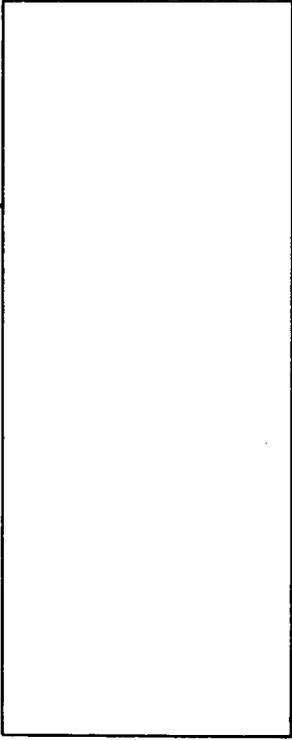
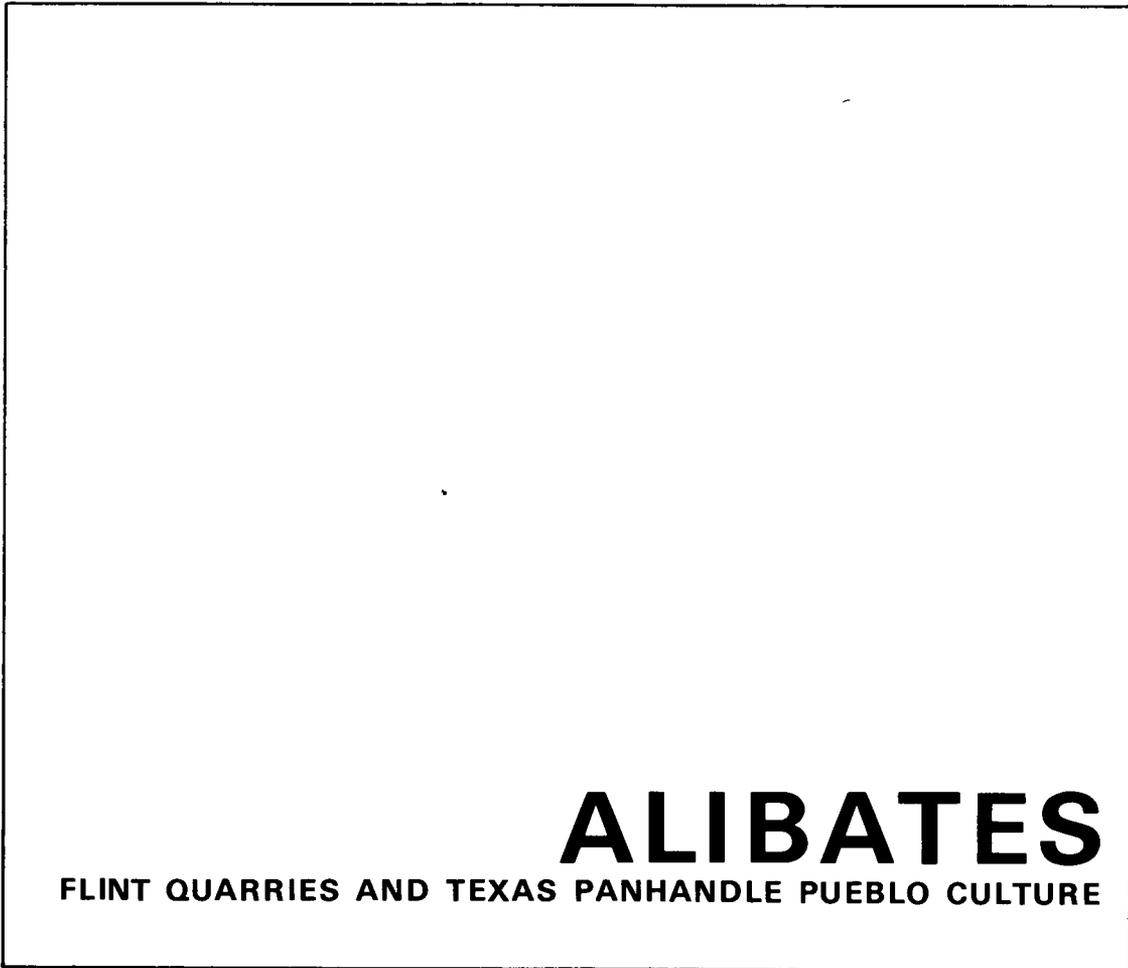
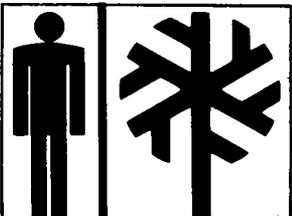


master plan



ALIBATES

FLINT QUARRIES AND TEXAS PANHANDLE PUEBLO CULTURE

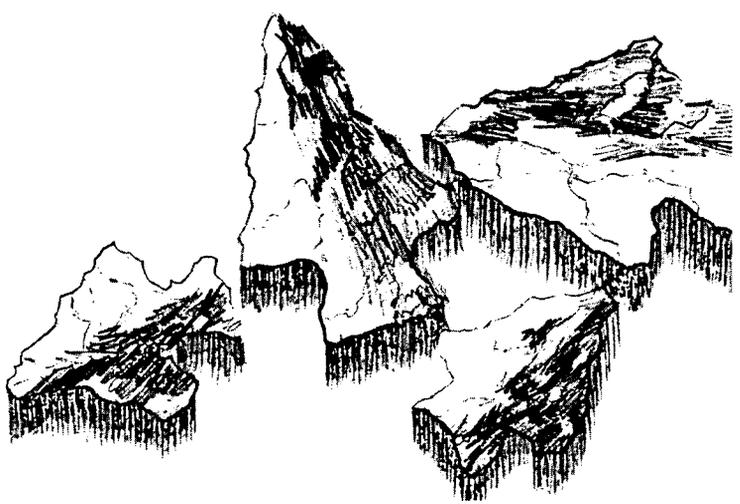


NATIONAL MONUMENT / TEXAS

master plan

This planning publication has neither been approved nor disapproved. Its purpose is to provide planning information and alternatives for further consideration and discussion, and it may undergo considerable revision.

434/D-1



ALIBATES

FLINT QUARRIES AND TEXAS PANHANDLE PUEBLO CULTURE

NATIONAL MONUMENT / TEXAS

PROLOGUE	1
PLANNING CONSIDERATIONS	3
	5 <i>Region Map</i>
	9 <i>Resource Map</i>
THE PLAN	10
	13 <i>Boundary Proposal/Land Acquisition Map</i>
	15 <i>General Development Map</i>
	16 <i>Land Classification Map</i>
APPENDIXES	17

PROLOGUE



As the Canadian River coursed eastward through the high plains of the Texas Panhandle, the running water sliced deeply into the dolomite caprock. The river canyon deepened and widened, and side canyons created by tributary streams appeared. These too cut through the caprock, creating the “breaks” of the Canadian River. Layered into the caprock were bands of agatized dolomite, which soon appeared as ledges of exposed flint.

Long before the Europeans came to the high plains, in their often-futile searches for glory, God, or gold, primitive men — now called Paleo-Indians — climbed the bluffs and ridges of the breaks, and found this ancient flint rock. They were Stone-Age people, and these rock outcroppings, known today as Alibates flint, were to become a major source for their weapons, tools, and, perhaps equally important, a lasting tribute to prehistoric man's skilled stonework and appreciation of natural beauty.

The earliest Indians, being mostly hunters and gatherers, were transient visitors to the flint quarries. Others who followed were more sedentary people, who built homes, and farmed and hunted nearby. Archeologists have determined that the Alibates flint quarries have been worked for an incredible period, perhaps for 12,000 years.

In 1965, Congress authorized the establishment of the flint quarries and a small surrounding area as "Alibates Flint Quarries and Texas Panhandle Pueblo Culture National Monument."

When compared with the spectacular cliff dwellings contained in many Southwestern national monuments, Alibates has not, to some, seemed very important. But this is like comparing the merits of Yosemite with those of Yellowstone: each has its own story to tell.

A quick survey of archeological areas in the National Park System reveals a serious situation that considerably magnifies the importance of this park: There are 21 other Park Service areas in the continental United States that deal primarily with prehistoric man. Of this number, 16 are concerned with the Indians in the arid lands of Arizona, Colorado, and New Mexico. Three of the five remaining areas are devoted to the Eastern Mound Builders. Russell Cave in Alabama and Pipestone in Minnesota complete the list. But at this time, *nowhere* does the National Park Service thoroughly tell the story of prehistoric man on the vast plains of North America, or interpret in depth one of the most fascinating and best known aspects of our view of prehistoric man: flint technology. In simple answer to the skeptic: Alibates National Monument fills one of many serious gaps in the National Park Service's efforts to convey an understanding of and feeling for the prehistoric occupants of our country.

Local interest in developing Texas' only national monument has always been high, but very little has been accomplished in this regard in the 7 years since the area was established. The purpose of this master plan is to provide a conceptual guide to the future development and operation of the park, and to ensure the wise use of its archeological and natural resources.

PLANNING CONSIDERATIONS

PURPOSE

Alibates Flint Quarries and Texas Panhandle Pueblo Culture National Monument was set aside to preserve flint quarries used by prehistoric man for at least 12,000 years; and to preserve several adjacent archeological sites and features, particularly dwellings built by Plains Village Farmers 600 to 800 years ago.

For thousands of years, this area served as a source of raw material for prehistoric cultures of the High Plains; perhaps no other major site in the United States has been used so long or so continuously by Indians. The quarries and adjacent Indian ruins afford an excellent opportunity to interpret a fascinating phase of this country's prehistory.

MANAGEMENT CATEGORY

Historical.

LEGISLATIVE BACKGROUND

Alibates Flint Quarries and Texas Panhandle Pueblo Culture National Monument was authorized by the 89th Congress, on August 31, 1965, under Public Law 89-154. Under the provisions of this act, the Secretary of Interior was authorized to construct facilities and acquire additional lands for the monument. Appropriations under this bill were limited to \$260,000 for developments, and to only \$5,000 for further land acquisition. All oil, gas, and other mineral rights, with the exception of flint, are outstanding. Numerous access and road easements, as well as pipeline and powerline easements, are widespread in the area surrounding the present monument. Special-use permits for cattle grazing have been issued on adjacent Lake Meredith Recreation Area lands. These commitments must be considered if any additional land acquisition is approved.

During the 1968 fiscal year, funds were appropriated for land acquisition, and 92 acres of land were acquired for the monument. Aside from this parcel, no formal boundaries have been established. Apparently, Federal lands that are now part of Lake Meredith Recreation Area may be added to the monument through administrative transfer.

THE REGION

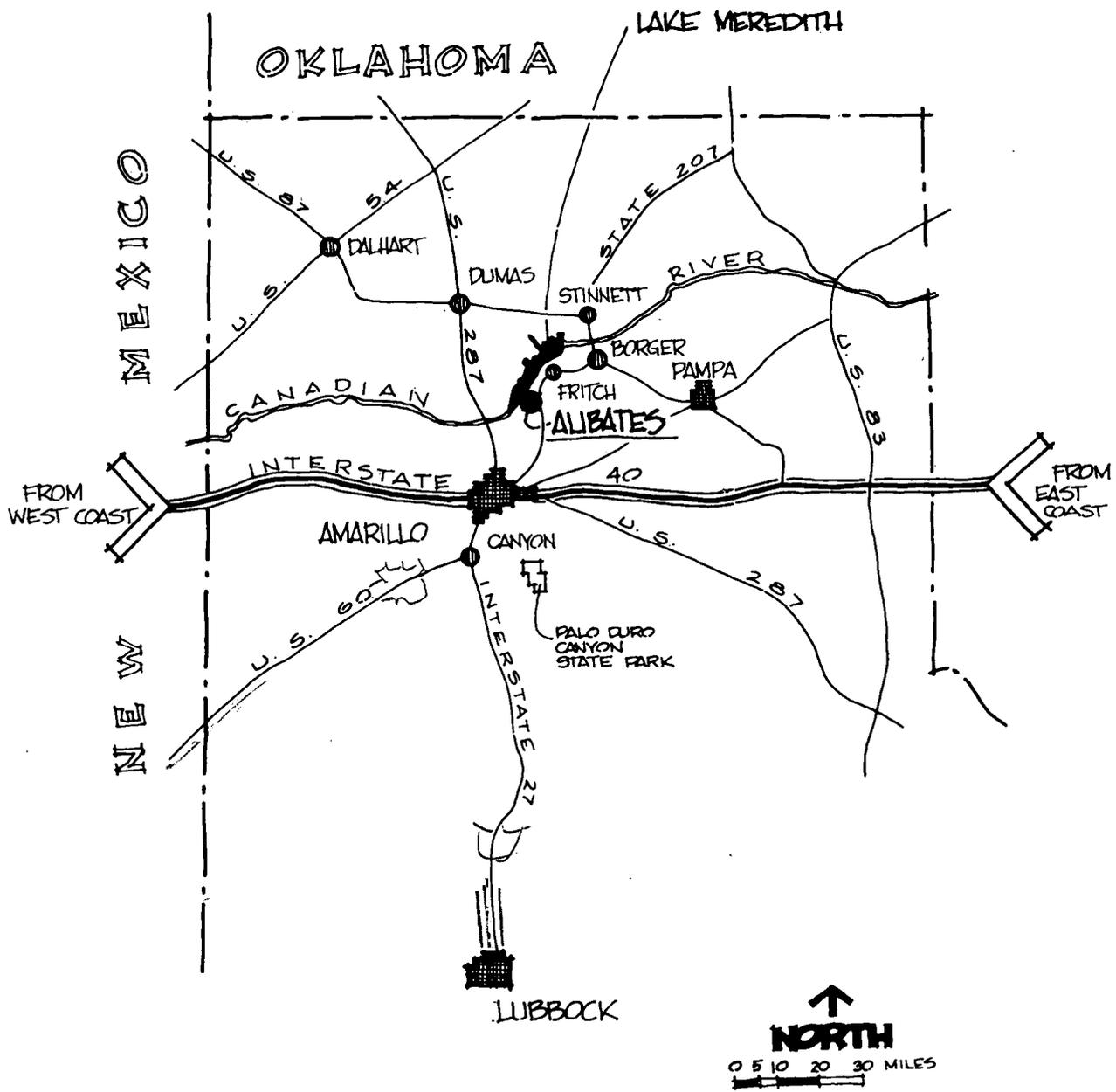
The flat and arid high plains of the Texas Panhandle have for years hidden two delightful surprises from cross-country travelers. In a place such as this, where fencelines narrow to a point on the horizon, and a shallow dip in the road can jolt a driver from his highway hypnosis, the appearance of canyon country is like a landfall at sea. About 20 miles south of Amarillo, the Panhandle's largest city, the elements have carved a "mini-Grand-Canyon" into the plains: Palo Duro Canyon State Park. This small scenic and historic gem is extremely popular on a regional day-use basis, but has been called "Texas' best kept secret."

Thirty-five miles north of the city, the Canadian Breaks provide a similar but somewhat less spectacular picture. Within them lies one of the oldest significant industrial sites on the North American continent: Alibates Flint Quarries.

Settlement patterns in the Panhandle region are not dense, although the population within a hundred-mile radius of the monument is estimated at over 400,000 persons. Livestock production, farming, and oil and gas production are the economic mainstays that have altered the face of these once-vast grasslands, and although these activities have always meant general prosperity to the region, recent studies and predictions are painting a precarious picture. The problem is that they all depend on depletable resources. It is thought that large oil and gas deposits still remain to be tapped, and some have hope that the controversial Texas Water Plan will someday be fulfilled. Nevertheless, one report concludes that the economic future of the region "will depend upon the rate of exhaustion of petroleum and underground water and upon the extent to which other industries can be developed as these resources are used up."

With this in mind, the concerned citizens of the Texas Panhandle are looking anxiously toward opening the "secrets" of the plains to tourism.

It is certainly not economic gain alone that makes the people enthusiastic about Alibates National Monument, however. It is well-known that one of the outstanding characteristics of the Texan is his intense pride in his State — a feeling born of his tough pioneer roots, as well as his possession of an object worthy of pride. A sizeable part of this pride is directed toward his heritage — the history and prehistory of his land. Hence, the strong local interest in the monument.



THE TEXAS PANHANDLE REGION

Once the monument is properly developed, it appears that filling it with visitors should be no problem. Not only does it possess the potential for offering a fine visitor experience, but in addition it lies only a short distance from Interstate 40, one of the most heavily traveled national east-west routes. Its "national monument" designation, and the added pulling force of Lake Meredith Recreation Area should ensure substantial visitation.

THE RESOURCE

In a tangible sense, the primary resource of the monument is simply a large concentration of what is perhaps the most beautiful multi-colored flint in the world. From a distance, the Alibates quarries have been described as "hillsides with an appearance of having been peppered with artillery fire." But the pits, 5 feet by 20 feet in diameter, are more difficult to identify close up, because they have filled with soil and are only 1 or 2 feet deep. People's initial impression is a mild surprise at the quantity of the surface rubble, and its varied sizes — ranging from large boulders to small chips. Upon learning that this surface material resulted from human activity — without the benefit of modern tools — the surprise turns to amazement. Chips and flakes, resulting primarily from the rough forming of tool and weapon "blanks," layer the ground — in impressive thicknesses in places — providing striking visual evidence of the tremendous time span over which the quarries have been mined. And numerous artifacts are also scattered throughout this debris.

From the time he stoops to examine the first chunk of flint, any person who feels appreciation for natural beauty, or who has an inclination to collect, feels almost as if he has stepped into a royal treasure room. "Itchy fingers" is a feeling common to many quarry visitors. Stone-Age craftsmen seem to have preferred reds, whites, and blues in fashioning their tools and weapons, but nearly every color of the rainbow is represented in this stone, and no two pieces appear the same.

Early man's use of this material is as appealing as its intrinsic beauty; the skill required to mine a rough slab of stone with a river cobblestone, and then reduce it to a symmetrical, leaf-shaped spear-point by using only a hammerstone and an antler tool, would impress even the most casual visitor. Fortunately, a number of people now know how to duplicate the flint-knapping techniques of these early hunters, and their knowledge must be considered a significant adjunct to monument resources.

The widespread trade of the flint is also an important element of the basic story at Alibates. In prehistoric times, its distribution ranged from Montana to southeastern Arizona – an impressive sphere of movement and trade for horseless hunters, and a tribute to the beauty and utility of the stone.

In contrast to the imposing, silent cliff pueblos of the Southwest, the shallow, rubble-strewn depressions scattered along the slopes of the ridges at Alibates do not excite the imagination when experienced without some kind of explanation. In addition to the quarries, only the flint-littered hillsides, where early man shaped his products, offer any further testimony to this primitive industry.

The architectural remains at the Plains Village sites are even less spectacular, and represent only 250 years of the 12,000-year span that distinguishes the quarries. They are not compact “pueblos,” but rather are somewhat scattered room and storage sites, which have suffered badly from deterioration due to pot-hunting and other non-professional archeological techniques used during early excavations. Two primary sites exist as part of Alibates ruin, containing about 50 structures.

It is important to remind ourselves again that Alibates is the only unit in the National Park System that may have as its primary objective the interpretation of the story of early man on America’s Great Plains.

Essentially, the resources at Alibates can be likened to those of a historic battlefield that has long ago healed from the ravages of war: they are perhaps 70 percent story and 30 percent visual evidence. Therefore, so that the visitor may effectively understand and appreciate monument values, first-rate interpretive methods and facilities must be provided.

There are adverse uses that presently exist in the area around Alibates National Monument. These are disturbing, since they threaten not only the environment, but the archeological resources as well. Outstanding mineral rights, and the ubiquitous presence of the oil and gas industry are the most alarming. Access roads and equipment sites dot the surrounding landscape, and do little to beautify the natural or prehistoric scene. There may be some question of safety hazards as well, in areas where visitors might be near gas wells or transmission facilities when an industrial accident occurs.

Ranching and cattle grazing present more immediate problems. Access roads, cattle tanks, and windmills are scattered about the landscape surrounding

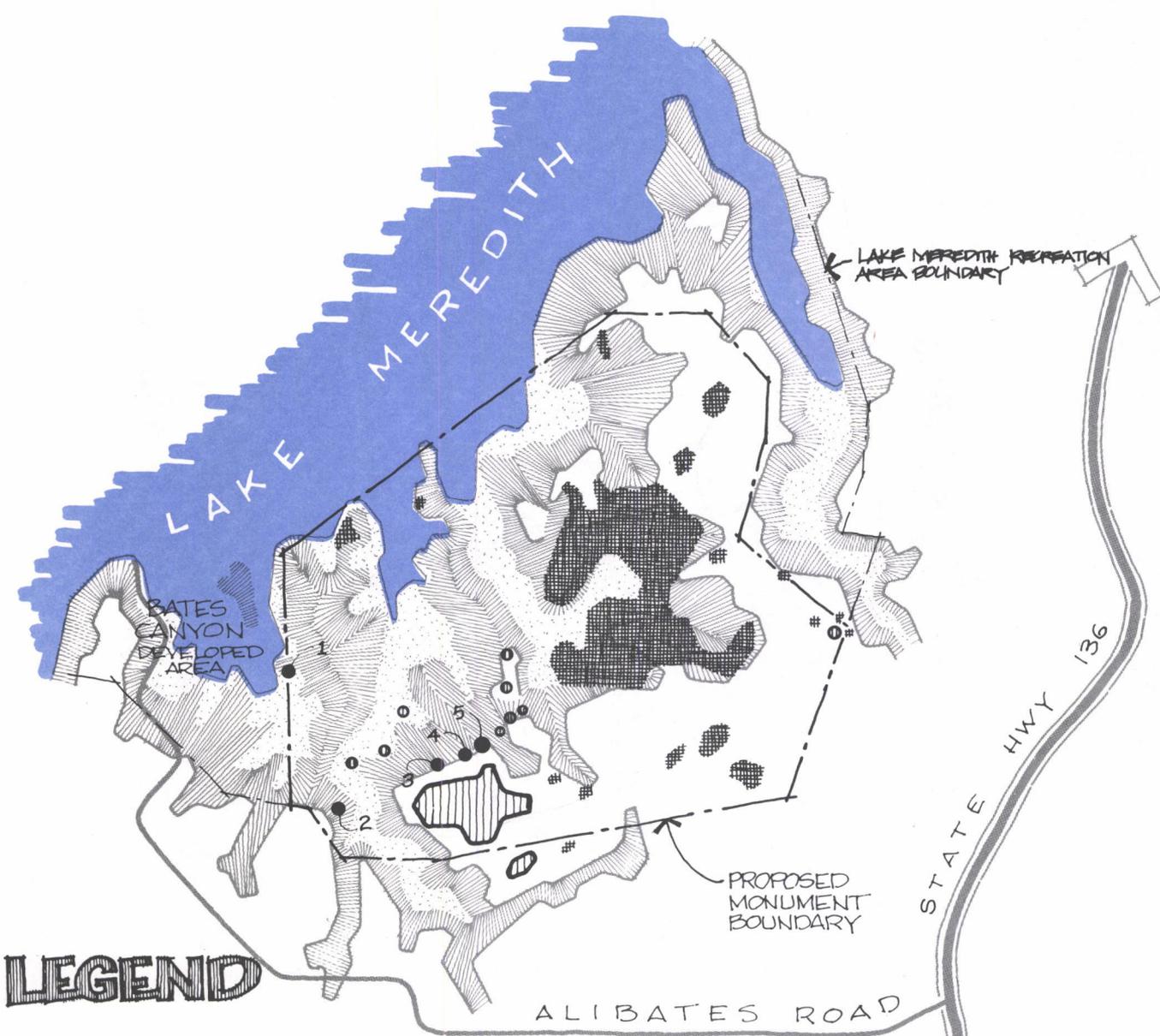
the monument, and although they are more in keeping with the local historic scene than the odd-looking oil-industry equipment, they provide visual intrusion, and cause environmental damage. Unfortunately, cattle have not only marred the countryside through over-grazing – and thus constitute an adverse effect on the natural environment – but cattle hooves are damaging room walls and other surface features of the archeological sites. Fencing around the proposed monument boundaries will be a necessity to keep out all four-legged intruders.

Protection of the sites' resources from pot-hunters and rockhounds is the most serious current resource-protection problem. Surface sites are already much disturbed, and are quite easily found by even the neophyte pot-hunter. Surface concentrations of flint – both worked material and unquarried rock – are also quite obvious to anyone on the grounds, and offer quite a temptation to collectors. Since no National Park Service employees live on site at present, and road access to the area is not strictly controlled, prompt efforts should be made to curtail these threats to the archeological resources.

The Bates Canyon area, immediately west of the monument, is presently planned as a major development for upstream visitors to Lake Meredith. Therefore, noise and visual pollution, hunting, off-road vehicle use, trespass, and vandalism – all problems current in many recreation-area developments today – must be effectively dealt with in the future.

A factor that merits attention is the very real possibility that Lake Meredith Recreation Area, which is not now part of the National Park System, may someday be administered by another agency. Therefore, planning for the development of Alibates must not operate under the assumption that surrounding lands will always serve as an National-Park-Service-administered buffer zone against adverse uses.

Generally speaking, the condition of the land today exhibits man's lack of concern for the total environment. Roads, facilities, and various forms of land use reflect a past unawareness of the fact that neither nature nor man can easily correct abuses in this dry and often hostile environment. The challenge facing National Park Service development of Alibates is to correct past environmental abuses in a positive manner, and to direct future use of the resources in a wise and conserving way. Efforts to restore the total environment in which the prehistoric inhabitants of Alibates lived must be pursued to such a degree that the modern visitor can as fully as possible appreciate the story that we wish to present.



LEGEND

-  FLINT-WORKING SITE OR PREHISTORIC CAMPSITE
-  PREHISTORIC VILLAGE OR HOUSE SITE
- 1 HOMESTEAD OR CORRAL SITE
- 2 OLD DUGOUT (PROBABLY ALLIE BATES')
- 3 PETROGLYPH
- 4 PETROGLYPHS
- 5 ALIBATES RUIN



THE RESOURCE

THE PLAN



Because the physical resources of Alibates National Monument are obviously limited, it will be of the utmost importance to manage the quarry and ruin sites with great care, and to enhance the total surrounding environment. It will only be from the visitor's understanding of what primitive man's life was like in this setting that a true appreciation of the importance of the Alibates story can be gleaned.

Probably one of the more striking aspects of the Alibates area is that the damage done by man is relatively reparable, and the park can be restored to approximate what might have been its prehistoric setting. One of the keys here is a sympathetic development plan, where visitor-use facilities, roads and trails, and related operational facilities are situated in such a way as to minimize the effects of the intrusion of the 20th century upon the landscape.

In keeping with this objective, public needs for gas, food, and lodging will be served in nearby towns, or by concession facilities located at Lake Meredith Recreation Area. Interpretive literature could be handled by a cooperating-association sales agency within the monument.

The interpretive concepts at Alibates will be the crucial factor in fostering an appreciation of the Alibates story. A visitor center, and perhaps wayside exhibits or roadside overlooks, as needed, will serve to provide basic interpretation and information services. However, for several reasons, an adequately staffed personal-services program will be the mainstay of interpretation. Because the surviving architectural remains are extremely fragile, and because the striking Alibates flint quite literally covers the ground in places, National Park Service personnel will have to be on site, in roving resource-protection/interpretation foot patrols, while visitors are in the park. While park management will have a number of basic options open to accomplish this, it does not seem that there is any other way to protect these nonrenewable resources other than through the application of these old-fashioned roving-ranger patrols. While the obvious and primary purpose of such assignments will be to provide onsite interpretation of prehistoric Indian life here, a corollary purpose will be that of educating and informing visitors as to why they cannot take a flint sample home. Hopefully, a positive and protective attitude towards conserving the monument's resources can be engendered in the public, and Alibates can avoid a situation like that occurring in Petrified Forest National Park, where the tragic depletion of petrified wood is an ongoing problem.

Another key interpretive concept will be to bring alive for the average visitor some understanding of the primitive lifestyle of the Indians who lived along the Canadian River. A number of possibilities come to mind, especially an innovative living-history program, and possibly an ongoing excavation and stabilization program. The former concept would lend itself especially to the Paleo-Indians, whose lithic technology, or use of stone, was apparently responsible for the initial quarrying at Alibates. Flint-knapping, and perhaps demonstrations of the use of the atlatl (spear-thrower), could be expanded from those uses of these devices already being made by the park staff for special tour groups at Alibates.

The other concept, that of an ongoing archeological dig and subsequent stabilization project, would suit the two units of the Alibates ruin. These projects could be explored for implementation during heavy visitor-use periods, and would serve a dual role — that of an interpretive device, and that of a research tool for learning more about the Plains Village period of the site.

Another important thread in the interpretive story will be that of painting the picture of man's dependence upon the land — his hunting of game, gathering of wild foodstuffs, and later, his practicing of primitive farming in the bottomlands of the breaks. In addition, the extensive trading network that developed from the prehistoric popularity of Alibates flint must be

highlighted. The very thought that the early trade network was so very well developed that Alibates flint has been found literally hundreds of miles from north Texas must give all pause for reflection.

The general development plan for the monument is the key to the preservation of its resources in an effective but low-profile way, and is also the key to the preservation of the environmental quality of the park scene, which is so necessary to interpret the real significance of Alibates National Monument.

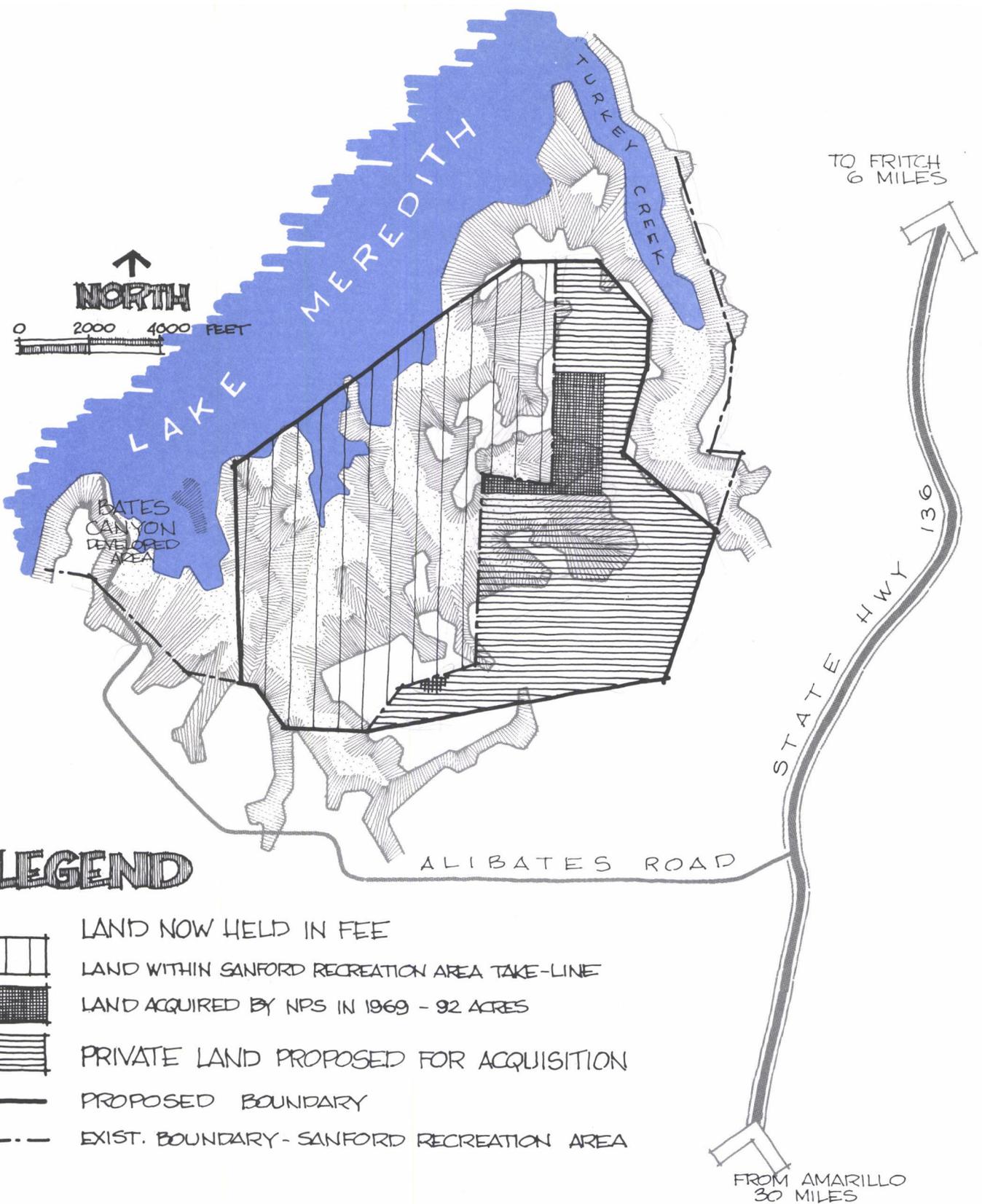
First, the boundaries of the park must be expanded far enough away from the archeological sites so that most adverse uses will be excluded, both visually and aurally, from the visitor experience. Also, these boundaries must be drawn so as to expedite fencing of the entire site, to keep out unwanted guests – both two-legged and four-legged – who constitute a threat to the resources.

The plan's evolution should revolve around a concept that enables the visitor to receive the full story of the site's significance at the visitor center.

All approaches to the monument take the visitor across great expanses of flat grasslands and cultivated fields. Until the topography changes to rolling hills as he nears the Canadian Breaks, his impressions will have been characterized by straight lines, distant views, and high speeds – often resulting in a feeling of monotony.

Arrival at the monument, however, is marked by a startling view of the inner canyon of the Canadian River and the blue waters of Lake Meredith – refreshing stimuli for a sense of adventure.

To create the mood necessary to transport the visitor thousands of years into the past, the monotony of flatness and the boredom of rapid highway travel must be erased from his mind. Entry *into* the canyons will completely alter his physical viewpoint, will quickly insulate him from the distractions of today's world, and will more closely relate him to the land by immersing him in its topography. Early man's use of the land is the essence of Alibates, and to absorb the full impact of the story, the visitor must gain a feeling for the landscape. Since both quarry and ruin sites are located upon the caprock at generally the same elevations as the surrounding plains, it might seem logical to avoid the canyons, and the construction problems inherent within them. But in so doing, a fine interpretive experience potential would remain unrealized. The importance of a "whole" experience is considerably increased here by the lack of "spectacular" resources.



LEGEND

-  LAND NOW HELD IN FEE
-  LAND WITHIN SANFORD RECREATION AREA TAKE-LINE
-  LAND ACQUIRED BY NPS IN 1969 - 92 ACRES
-  PRIVATE LAND PROPOSED FOR ACQUISITION
-  PROPOSED BOUNDARY
-  EXIST. BOUNDARY - SANFORD RECREATION AREA

BOUNDARY PROPOSAL

LAND ACQUISITION

Thus, the interpretive experience at Alibates will begin with an intriguing view of the canyons, and the satisfying act of entering them. Then, in a structure at the base of the bluff upon which the main quarries lie, interpretation will take on meaning through the presentation of vivid images of prehistoric man and what he did there. Whether done with dioramas or audiovisual devices, this phase of the experience should last in the visitor's mind long after he leaves, and it will be the real key to his understanding and appreciation of the significance of the monument.

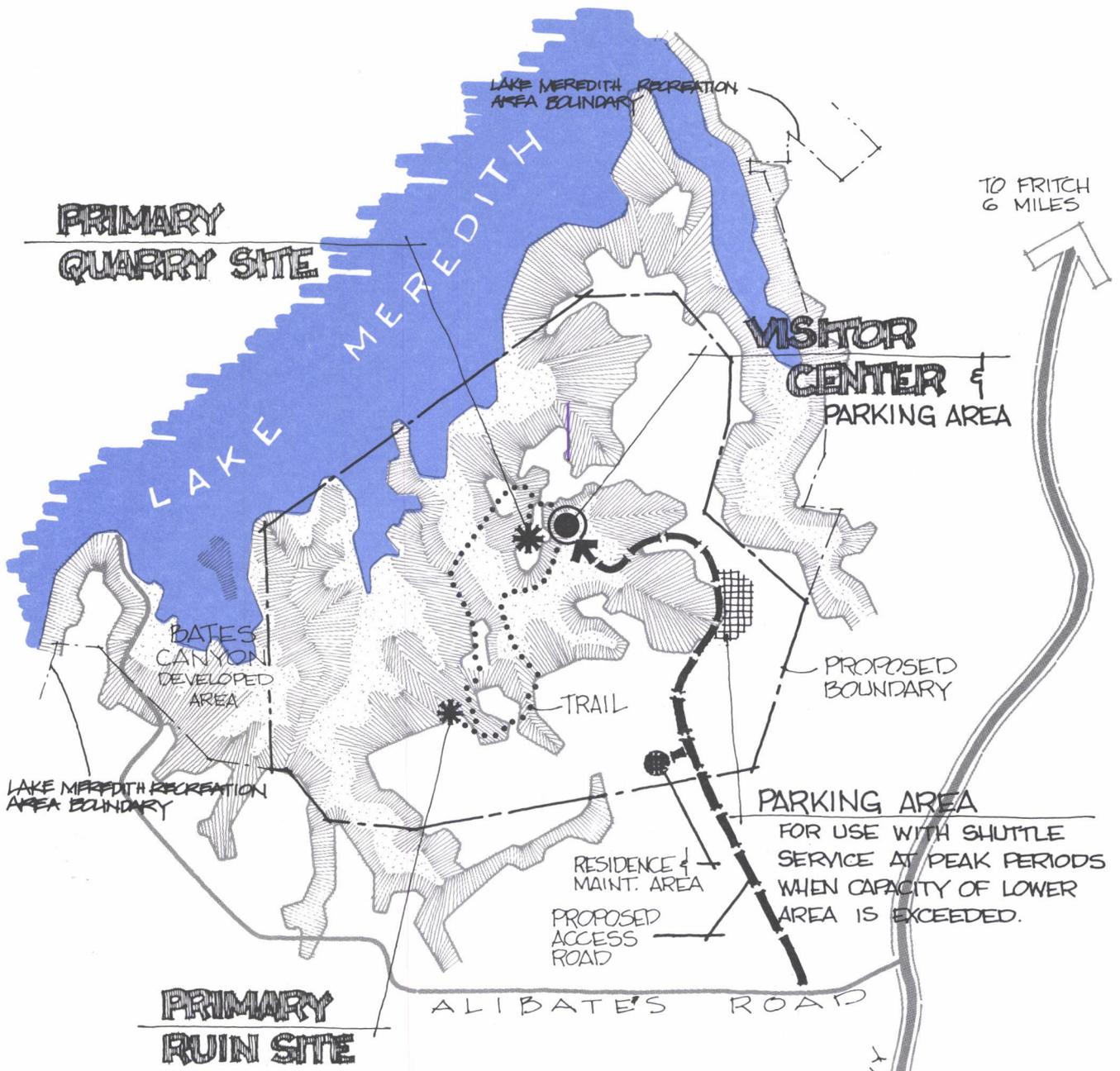
Once a clear picture of prehistory is painted in the visitor's mind, it will become a reality when he makes his short hike up the hill to the quarries. During this guided tour, live demonstrations of relevant activities — such as flint-chipping and use of prehistoric weapons — will become perhaps the outstanding highlight of his visit, and the visitor will be encouraged to actively participate. The walk itself will help him empathize with early man, by allowing him to *feel* the heat, cold, dust, or wind — sensations difficult to duplicate in an airconditioned building.

At the quarry site, at least one pit will be excavated to appear as it might have when it was being worked.

The secondary story of prehistoric man's occupation of the area will be completed by a 3½-mile round trip to Alibates ruin. Some amplification of the ruin's visual impact will be accomplished to provide a rewarding destination for the hiker. This might be done through foundation restoration, or even by *conjectural* reconstruction of one or more rooms. Those who choose to make this walk will be deeply interested in the monument, and will be delighted at the opportunity to extend their stay within it. Most visitors, however, will undoubtedly be satisfied with viewing a small-scale reproduction of the dwelling in the visitor center.

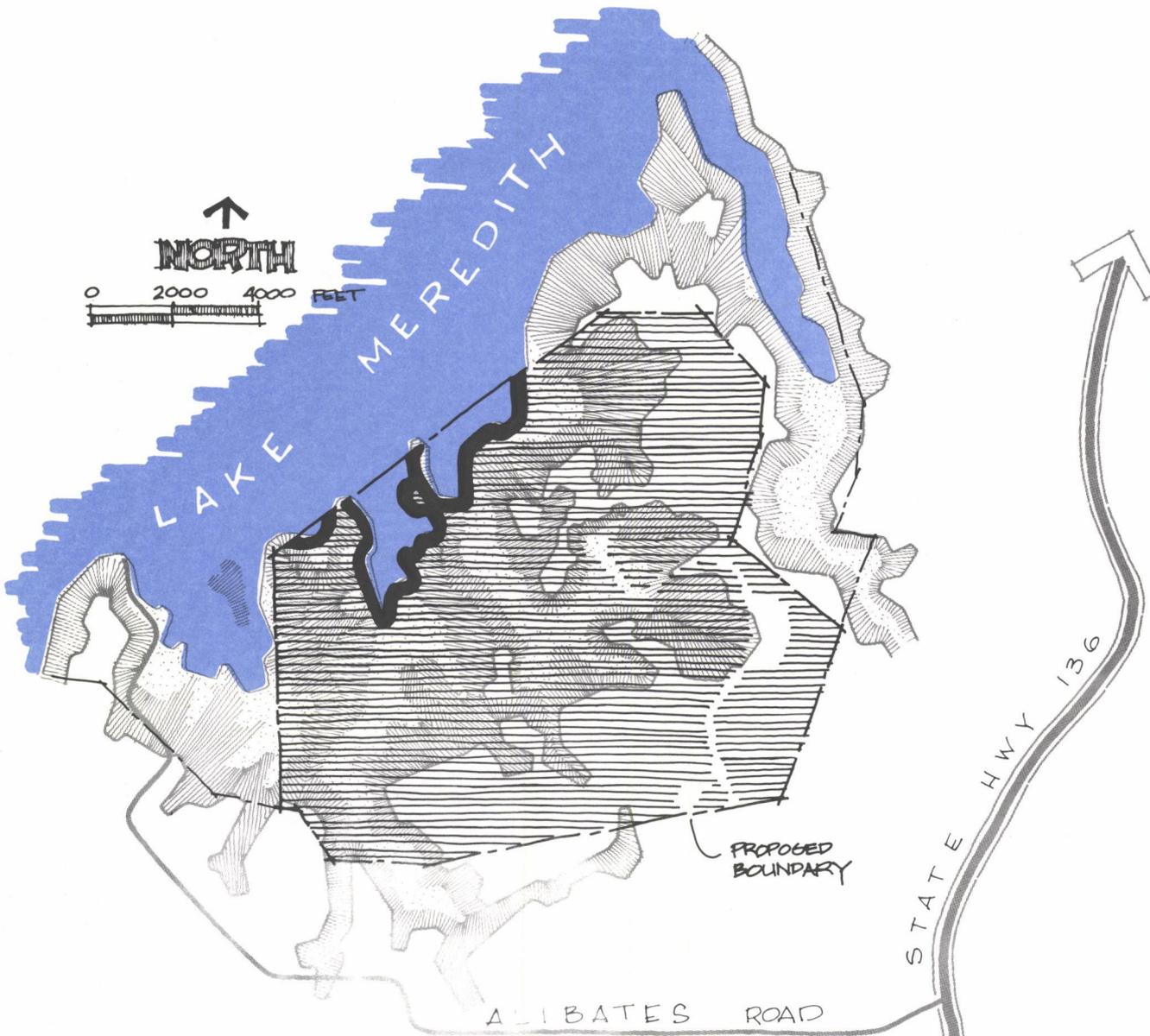
Since the visitor center will be visible from the vantage point of the quarry site, special care will be taken to ensure that its siting and design leave it as unobtrusive as possible. For this reason, as well as the limited space and anticipated soil problems, the visitor center and its parking area will be relatively small. Consideration might even be given to a totally underground structure.

When increased visitation demands it, a larger parking area will be developed on the caprock, out of sight. At peak visitation periods, only this area will be used, and shuttle vehicles will transport the visitor to the visitor center.

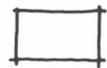


GENERAL DEVELOPMENT





LEGEND

- 
CLASS II GENERAL OUTDOOR RECREATION AREAS
 VISITOR CENTER, ROADS, PARKING AREAS, RESIDENCE &
 MAINTENANCE AREA.
- 
CLASS III NATURAL ENVIRONMENT AREAS
- 
CLASS VI HISTORICAL & CULTURAL AREAS
 PRIMARY QUARRY & RUIN SITES
 PETROGLYPH, DUGOUT & HOMESTEAD SITES.

LAND CLASSIFICATION

APPENDIXES

- A: PERTINENT LEGISLATION
- B: MANAGEMENT OBJECTIVES
- C: BIBLIOGRAPHY
- D: PLANNING TEAM

A: PERTINENT LEGISLATION



Public Law 89-154
89th Congress, H. R. 881
August 31, 1965

An Act

79 STAT. 587.

To authorize the establishment of the Alibates Flint Quarries and Texas Panhandle Pueblo Culture National Monument.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That the Secretary of the Interior may designate, acquire and administer as a national monument lands and interests in lands comprising the Alibates Flint Quarries and the Texas Panhandle Pueblo Culture sites, together with any structures and improvements thereon, located in and around Potter County, Texas.

Alibates Flint
Quarries and
Texas Panhandle
Pueblo Culture
National Monu-
ment, Tex.
Establishment.

SEC. 2. (a) The property acquired under the provisions of the first section of this Act shall be set aside as a national monument for the benefit and enjoyment of the people of the United States and shall be designated as the Alibates Flint Quarries and Texas Panhandle Pueblo Culture National Monument. The Secretary of the Interior shall administer, protect, and develop such monument, subject to the provisions of the Act entitled "An Act to establish a National Park Service, and for other purposes", approved August 25, 1916, as amended and supplemented, and the Act entitled "An Act to provide for the preservation of historic American sites, buildings, objects, and antiquities of national significance, and for other purposes", approved August 21, 1935, as amended.

39 Stat. 535.
16 USC 1 et
seq.

(b) In order to provide for the proper development and maintenance of such national monuments, the Secretary of the Interior is authorized to construct and maintain therein such markers, buildings, and other improvements, and such facilities for the care and accommodation of visitors, as he may deem necessary.

49 Stat. 666.
16 USC 461-
457.

SEC. 3. There is hereby authorized to be appropriated not to exceed \$5,000 for the acquisition of land and not to exceed \$260,000 for the development of the area.

Appropriation.

Approved August 31, 1965.

LEGISLATIVE HISTORY:

HOUSE REPORT No. 148 (Comm. on Interior & Insular Affairs).
SENATE REPORT No. 581 (Comm. on Interior & Insular Affairs).
CONGRESSIONAL RECORD, Vol. 111 (1965):

- Apr. 5: Considered and passed House.
- Aug. 16: Considered and passed Senate, amended.
- Aug. 17: House concurred in Senate amendment.

B: MANAGEMENT OBJECTIVES

The following statement by the superintendent of Alibates Flint Quarries and Texas Panhandle Pueblo Culture National Monument reflects park management's needs and goals relative to this master plan.

General Management Objectives

The monument will be open to the public all year as a day-use area only. Daily hours of operation will be set for different seasons to correspond with visitor-use patterns.

The monument will be under the administrative responsibility of Lake Meredith Recreation Area. Staffing of the monument will be only for interpretation and protection of the resources.

Protection of the monument's resources during closing hours will be provided by residency of one or more staff within or in the vicinity of the monument. Additional assistance will be provided by the staff of Lake Meredith Recreation Area.

Entrance fees or guide fees will be considered in accordance with policy current when visitor facilities are completed.

Special-use permits will be issued for access required by vested interests, including oil and gas leases and grazing rights. These interests and their physical evidence would be eliminated as soon as possible.

Private land adjoining present Federal lands will be acquired for interpretive and protective purposes, to consolidate the archeological resources, and to provide necessary space for facilities.

All management and development will be for the purpose of protecting the scientific and historical resources of the monument and to provide for the safety and enjoyment of the visitor.

The architectural theme for any buildings within the monument will be compatible with the landscape. The skyline of the monument should remain unaltered.

The maximum parking space that can be provided without encroachment on the resources shall be determined. Visitor access beyond this limit should be by public conveyance.

Visitor facilities should be designed to allow for the heavy impact that occurs when organized groups come to the park.

Management will promote legislation that will: remove ceilings imposed by Public Law 89-154 on funds for development and land acquisition; shorten name to "Alibates National Monument"; and provide for the establishment of the monument when sufficient acreage has been acquired within a designated boundary.

Resource Management Objectives

Research studies necessary for interpretation of the resources will be accomplished.

Intensive visitor contact will be a primary means of preserving the resource in areas of heavy visitor use. Physical barriers to entry will be required elsewhere.

Restoration of the land to as near as possible to its condition at the time ranching began will be done through a planned program.

Carrying capacities for visitor-use areas will be determined.

The number of locations and the space occupied by visitor facilities and access roads will be kept to a minimum so as not to encroach upon the resources.

Visitor-Use Objectives

To protect and interpret the resource, visitor use will be highly structured.

Visitor access will be limited to points of interest via trails from nearby parking lots.

Interpretation Objectives

Imaginative interpretive programs and demonstrations will be developed that will primarily interpret the flint quarries, and as a secondary theme, the Plains Village Indians.

Museum collections will be acquired for use in preparation of interpretive displays. Cooperation of local museums and universities will be sought for research data, as well as for artifacts collected from the monument in the past.

In the flint quarries, personal interpretation will be emphasized.

Interpretive programs and facilities will be planned to accommodate large groups such as clubs and schools.

C: BIBLIOGRAPHY

BAERREIS, D. A., AND REID A. BRYSON.

1965. Historical Climatology of the Southern Plains. *Oklahoma Anthropological Society Bulletin* 13: 69-75.

1966. Dating the Panhandle Aspect Cultures. *Oklahoma Anthropological Society Bulletin* 14: 105-116.

BAKER, E., AND J. BAKER.

1941. *Final Report Archeological Survey — O.P. 665-66-3-404, State Application 30976*. Unpublished manuscript. Albuquerque, New Mexico.

1941. *Final Report SPA West Texas State Archeological Project 9249*. Unpublished manuscript. Albuquerque, New Mexico.

BELL, R. E.

1962. Precolumbian Prairie Settlements in the Great Plains. *Great Plains Journal* 2: 1.

BELO CORPORATION.

1971. *Texas Almanac and State Industrial Guide*. A. H. Belo Corporation.

BRYAN, KIRK.

1950. *Flint Quarries — The Source of Tools And, At The Same Time, The Factories of the American Indians*. Papers of the Peabody Museum, Harvard University.

CAMPBELL, R. G.

1970. *Prehistoric Panhandle Culture of the Chaquaqua Plateau, S.E. Colorado*. Ph. D. Dissertation. Boulder: University of Colorado.

CUMMINGS, C. R.

1969. *Alibates Development Outline*. Unpublished report. Sanford, Texas.

DAVIS, W. A.

1962. *Appraisal of the Archeological Resources of Sanford Reservoir, Hutchinson, Moore, and Potter Counties, Texas*. Unpublished manuscript.

DUFFIELD, L. F.

1962. Archeology of the Sanford Reservoir in the Texas Panhandle. *Plains Anthropology* 7:16:79.

1964. Three Panhandle Aspect Sites at Sanford Reservoir, Hutchinson County, Texas. *Texas Archeological Society Bulletin* 35: 19-82.

EYERLY, T. L.

1907. Archaeological Work in the Texas Panhandle. *Canadian Academy Bulletin*.

GREEN, F. E.

1967. *Archeological Salvage in the Sanford Reservoir Area*. Unpublished manuscript (copy 2). Lubbock, Texas.

GREEN, F. E., AND J. H. KELLEY.

1960. Comments on Alibates Flint. *American Antiquity* 25:3 413-414.

HERTNER, H. E., ED.

1963. *Alibates Flint Quarries, A National Monument*. Potter County Historical Survey Committee and Panhandle Geological Society.

1964. *Alibates Flint Quarries, A National Monument* (supplement, vol. 2). Potter County Historical Survey Committee and Panhandle Geological Society.

HOBBS, HULDA R.

1941. Two Texas Panhandle Ruins. *El Palacio* 48: 121-129. Santa Fe, New Mexico.

HOLDEN, W. C.

1929. Some Recent Explorations and Excavations in Northwest Texas. *Texas Archeological and Paleontological Society Bulletin* 1: 23-35. Austin.

1930. The Canadian Valley Expedition of March 1930. *Texas Archeological and Paleontological Society Bulletin* 3: 43-52. Austin.

HOLDEN, W. C.

1931. Texas Tech Archaeological Expedition, Summer 1930. *Texas Archeological and Paleontological Society Bulletin* 3: 43-52. Austin.

1933. Excavation of Saddle-Back Ruin. *Texas Archeological and Paleontological Society Bulletin* 5: 39-52. Austin.

HUGHES, J. T.

1962. A Woodland Site in the Texas Panhandle. *Texas Archeological Society Bulletin* 32: 65-84. Dallas.

JOHNSON, C. STEWART.

1939. A Report on the Antelope Creek Ruin. *Texas Archeological and Paleontological Society Bulletin* 11: 190-202. Austin.

KRIEGER, ALEX D.

1946. *Culture Complexes and Chronology in Northern Texas*. University of Texas Publication No. 4640. Austin.

LOWERY, E. J.

1932. *The Archeology of the Antelope Creek Ruin*. Masters degree thesis. Lubbock: Texas Tech.

MASON, J. A.

1929. *The Texas Expedition*. University of Pennsylvania Museum Journal 22: 318-338. Philadelphia.

MOOREHEAD, W. K.

1921. Recent Explorations in Northwestern Texas. *American Anthropologist* 23: 1-11. Menasha.

1931. *Archeology of the Arkansas River Valley*. New Haven: Yale University Press.

1933. The Importance of Texas as an Archeological Field. *Texas Archeological and Paleontological Society Bulletin* 5: 9-13. Austin.

PANHANDLE GEOLOGICAL SOCIETY.

1963. *Field Trip, September 14, 1963, Alibates Flint Quarries, Alibates Indian Ruin, Santa Fe Trail, Sanford Dam*. Amarillo.

PANHANDLE REGIONAL PLANNING COMMISSION.

1971. *Sketch Plan: A Point From Which To Progress*. Potter and Randall Counties.

SCHAEFFER, J. H.

1958. The Alibates Flint Quarry, Texas. *American Antiquity* 23:2: 189-191.

SCHROEDER, A. H.

- . A Re-Analysis of the Routes of Coronado and Onate Into the Plains in 1541 and 1601. *Plains Anthropology* 7:15: 2-23.

STUDER, FLOYD V.

1931. Archeological Survey of the North Panhandle of Texas. *Texas Archeological and Paleontological Society Bulletin* 3: 70-75. Austin.

STUDER, FLOYD V.

1931. *Some Field Notes and Observations Concerning Texas Panhandle Ruins*. (See: Moorehead, W. K. 1931. *Archeology of the Arkansas River Valley*.) New Haven: Yale University Press.

1934. Texas Panhandle Culture Ruin No. 55. *Texas Archeological Society Bulletin* 6: 80-96. Abilene.

UNKNOWN.

1953. *Canadian River Project, Sanford Dam Site*. Vol. 1. Appendix D: Geology. February 24, 1953. Austin.

U.S. CONGRESS.

1965. Alibates Flint Quarries and Texas Panhandle Pueblo Culture National Monument Legislative History: House Report No. 148, Senate Report 581, Public Law 89-154, Congressional Record, vol. 111, 89th Congress.

U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE.

1953. *Project Report, Recreation Use and Development, Sanford Reservoir*. Santa Fe.

1963. *A Public Use Plan, Sanford Reservoir, Canadian Project, Texas*. Santa Fe, New Mexico.

- U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE.
1964. *Sanford Reservoir Recreation Planning Report*. Santa Fe, New Mexico.
- 1965. *Sanford Recreation Area, Texas*. Santa Fe, New Mexico.
- WEBB, WALTER PRESCOTT.
1931. *The Great Plains*. Austin: Ginn and Company.
- WEDEL, W. R.
1962. *Prehistoric Man on the Great Plains*. Norman, Oklahoma: University of Oklahoma Press.
- WENDORF, FRED.
1961. *Paleocology of the Llano Estacado*. Santa Fe: Museum of New Mexico Press.
- WEST TEXAS STATE UNIVERSITY, DEPARTMENT OF ECONOMICS.
1971. *Economic Analysis of the Texas Panhandle*. Canyon, Texas.
- WILLEY, G. R.
1966. *An Introduction to American Archaeology: Volume 1, North and Middle America*. Englewood Cliffs, New Jersey: Prentice-Hall.
- WORMINGTON, H. M.
1964. *Ancient Man in North America*. Denver: Museum of Natural History.

D: PLANNING TEAM

G. Douglass Nadeau	Team Captain/Landscape Architect Denver Service Center
James M. Thomson and staff	Superintendent Lake Meredith Recreation Area
Keith M. Anderson	Archeologist Southwest Archeological Center
Ross R. Hopkins	Park Planner Denver Service Center
H. Francis Ziegenfus	Sociologist Denver Service Center
David K. Morris	Ecologist Denver Service Center

Publication services were provided by the graphics and editorial staffs of the Denver Service Center. March 1973