ft.	Stone artifacts: Blade fragments, 6; expanded base drill, 1; flakes, 4. Pottery: Whole olla, Mancos Corrugated, 1; Mancos Corrugated, 16; Chapin Gray, 9; Hovenweep Gray, 6; Kiet Siel Gray, 3; Twin Trees B/W, 1; Cortez B/W, 1; Mancos B/W, 4; McElmo B/W, 17; Mesa Verde Polychrome, 2; Mesa Verde B/W, 2; Mesa Verde white wares, 3; San Juan white wares, 4; Black Mesa B/W, 5; Tusayan white wares, 1.
42Sa629	Moqui Canyon	Masonry structures on talus slope. Two drylaid D-shaped rooms on talus slope beneath high, slightly overhanging cliff. Walls partially collapsed. Area: 10 by 50 ft.	Pottery: Tusayan Corrugated, 1; Tsegi R/O, 1. Flakes and charcoal observed.
42Sa630	Mi. 109.5 L. B.	Chipping site on sandstone bench at mouth of shallow alcove, above gravel covered terraces. Area: 50 by 50 ft.	Stone artifacts: Blade fragment, 1; scrapers, 2; flake, 1.

Site Number	Location	Description	Materials collected or observed
42Sa631	Slickrock Canyon	Partially collapsed pole structure on dune at base of sandstone bench. Hearth areas in front of structure. Mano fragments nearby. Structure probably of Navajo origin. Area: 15 by 25 ft.	No collections made.
42Sa632	Slickrock Canyon	Open campsite on large dune near canyon wall. Extensive area of charcoal and burned rocks at base of dune. Concentrations of artifacts on dune top and washing down slope. Area: 100 by 200 yd.	Stone artifacts: Blades, 2; fragments, 2; expanded base drill, 1; scrapers, 2; flakes, 3. Groundstone: Full grooved maul, 1. Pottery: Tusayan Corrugated, 10; Moenkopi Corrugated, 15; Kiet Siel Gray, 16; Tusayan Polychrome, 14; Tusayan B/R, 4; Tsegi R/O, 14; Tsegi B/O, 3; Tsegi Orange, 2; Tsegi orange wares, 8; Flagstaff B/W, 2; Tusayan B/W, 4; Tusayan white wares, 3; Mesa Verde B/W, 6; Mesa Verde Polychrome, 1; Mesa Verde white wares, 18; Mancos B/W, 1; San Juan white wares, 1.

Site Number	Location	Description	Materials collected or observed
42Sa633	Slickrock Canyon	Masonry structures on talus slope. Eight contiguous spall and adobe masonry structures at top of high talus slope beneath overhanging cliff. Five D-shaped rooms, two granaries adjoining outside walls of rooms. One room with double wall and ventilator shaft in wall. Drylaid retaining wall in front of structures. Petroglyphs on large spall. Area: 20 by 150 ft.	Stone artifacts: Blade, 1; fragments, 8; expanded base drill, 1; scrapers, 2; flakes, 6. Pottery: Tusayan Corrugated, 20; Moenkopi Corrugated, 47; Kiet Siel Gray, 16; Mancos Corrugated, 6; Hovenweep Gray, 7; Tusayan Polychrome, 4; Tusayan B/R, 1; Tsegi R/O, 2; Tsegi Orange, 1; Tsegi orange wares, 4; Dogozhi B/W, 1; Kayenta B/W, 1; Sosi B/W, 1; Tusayan B/W, 7; Tusayan white wares, 2; Mancos B/W, 6; Mesa Verde white wares, 12. Organic materials: Feather wrapped yucca string, 1; cobs, 8; gourd fragments, 2; bone fragments, 4.
42Sa634	Slickrock Canyon	Campsite or habitation site in high alcove. Large dune of spalls and sand on floor of alcove. Area: 30 by 150 ft.	Pottery: Mancos Corrugated, 1. Flakes and charcoal observed.

Site Number	Location	Description	Materials collected or observed
42Sa635	Slickrock Canyon	Masonry structures in alcove. Spall and adobe masonry structure on ledge beneath high, arching alcove. Roofed, rectangular room, roof entranceway, ventilator in front wall, deflector in place inside room. Circular, partially collapsed room adjacent to rectangular room. Two adjoining collapsed rooms, roofs fallen, slab lined firepit in one room. Three D-shaped granaries, adobe rimmed doorways, roofs intact. Retaining wall at front of alcove. Red pigment pictographs on wall of alcove. Area: 50 by 250 ft.	Stone artifacts: Blade fragments, 7; expanded base drill, 1; scraper, 1; flake, 1. Pottery: Tusayan Corrugated, 18; Moenkopi Corrugated, 13; Kiet Siel Gray, 6; Mesa Verde Corrugated, 7; Mancos Corrugated, 22; Hovenweep Gray, 19; gray ware, crushed rock temper, 12; Tusayan Polychrome, 12; Tsegi B/O, 2; Tsegi R/O, 2; Tsegi Orange, 1; Tsegi orange wares, 9; Dogoszhi B/W, 1; Kayenta B/W, 1; Tusayan B/W, 7; Mesa Verde B/W, 1; Mesa Verde Polychrome, 2; Morfield B/G, 1.
42Sa636	Slickrock Canyon	Campsite or habitation site in alcove. Alcove floor covered by heavy, recent spalling. Scattered flakes and pieces of charcoal. Site has been pot-hunted. Area: 12 by 125 ft.	Stone artifacts: Flakes, 4. Organic materials: Gourd fragments, 6; bone fragments, 4. Basketry fragment, 1.

Site Number	Location	Description	Materials collected or observed
42Sa637	The Rincon	Open campsite or chipping site on sand terrace near edge of river. Historic mining camp on part of site. Area: 100 by 200 yd.	Stone artifacts: Blade fragments, 3; scraper, 1; chopper, 1; flakes, 4. Pottery: Tusayan Corrugated, 9; Moenkopi Corrugated, 35; Kiet Siel Gray, 6; Tusayan Polychrome, 10; Tsegi R/O, 2; Tsegi Orange, 11; Tsegi orange wares, 11; Tusayan B/W, 24; Tusayan white wares, 28; Jeddito Corrugated, 4.
42Sa638	Wilson Canyon	Campsite in small alcove. Sherds and hearth areas on dune in low, shallow alcove. Artifacts on sandstone bench below alcove. Area: 20 by 50 ft.	Pottery: Tusayan Corrugated, 1; Moenkopi Corrugated, 39; Kiet Siel Gray, 3; gray ware, crushed rock temper, 3; Tsegi orange wares, 1; Sosi B/W, 1; Tusayan white wares, 1 (worked sherd).
42Sa639	Wilson Canyon	Campsite or habitation site in alcove. Alluvial remnant in belled alcove. Cobs, flakes and charcoal on surface. Ash lenses visible in cut bank of remnant. Area: 40 by 150 ft.	Stone artifacts: Chopper, 1.

Site Number	Location	Description	Materials collected or observed
42Sa640	Wilson Canyon	Habitation site in alcove. Low, drylaid retaining or windbreak wall in shallow alcove. Artifacts on sandstone bench below alcove. Area: 15 by 50 ft.	Pottery: Kiet Siel Gray, 2.
42Sa641	Wilson Canyon	Masonry site in alcove. Partially collapsed drylaid masonry wall outlining single room in shallow alcove. Beams and poles on floor. Weathered steps up sandstone bench to alcove. Area: 20 by 40 ft.	Pottery: Tusayan Corrugated, 1.
42Sa642	The Rincon	Granary in small alcove at mouth of runoff gully. Masonry of spalls and adobe. Area: 5 by 7 ft.	No collections made.

Site Number	Location	Description	Materials collected or observed
42Sa643	Wilson Canyon	Campsite or habitation site in contiguous alcoves. Large, deep alcove with dune on floor. Artifacts eroding from dune. Small adjacent alcove contains remnants of single jacal wall across front of alcove. Area: 200 by 400 ft.	Stone artifacts: Scrapers, 2; flakes, 2. Pottery: Moenkopi Corrugated, 47; Kiet Siel Gray, 15; Hovenweep Gray, 22; gray ware, crushed rock temper, 5; Flagstaff B/W, 3; Sosi B/W, 1; Black Mesa B/W, 2; Tusayan white wares, 1.
42Sa644	Wilson Canyon	Campsite in large deep alcove. Scattered artifacts on dune in alcove. Area: 150 by 125 ft.	Pottery: Moenkopi Corrugated, 3. Organic materials: Worked stick, 1. Charred sticks and poles observed.
42Sa645	Wilson Canyon	Masonry wall on ledge. Single drylaid masonry wall on now inaccessible ledge. Artifacts on talus slope below ledge. Area: About 15 by 20 ft.	Pottery: Tsegi orange wares, 2.

Site Number	Location	Description	Materials collected or observed
42Sa646	Wilson Canyon	Masonry structures on ledge. D-shaped spall and adobe masonry room at center of shallow, crescentic alcove. Fallen roof beams inside room. Rectangular drylaid masonry room at end of alcove. Two contiguous cists built in crack of large spall. Four loom anchors adjacent to D-shaped room. Area: 20 by 300 ft.	Pottery: Whole olla, Tsegi Orange, 1; whole olla, Moenkopi Corrugated, 1; Moenkopi Corrugated, 13; Kiet Siel Gray, 3; Kayenta Polychrome, 1; Tsegi R/O, 1; Tsegi orange wares, 1; Tusayan B/W, 1. Worked wood: Spindle, wooden whorl, 1. Worked horn: Digging stick blade, 1. Unworked horn: Mountain sheep horn, 1.
42Sa647	Wilson Canyon	Masonry structures on ledge. Two drylaid masonry walls on narrow ledge beneath overhang. Loose sand inside walls. Area: 6 by 8 ft.	No collections made.
42Sa648	Mi. 85.5 L.B.	Masonry walls in alcove. Two drylaid masonry walls in shallow alcove 200 ft. above river. Flakes and charcoal on bench below alcove. Area: 20 by 40 ft.	No collections made.

Site Number	Location	Description	Materials collected or observed
42Sa649	Cedar Creek Canyon	Open campsite on dune at base of sandstone bench. Artifacts and charcoal eroding from dune near streambed. Area: 50 by 50 ft.	Stone artifacts: Blade fragment, 1; drill fragment, 1; chopper, 1; flakes, 7. Pottery: Moenkopi Corrugated, 13; Kiet Siel Gray, 3; Tusayan B/R, 1.
42Sa650	Mi. 78.6 L. B.	Chipping site or campsite on dune near streambed. Slab lined firepit at top of dune. Artifacts eroding from dune. Area: 100 by 150 ft.	Stone artifacts: Blade fragments, 3; point, diagonal corner notched, 1.
42Sa701	Little Rincon	Open masonry site. Drylaid masonry wall fragment protruding from dune on sandstone knoll. Slab lined firepits visible in blowout areas. Extensive sherd and flake area near dune. Area: 200 by 400 ft.	Stone artifacts: Blade, 1; fragment, 1; flakes, 5. Pottery: Tusayan Corrugated, 68; Moenkopi Corrugated, 26; gray ware, sand temper, 1; Cameron Polychrome, 1; Tusayan Polychrome, 1; Tusayan B/R, 3; Tsegi orange wares, 4; Sosi B/W, 5; Dogoszhi B/W, 3; Tusayan white wares, 3.
42Sa702	Moqui Canyon	Campsite in alcove. Scattered artifacts on talus slope in high belled alcove. Possible slab lined cist on talus. Area: 20 by 30 ft.	No collections made. Corn cobs observed.

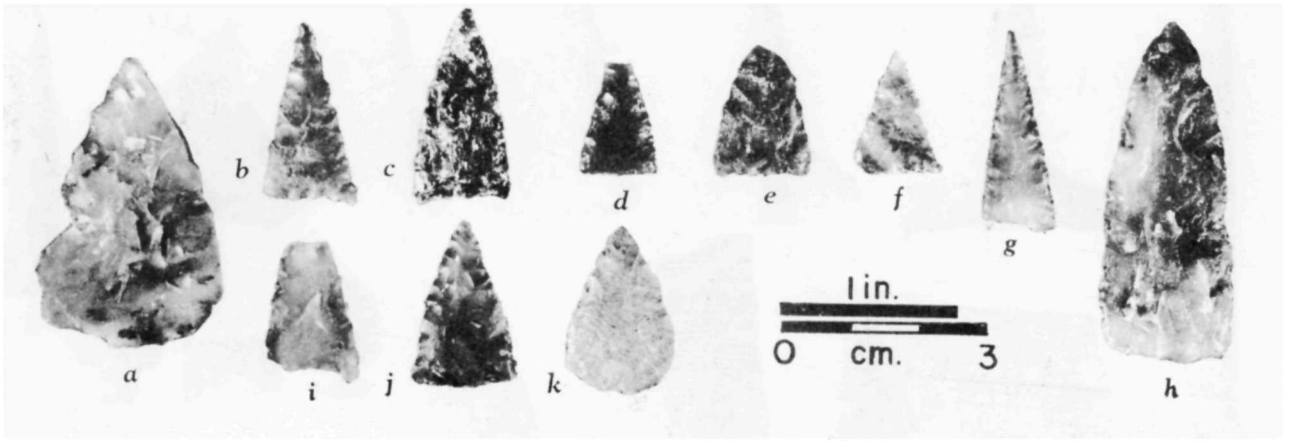


Fig. 1. Small blades from upper Glen Canyon.

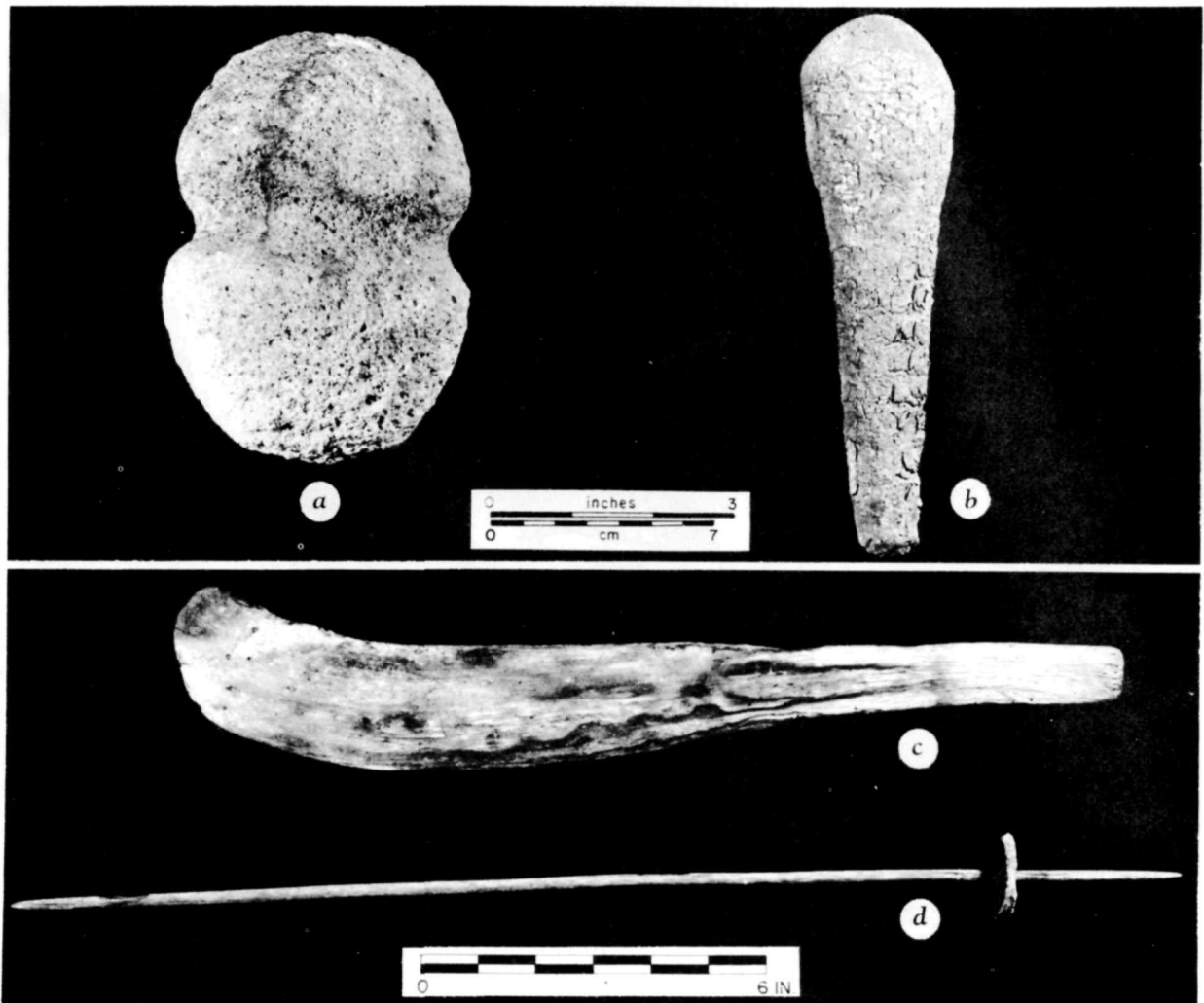


Fig. 2. Miscellaneous artifacts: a. maul; b. horn blade; c. wooden sickle; d. spindle.

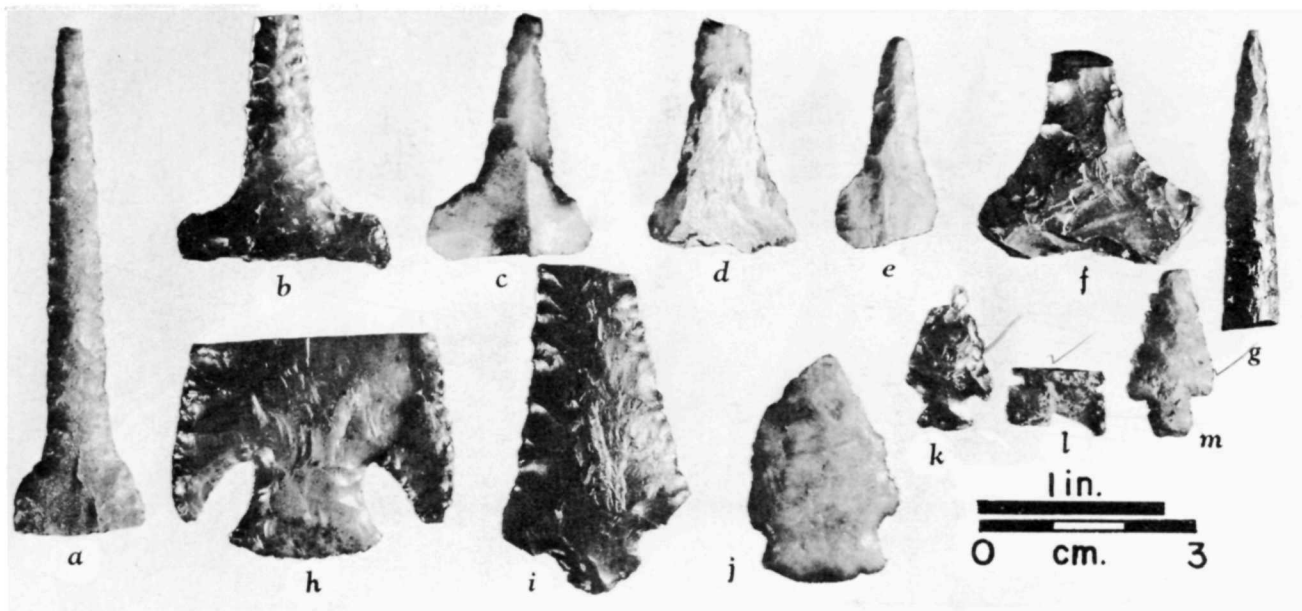


Fig. 3. Drills (a-g); Points (h-m).

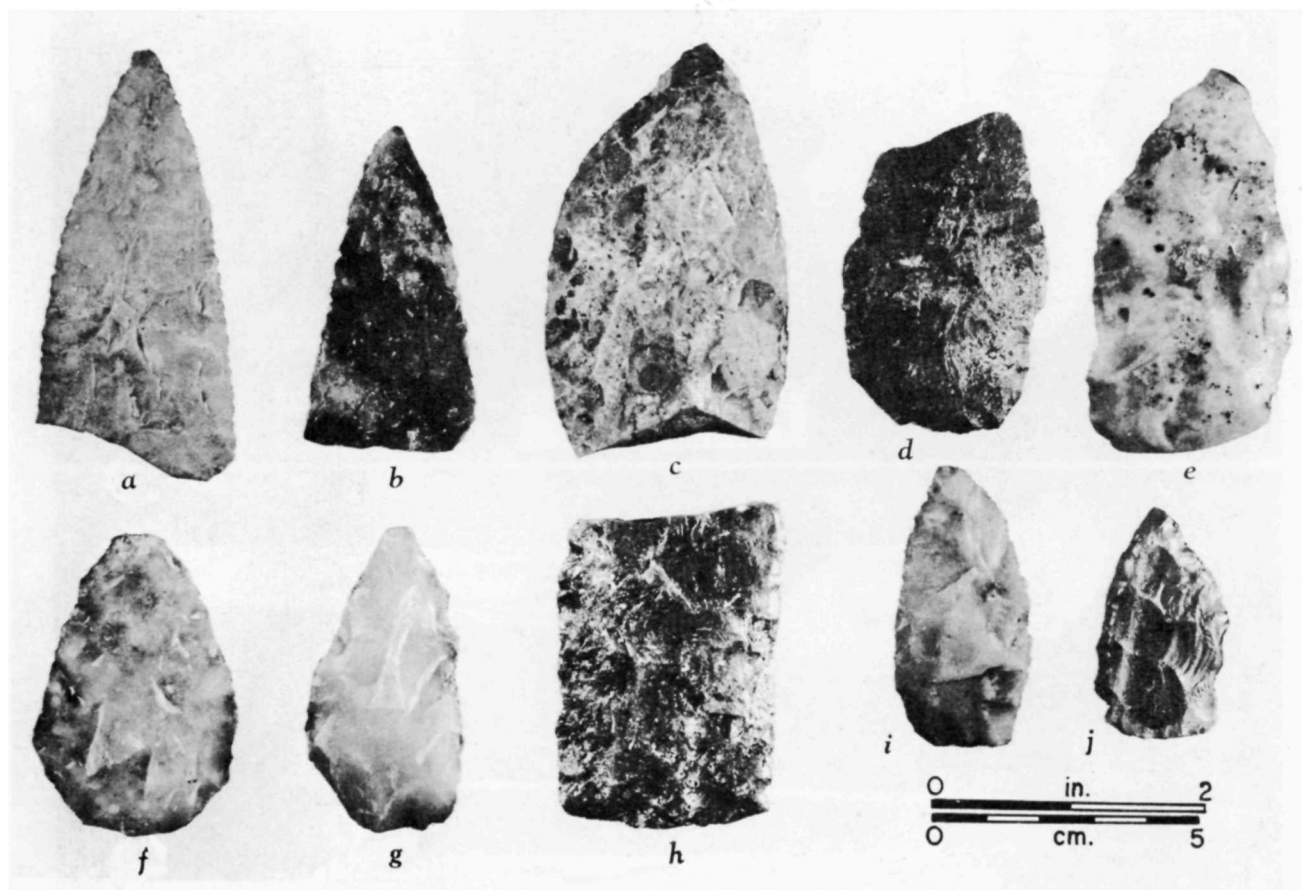


Fig. 4. Large blades from upper Glen Canyon.



Fig. 5. Kiva and rooms, site 42Sa597.



Fig. 6. Collapsed structure, site 42Sa635.



Fig. 7. Interior of probable kiva,
site 42Sa633.



Fig. 8. Open campsite, site 42Sa627, in
Lake Canyon.

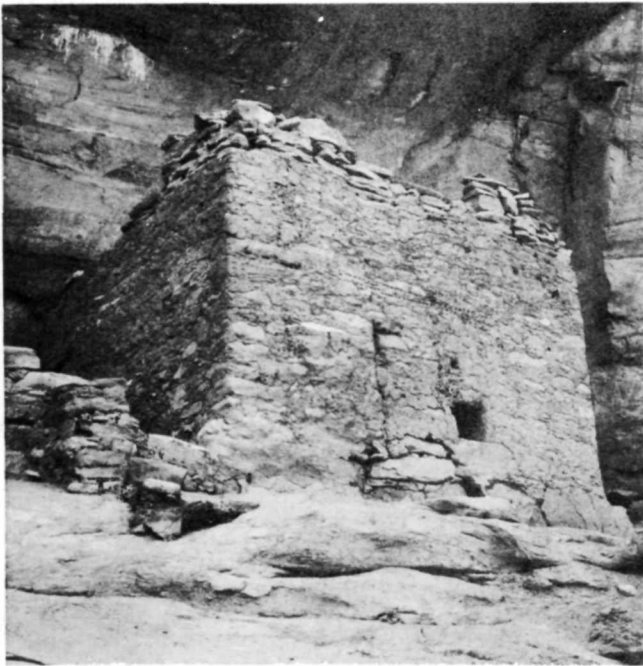


Fig. 9. Coursed masonry structure,
site 42Sa373.



Fig. 10. Drylaid masonry room,
site 42Sa604.



Fig. 11. Small granary, site 42Sa635.

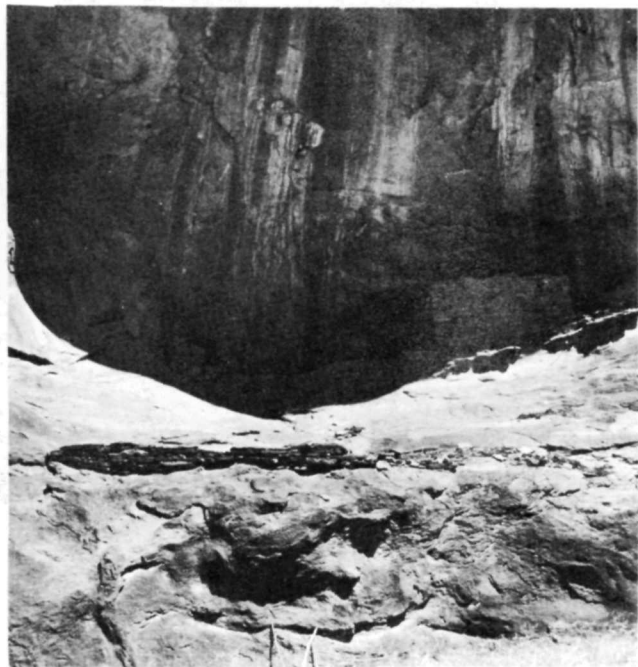


Fig. 12. Remnants of retaining wall,
site 42Sa620.



Fig. 13. Bedrock metates, site 42Sa624.

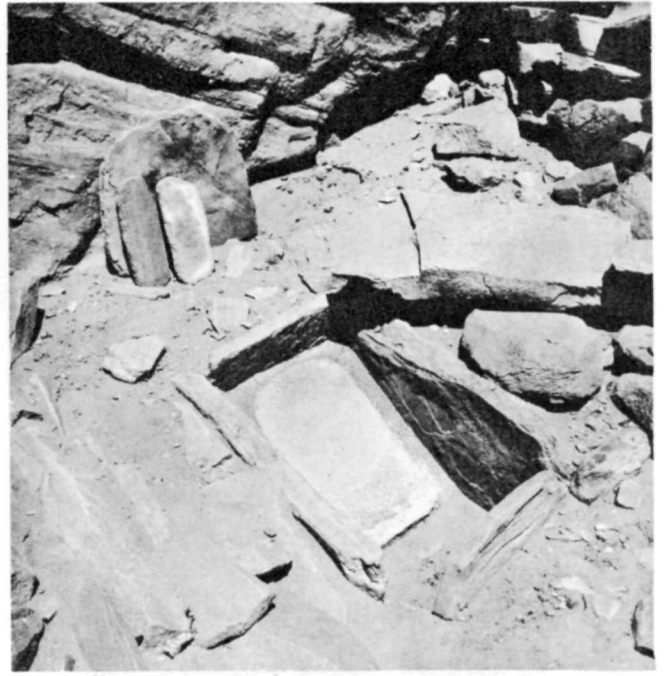


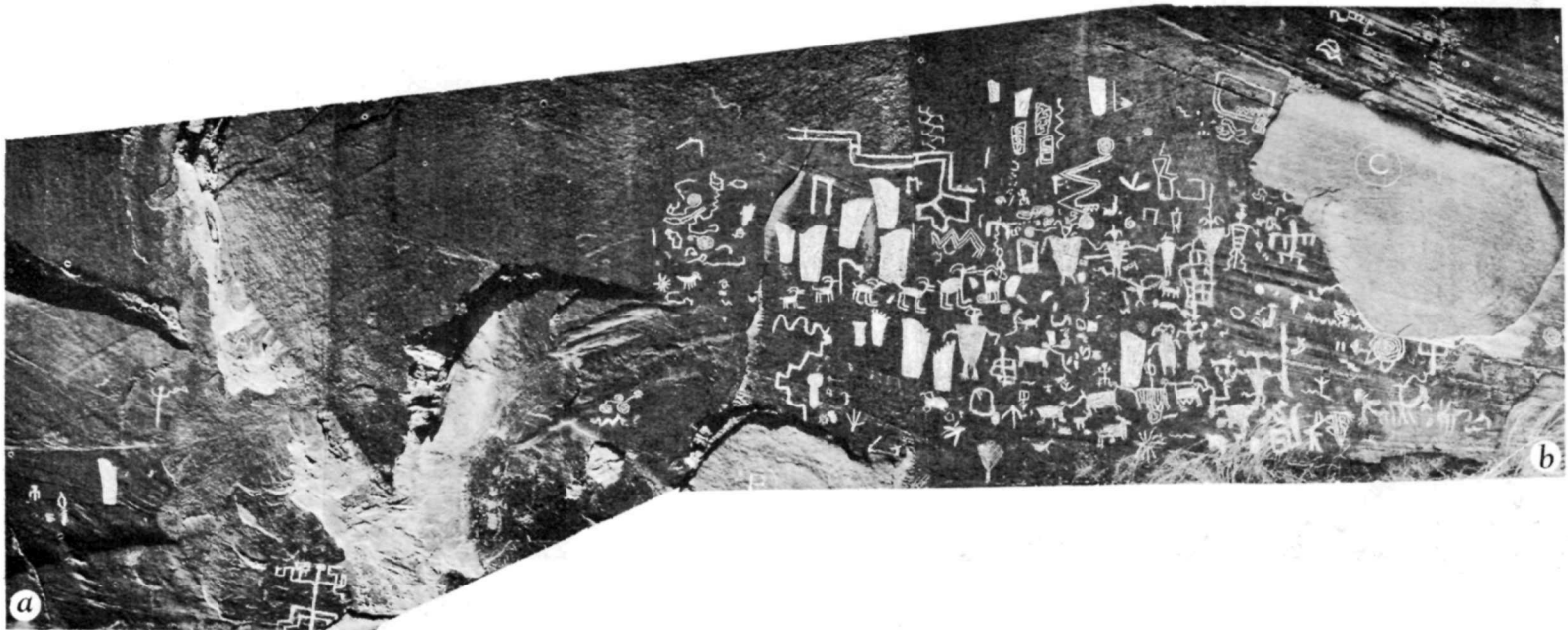
Fig. 14. Mealing bin, site 42Sa597.



Fig. 15. White pigment pictographs, site 42Sa598.



Fig. 16. View downstream from head of Slickrock Canyon.



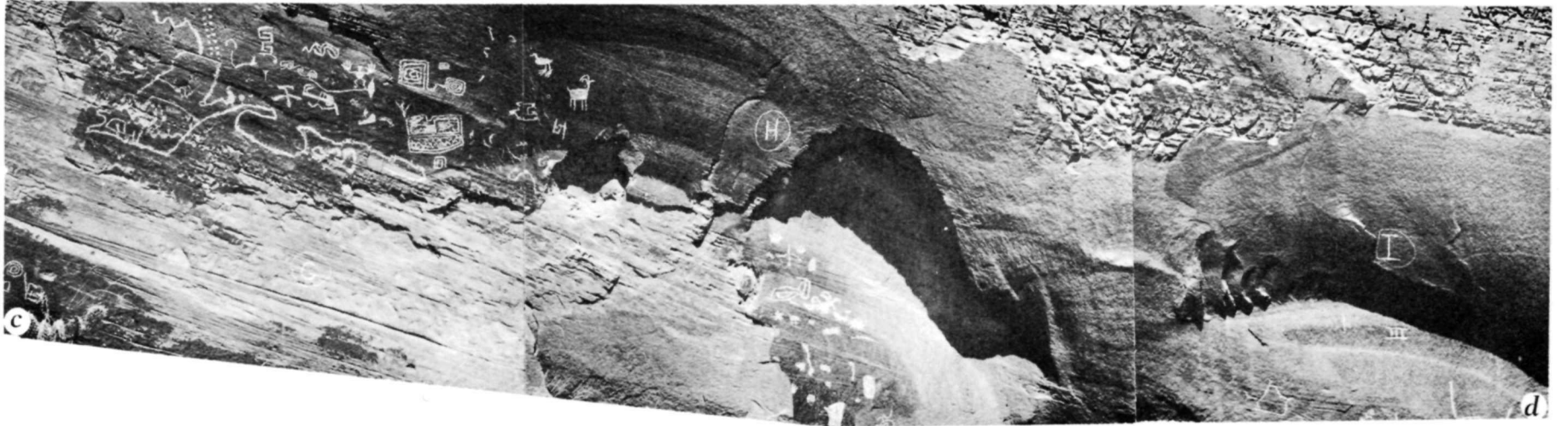


Fig. 17. Petroglyph panel, site 42Ga367 (Figures chalked in).

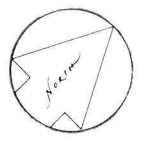
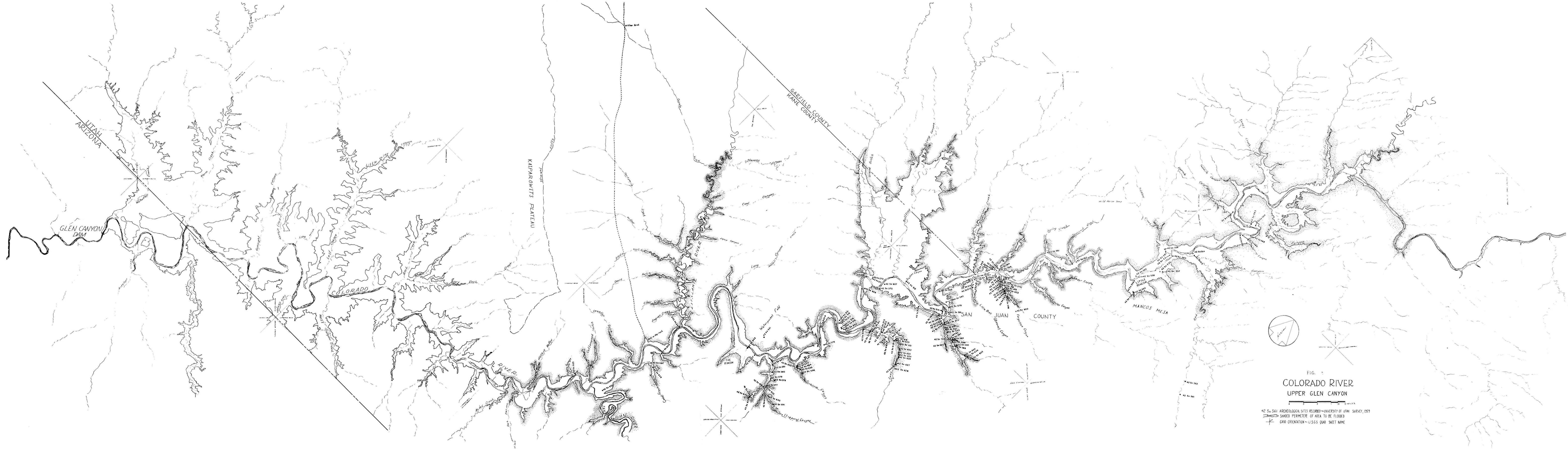


FIG. 5
COLORADO RIVER
 UPPER GLEN CANYON

42 SA 561 ARCHEOLOGICAL SITES RECORDED - UNIVERSITY OF UTAH SURVEY, 1957
 SHADDED PERIMETER OF AREA TO BE FLOODED
 GRID ORIENTATION - U.S.G.S. QUAD SHEET NAME

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