

The Archeology  
of Lake Mead  
National Recreation  
Area

An Assessment

National Park Service  
U.S. Department of the Interior

THE ARCHEOLOGY OF LAKE MEAD  
NATIONAL RECREATION AREA:  
AN ASSESSMENT

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As the Nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under United States administration.

## TABLE OF CONTENTS

Acknowledgements	ix
1. Management Summary	1
2. Introduction	5
Background to This Study	7
Methods	9
3. Natural Setting	13
Past Environment	14
Recent Environment	18
Colorado Plateau	19
Basin and Range	22
Conclusions and Remarks	28
4. Archeological Research in the Lake Mead Area	31
Early Research	31
Later Research - The Thirties Through the Sixties	34
Recent Research	39
Summary and Remarks	47
5. Indian Occupation	51
Lithic and Archaic Stages	51
Virgin Anasazi	53
Moapa Phase (Basketmaker II, A.D. 1-500)	55
Muddy River Phase (Basketmaker III, A.D. 500-700)	56
Lost City Phase (Basketmaker III-Pueblo II, A.D. 700-1100)	56
Mesa House Phase (Early Pueblo III, A.D. 1100-1150)	57
Southern Paiute	57
Cerbat-Pai	60
Amacava-Mohave	62
6. European Occupation	67
7. Research Problems	83
Culture History	84
Lithic Stage	84
Archaic Stage	85
Virgin Anasazi	85

Southern Paiute	86
Cerbat-Pai	86
Amacava-Mohave	86
European	86
Site Function	87
Site Distribution	89
Along Rivers	90
On the Plateau	91
On Desert Bajadas	91
Other Sites	92
Historic Sites	92
Human Adaptation to Arid Lands	94
Use of Natural Resources	95
Water	96
Settlement Patterns	97
Drought	98
Overpopulation	99
Summary	100
8. Research and Management Recommendations	101
Five Percent Survey	101
Sample Design	103
Intensity of Coverage and Boundaries of	
Survey Units	109
Monitoring Site Conditions	109
Resurvey of Development Areas Already	
Partially Surveyed	110
Areas that Require No Further Study	110
Recording Historic Sites	111
Additional Recommendations	111
Visitor Education	111
Archeology as History	111
Other Surveys	112
Report Format	113
Lake Mead Site Master File	114
Summary	114
Appendix I. Key to Maps Showing Locations of Pre-1970 Research Projects in Chronological Order.	117
Appendix II. Key to Maps Showing Locations of Research Projects of 1970 and Later in Chronological Order.	127
Appendix III. Lake Mead Archeology: A Bibliography	139
Appendix IV. Other References Cited	185

## FIGURES

	Page
1. Lake Mead National Recreation Area.	x
2. Pine forest on the Shivwits Plateau.	21
3. View along the edge of the Shivwits Plateau, showing abrupt dropoff into canyons.	21
4. Alluvial ridges between Grand Wash and Grand Wash Cliffs; the latter are in the far distance.	21
5. Creosote-dotted alluvial ridges in Grand Wash area. Lake Mead is in the area of large ridges in the far distance.	21
6. Desert pavement area near Lake Mohave; small rock circles in foreground.	23
7. Area of desert pavement and boulders near Lake Mohave. Note mountains in background.	23
8. Lake Mohave.	23
9. Bajada area above Lake Mohave visible in background. Note circular clearing.	23
10. Lake Mead near Overton.	27
11. Puebloan site on the edge of Lake Mead near Overton. This site is below the high-water line for the lake.	27
12. Cultural relationships in the Lake Mead area.	65
13. Exposed stope at Eureka Mine, showing careful timbering.	71
14. Mine shaft, typical of many at Lake Mead. Now in poor condition.	71
15. Hard scramble: lodging in a tunnel. Note flue protruding from ground above the tunnel.	71
16. Miner's bunkhouse. This represents the luxurious end of the range at Lake Mead. Gutters suggest an attempt to capture and store rainwater.	71
17. Homestake Mine, foundation for boiler. Bricks in this structure were imported from Los Angeles.	75
18. Katherine Mill Site, foundations for cyanide vats. This was the most successful mining venture within the recreation area.	75
19. Horse Valley Ranch, main building. A pristine example of a pre-mechanization ranch (Shivwits Plateau).	75
20. Corral on the Shivwits Plateau at Green Springs.	75
21. Surveys of the Lake Mohave portion of Lake Mead National Recreation Area, before 1970. Numbers are keyed to Appendix I.	118
22. Surveys of the Lake Mead portion of Lake Mead National Recreation Area, before 1970. Numbers are keyed to Appendix I.	119

23. Surveys of the Shivwits portion of Lake Mead National Recreation Area, before 1970. Numbers are keyed to Appendix I.	120
24. Surveys of the Lake Mohave portion of Lake Mead National Recreation Area, 1970-1978. Numbers are keyed to Appendix II.	128
25. Surveys of the Lake Mead portion of Lake Mead National Recreation Area, 1970-1978. Numbers are keyed to Appendix II.	129
26. Surveys of the Shivwits portion of Lake Mead National Recreation Area, 1970-1978. Numbers are keyed to Appendix II.	130

## TABLES

	Page
1. Institutions contacted for site records.	11
2. Areas surveyed by Nevada Archaeological Survey, Southern Division, 1971-1974.	41
3. Heavily used areas in Lake Mead National Recreation Area.	104





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We must mention the help of individuals and institutions in making available their survey records; a list of those contacted is given in Table 1 of the report. Richard Brooks was especially helpful in this regard. The cooperation and hospitality of Mike Belshaw made inclusion of a chapter on European occupation of the Lake Mead area a simple and pleasant task.

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DAP

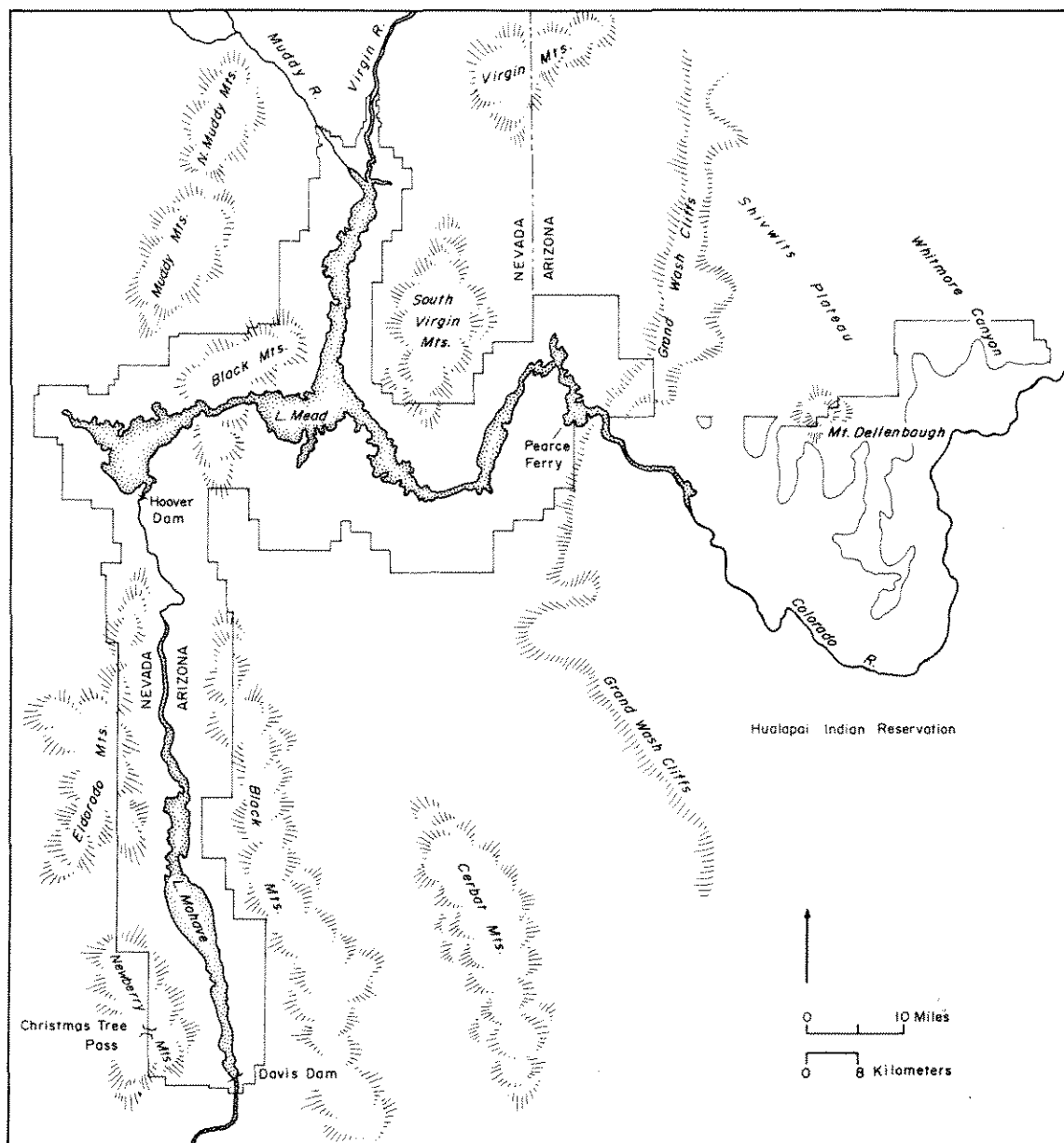


Fig. 1 Lake Mead National Recreation Area.

## Chapter 1

### MANAGEMENT SUMMARY

Lake Mead National Recreation Area is marked by geographic and cultural diversity, and it is difficult to provide a comprehensive view of this diversity. Although no report as short as this one can do the area full justice, we feel the main purposes of this study have been accomplished. This assessment of the archeology of Lake Mead was written to aid federal planners who are responsible for managing cultural resources on public lands. We hope that it will also serve as a guide for archeologists working in the Lake Mead area and provide information for interested visitors.

The recreation area includes Lakes Mead and Mohave, and its boundaries parallel the course of the Colorado River before Hoover and Davis Dams were built (Figure 1). The river crossed a variety of landscapes, emerging from the lower Grand Canyon and flowing west, and then south, through the Mohave Desert on its way to the Gulf of California. This region is one of the more rugged and isolated parts of the United States, and archeological remains found here outline a story of how people have survived--or failed to survive--in this harsh land.

The introduction to this report (Chapter 2) gives a brief account of the establishment of the recreation area, a summary of federal regulations that affect the management of cultural resources on public lands, and the background for this study. Chapter 3 provides a description of the natural environment of the area, an appreciation of which is necessary for understanding how people lived there. This is followed, in Chapter 4, by an evaluation of past archeological projects, including a discussion of their contributions to archeological research and their usefulness for planning and management purposes. Chapters 5 and 6 contain the authors' interpretation of what is known about the prehistory

and history of Lake Mead. These chapters state our assumptions and biases and form the basis on which we have made recommendations for future research and management.

The research design and management recommendations in the concluding chapters (7 and 8) are directed towards archeologists and federal planners who work with Lake Mead's archeological resources. To do their job, federal managers need to know the significance of archeological resources. This is best achieved by viewing archeological remains in light of current research problems. We have identified four broad research questions for the area: (1) culture history--who occupied the area and when were they there? (2) site function--what were sites used for? (3) site distribution--are site locations predictable? and (4) how did people adapt to arid lands? The answer to the fourth question depends on solving the first three problems and is clearly related to knowledge of the environment. Thus, close cooperation with paleoecologists, who can help us reconstruct the past environmental conditions which people faced, is necessary. With this information, we feel that Lake Mead archeological resources can yield clues as to how people adapted to changing conditions in a harsh environment, information which may be useful to people in arid lands today.

Although archeological research in Lake Mead has gone on for some time, the lack of well-defined and well-coordinated research has left us with only a general idea of what kinds of sites are present and where some of the sites are located. At this time, therefore, we are unable to determine the significance of Lake Mead's archeological resources and are able only to offer hypotheses on where specific kinds of sites might be found. Thus, we recommend the following program: to begin fulfilling Executive Order 11593 (to inventory cultural resources on public lands) we propose a five percent archeological survey of the recreation area. We suggest this survey be done over a period of four years, during which time adjustments can be made in the research design and survey techniques as new information becomes available. We

also suggest that many specific decisions regarding the proposed survey be left to the discretion of the project director.

In the suggested survey, we have considered the facts that past research has provided some information on sites at Lake Mead and that we need to evaluate the effects of recreation area activities on archeological resources. Since underwater archeology studies already conducted by the Park Service proved fruitless, our recommendations cover only those lands that are not inundated.

We recommend that complete coverage be given to the heavily used locations listed in Table 3; this constitutes a three percent nonrandom sample. Survey of these locations should decrease the need for small clearance surveys, which have thus far provided little useful information, and should make development planning in these areas more efficient. Another one-half percent nonrandom sample is suggested along existing roads and shorelines in areas not listed in Table 3 but where recreation area activities are also likely to affect sites. In addition, we feel that another one and one-half percent sample is necessary to study holdings not adequately covered by past research or by the nonrandom sample. Most of this one and one-half percent sample should be a random sample using transects, quadrats, or both. However, the project director may wish to use some funds for surveying additional roads, shorelines, or other nonrandomly chosen areas, for reconnaissance by helicopter and boat, or for restudy of prehistoric and historic sites.

Besides the survey, we recommend improving visitor awareness of the need to protect sites. In addition, should any development occur before the proposed survey is completed, or should it take place in areas not specified in our recommendations, cultural resources in the area should continue to be treated under the provisions of Executive Order 11593, the National Historic Preservation Act, and the National Environmental Policy Act. Archeologists carrying out such work can use the background information and research design given in this report as a guide.

As already mentioned, we do not have enough information at

present to predict accurately the distribution of sites or to evaluate the significance of most archeological remains at Lake Mead. Some recent studies in the recreation area have found individual sites and, more commonly, groups of sites, to be eligible for nomination to the National Register of Historic Places (Dodge 1975; McClellan and Teague 1977; Teague and McClellan 1978; McClellan and Phillips 1978; Belshaw and Peplow 1978). At present, only one archeological district and three historic sites are being nominated (McClellan and Phillips 1978; Leslie Hart: personal communication). As additional sites or districts are studied, they will undoubtedly be found eligible for National Register nomination because of their scientific, historic, and, in some cases, social significance. Preliminary predictions of site distribution for planning purposes must await testing by the proposed five percent survey.

## Chapter 2

### INTRODUCTION

Lake Mead National Recreation Area exists because of two dams, Hoover and Davis, built on the Colorado River. These dams were built to provide flood control, water storage, and electricity for the Southwest; however, every year several million visitors camp and boat at the lakes and explore in the surrounding rugged country. Ranching and mining, begun long before the recreation area was established, are still permitted. These modern activities have left their trace in the form of roads, campgrounds, docks, fences, corrals and tanks, ranch buildings, mine claims and prospects, mines, and mining camps. These remains are only the most recent in a long succession, however, for human use of the area began thousands of years ago.

The irregular boundaries of the recreation area (see Figure 1) are set a few miles back from the shores of Lake Mead, formed by Hoover Dam, and of Lake Mohave, formed by Davis Dam. As a result, the recreation area is long and narrow, extending west from the mouth of the Grand Canyon and then turning south along the Arizona-Nevada border to Davis Dam. Part of the area in Arizona is north of the Colorado River, in what is known as the "Arizona Strip." Here, the land is high, with wooded plateaus and steep-sided canyons. In the rest of Arizona and in Nevada, the recreation area lies in desert country interrupted by low ridges and mountain chains. Most of this isolated land is owned by the Federal Government: the Bureau of Reclamation controls the dams, the National Park Service manages the recreation area, and the Bureau of Land Management administers the surrounding land. Only a few small parcels of land inside the recreation area are patented and privately owned.

The Boulder Canyon Project was authorized in 1928. In those days, the dam was an engineering challenge; during the Depression



it became a social challenge as well. Work at Boulder Dam started in 1931, and by 1935 the waters of the Colorado had been trapped. A year later the dam was finished, and electricity flowed to cities of the West, but water continued to rise until 1941 when the all-time high, 1220.5 feet, was reached. (The maximum water level is 1229 feet or 375 meters.) The reservoir was named Lake Mead after George Mead, Commissioner of the Bureau of Reclamation at that time. In 1947, the dam's name was changed from Boulder to Hoover.

Davis Dam was started in 1942, but during World War II was stopped because of more pressing needs. The dam was finished in 1953. The reservoir, named Lake Mohave, has a maximum water level of 647 feet or 197 meters.

The rising waters of the lakes covered several historic settlements--Rioville, Callville, St. Thomas, Eldorado Landing--as well as unnumbered prehistoric sites. Prior to the flooding in the thirties, the Civilian Conservation Corps excavated some sites in the lower Virgin and Muddy River Valleys and in the lower Grand Canyon; Gordon Baldwin excavated a few sites in the Lake Mohave flood basin a decade later. For the most part, though, prehistoric and historic sites were covered by the growing lakes without any prior study.

The recreation area was originally called Boulder Dam National Recreation Area but eventually was renamed Lake Mead National Recreation Area. National Park Service management of the recreation area dates from 1936; since that year, a number of boundary changes have been made. In 1947 the Lake Mohave area was added; in the seventies, the lower Grand Canyon was transferred to Grand Canyon National Park. Also, in past years the south side of the lower Grand Canyon was identified as part of the recreation area, but this area is excluded from our study as it is part of the Hualapai Indian Reservation. Several other boundary changes have been proposed. Two sections in the recreation area east of Lake Mohave are being considered, along with other federal land, for transfer to the State of Arizona. The portion of Lake Mead

north of the Grand Canyon may become part of the expanded Grand Canyon National Park. This report considers lands currently part of Lake Mead, including lands which may be transferred to Arizona or to Grand Canyon. In some cases, where information is necessary to clarify natural and historical relationships with Lake Mead, adjacent areas are discussed.

#### Background to This Study

In writing this report, we have attempted to address three audiences--the public, archeologists, and federal planners and managers. We hope that portions of this report, particularly Chapters 2, 3, 5, and 6, will encourage a deeper appreciation of the area's uniqueness. Because the public is curious about the past, archeologists and federal managers have an obligation to interpret and protect significant archeological resources.

As social scientists, archeologists are interested in cultural ecology (how people interact with the environment), culture history (who lived in the area and when they did), and culture process (understanding change in human society). Working from what is already known about the archeology of Lake Mead, we have evaluated what can be learned from the study of the area's archeological resources. On this basis, we outline specific research problems and make recommendations on how to approach the study of Lake Mead's past occupants.

Today, most archeological work at Lake Mead results from federal legislation, whereby archeologists are contracted to study small development areas on an individual basis. Often the archeologist does not have the time to acquire a thorough background on the specific archeological problems for the area under study. As a result, such work has contributed little to a general understanding of the people who once lived in the area. This is one reason why assessments such as this are necessary.

From present trends, increased use of the recreation area seems likely, and this report is designed to help federal planners who must direct its future development. Federal agencies control

most remaining tracts of relatively undeveloped land, and it has become necessary to establish policies for managing resources under their control, including prehistoric and historic sites. Management policy for Lake Mead is based on a number of federal laws. Because, in part, this report addresses a public that may not be familiar with the federal laws, these laws are briefly discussed below. (For a more detailed discussion, see McGimsey and Davis 1977.)

The idea of protecting archeological sites is not new. The Antiquities Act of 1906 (Public Law [P.L.] 59-209) protects "antiquities" located on federal lands. (This law is being reviewed to clarify the definition of antiquities.) The Historic Sites Act of 1935 (P.L. 74-292) calls for the preservation of sites "of national historical or archeological significance" by establishing a system of National Historic Landmarks. As its name implies, the Reservoir Salvage Act of 1960 (P.L. 86-523) calls for the study of sites that will be flooded following the building of dams. This last law postdates the formation of Lakes Mead and Mohave and did not affect sites already inundated. However, this act would apply to any future impoundments at Lake Mead or to increases in the maximum water levels of the existing reservoirs. The Archeological and Historic Preservation Act of 1974 (P.L. 93-291) amends the Reservoir Salvage Act to include zones indirectly affected by dam construction, extends protection of sites to all federally assisted construction projects, and authorizes sources of funds.

The National Historic Preservation Act of 1966 (P.L. 89-665), as amended in 1976 by P.L. 94-422, has had far-reaching effects on the management of archeological sites. This law established the National Register of Historic Places. Unlike the earlier landmark system, the National Register includes sites not only of national importance but also of regional, state, and local importance. In 1971, federal agencies were directed under Executive Order (E.O.) 11593 (Protection and Enhancement of the Cultural Environment) to inventory cultural resources on lands under their control and to determine their eligibility for nomination to the National Regis-

ter. This order recognizes the need to identify these resources for evaluation. If a property that is listed on the National Register or that is considered eligible for nomination to the Register will be affected by a major federal action, Section 106 of The National Historical Preservation Act requires that a consultation be made to decide whether the action will damage the property and, if so, what should be done about it. The consultation procedure and the participants of the consultation are specified in the Procedure for the Protection and Enhancement of Historic and Cultural Properties (36 Code of Federal Regulations [C.F.R.] 800). In the same spirit as the National Historic Preservation Act and Executive Order 11593, the National Environmental Policy Act of 1969 (P.L. 91-190) requires that the effects of major federal actions on natural and cultural resources be evaluated, beginning at the earliest planning stages. When resources are considered in the planning process, the adverse effects of a project can be avoided or at least lessened through study of resources before they are destroyed.

These laws do not protect archeological resources from development projects; however, they provide the means by which federal planners and managers can balance the needs of conservation and development.

#### Methods

This report is only one part of an effort to gather and make available information about the archeology of Lake Mead. The first step was an ethnographic (historic Indian) overview of the recreation area written by Ruppert (1976). The following year, the Archeological Research Center in Nevada completed a review of previous archeological research in the same area (Brooks and others 1977.) Their bibliography, with some additions, is included in this report. Persons interested in a detailed account of historic Indians or past archeological projects at Lake Mead should consult these reports.

The present study is an outgrowth of the authors' work on the

Grand Canyon Adjacent Lands Project (Teague and McClellan 1978) and the Grand Wash Cliffs Project (McClellan and Phillips 1978). In fact, the research design presented in Chapter 7 was developed from ideas presented in the latter report. Belshaw's participation in this report stems from his study of historic resources at Lake Mead (Belshaw and Peplow 1978). Again, those wishing a detailed account of the historic period are referred to that report.

Finally, we are collecting site and survey records from the various institutions that have sponsored archeological work at Lake Mead (see Table 1). A Lake Mead master file is being set up at the Western Archeological Center and includes copies of site survey forms, site cards, maps, references, and clearances. Arizona State Museum (ASM) numbers are being assigned to prehistoric and historic sites for which we have records. We hope that the master file, along with this report, will be useful to archeologists and federal managers who work in the area and that they will help keep the file up-to-date as new information is collected.

TABLE 1  
INSTITUTIONS CONTACTED FOR SITE RECORDS

<u>State</u>	<u>Institution</u>	<u>Comments</u>
Arizona	Arizona State Museum, Tucson	records collected
	Arizona State University, Tempe	records collected
	Bureau of Land Management, Phoenix	no information
	Museum of Northern Arizona, Flagstaff	records collected
	Western Archeological Center, Tucson	records collected
California	San Diego Museum of Man, San Diego	records collected
	Southwest Museum, Los Angeles	no information
Colorado	National Park Service, Denver Service Center, Denver	no information
Nevada	Archaeological Research Center (previously Nevada Archaeologi- cal Survey, Southern Branch), Museum of Natural History, Uni- versity of Nevada-Las Vegas	records collected
	Bureau of Land Management, Las Vegas	no information
	Bureau of Reclamation, Boulder City	no reply
	Desert Research Institute, Uni- versity of Nevada, Reno	no information
	Lake Mead National Recreation Area, Boulder City	records collected
	Lost City Museum, Overton	records collected
	Nevada State Museum, Carson City	records collected
New Mexico	School of American Research, Santa Fe	no information
Utah	Bureau of Land Management, Arizona Strip District, St. George	no information
	Museum of Southern Utah, Southern Utah State College, Cedar City	records collected
	Utah Museum of Natural History, University of Utah, Salt Lake City	no information