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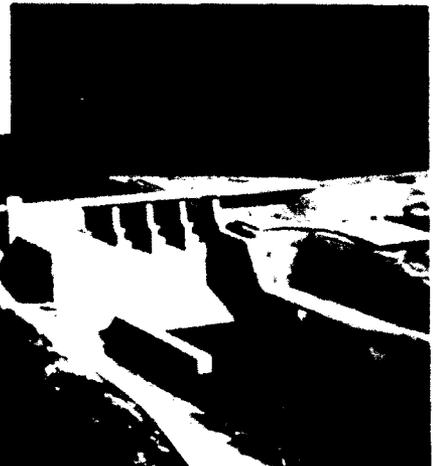
Archeological Survey and Testing at Pomme de Terre and Stockton Lakes, Cedar, Dade, Hickory, and Polk Counties, Missouri

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Contract No. DACW41-81-C-0160



Pomme de Terre Lake



Stockton Lake

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By:
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Ross C. Fields, Principal Investigator

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ARCHEOLOGICAL SURVEY AND TESTING AT POMME DE TERRE
AND STOCKTON LAKES, CEDAR, DADE, HICKORY,
AND POLK COUNTIES, MISSOURI

by

Jeffrey S. Girard

and

Martha Doty Freeman

Principal Investigator: Ross C. Fields

REPORTS OF INVESTIGATIONS, NUMBER 33

Prewitt and Associates, Inc.
Consulting Archeologists
Austin, Texas

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CONTRACT DATA

The study performed herein by the Contractor for the Corps of Engineers is authorized in the National Historic Preservation Act of 1966, as amended. Accomplishment of this work provides documentation evidencing compliance with Executive Order 11593 "Protection and Enhancement of the Cultural Environment" dated 13 May 1971, and Section 110 of the National Historic Preservation Act.

Funds for this investigation and report were provided by the U.S. Army Corps of Engineers. The Corps may not necessarily agree with the contents of this report in its entirety. The report reflects the professional views of the Contractor who is responsible for collection of the data, analysis, conclusions and recommendations.

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ABSTRACT

Survey of approximately 3400 acres of land at Pomme de Terre Lake and 3500 acres at Stockton Lake was carried out during 1982 and 1983 in order to identify and assess in terms of National Register of Historic Places eligibility criteria all cultural resources located within portions of Public Use and Fish and Wildlife Management lands under the jurisdiction of the U.S. Army Corps of Engineers, Kansas City District. The survey resulted in the identification of 153 archeological sites. Test excavations were carried out at 17 sites which could not be assessed based on survey information alone.

Of the identified sites, 30 are recommended as eligible for nomination to the National Register of Historic Places. Five sites are significant under Criteria A and/or B because they relate to events and persons important in early historic settlement of the western Ozarks. The remaining 25 sites are significant under Criterion D because they contain important information for understanding human adaptive systems in the project areas.

FOREWORD

The results of an intensive survey of 3400 acres at Pomme de Terre Lake and 3500 acres at Stockton Lake in southwestern Missouri, and limited testing at 17 sites at these lakes, are presented in this report by Jeffrey S. Girard and Martha Doty Freeman. Designed to serve as a cultural resources management document for the two project areas, this report includes detailed descriptive information on 153 prehistoric and historic sites investigated during the project and provides recommendations for all sites as to National Register of Historic Places eligibility. National Register assessments are based largely on the ability of each site to contribute data toward regionally important research topics which have been derived from a thorough review of the archeological and historical literature for the project areas.

Pomme de Terre and Stockton lakes have been the scene of considerable archeological research over the last three decades. The investigations reported here add much to the existing data base because (1) this survey and testing project has dealt mostly with little-studied upland areas, and (2) this project represents one of the first efforts to deal with the historic resources of Pomme de Terre and Stockton lakes. The authors have prepared a comprehensive report which Prewitt and Associates, Inc. is pleased to include in its Reports of Investigations series.

Ross C. Fields
Principal Investigator

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We also appreciate the assistance and cooperation of the staffs at the Missouri State Historical Society in Columbia and the office of the Missouri Secretary of State, Archives Division, in Jefferson City. We especially thank the many residents of southwestern Missouri who granted interviews to discuss the history of the region: Mrs. A. H. Berg, Roy H. Button, Donald Clemons, Jean Clymore, Clifford H. Gordon, Clyde and Willa Hailey, Mrs. Enon Keith, John Kenney, Johnny Mashburn, Herb Nipps, George Preston, Ralph Pyle, Livie Richardson, Mrs. Frank Robinson, Edwin Toler, Joe Wheeler, Marion Wilson, and Lelola Wright.

Because the project has occurred sporadically over a two-and-one-half-year period, numerous individuals have been involved in a variety of positions. Serving as Project Director throughout both seasons has been Elton R. Prewitt. The position of Principal Investigator was filled by Peter W. Nichols during the first season and Ross C. Fields during the second. Serving as Project Archeologist during 1982 was James Atkinson, followed by Susan L. Andrews. Jeffrey S. Girard assumed the duties of Project Archeologist during 1983. The Project Historian for both seasons was Martha Doty Freeman. Serving on the field crews were Elizabeth Day, Ron Holan, Ray Kenmotsu, John Phillips, Paul Trawick, Susan Andrews, Andy Cloud, and A. J. Taylor. Laboratory processing was carried out by Becky Bowyer, John Nance, William Reeves, Daniel J. Prikryl, Margaret Howard, and Patricia Mercado-Allinger. Consultation concerning the geology and soils of the project areas was provided in 1982 by David Castillon.

Finally, we thank the staff of Prewitt and Associates, Inc. who aided in the production of this report: Elton R. Prewitt and Ross C. Fields for editing; Linda Nance Foster for typing and editing; Sandra Hannum Price for drafting; E. Ellen Atha for drafting and artifact illustrations; Cris Emmons for typing; and Kerza A. Prewitt for typing.

CHAPTER 1

SCOPE AND BACKGROUND

Introduction

Survey and testing of archeological sites located within Public Use and Fish and Wildlife Management areas under the jurisdiction of the U.S. Army Corps of Engineers were carried out at Pomme de Terre and Stockton lakes during April, May, and June of 1982 and March and April of 1983. The lakes are located in Cedar, Dade, Hickory, and Polk counties of southwestern Missouri (Figs. 1 and 2). The work was conducted by personnel from Prewitt and Associates, Inc. of Austin, Texas, under contract with the U.S. Army Corps of Engineers, Kansas City District.

The project was initiated by the Corps of Engineers in compliance with the National Historic Preservation Act of 1966, as amended (P.L. 89-665). Authorization for funding is provided by Public Law 86-523, as amended by Public Law 93-291. The accomplished work will provide documentation as evidence of compliance with Section 2(a) of Executive Order 11593, "Protection and Enhancement of the Cultural Environment," dated 13 May 1971.

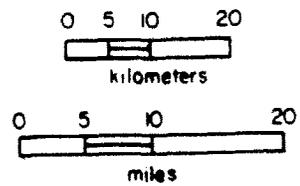
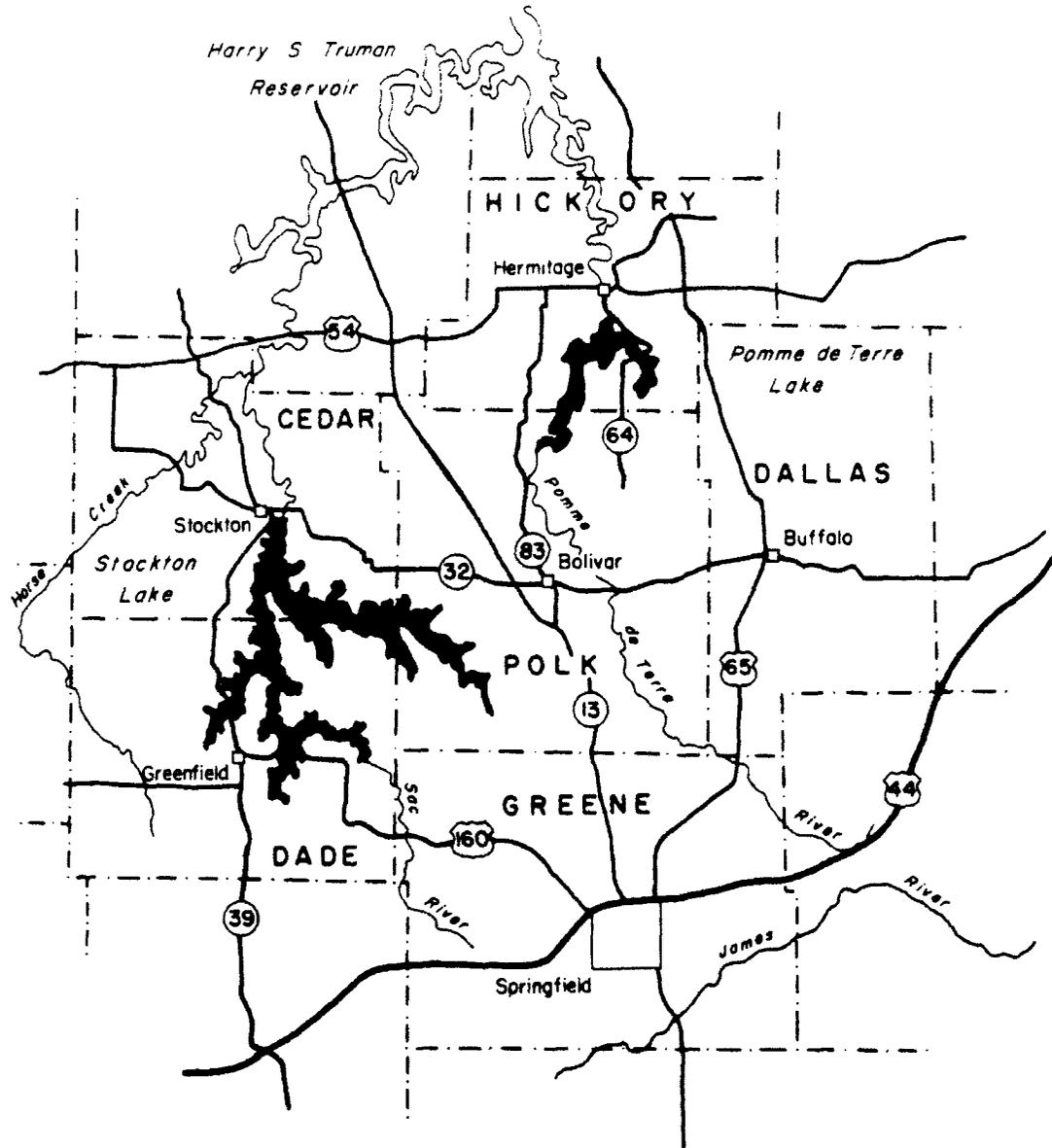
This project is part of a continuing survey of cultural resources on Public Use and Fish and Wildlife Management areas at Pomme de Terre and Stockton lakes, implemented in order to evaluate the conditions of archeological sites within the lake project areas. Preliminary cultural resource management plans have been written for both project areas (McNerney 1978; Espey, Huston and Associates, Inc. 1980), and both plans recommend intensive survey of shoreline and Public Use areas. In 1979 the shoreline of all Public Use areas at Pomme de Terre Lake was surveyed between the 838-ft and 851-ft msl elevations (McNerney 1980), and 18% of three Public Use areas (Masters, High Point, and Cedar Ridge) was surveyed at Stockton Lake (Espey, Huston and Associates, Inc. 1980). The project with which this report is concerned involved an intensive survey of approximately 3400 acres of Public Use and Fish and Wildlife areas at Pomme de Terre Lake and 3500 acres of Public Use areas at Stockton Lake. The purpose of the survey was to locate and record all cultural resources within the sampled areas and to conduct sufficient investigations to evaluate these resources in terms of published criteria of eligibility for the National Register of Historic Places (NRHP).

Preliminary work began in the late summer of 1981 with a records and literature search and preparation of a planning document. The first phase of fieldwork (survey), originally scheduled for the fall of 1981, was delayed until funds were available in the spring of 1982. An additional delay due to further funding problems postponed the second phase of fieldwork (completion of survey and testing) until the spring of 1983. During the interim, existing site information was compiled and a preliminary project report was produced (Andrews et al. 1982). Final analyses, site assessments, and report preparation were carried out between May and September of 1983.

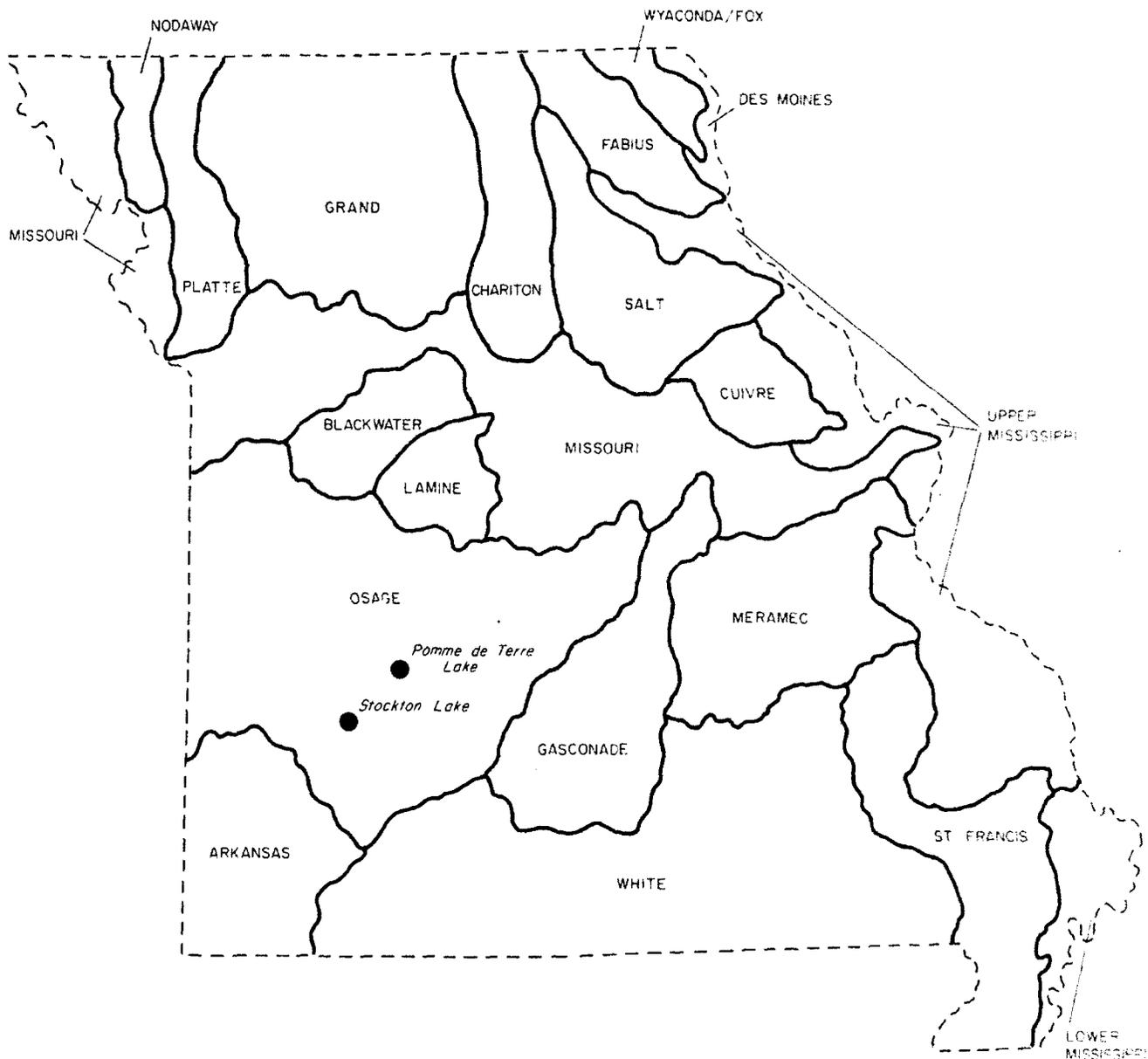
The purpose of this report is to summarize previously accumulated data concerning the environmental setting and cultural development of the project areas (Chapter 1); to state the theoretical framework and investigative techniques through which the cultural resources have been identified and evaluated (Chapter 2); to describe the cultural resources located

Figure 1

POMME DE TERRE & STOCKTON LAKES CEDAR, DADE, HICKORY & POLK COUNTIES, MISSOURI LOCATIONS OF PROJECT AREAS

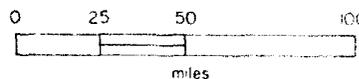
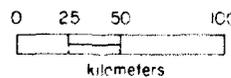


POMME DE TERRE & STOCKTON LAKES MISSOURI STATE HISTORIC PRESERVATION PROGRAM WATERSHED MAP



LEGEND

- Drainage Basin
- - - State Boundary



during the survey and to provide evaluations of these resources in terms of NRHP criteria (Chapter 3); to present a detailed discussion of the cultural and scientific importance of the identified resources (Chapter 4); and to provide recommendations concerning the management of these resources (Chapter 5).

Environmental Setting

Physiography and Geology

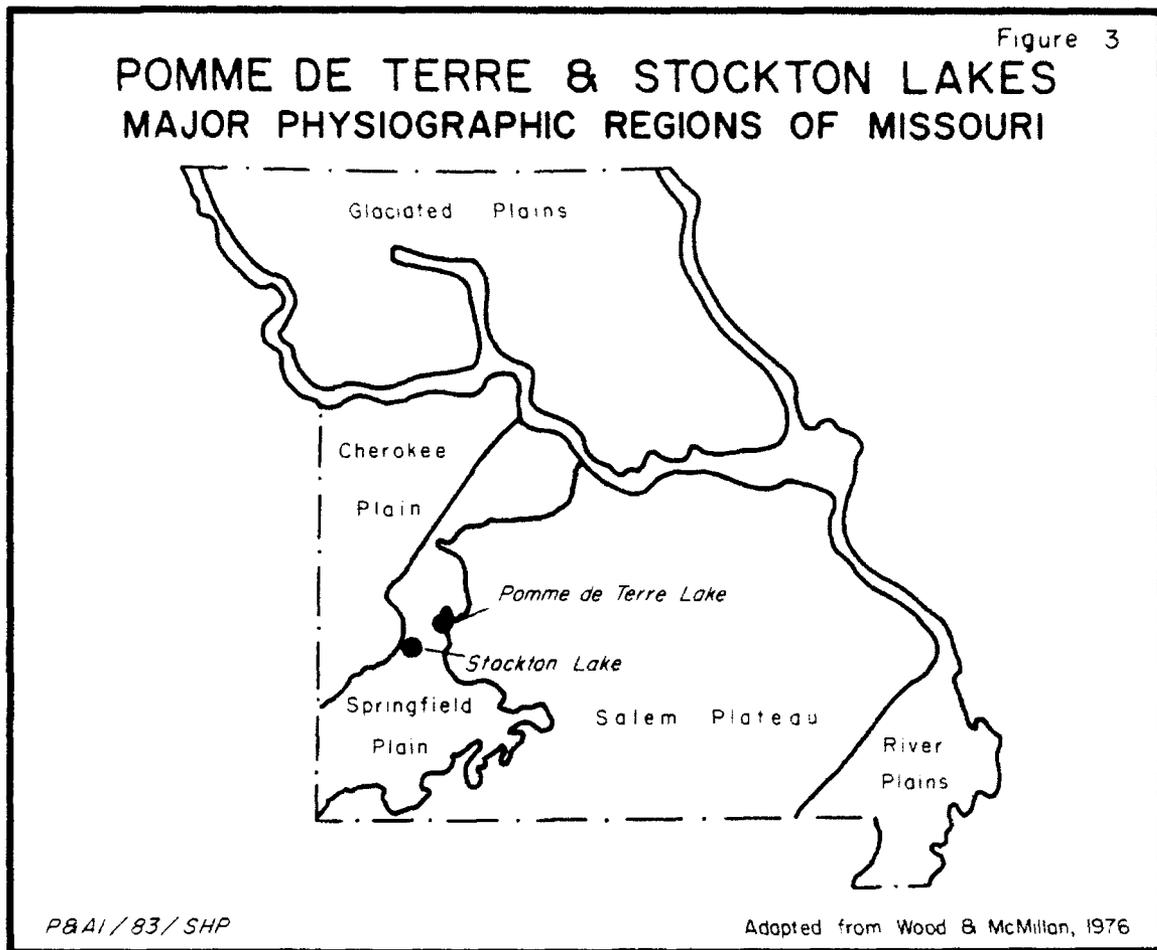
Pomme de Terre Lake is formed behind a 7240-ft-long earthen dam located just below the confluence of the Pomme de Terre River and Lindley Creek. Other major streams feeding into the lake include Ingalls Creek, Stinking Creek, and Decker Branch. The drainage area controlled by the reservoir is 611 square miles (U.S. Army Corps of Engineers 1980:A).

The 10,500-ft-long dam at Stockton Lake is located on the Sac River just below its confluence with the Little Sac River. The controlled drainage area encompasses 1160 square miles (U.S. Army Corps of Engineers 1981:a). Major tributaries of the lake include Hawker Branch, Sons Creek, Turnback Creek, Birch Branch, Mutton Creek, Maze Creek, Turkey Creek, and Price Branch. In addition to the tributary creeks, both the Pomme de Terre and Sac river systems are fed by springs. Within the project area, most springs are small in size and discharge capacity, but larger springs are present to the south near the headwaters of the rivers (Vineyard and Feder 1974:192-193).

Pomme de Terre and Stockton lakes lie along the western boundary of the uplifted and dissected region known as the Ozark Highlands. East of Pomme de Terre Lake is the Salem or Central Plateau (Sauer 1920:70; Fenneman 1938:647; Bretz 1965:30), a moderately dissected region of deeply incised stream basins and numerous small plateaus (McMillan 1976a:14). Stockton Lake lies to the west on the Springfield Plain (Fig. 3), a region of gently rolling broad uplands and dissected plateaus which exhibits considerably less relief than the Salem Plateau. To the west, the Springfield Plain grades into the Cherokee or Osage plains which extend into Kansas and Oklahoma.

Exposed bedrock in the region consists primarily of deposits laid down during the Paleozoic Era. In Precambrian times, igneous rock intruded and uplifted the Ozark region. During the Ordovician Period, seas advanced over most of Missouri resulting in deposition of a thick bed of dolomite and sandstone including the Jefferson City Formation and Cotter Dolomite (Table 1), which outcrop extensively in the vicinity of Pomme de Terre Lake.

A long period of erosion followed the retreat of the Ordovician seas, and throughout the ensuing Silurian and Devonian periods, little deposition occurred in southwestern Missouri. During the Mississippian Period, seas advanced from the south and southwest and covered all of the state except for the Ozark uplift region east of the project areas. Limestones of the Compton Formation (includes the Sedalia Formation) were deposited, followed by shales and siltstones of the Northview Formation. Cycles of sea advance and retreat resulted in deposition of limestone and dolomite of the Pierson, Elsey-Reeds Spring, Burlington-Keokuk, and Warsaw formations (Table 1) (Branson 1944). The Burlington-Keokuk limestones are extremely thick deposits which include much chert and which outcrop extensively in the Stockton Lake area. Most of the Mississippian deposits in the eastern portion of the project area were removed by subsequent erosion.



Pennsylvanian seas were the last to cover southwestern Missouri. Erosion of sediments from the higher lying areas to the east resulted in deposition and formation of sandstones and conglomerates (Branson 1944).

Erosion occurred across the state during the Mesozoic Era as the widespread Cretaceous seas, which laid thick deposits in adjacent areas, appear not to have reached Missouri (Branson 1944). Erosion continued into the Cenozoic Era. The topography of the project areas was not affected by the glacial advances of the late Cenozoic as these did not extend far beyond the present course of the Missouri River.

Climate

Major contemporary climatic data applicable to the project areas are provided by McMillan (1976a:Table 2.1) and are reproduced in Table 2. The highest temperature recorded in the Pomme de Terre and Stockton lakes areas is 115° F (46° C), and the lowest is -32° F (-35.5° C). The maximum annual rainfall recorded at Bolivar, Missouri, is 63.6 inches

TABLE 1

DESCRIPTIONS OF GEOLOGIC FORMATIONS WHICH OUTCROP IN THE PROJECT AREAS
 (Adapted from Thomson [1982] and Castillon [1982])

RECENT ALLUVIUM -- Unconsolidated silt, sand, and gravel deposited in the bottoms of valleys. The gravel is composed of chert and gravel-size fragments of exposed formations. Sand and silt form the matrix.

PENNSYLVANIAN PENNSYLVANIAN SANDSTONE AND CONGLOMERATE -- Red to brown, fine to coarse-grained sandstone and cobble conglomerates with sandstone matrix. Some red to black shales also occur in the unit. The formation is poorly cemented, and gravels and sand often are the only evidence for the occurrence of the formation. The unit is extremely variable in thickness.

MISSISSIPPIAN WARSAW FORMATION -- Light gray, coarse to medium crystalline, fossiliferous limestone with some nodules of light gray chert. The unit is from 150 to 180 ft thick.

BURLINGTON-KEOKUK LIMESTONE -- White to gray, coarsely crystalline and crinoidal limestone containing some nodular or bedded chert. These cherts contain internal molds of fossils. An oolite layer (Short Creek Oolite) is found at the top of the unit. Some of the lower beds are brown colored and dolomitic. The unit is up to 160 ft thick.

ELSEY-REEDS SPRING FORMATION -- Gray micritic limestone with 25 to 50% chert. The chert is primarily nodules and long lenses and is mottled white, cream, and gray. The unit is prominent in the southern part of the area but loses its identity to the north possibly becoming part of the lower Burlington-Keokuk Limestone. The unit is 80 to 120 ft thick.

PIERSON FORMATION -- Brown to brownish gray magnesian limestone and dolomite with occasional chert- and calcite-filled nodules and joints. The unit is from 10 to 20 ft thick in the north and up to 40 or 50 ft thick in the south.

NORTHVIEW FORMATION -- Olive green to gray-blue shales with light brown siltstone. The siltstone occasionally contains worm burrows. To the north the formation has increasing amounts of bluish gray to brown, massive bedded limestone and dolomite at the bottom and interfingers with the Sedalia Formation. The Northview is up to 80 ft thick.

Table 1, continued

MISSISSIPPIAN, COMPTON FORMATION -- Gray, thin-bedded, fossiliferous limestone and continued light brown, massive dolomite. The unit has poor exposures and is difficult to find in the field. It is from 10 to 20 ft thick. The Sedalia Formation is undifferentiated from the Compton.

ORDOVICIAN COTTER DOLOMITE -- Silty gray to brown, cherty dolomite with lenses and locally persistent sandstone beds. The cherts are oolitic and dense white, gray, or black. Some sandstone beds are from 25 to 30 ft thick. Swan Creek Sandstone is the name given to a prominent red-colored member of the Cotter. The Cotter Dolomite is 100 to 150 ft thick.

JEFFERSON CITY FORMATION -- Cherty, gray to brown silty dolomite with some sandstone beds. The cherts are oolitic and clean white to gray.

TABLE 2

CLIMATIC DATA FOR THE PROJECT AREAS

TEMPERATURE

Mean maximum temperature - January	6.5° to 7.5° C (43.7° to 45.5° F)
Mean minimum temperature - January	-5.5° to -4.4° C (22.1° to 24° F)
Mean maximum temperature - July	32° C (89.6° F)
Mean minimum temperature - July	20° C (68° F)

PRECIPITATION

Mean spring precipitation	30.48 cm (12 inches)
Mean summer precipitation	30.48 cm (12 inches)
Mean autumn precipitation	25.4 cm (10 inches)
Mean winter precipitation	15.24 cm (6 inches)
Mean annual precipitation	101.6 cm (40 inches)

GROWING SEASON

Average date for last killing frost	April 5
Average date for first killing frost	October 30

(161.5 cm) in 1967, and the minimum is 26.8 inches (68.0 cm) in 1953 (U.S. Army Corps of Engineers 1980:6).

Winter rainfall and snowfall in the area are relatively low. The average annual snowfall is 17 inches (43.2 cm) during November through March. More than 100 days usually have freezing temperatures, but periods of milder temperatures occur almost every winter (U.S. Army Corps of Engineers 1981:5).

Spring rains are light but long lasting (resulting in high effective moisture), whereas summer rains occur primarily as heavy, infrequent thundershowers of short duration (resulting in low effective moisture and erosion) (McMillan 1976a:20). Summer temperatures of 90° F (32.2° C) or more occur on an average of 40 to 50 days (U.S. Army Corps of Engineers 1981:5).

Environmental Zones

As a framework for understanding spatial variability in natural resources of potential cultural significance, it is useful to subdivide the project areas into broad environmental zones based on variations in topographic settings and potential biotic and mineral resources. The seven zones described below are presented by King (1982:Fig. 2.6) as vegetation zones, although each also differs slightly in topography and availability of potential mineral resources. Because paleoenvironmental studies have not been conducted within the project areas, discussions of the vegetation are based on analogy with reconstructions of pre-European conditions presented by McMillan (1976a) and King (1982) for areas surrounding the lower Pomme de Terre River (Harry S. Truman Reservoir).

The project areas lie in an ecotonal setting where grassland and forest areas are intermixed. The grasslands are part of the Prairie Peninsula region defined by Transeau (1935), which King (1982:9) describes as:

. . . a wedge-shaped region extending from the Rocky Mountains to Indiana, where the growth of grasses and other short season, deeply rooted or drought tolerant herbaceous species is favored over that of woody species by a lower annual and seasonal precipitation/evaporation ratio, lower midsummer relative humidity, more irregular precipitation in terms of annual amounts, seasonal variability and spatial distribution.

The prairie dominates the Springfield Plain and, north of the study area, extends to the east. The Salem Plateau is primarily a deciduous oak-hickory climax forest with a post oak-blackjack oak association common along the western border. However, grassland areas are present as outliers throughout the Ozarks, and forest species, particularly bottomland species along the stream valleys, extend into the prairies (McMillan 1976a:21). Factors such as topography (slope), water-holding capacity, and subsurface permeability determine the type of vegetation present in localized areas. Prairies are favored on level surfaces with fine-grained, well-developed soils where roots can penetrate. Trees are favored on coarse, rockier soils of slopes because tree roots are able to grow around rocks and into cracks in bedrock. In extremely fine-textured soils where runoff is high, grasses are favored as they require shorter periods of moisture availability. Trees, on the other

hand, prefer coarser sediments and bottomlands, either where rain penetrates easily or moisture is continually present (King 1982:11-12).

Other factors, particularly fire and climate, have caused changes through time in the location of the prairie-forest border. Detailed models of past vegetational conditions have been produced by McMillan (1976a:23-35) and King (1982). These models are discussed in a later section of this report in terms of their implications concerning changes in human adaptations to the study areas.

McMillan (1976a:35-41) presents an extensive description of the faunal species present today and during initial Anglo-American settlement of the Pomme de Terre River area. Exploitation of fauna in prehistoric times is discussed for Rodgers Shelter by Parmalee et al. (1976:144-160) and Purdue (1982:199-259) and for the Sac River downstream from Stockton Lake by Roper et al. (1977:79, 112-123) and Perttula and Purrington (1981:33-37). Implications of the results of these studies for prehistoric adaptations are discussed in a later section of this report.

UPLAND OAK-HICKORY FOREST

McMillan's (1976a:Fig. 2.7) reconstruction of vegetational communities of the lower Pomme de Terre area suggests that most of the dissected uplands surrounding Pomme de Terre Lake were covered by oak-hickory forest prior to Anglo-American settlement. Presently, mesic forest species such as white oak (Quercus alba) and red oak (Q. rubra) are dominant east of the project areas on gentle upland slopes (see King 1982:Fig. 2.2). With increasingly drier, rockier conditions, species such as post oak (Q. stellata), black oak (Q. velutina), and blackjack oak (Q. marilandica) become more common. General Land Office survey data indicate that tree density in the upland forest is greater today than in the past (King 1982:17), and large areas are best described as open woodlands or barrens (see below).

King (1982:Table 2.9) presents a list of plants of probable aboriginal primary economic importance in the lower Pomme de Terre area. Those species found in the oak-hickory forest include shadbush (Amelanchier arborea); hickory (Carya spp.); hazelnut (Corylus americana); strawberry (Fragaria); black walnut (Juglans nigra); wild crabapple (Malus pyrus ioensis); ground cherry (Physalis spp.); plum (Prunus spp.); oak (Quercus spp.); raspberries, blackberries, dewberries (Rubus spp.); and grapes (Vitis spp.). Nut trees are most common in the uplands near streams of low rank and decrease gradually toward higher ranking streams and greater moisture. Late summer and fall would be the season of greatest potential plant food availability (Fig. 4) (King 1982:42).

Mammalian faunal species of the oak-hickory forest listed by McMillan (1976a:Table 2.7) include opossum (Didelphis marsupialis), short-tailed shrew (Blarina brevicauda), a variety of bats (Myotis, Lasiorycteris, Eptesicus, Lasiurus, Nycticeius), woodchuck (Marmota monax), eastern chipmunk (Tamias striatus), eastern gray squirrel (Sciurus carolinensis), eastern fox squirrel (S. niger), white-tailed deer (Odocoileus virginianus), woodland white-footed mouse (Peromyscus leucopus), eastern woodrat (Neotoma floridana), pine mouse (Microtus pinetorum), coyote (Canis latrans), red fox (Vulpes fulva), gray fox (Urocyon cinereocargenteus), raccoon (Procyon lotor), long-tailed weasel (Mustela frenata), striped skunk (Mephitis mephitis), and bobcat (Lynx rufus). Species formerly present and now extirpated are gray wolf (Canis lupus), mountain lion (Felis concolor), elk (Cervus canadensis), and black bear (Ursus americanus).

Upland forest soils of the Springfield Plain are included in the Viraton-Wilderness and Peridge-Wilderness-Goss-Pembroke associations (Allgood and Persinger 1979:31-32). On the Salem Plateau are soils of the Lebanon-Nixa-Clarksville and Hobson-Clarksville associations (Scrivner et al. 1966:25). Generally, these soils are shallow, well-drained alfisols formed in cherty dolomite, limestone, and sandstone.

Bedrock outcrops are extensive in the upland areas. They provided a readily accessible source of chert for chipped stone tool manufacture. The Ordovician Jefferson City dolomite is the major potential chert source in the Pomme de Terre Lake area. McMillan (1976a:16) provides the following description:

Most of it is dark or light gray and blue-gray, and is mottled or banded with white. Few fossils occur in these cherts although much of it is oolitic. Although chert occurs abundantly on the surfaces of the hills and slopes and in the stream beds, most of it is frost fractured and weathered. With little difficulty, however, one can find large rounded to oblong nodules or small boulders buried in the hillside residuum just below the frost line; this source is far more satisfactory for the manufacture of chipped stone tools. Because of the widespread occurrence of Jefferson City cherts and their proximity to the surface, no aboriginal quarrying operations are known in connection with this formation.

The Mississippian Burlington Formation which outcrops extensively in the Stockton Lake area also is a primary chert source. This chert is generally white to light buff and gray and contains abundant crinoid fossils (Ray 1982:69). The Chouteau Formation is exposed north of the project areas. Chouteau chert is described by Ray (1982:69) as:

. . . characterized by its light and dark mottled gray core and a prominent white outer cortex. Chouteau chert often exhibits a blocky structure with many incipient fracture planes along which extensive weathering has occurred; thus, it is usually brittle and breaks very easily along these weathered fracture planes.

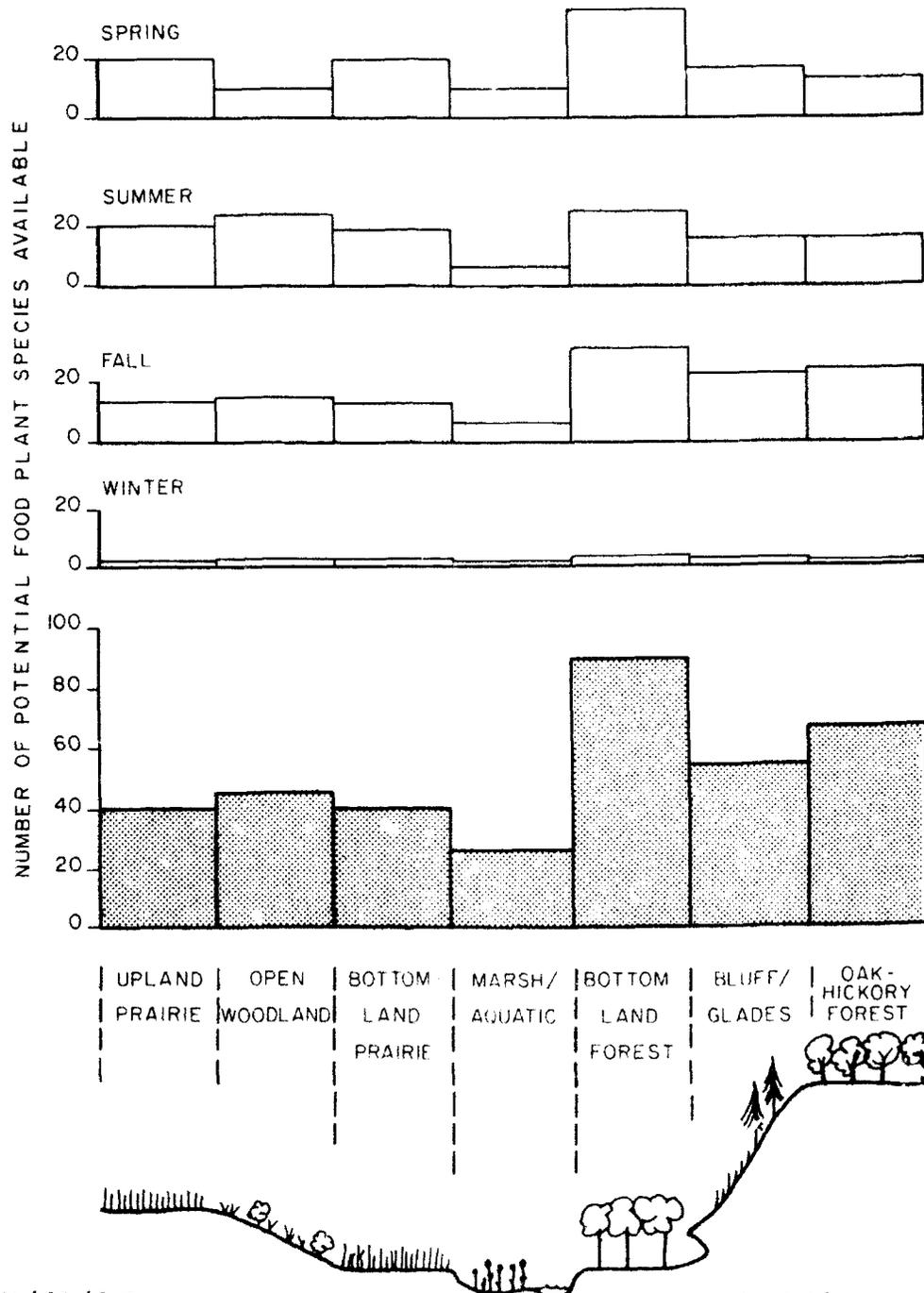
Other potential mineral resources of the upland areas include sandstone, cottonrock (soft, fine-grained argillaceous siliceous dolomite), hematite, and galena (McMillan 1976a:17).

UPLAND PRAIRIES

The vegetation reconstructions of McMillan (1976a) and King (1982) are based on data recorded by General Land Office surveyors in the 1830s. These surveyors did not record the vegetation of the tall-grass prairies, but a few preserved stands of prairie vegetation provide useful information. King (1982:35) states that the dominant plant species of the upland prairies are little bluestem (Andropogon scoparius), sideoats grama (Bouteloua curtipendula), and junegrass (Koeleria cristata). Plants of probable aboriginal economic importance are not plentiful. The few that might have been obtained in this zone are wild strawberry, sunflower (Helianthus annuus), and ground cherry. King (1982:43) notes that upland prairie plant food species would be of greatest relative importance in the spring and summer (see Fig. 4).

Figure 4

POMME DE TERRE & STOCKTON LAKES ENVIRONMENTAL ZONES & POTENTIAL FOOD PLANT RESOURCES IN THE TRUMAN RESERVOIR AREA



P&AI / 83 / SHP

Adapted from King, 1962

Modern mammalian fauna listed by McMillan (1976a:36-37) as present in the upland prairies include the least shrew (Cryptotis parva), eastern mole (Scalopus aquaticus), black-tailed jackrabbit (Lepus californicus), plains pocket gopher (Geomys bursarius), western harvest mouse (Reithrodontomys megalotis), fulvous harvest mouse (R. fulvescens), prairie white-footed mouse (Peromyscus maniculatus), prairie vole (Microtus ochrogaster), coyote, long-tailed weasel, and the spotted skunk (Spilogale putorius). Present in historic times, but now extirpated, are bison (Bison bison) and badger (Taxidea taxus).

Because prairies usually occur in generally level topographic situations with well-developed, finely textured soils (King 1982:11), extensive bedrock outcrops or gravels normally are not present and thus mineral resources (e.g., chert, sandstone, hematite) are scarce. Dark-colored prairie soils in the Pomme de Terre area are those of the Gerald-Craig-Eldon and Baxter-Newtonia associations (Scrivner et al. 1966:25). In the Stockton Lake area are soils in the Bolivar-Hector, Liberal-Barco-Collinsville, and Parsons-Credlon associations. These soils generally are mollisols which have formed either in cherty limestone or Pennsylvanian sandstone and shale.

Faunal studies by Purdue (1982) of materials recovered from Rodgers Shelter indicate that a mosaic of prairie-forest upland areas was extant throughout the Holocene but that upland prairies were more extensive during the more xeric conditions of the hypsithermal. Prairie conditions probably were quite extensive in the vicinity of Stockton Lake, particularly west of the Sac River where large upland areas of little relief are present. Northwest of Pomme de Terre Lake is an upland prairie outlier known as the Wheatland Prairie. Other relatively undisturbed upland areas are present southwest of the lake area near Flemington and east of Lindley Creek in the Urbana area.

OPEN WOODLANDS

The early surveyors of the lower Pomme de Terre River area described extensive upland grasslands containing numerous scattered trees and bushes as "barrens." McMillan (1976a:29) identifies the woody vegetation as a post oak-black oak association. Grasses of this zone were not recorded but probably include those present in the upland prairie zone. King's (1982:Table 2.9) list of potential food plants includes milkweed (Asclepias spp.), hazelnut (Corylus americana), persimmon (Diospyros virginiana), strawberry, and gooseberry (Ribes spp.). This zone would be of greatest relative importance for obtaining plant foods in the summer, fall, and winter (see Fig. 4) (King 1982:42).

Almost all of the mammalian fauna listed by McMillan (1976a:Table 2.7) as occurring in the oak-hickory forest also occur in the open woodlands. In addition are several prairie species such as the least shrew, eastern mole, eastern cottontail (Sylvilagus floridanus), plains pocket gopher, prairie vole, spotted skunk, and (formerly) badger.

McMillan's (1976a:Fig. 2.7) reconstruction of 1830s vegetation shows extensive open woodlands north and west of Pomme de Terre Lake. Generally, the open woodlands cannot be identified today because of changes due to clearing and control of forest fires (King 1982:32).

BLUFFS AND STEEP SLOPES

Presently, cedarglades occur frequently on steep slopes and bluffs with thin soils and limestone or dolomite outcrops. Cedarglades probably were rare in prior to Anglo-American settlement because red cedar (Juniperus virginiana) is extremely susceptible to fire damage. Other frequently occurring species on steep slopes are sugar maple (Acer saccharum), chinkapin oak (Quercus prinoides var. acuminata), ash (Fraxinus spp.), and black walnut. Lower, gentler slopes exhibit greater diversity with many bottomland forest species available (King 1982:30). Primary potential plant resources are shadbush, persimmon, and gooseberries or currants (King 1982:Table 2.9). This zone would be proportionately most important in terms of potential plant foods in summer and fall (see Fig. 4) (King 1982:42). Fauna of this zone probably include upland forest or open woodland species along the upper slopes and bottomland species closer to the terraces.

Mineral resources similar to those described for the upland forests are exposed on the slopes. Caves and rockshelters which often are suitable for human habitation or utilization are common in the project areas.

TERRACE AND FLOODPLAIN FORESTS

The Pomme de Terre and Sac riverbottoms are bedded with chert nodules which have eroded from the surrounding hills. Because these beds are more resistant to cutting than the adjacent slopes, considerable lateral shifting has occurred leaving floodplains and low terraces with a combined width which varies from 500 ft (152.5 m) to 2000 ft (610 m) along the Pomme de Terre River and with a relatively uniform width of 2500 ft (762.5 m) along the Sac River. Slopes adjacent to stream meanders generally are steep on the outer (convex) sides, whereas the inner (concave) sides are bordered by long, gradual "slipoff" slopes which provide easy access to the uplands (McMillan 1976a:16).

Floodplains and low terraces contain the greatest diversity of floral and faunal resources in the project areas. Characteristic terrace forest species noted by King (1982:30) include silver maple (Acer saccharinum), boxelder (Acer negundo), basswood (Tilia americana), American elm (Ulmus americana), and white ash (Fraxinus americana). Primary aboriginal resource species listed by King (1982:Table 2.9) include maple (Acer spp.), hog peanuts (Amphicarpa bracteata), milkweed, hickory, hazelnut, persimmon, wild crabapple, black walnut, ground cherry, wild cherry or plum, oak, raspberry, blackberry, dewberry, elderberry (Sambucus canadensis), and grape. Bottomlands would be of particular relative importance for plant food sources in the spring and fall but would provide the greatest variety of all zones throughout the year (King 1982:42-43).

Available mammalian fauna include opossum, short-tailed shrew, a variety of bats, woodchuck, squirrel, white-tailed deer, several mouse and rat species, raccoon, mink (Mustela vison), striped skunk, and bobcat. Former species include gray wolf, mountain lion, and elk. Also present are a variety of birds, amphibians, and reptiles (e.g., salamanders, toads, frogs, turtles, lizards, skinks, and snakes) (McMillan 1976a:36-39).

Bottomland soils are formed in alluvium and generally are of the Hartville-Ashton-Cedargap-Nolin Association (Allgood and Persinger 1979:31-32). These soils include alfisols, ultisols, entisols, and mollisols.

BOTTOMLAND PRAIRIES

King's (1982:34-35) vegetational reconstruction reports that wet, poorly drained soils of the bottomland prairies contained tall sedges, rushes, and marsh grasses (slough grass, reed canary grass). Slough grasses were extensive in slightly drier areas where switchgrass and nodding wild rye also were present. Well-drained valleys and lower hillslopes contained big bluestem (Andropogon gerardi) and indiangrass (Sorghastrum nutans). A variety of forbs also was present in this zone. Among those of probable aboriginal economic importance are the scarlet strawberry (Fragaria virginiana), tall goldenrod (Solidago altissima), compassplant (Silphium laciniatum), Jerusalem artichoke (Helianthus tuberosus), and swamp milkweed (Asclepias incarnata) (King 1982:Table 2.7).

The variety of bottomland mammalian fauna is not as great as that for the previously described zones. In addition to the range of bats listed earlier are the fulvous harvest mouse, white-tailed deer, southern bog lemming (Synaptomys cooperi), meadow jumping mouse (Zapus hudsonius), and raccoon. Previously present species are elk and meadow vole (Microtus pennsylvanicus).

McMillan (1976a:27) was able to identify two bottomland prairies in stream meanders within the lower Pomme de Terre study area. Today, development and suppression of fires have altered these areas significantly.

MARSH/AQUATIC ZONE

This zone consists of areas immediately adjacent to rivers and streams, gravel bars, spring and pond borders, and aquatic resources. Characteristic trees of the lower portions of floodplains include sycamore (Platanus occidentalis), silver maple, cottonwood (Populus deltoides), and willow (Salix spp.) (King 1982:30). This is the least important zone in terms of available plant foods.

Aquatic mammalian fauna include beaver (Castor canadensis) and muskrat (Ondatra zibethicus). Other fauna related to this zone include waterfowl, amphibians, mussels, and fish. The most common fish remains from Rodgers Shelter are catfish (Ictaluridae) and suckers (Catostomidae) (Parmalee et al. 1976:157).

Gravels of the stream bottoms and gravel bars would have been potential sources of chert, especially in prehypsothermal times when upland chert sources probably were mantled with thick loess deposits (Kay 1982c:729).

Archeological and Historical Background

Since archeological deposits rarely represent temporally discrete, datable behavioral episodes, archeologists organize data into temporal units which are defined in various ways (e.g., absolute chronology, adaptational changes, changes in artifact inventories, environmental changes). Chapman's (1975, 1980) syntheses of prehistoric cultural development for Missouri are organized in a framework which can be related to other archeological sequences which have been constructed for the eastern United States. Chapman's units are based on widespread changes in archeological assemblages in the eastern United States (such as those

recognized by Willey [1966]) as well as on recognized climatic episodes (e.g., Bryson et al. 1970). All of the cultural/temporal units utilized by Chapman are not applied easily to southwestern Missouri because traits upon which the units are defined often are infrequent or absent (Perttula and Purrington 1981:42). Since changes in cultural systems do not proceed in the same manner in all areas, useful cultural/temporal units vary according to the scale of the spatial parameters under consideration. Local chronological sequences for southwestern Missouri are not well understood. However, recent investigations in the lower Pomme de Terre River valley (Harry S. Truman Reservoir), particularly at Rodgers Shelter (23BE125), have added significantly to this knowledge. The framework used in the discussion of culture history which follows is based on the time/stratigraphic units defined at Rodgers Shelter by McMillan (1976b:211) and later modified by Kay (1982a:102-103). Research problems of more regional scope require the use of broader organizational schemes, and so the framework of Chapman is also referred to wherever possible.

Prior to discussion of the culture history of the project areas, it is necessary to present a brief chronology of the archeological investigations from which the data base has been obtained. The following discussion is concerned with the nature and sequence of work carried out within the lake areas. The theoretical orientation of the investigators is discussed in Chapter 2; results of the investigations are incorporated into the section on culture history.

Previous Investigations

POMME DE TERRE LAKE

Construction of Pomme de Terre Dam and Lake was authorized by the Flood Control Act of 28 June 1938 (P.L. 75-761) as part of the Missouri River Basin Comprehensive Flood Control and Water Resources Development Plan. Archeological field reconnaissance of the proposed reservoir area began in the summer of 1950 by the University of Missouri Summer Field Session. This investigation was followed by surveys conducted by the Ozarks Chapter members of the Missouri Archaeological Society during 1950 and 1951. In 1952, the National Park Service, Department of the Interior, contracted with the University of Missouri to complete the survey and test six sites. This fieldwork was conducted from July to December of 1952 (Chapman 1954).

Construction of the Pomme de Terre Dam began in 1957, and a second agreement was finalized between the National Park Service and the University of Missouri to resurvey the reservoir and conduct excavations at selected sites. This work was carried out during the summers of 1957 and 1958 (Wood 1961).

In 1977 the U.S. Army Corps of Engineers contracted with Fischer-Stein Associates of Carbondale, Illinois, to prepare a cultural resource management plan for the lake. This work consisted of a literature search for the entire project area; review of site survey forms of all known sites; determination of the relationship of known sites to roads, Public Use areas, Wildlife Management areas, etc.; and review of all previous reports concerning cultural resources associated with the project area. A set of management recommendations was provided for the known prehistoric archeological sites located on government property (McNerney 1978).

POMME DE TERRE AND STOCKTON LAKES PROJECT

A survey of the Public Use Area shorelines between the 838- and 851-ft msl elevations was conducted in 1979 by Fischer-Stein Associates. No significant cultural resources were located during this work (McNerney 1980).

STOCKTON LAKE

The Flood Control Act of 1954 (P.L. 83-780) authorized the construction of Stockton Lake as part of a system of nine reservoirs in the Osage River Basin. During 1961 and 1962, the University of Missouri in cooperation with the River Basin Interagency Archaeology Salvage Program, National Park Service, carried out preliminary archeological reconnaissance and testing in the proposed lake basin area (Chapman et al. 1962). Additional fieldwork was carried out in the area by the University of Missouri from 1962 to 1964. Wood (1965) reported on the results of excavations at mound and cairn sites, open sites, and historic sites. McMillan (1966) compiled a report on excavations in rockshelters and caves. Another season of fieldwork was carried out in 1965 at several mound and cairn sites, open sites, and shelters (Wood 1966). In 1966 and 1967, excavations were conducted at several open camp and village sites. This work also was carried out by the University of Missouri under contract with the National Park Service (Kaplan et al. 1967; Ward 1968; Calabrese et al. 1969).

A survey of the floodplain along the Sac River just downstream from Stockton Dam was carried out in 1976 by the University of Missouri under contract with the U.S. Army Corps of Engineers, Kansas City District (Roper et al. 1977). It was recommended that test excavations be carried out at several sites to determine eligibility for nomination to the National Register of Historic Places. These excavations were carried out by the University of Missouri-Columbia (Collins et al. 1983) and Southwest Missouri State University (Perttula and Purrington 1981).

In 1979 the U.S. Army Corps of Engineers, Kansas City District, contracted with Espey, Huston and Associates, Inc. of Austin, Texas, to survey portions of the Public Use areas bounding Stockton Lake and to produce a cultural resources management plan for the entire lake project area. The final report (Espey, Huston and Associates, Inc. 1980) includes a predictive model of site location and recommendations for the identification, preservation, and interpretation of cultural resources.

Culture History

McMillan (1976b) has constructed 12 culture/time stratigraphic units for the depositional sequence present at Rodgers Shelter. The units are defined as "chronologically discrete horizons that have been assigned absolute temporal limits and, based on subsistence data and activity indicators, contain levels that display some degree of cultural homogeneity when compared with units above or below them" (McMillan 1976b:211). Based on subsequent excavations and radiocarbon assays, Kay (1982a:102-103) has modified McMillan's units into a sequence of 11 horizons. These horizons provide the most detailed local chronological framework to which the survey and testing data of the present project can be compared. In this study, site occupations are related to the chronological framework through comparisons of projectile point forms of the Rodgers Shelter point complexes identified by Kay (1982b:544-548). The chronological sequence of horizons at Rodgers Shelter

is presented and compared with the framework of Chapman (1975, 1980) in Figure 5. Figure 6 shows the sequence of projectile point complexes from Rodgers Shelter.

DALTON PERIOD

Pollen studies at Rodgers Shelter and nearby bogs associated with springs in the Pomme de Terre Basin immediately north of the study area indicate that deciduous trees began to appear between 16,500 and 13,500 B.P. (B.P. = years before present calculated from A.D. 1950) in what was previously a late Wisconsin spruce-dominated forest. There is no evidence of human occupation in the area at this time (McMillan and Wood 1976:237). By about 12,000 B.P., the oak-hickory deciduous forest was established and fauna were essentially modern. However, cooler, moister climatic conditions prevailed than presently exist in the area (Kay 1982c:729). The earliest occupations at Rodgers Shelter occur in Horizon 10 which Kay (1982a:102-103) brackets in the range of 10,500 to 9500 B.P. Two radiocarbon dates relate to Horizon 10, 10,530 ± 650 B.P. and 10,200 ± 330 B.P. Dalton, Plainview, and fluted lanceolate points appear to represent a single toolkit which also includes a variety of chipped bifacial tools (perforators, adzes, unhafted and hafted cutting tools, and a cleaver/chopper), bifacial preforms, and ground stone (hematite processing slab, whetstones, rubbing stone). Kay (1982c:734) lists four activities to which the Dalton toolkit appears to be specialized: (1) hunting (chipped stone points and knives); (2) hideworking (scrapers, graver spurs); (3) woodworking (adzes); and (4) tool maintenance (antler punches). Faunal remains suggest that hunting of both small and large game was important. A probable emphasis was placed on exploitation of forest, forest-edge, and riparian mammals (deer, raccoon, beaver) (Kay 1982c:734). Hickory nuts and walnuts also appear to have been important food items (McMillan 1976b:223). McMillan (1976b:223) interprets the earliest occupations at Rodgers Shelter as representing a series of ephemeral campsites with open hearths. There is no evidence of structures, and there was no use of the Rodgers Shelter overhang at this time.

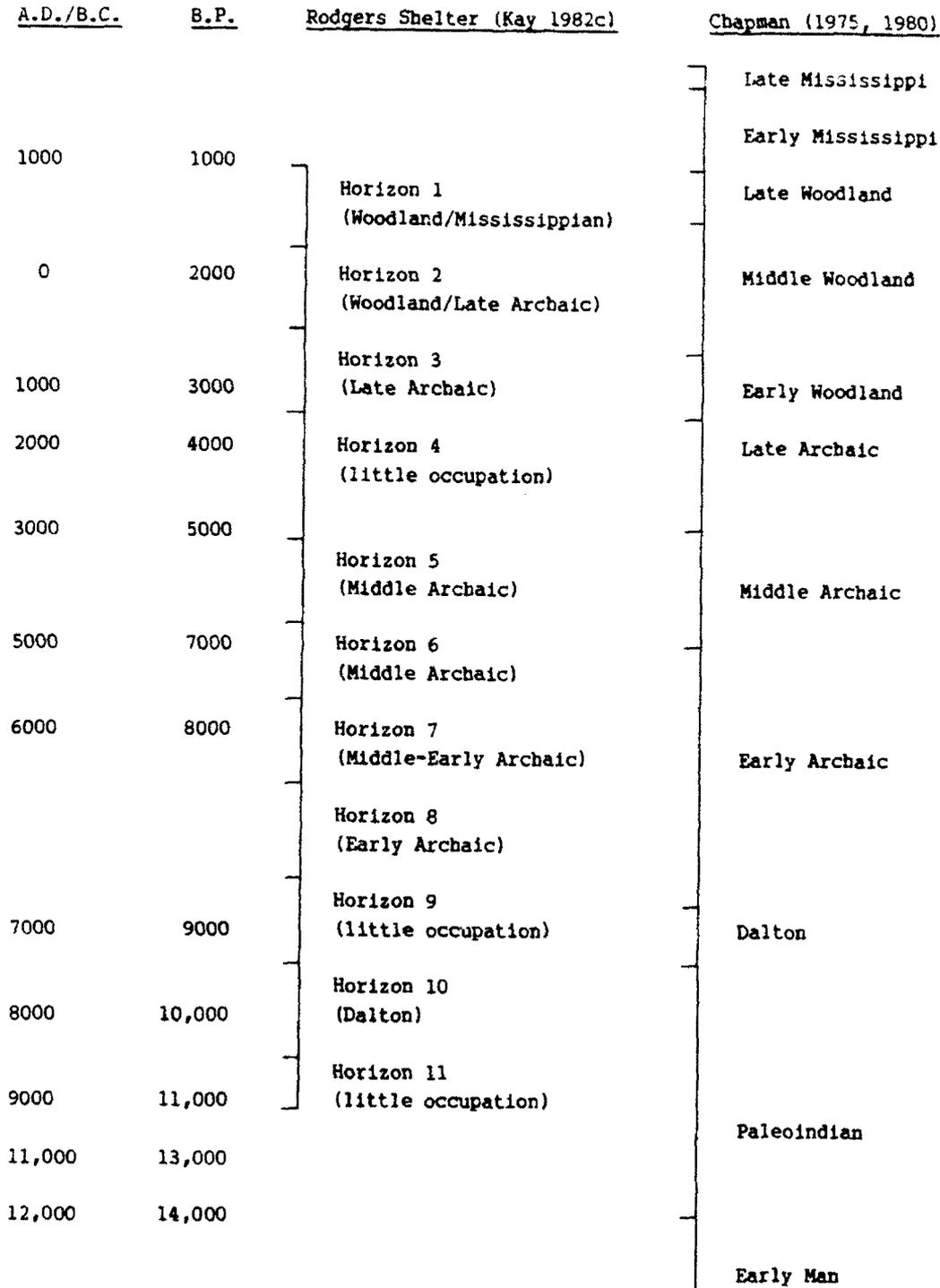
At the Montgomery Site (23CE261), located along the Sac River just below Stockton Dam, a Dalton point was discovered by Roper et al. (1977) in an eroded cutbank approximately 4 m beneath the surface. Subsequent excavations at the site (Collins et al. 1983) revealed a series of small overlapping occupations containing adzes, drills, and scrapers. The limited nature of the investigations precludes substantial interpretations concerning the activities associated with these occupations.

The only evidence of occupation pertaining to this period within the project areas comes from 23HI23 at Pomme de Terre Lake, where Chapman (1954:15) describes what apparently is a single Dalton point from a private collection. The site, now inundated, was located along Lindley Creek between Hermitage State Park and Nemo Landing Public Use Area. No reported subsurface investigations were carried out at the site, which also yielded evidence of later occupations.

Chapman (1975:71) states that a small number of lanceolate-shaped and fluted points, characteristic of the Paleoindian period in other areas, have been reported from the upper Osage drainage, including one from Cedar County. The Dalton period is separated by Chapman as a later, distinct unit, but he finds little evidence of occupation in the upper Osage locality or the western prairie region at either time (Chapman 1975:99).

Figure 5

CHRONOLOGICAL SEQUENCE OF HORIZONS AT RODGERS SHELTER (Kay 1982c)
AND CULTURAL/TEMPORAL UNITS OF CHAPMAN (1975, 1980)



EARLY/MIDDLE ARCHAIC PERIOD

Drier, warmer conditions marking the hypsithermal are evident at Rodgers Shelter by ca. 8300 B.P. At that time there is evidence that both forest and tall-grass prairies were present in the area (Kay 1982c:731). The warm, dry conditions of the hypsithermal appear to have been extant until at least 5200 B.P. Annual precipitation was reduced and the growing season lengthened. After 6300 B.P., there is evidence for severe hillslope erosion. The effects of the drier conditions probably were most pronounced on upland biotic resources; bottomland forest likely decreased in areal extent, but conditions were not altered significantly as sufficient moisture continued to be available from the spring-fed streams.

Perttula and Purrington (1981:28) point out that the evolution of hypsithermal conditions did not involve sudden, radical change. They quote Purdue's (1982:256) statement concerning the faunal record at Rodgers Shelter:

It appears, then, that there was environmental change during the last 9,000 to 10,000 years. The changes, however, were not drastic enough to precipitate a complete shift in species composition. Rather, all the habitats, i.e., upland forest, riparian forest, upland prairie, etc., were present in a mosaic pattern. As climate changed habitat patches expanded or contracted.

There is very little apparent occupation of Rodgers Shelter in the early part of the period (Horizon 9), but sporadic Early Archaic occupation is evident in overlying strata (Horizon 8). Radiocarbon dates relating to Horizon 8 are 8100 ± 30 B.P. and 8030 ± 300 B.P. (Kay 1982a:81-106). The projectile point complex identified by Kay (1982b:544-547) does not appear to represent a single assemblage but rather a series of sporadic occupations. Only a few Dalton points are present. Common forms are Rodgers or Rice Lanceolate, Graham Cave Notched, and Rice Lobed (see Fig. 6). Basal grinding, serration, and beveling all are common attributes.

The projectile point complex in Horizons 5, 6, and 7 differs markedly from that of earlier horizons. Essentially the same complex appears throughout the three horizons although they are physically separable. Lanceolate forms continue to dominate, but a wide variety of other forms also are present. These forms include ovate lanceolates; flared base Johnson points; broad bladed Kirk-like stemmed and corner notched points (Williams, Marcos, or Cypress Creek I); Hidden Valley contracting stem points; and concave, ground base, side notched points. Also present are fluted Dalton-like forms, a San Patrice-like point, and bifurcated base LeCroy points (Kay 1982b:547). Also related to the Middle Archaic at Rodgers Shelter are ground stone and specular hematite, full-grooved axes, and grinding slabs with hematite staining (Robinson 1982:339).

Radiocarbon dates pertaining to Horizons 5, 6, and 7 are 5200 ± 200 B.P., 6300 ± 590 B.P., 7167 ± 164 B.P., 7261 ± 292 B.P., 7490 ± 170 B.P., and 7957 ± 133 B.P. (Kay 1982a:81-106). Features relating to this time include hearths, a rock cairn dog burial, caches of lithic tools and preforms, midden development, and, possibly, crude structures.

Kay (1982c:735) interprets the faunal data from Rodgers Shelter as indicating that subsistence strategies focused on exploitation of small game, birds, fish, and mussels and extensive use of plants. Both Kay (1982c:735) and McMillan (1976b:230) believe that larger

game (e.g., deer) became less available and that changing environmental conditions necessitated exploitation of a broader subsistence base. Other differences from preceding occupations noted by Kay (1982c:736) are "(1) a greatly expanded and diversified technological base; (2) evidence of sustained settlement over major portions of the year; (3) use of Rodgers as an industrial processing center for pigment preparation; (4) domestication of the dog; and (5) a proliferation of artifact styles." McMillan (1976b:230) suggests that there was a general population increase over that of the Dalton period, but Kay (1982c:735) suggests that higher material densities may reflect deposition rates and repeated long-term use of the shelter by small groups.

Evidence of Early/Middle Archaic occupation in the form of Rice Lobed, Big Sandy and Jakie Stemmed projectile points has been found by Roper in a survey of the Sac River Valley downstream from Stockton Dam. Roper et al. (1977:81) identify six components as relating to the Middle Archaic period, although a Rice Lobed point on a gravel bar at 23CE262 is thought to have been redeposited, and testing at 23CE235 by Perttula and Purrington (1981) indicates that occupations relate only to the Woodland period. The density and variety of lithic material at one site (23CE237) suggest a possible base camp. It appears that occupations at the remaining sites (23CE227, 23CE242, and 23CE253) are mixed. Roper et al. (1977:79) attempt to interpret settlement data from the survey through the use of site catchment analysis. Although data from individual sites are very limited, the overall pattern suggests that Middle Archaic base camps are located in bottomlands with only bottomland resources accessible within a 1-mile radius of the sites. One component, at 23CE242, appears to reflect a narrower range of activities than would be expected at a base camp, but its location also suggests intensive floodplain resource utilization. Roper et al. (1977:85) suggest that at least semipermanent habitation occurred on the floodplain for exploitation of forest resources as the uplands were largely prairie covered at this time.

Several projectile points recovered by the surveys of Chapman and Wood in the Pomme de Terre Reservoir area, particularly Chapman's (1954) types K1, Y3, and L, appear to represent Early or Middle Archaic forms. These points were found at several sites scattered throughout the reservoir. However, in almost every case the points constitute less than 10% of the total number of reported forms, and thus single components cannot be isolated. The only definable occupation relating to this time near Pomme de Terre Lake is in Blackwell Cave (23HI172) located downstream from Pomme de Terre Dam. The cave was excavated in arbitrary 6-inch levels. Levels 5 through 8 (Component A) contain projectile points that appear to relate to the Early/Middle Archaic, although later materials also are present in Level 5. No other artifacts or features were reported from the lower levels, and thus little is known concerning the nature of the occupation(s).

At Stockton Reservoir, Powell (Chapman et al. 1962:60) identifies Jakie Stemmed points at 23DA227 and 23DA232. The Simonsen and possibly some of the SSN (shallow side notched) forms identified by Powell also may relate to the Middle Archaic. Site 23DA231 yielded nine SSN points and a Jakie Stemmed, but the presence of other forms probably associated with later time periods suggests that deposits are mixed. A Simonsen point and an SSN were recovered from 23CE121, and fragments of Graham Cave Side Notched points were found at 23DA218 and 23DA243. None of these sites have been subject to subsurface investigation.

Probable Early/Middle Archaic components have been encountered at several excavated rockshelters in the Stockton Lake area, but all have been difficult to define. At Griffin Shelter (23DA51) a possible Graham Cave point was recovered from the lowest level but was not associated with any other evidence of occupation (McMillan 1966:124-128). At Toler

Cave (23DA207) an Early/Middle Archaic component appears to occur in the lower cultural levels (4-5) as is evident by a lanceolate point, Rice Lobed points, a possible Hidden Valley Stemmed point, and a Kirk-like straight stemmed form (McMillan 1966:146-148). Although a possible early lanceolate form was recovered at Seybert Shelter (23CE126), the deposits are shallow and apparently mixed (McMillan 1966:157). Dart points from Mache Hollow Shelter (23CE111) appear to resemble corner notched forms from the later Middle Archaic strata at Rodgers Shelter. A lanceolate point and a possible Hidden Valley point were recovered from nearby Soledad Shelter (23CE112), but again the deposits apparently are mixed.

LATE ARCHAIC PERIOD

The dry, warm conditions of the hypsithermal do not appear to have ended abruptly. Rather, there was a gradual change toward modern, more-mesic conditions. Implications of the climatic change include a western expansion of the oak-hickory forest, a decline in the areal extent of the tall-grass prairie, and larger populations of deer and free-flowing stream aquatic fauna (Kay 1982c:731-732).

Rodgers Shelter shows very little evidence of occupation during the interval from 5200 to 3600 B.P. (Horizon 4). McMillan (1976b:230) does not believe that the site was abandoned suddenly but rather that usage diminished gradually. Horizon 3 and portions of Horizon 2 represent reoccupation during the Late Archaic. Backhoe trenching exposed an earlier Late Archaic occupation of the west terrace, but this occupation was not investigated adequately for interpretation (Kay 1982c:736). Radiocarbon ages pertaining to this period are 3530 ± 84 B.P., 3427 ± 49 B.P., 3359 ± 68 B.P., 3152 ± 63 B.P., 2617 ± 141 B.P., 2523 ± 62 B.P., 2349 ± 79 B.P., 2247 ± 73 B.P., and 2072 ± 68 B.P. (Kay 1982a:81-106).

Late Archaic projectile points at Rodgers Shelter differ markedly from the preceding Middle Archaic forms. Forms making up the complex are Sedalia Lanceolate, basal notched points (Smith, Castroville), corner notched points (Etle, Afton), and straight stemmed points (Table Rock, Stone).

In the lower Pomme de Terre area, Late Archaic occupations have been identified also at several sites associated with springs. The most extensive data are from the Phillips Spring Site (Chomko 1976, 1978; Downer 1977; Kay et al. 1980; Robinson and Kay 1982; Kay 1982d) where Robinson and Kay (1982:629) tentatively recognize six components. The lower two components were identified in core samples and have not been investigated. A radiocarbon date of 7870 ± 90 B.P. from the core sample suggests an Early to Middle Archaic occupation for the earliest component. Only the uppermost (upper Sedalia) component has been investigated extensively. A radiocarbon date from charcoal recovered by Chomko in 1974 indicates an associated date of 3050 ± 60 B.P. (Chomko 1976:23). Artifacts from this component include Smith, Sedalia, Etle, and Stone projectile points; bifaces; cores; hammerstones; and various stones with ground surfaces. Underlying this component is a large rock-lined, basin-shaped pit associated with an earlier Sedalia component. Radiocarbon dates from the complex are 3938 ± 66 B.P., 3995 ± 96 B.P., and 3927 ± 61 B.P. (Kay 1982d:13). This component yielded a Sedalia Lanceolate point base, two "Sedalia diggers," and an unclassified projectile point. Below the Sedalia component is the third component (squash and gourd zone), which has associated radiocarbon dates of 4222 ± 57 B.P., 4240 ± 80 B.P., and 4310 ± 70 B.P. (Kay 1982d:13). This zone included an unfinished biface, five cores, and a ground stone fragment.

Other Late Archaic components in the area occur at Boney Spring where a single Smith Basal Notched fragment was recovered underlying the more extensive Woodland occupation (Wood 1976a:103), and at Koch Spring where a possible Late Archaic burial was encountered with a lithic cache which included two corner notched dart points (Wood 1976a:106).

Late hypsithermal adaptations at Rodgers Shelter and Phillips Spring appear to differ significantly from earlier adaptations. Subsistence was directed toward exploitation of the forest-edge environment and small-scale gardening, including cultivation of tropical cultigens. The cultigens relate to what Ford (1981) has called the Early Eastern Mexican Agricultural Complex or the Gourd Agricultural Complex: "Present evidence suggests that the first domesticated plants in the United States originated in eastern Mexico, probably diffused across Texas, and into the Southeast and the major river systems of the Midwest. This complex consists of Lagenaria siceraria, Cucurbita pepo, and perhaps Cucurbita pepo var. ovifera" (Ford 1981:7). Kay et al. (1980:818-820) see regional exchange networks, established in the eastern U.S. by 4000 B.P., as the mechanism of this diffusion. They interpret the process as down-the-line exchange:

In essence, down-the-line exchange of cultigens would have entailed reciprocal exchanges among a network of settlements spaced across the landscape, a more-or-less "day-to-day" activity among neighboring communities (Dalton 1977). This eventually would allow for gradual transmission(s) of cucurbits into the continental interior of eastern North America, giving time for evolution of greater environmental tolerance and the addition of gardening to a hunting and gathering subsistence base. [Kay et al. 1980:820]

Kay (1982c:736-737) classifies settlements of this time period into three types: annual base camps, small villages, and seasonal encampments. Base camps are located near artesian springs or perennial water sources. At Phillips Spring, scatters of lithic tools and debitage around hearths are interpreted as residential areas. No structures have been identified, but Kay believes they were probably present. Common features are storage pits which contain cultigens and wild plant foods. Intrasite patterning at Phillips Spring is not well known. Kay suggests that the occupations were by small groups.

Contemporaneous use of caves and shelters (e.g., Rodgers Shelter) appears to have been seasonally specialized. The occupation at Rodgers Shelter probably occurred primarily in autumn. Faunal remains suggest an emphasis on hunting, fishing, and mussel and plant (nut) collecting. There are no storage pits or evidence of cultigens.

In the Pomme de Terre Lake area, the survey data of Chapman and Wood suggest that Late Archaic occupations were numerous and widespread. However, there is little information concerning individual components as few sites have been excavated. Corner notched and basal notched points were recovered from the Button I (23HI33), Pitts (23HI35), Button II (23HI36), Raymond I (23HI41), and Raymond II (23HI42) sites; but relatively shallow, mixed deposits limit interpretations concerning the nature of the preceramic occupations (Chapman 1954; Wood 1961).

Wood (1961:88-89) has defined the Afton Complex on the basis of excavations at Holbert Bridge Mound and Component B (Strata 3 and 4) at Blackwell Cave. Holbert Bridge Mound (23HI135) is located on a high ridge east of the Pomme de Terre River. The mound is composed of approximately equal amounts of stone and earth and yielded a burial of what

appeared to be a single individual. Artifacts recovered from the mound include 25 complete and 7 broken corner notched Afton points (Wood 1961:48-51). The characteristic Afton points are found throughout central and western Missouri and northeastern Oklahoma in the Ozark Highlands and adjoining areas (Wood 1961:89).

In the survey of the Sac River Valley downstream from Stockton Dam, Roper et al. (1977) assign eight components to the Late Archaic period on the basis of the presence of Smith, Afton, Etley, and Stone projectile points. Roper et al. (1977:86) believe that there is a sharp dichotomy in Late Archaic site placement. The survey was limited to the floodplain, but four sites are situated away from the base of the bluffs near the riverine zone. Three of these sites contain a limited lithic assemblage; the fourth contains an apparently complete manufacturing sequence. Lithic tools from the remaining four sites suggest that a relatively wide range of activities was carried out. Three of these sites are at the back of the floodplain near the bluff base; the fourth is in an intermediate locale. Roper interprets this pattern as representative of a shift from the Middle Archaic emphasis on intensive exploitation of the floodplain environment. With the increase in moisture, the bottomlands were subject to more-frequent flooding. Base camps were placed for easy access to both bottomland and upland resources. Perttula and Purrington (1981:60) add that Late Archaic settlements not only occur along major streams but also along tributary creeks as well as in upland locations (including shelters). They believe that a maximum number of settlement situations were being utilized.

The survey data from Stockton Lake (Chapman et al. 1962), like that from Pomme de Terre Lake, suggest widespread Late Archaic occupations, but little is known about individual components. Excavations at three open terrace sites revealed possible Late Archaic occupations. At the Matthew Site (23DA218) a single Table Rock Stemmed point was recovered, but deposits are shallow and mixed with Late Prehistoric and Historic materials (Chapman et al. 1962:141-145). Mixed deposits also are present at 23DA281, but corner notched, Etley (?), and Afton forms probably represent a Late Archaic occupation (Wood 1965:181-185). Kaplan et al. (1967:40) suggest a Late Archaic or Early Woodland occupation of the Sand Ridge Site (23DA254) on the basis of Ellis-like dart points.

Several shelter sites in the reservoir area appear to contain Late Archaic materials. The deposits are heavily disturbed at both the Vance Site (23DA240) and Elmer Long Shelter (23DA245), but several projectile points may relate to the Late Archaic (Chapman et al. 1962). At the Sand Bluff E Shelter (23DA303), Late Archaic occupation is represented by Table Rock, basal notched, and corner notched points, but these also are present in ceramic-bearing levels (McMillan 1966:73-91). Clustered in Levels 6 through 9 at Griffin Shelter (23DA51) are several Late Archaic forms. Other artifacts which appear to be associated include a large triangular biface, ovate bifaces, flake side and end scrapers, and hammerstones (McMillan 1966:180). At Toler Cave (23DA207) and Tater Hole (23DA50), a variety of Late Archaic points were recovered, but the presence of ceramics in the same levels along with other evidence of disturbance preclude interpretation of the nature of the occupations. A limited number of Late Archaic forms also were recovered from Seybert Shelter (23CE126), Mache Hollow Shelter (23CE111), and Soledad Shelter (23CE112), but deposits are shallow and mixed (McMillan 1966).

EARLY/MIDDLE WOODLAND PERIOD

The primary distinguishing characteristic of the Woodland period is the presence of ceramics. The Early Woodland period as defined by Chapman (1980) cannot be identified in southwestern Missouri. Cord-marked and incised pottery associated with the Early Woodland Black Sand Complex is present in portions of western Missouri but appears to be associated with Middle Woodland contexts (Chapman 1980:19-20). Wood (1976a:103) identifies the primary occupation at Boney Spring in Benton County with the Early Woodland on the basis of crushed-limestone-tempered and sand-tempered sherds and contracting stem dart points. The radiocarbon dates of 1900 ± 80 B.P., 1910 ± 80 B.P., and 1920 ± 50 B.P. (Wood 1976a:102), however, all fall within the time interval usually considered as Middle Woodland. Analysis of pit fill shows that domestic squash continued to be cultivated at this time, and a variety of other vegetal resources were exploited including dogwood, elderberry, cocklebur, giant ragweed, pokeberry, wild plum, and black haw.

At Rodgers Shelter the ceramic occupations are not well separated and thus are less useful than earlier strata for furthering our understanding of local chronology and adaptations. Kay (1982c:739) believes that ceramics probably were used in the area by 2500 B.P., but there is no firm evidence for their use until about 1900 B.P. Descriptions of the ceramics from Rodgers Shelter have not been published, but Kay reports that Hopewellian (Middle Woodland) design elements are present on some sherds. The bow and arrow seems to occur initially about 1200 B.P. In the ceramic-bearing horizons, the lithic complex consists of Rice Side Notched dart points or knives and arrow points (Scallorn, Cahokia Notched). Also probably associated with this complex are contracting stem dart points (Gary, Langtry) and a large Scallorn-like dart point (Cupp) (Kay 1982b:547-548).

Kay (1982d:52) reports that cucurbits date to Middle Woodland as well as Late Archaic contexts at Phillips Spring. Little information is known concerning the nature of these later deposits. Radiocarbon dates from the component are 2245 ± 103 B.P., 2036 ± 58 B.P., and 1897 ± 84 B.P. (Kay 1982d:13). Associated features consist of storage pits and post molds. The latter do not form patterns which are identifiable as structural remains, but it is possible that structures were present. Population aggregates probably were small (Kay 1982d:56).

The earliest ceramic-bearing horizon at Blackwell Cave, Component C (Stratum IV), is equated by Wood (1961:90, 102) with the Middle Woodland or Hopewell periods. Ceramics are grit- or sherd-tempered, and surface treatment includes smoothing, cord roughening, dentate and rocker stamping, bossing, finger pinching, and indenting. Contracting stem (Gary), corner notched, and Rice Side Notched dart points are present along with oval flake snubbed scrapers, pebble manos, slab metates, rubbed hematite, bone awls, antler tine flakers, and leaf-shaped knives.

At Stockton Lake, ceramics from Tater Hole Shelter (23DA50) and Griffin Shelter (23DA51) have decorative techniques suggestive of Middle Woodland affiliation. Although only a single decorated sherd was recovered at Tater Hole by McMillan, collections from early uncontrolled excavations described by Marshall (McMillan 1966:101) include sherds with incising, stamping, rouletting, and punctating. A clay-tempered sherd from Griffin Shelter has a crosshatched pattern of incised lines along with punctations and embossed nodes (McMillan 1966:123). Other artifacts at Griffin Shelter possibly relating to the Middle Woodland are contracting stem (Gary) and corner notched (Snyders?) dart points, triangular and ovate bifaces, and lamellar flake knives (McMillan 1966:183).

Regional Hopewellian centers (e.g., Kansas City, Big Bend, and Cooper) indicate that the Hopewellian interaction sphere extended into western Missouri, but the present evidence suggests that no sustained habitation occurred in the project areas at this time (Chapman 1980:26-27). Alternatively, it may be that the indigenous inhabitants of the area during the Middle Woodland period did not assimilate the distinctive Hopewellian traits.

LATE WOODLAND/MISSISSIPPIAN PERIOD

Ceramics which appear to relate to the Late Woodland are more abundant than those from earlier times in southwestern Missouri. Because of the almost complete absence of unmixed components, it is not possible to isolate a Late Woodland artifact complex or to define the nature of particular occupations in more than a very general manner. Chapman (1980:80-81) identifies Late Woodland components on the basis of characteristics from surrounding areas. In the prairie and Ozark areas to the northeast are crushed-limestone-tempered plain, brushed, or cord-marked wares. In the lowland areas of the Mississippi Valley to the southeast, Late Woodland (Baytown) ceramics are clay/grog- or sand-tempered, plain or cord-marked, simple jars with no appendages. Shell temper usually is considered to be a more recent (Mississippian?) characteristic, although in shelters of southwestern Missouri there appears to be a stratigraphic overlap (McMillan 1966:183). Dart point styles most often associated with ceramics include contracting stem (Gary, Table Rock Pointed Stem, Langtry) forms, shallow side notched (Rice), and corner notched (Snyders Notched) forms. Arrow points include expanding stem (Scallorn), triangular (Mississippi), and notched triangular (Cahokia, Huffaker, Reed, Morris, Washita) forms. The triangular forms usually are associated with later (Mississippian) occupations in surrounding areas, but mixing of deposits at most southwestern Missouri sites makes this separation unclear.

During the early surveys of the Pomme de Terre Lake area, numerous sites were encountered which contained Gary and Scallorn projectile points. Widespread occupation of the terraces and floodplain can be inferred, but little is known concerning the nature of the occupations. The points often are mixed with Archaic types; ceramics and midden accumulations are absent. At the Button II Site (23HI36), Chapman (1954:77-78) found a possible Woodland complex consisting of a Gary point, an unclassified expanding stem point, anvil-stone manos, ovoid snub-nosed scrapers, and limestone-tempered pottery. Subsequent mechanical trenching (Wood 1961:82) uncovered sand-tempered pottery and additional Woodland projectile points. Also found at the site are several Archaic points, and these are not separated clearly from the later material.

Chapman (1954:85) hypothesizes that the main occupation of the Raymond I Site (23HI41) was in the Late Woodland period although mixing with Archaic and late ceramic occupations is evident. Wood (1961:76-78) recovered additional materials from mechanical trenching. Ceramics consist of plain crushed-limestone-tempered and sand-tempered sherds. Also present are Scallorn points, corner notched dart points, Gary points, Rice Side Notched points, and small flake snub-nosed scrapers. Features consist of four charcoal-filled pits and five areas of burned limestone.

The Raymond II Site (23HI42) and the Bailey Site (23HI43) also yielded sand-, grit-, and crushed-limestone-tempered sherds, along with Gary, Scallorn, corner notched, and Rice Side Notched projectile points. Again, however, Woodland components cannot be isolated from Archaic and later materials.

At Blackwell Cave, the stratum overlying Component C is designated Component D and contains crushed-limestone- or chert-tempered sherds (smoothed and cord roughened), Gary points, corner notched dart points, Scallorn and triangular arrow points, Rice Side Notched points, oval snubbed scrapers, triangular knives, ground pebble manos, and rubbed hematite. A small number of shell-tempered sherds recovered near the surface are interpreted as resulting from a later occupation (Wood 1961:92).

Other probable Woodland components in the Pomme de Terre Lake area are at Alexander Shelter (23HI199) and the Tillman Site (23PO159). Alexander Shelter was visited by Wood's survey and privately collected. Crushed-limestone-, grit-, and sand-tempered pottery is present along with Scallorn, corner notched, Gary, and Rice Side Notched projectile points (Wood 1961:62-64). Tillman is a terrace site along Lindley Creek which was collected by the landowner after plowing. Crushed-limestone-tempered, cord- and fabric-marked sherds were found along with corner notched and Rice Side Notched dart points. A square stemmed point and a diorite celt also were collected.

Wood (1961:90) equates Component D at Blackwell Cave with the Woodland occupations at the Button II, Raymond I, Raymond II, and Bailey sites and combines them under the term "Lindley Focus." The Lindley Focus is seen as temporally following the Middle Woodland Component C at Blackwell Cave, but no firm dates have been established.

Survey data from Stockton Lake also suggest that ceramic period occupations were numerous and widespread. As is the situation at Pomme de Terre Lake, however, occupations are defined primarily on the basis of lithic typology because ceramics and stratified deposits are rare.

Two aceramic village sites, Flycatcher Village (23CE153) and Dryocopus Village (23CE120), were subject to relatively extensive excavation. Post hole patterns indicate the presence of several circular structures at Flycatcher Village; remains of three structures are identified along with several trash pits and hearths. Artifacts consist of Gary or Table Rock Pointed Stem dart points, corner notched dart points, Rice Side Notched points, arrow point fragments, an end scraper, an expanding stem drill, several chipped bifaces, a mano, and a metate fragment. The excavators (Pangborn 1967; Pangborn et al. 1971) interpret the site as representative of a single occupation probably affiliated with the Late Woodland period. A radiocarbon date from one of the houses is A.D. 715 \pm 95. A second date (A.D. 1390 \pm 100), from a hearth, differs significantly. Pangborn et al. (1971:72) consider the latter date anomalous.

Excavations at Dryocopus Village revealed post hole patterns suggesting the presence of four structures (Calabrese et al. 1969). Also encountered were three activity (hearth) areas and eight pits. Most dart points from the site are corner notched, basal notched, and square stemmed forms. A small number of contracting stem (Gary) dart points and expanding stem (Scallorn-like) arrow points also were recovered. Other tools include a variety of bifaces, unifaces, and ground stone slab fragments. Charcoal from a basin-shaped pit is dated at A.D. 1485 \pm 100 (Chapman 1980:86). The lithic analysis of Calabrese et al. (1969) suggests that a similar range of tool types is present at both Flycatcher and Dryocopus but that projectile point styles differ markedly. The authors hypothesize that the sites represent a single, generally contemporaneous, relatively late cultural complex.

Chapman (1980:86) suggests that both Late Archaic and Late Woodland or Early Mississippian components are represented at Dryocopus and that the Flycatcher occupation dates to

the latter period. He explains the lack of ceramics at the sites as due to brief occupation and use only as hunting/foraging camps for exploitation of tall-grass prairie fauna and flora. As an alternative explanation, Chapman suggests that semisedentary, nonpottery-using groups continued a basically Late Archaic adaptation into the time when surrounding groups were practicing incipient horticulture and manufacturing ceramics.

Ward (1968) conducted excavations at a third terrace village site, the Shady Grove Site (23P0309), in the Stockton Lake area. A semicircular post hole pattern suggests that structures were present. Plain and cord-marked limestone-tempered ceramics were recovered, along with notched triangular (Reed, Huffaker) and expanding stem arrow points. Probable Late Archaic dart points (Afton, Smith) also were recovered. The ceramics and arrow point styles suggest that this site was occupied later than Flycatcher and Dryocopus, possibly during the Early Mississippian period.

Results of limited excavations in 1964 by Pangborn at 23DA223 and 23DA231 suggest that these sites might represent other Woodland or Mississippian villages or camps lacking ceramics. Corner notched and triangular arrow points were recovered along with Gary points and a variety of other chipped stone tools. The presence of Late Archaic style dart points, however, suggests that the deposits were mixed (Wood 1965:179-184).

Scallorn-like arrow points and a clay-tempered sherd were recovered in the mixed deposits at the Matthew Site (23DA218). Other open terrace sites with ceramics encountered in Chapman's survey of the Stockton Lake area are 23CE107, 23DA202, 23DA204, 23DA227, and 23DA232. None of these sites were excavated. Wood (1961:73-74) describes a private collection from an open terrace site along Bear Creek in Polk County which includes plain and cord-marked, sand-tempered sherds and corner notched (Snyders?) dart points.

Downstream from Stockton Dam, Roper et al. (1977) identify 16 floodplain sites as associated with the Woodland period. No ceramics were recovered, but Roper separates the sites temporally into two groups based on projectile point types. The earlier group includes sites with Langtry, Gary, and Rice Side Notched points. The later group contains Scallorn and triangular arrow points. Of the seven Group 1 sites, two are identified as possible base camps or villages on the basis of a large number and variety of tools and debitage. Roper believes that the placement of these sites in areas of the floodplain that are neither relatively wide nor narrow was for maximum access to both floodplain and upland zones. The other Group 1 sites are interpreted as special purpose camps and are located in a variety of settings on the floodplain.

The nine sites of Group 2 are scattered throughout the floodplain although none have extensive bottomland within a 1-mile radius. There is no evidence that any of these sites represent large camps or hamlets.

Following up on Roper's survey, Pertulla and Purrington (1981) conducted test excavations at three Late Woodland period sites, the Ronnie Pyle Site (23CE252), the B. Jones Site (23CE235), and the James Jones Site (23CE324). The Ronnie Pyle Site is identified as a seasonally occupied hunting/gathering station situated for easy exploitation of both floodplain and upland resources. The B. Jones Site is seen as functionally similar but situated for concentration on exploitation of floodplain resources. The high percentage of broken projectile points or knives at the James Jones Site suggests that the site was used primarily as a short-term hunting camp. Based on data from these and other sites in the

area, it is hypothesized that the Woodland settlement system consisted of: (1) multiseasonal base camps with permanent structures (e.g., Flycatcher Village) where a wide variety of extractive and maintenance tasks were carried out; (2) rockshelters used as seasonal procurement stations for storage and social tasks (e.g., burials); (3) rock cairns for burials; (4) seasonal hunting and gathering stations for exploitation of upland and floodplain resources (e.g., 23CE252); (5) seasonal hunting and gathering stations for exploitation of floodplain resources only (e.g., 23CE235); and (6) seasonal hunting camps for exploitation of floodplain and/or upland resources (e.g., 23CE324) (Perttula and Purrington 1981:162).

Several caves and rockshelters have been excavated in the Stockton Lake area, and almost all contain some evidence of ceramic period occupation. At the Vance Site (23DA240) unnotched triangular, Cahokia Notched, and Scallorn-like arrow points were recovered along with cord-marked sherds with crushed limestone and crushed shell temper. Scallorn-like arrow points, a limestone-tempered sherd, and a shell-tempered sherd were found mixed with earlier materials at Elmer Long Shelter (23DA245). At Gannaway Cave (23CE105) were smoothed sherds with shell, sand, or grit tempering. Notched triangular, Crisp Ovate, and Scallorn arrow points also were found along with Rice Side Notched dart points.

Near the mouth of Corry Branch on the Sac River in Dade County is a series of adjacent shelters in a sandstone bluff overlooking a horseshoe bend of the river. The shelters, known as the Sand Bluff sites, all contain evidence of human occupation (McMillan 1966:5-91). Ceramics containing a full range of temper types including shell are present suggesting both Woodland and Mississippian period occupations. Most sherds are plain but a few at Sand Bluff C (23DA241) and Sand Bluff D (23DA302) are cord marked. At Sand Bluff C, three engraved and one incised sherd appear to represent Caddoan types (see below). Two ceramic pipe fragments were found at Sand Bluff B (23DA301).

Projectile point forms exhibit a great deal of variability, and, although stratigraphic separation is not apparent, a few dart points suggest that Late Archaic occupation of the Sand Bluff shelters might have occurred. The largest chipped stone tool collection is from Sand Bluff C where over 200 projectile points were recovered. The most numerous arrow point form is Scallorn, followed by triangular side notched forms. Unnotched triangular and ovate forms also are present. Dart points include Gary, Rice Side Notched, corner notched, basal notched, and square stemmed forms. Other chipped stone tools present are perforators, scrapers, thin bifaces, a gouge, adzes, a chipped axe, choppers, gravers, and notched tools. Ground stone includes manos, metates, a hematite celt, smoothed hematite and sandstone, and anvilstones. Also recovered were antler tines, turtle shells, and polished bone tools.

Features from the Sand Bluff sites include a small dog burial from Sand Bluff B, and, from Sand Bluff C, ash- and charcoal-filled pits and a sandstone rock hearth. Faunal and floral remains include deer, turkey, and raccoon bones, mussel shells, and hickory and black walnut hull fragments.

Late Woodland and/or Mississippian occupations also are evident at Tater Hole and Griffin shelters (McMillan 1966). Shell-, limestone-, sand-, grit-, and grog/clay-tempered, plain and cord-marked sherds are present, along with Scallorn and triangular arrow points and Gary, corner notched, and Rice Side Notched dart points. Other shelters with similar artifacts are Soledad (23CE112), Seybert (23CE126), and Toler Cave (23DA207) (McMillan 1966).

With the exception of Holbert Bridge Mound (23HI135) which has been related to the Late Archaic Afton Complex (Wood 1961:88), rock mound and cairn sites in the project areas appear to be associated with the Woodland and Mississippian periods. The mounds and cairns occur as isolated or grouped features without evidence of associated habitation areas. Wood (1961, 1965) defines four complexes (the Fristoe Burial Complex, the Bolivar Burial Complex, the Stockton Burial Complex, and the Nemo Complex) associated with the tumuli.

The complex most thoroughly described and discussed is the Fristoe Burial Complex which was named and defined by Wood (1961) on the basis of excavation of Morgan Mound (23DA201), Murelle Mound (23HI30), Cave Knob Mound (23HI149), and the Fairfield Mound Group (23BE6). This latter site is located near the mouth of the Pomme de Terre River in Benton County. In a later study, Wood (1967) related 23 sites containing 26 mounds or cairns to the complex. Additional studies of the complex have been carried out by McMillan (1968) and Vehik (1977).

All of the sites are located within the Ozark Highlands (most are within the Pomme de Terre, Stockton, and Truman reservoir areas) on sloping ground or ridges, river bluffs, or high hills. Each mound or cairn contains one or more of seven burial types: (1) extended and supine primary burials; (2) primary flexed burials; (3) bundle burials; (4) skull-and-cross-bone bundle burials; (5) ossuaries; (6) cremations; and (7) broadcast (scattered secondary) burials (Wood 1967:112).

Only 9 of the 26 tumuli yielded ceramics. Sand-tempered sherds are present in the Mandrake (23HE139), Simmons (23CE104), and Cave Knob (23HI149) mounds. All four of the Fairfield (23BE6) mounds have ceramics (smooth and cord-roughened shell-, calcite-, grog-, and limestone-tempered). The most common projectile point forms are Scallorn arrow points and Rice Side Notched dart points. Other arrow points are leaf-shaped (Young), and notched and unnotched triangular forms. Eight mounds yielded corner notched dart points, and seven yielded contracting stem dart points. There are a few dart points that appear to relate to the Archaic periods in several mounds. Other artifacts within the mounds include expanding base drills; leaf-shaped, triangular, and ovoid bifaces; a few ground stone items (a celt, abraders, pebble manos, a mammiform object); Marginella, Oliva, and Olivella shell beads; Anculosa snail shell beads; disk and tubular conch shell beads; conch gorgets; bone awl or pin fragments; cut wolf maxillae; and deer antler cylinders. European-made pin brooches were recovered from Fairfield Mounds 2 and 3, although there is a possibility that they were introduced subsequent to the burials. However, three copper beads at Wray-Martin Mound 2 (23BE128) are almost certainly of European origin and placed at the time of burial (Wood 1967:115). Two radiocarbon dates, 225 ± 380 B.C. and A.D. 95 ± 215 (Wood 1967:118) were obtained on bone from Wray-Martin Mound 1 (23BE3). The presence of Scallorn and notched triangular arrow points, forms that are usually dated much later, suggests that subsequent intrusion into the mound may have taken place.

Wood (1967) judges the dates and the European goods to be anomalous and, based on the other grave goods, suggests that the complex dates to sometime in the A.D. 500-1000 range. He believes that eventually it will be possible to separate the complex into finer temporal units. The complex is related to local Woodland populations involved in trade of luxury items with surrounding Hopewellian and Mississippian groups. The indigenous groups are presumed to have had basically a semisedentary hunting and gathering economy supplemented by limited horticulture (Wood 1967:125).

Chapman (1980:94-99) presents a detailed reevaluation of the Fristoe Burial Complex and suggests that it be termed a burial aggregate because three separate complexes appear to be represented. The first is associated with the Middle Woodland period and involves a "feast of the dead" and gift exchange participated in by indigenous peoples and peoples on hunting expeditions from Hopewellian centers such as the Kansas City area, the Missouri River Big Bend area, or the Cooper Complex area in northeastern Oklahoma. Traits associated with this early complex include corner notched dart points, drills, modified wolf maxillae, triangular preforms, knives, bone pins, a stone mammiform object, and antler cylinders. The second complex occurred sometime in the A.D. 400-900 range and resulted from local Late Woodland people who maintained Hopewellian ceremonies. Secondary (broadcast) burials and cremations, Rice Side Notched and Scallorn points, flake scrapers, knives, and Anculosa shell beads are associated with this complex. The latest complex relates to the very late Late Woodland or Early Mississippian period (A.D. 850-1400) and includes large cairns (bundle burials, ossuaries, extended or flexed primary burials), shell- and limestone-tempered ceramics, Scallorn and triangular arrow points, leaf-shaped knives, Marginella shell beads, conch shell beads, mussel shell beads, and an engraved shell gorget from the Fairfield Mound 2 (23BE6).

Tumuli of the Bolivar Burial Complex consist of small mounds rather than cairns. Components of the complex identified by Wood (1965, 1966) are Tunnel Bluff Mound (23DA222), Bunker Hill Mound (23DA225), Divine Mound (23DA226), Slick Rock Mound (23PO306), Umber Point Mound (23CE148), Sorters Bluff Mound (23CE150), Bowling Stone Mound (23CE152), Sycamore Bridge Mound (23CE154), and Paradise Tree Mound (23DA246). These mounds, all located in the Stockton Lake area, occur on gently sloping ground on ridges or bluffs overlooking floodplains.

Bundle burials, cremations, broadcast burials, and primary inhumations are represented. Scallorn is the dominant projectile point style. Triangular arrow points, Rice Side Notched points, and Gary points occur infrequently. Expanding stem, bulbous base Cupp dart points are seen by Wood (1966:63) as diagnostic of the complex. Ceramics, present at seven of the nine components, are almost entirely limestone tempered. However, shell-tempered sherds are present in small numbers and a shell-tempered pipe was found at Slick Rock Mound. Pipes (mostly of the elbow variety) appear to be an important element of the complex as others made of limestone were recovered (Wood 1966:64). Other artifacts associated with the complex include bone spatulas, bone beads, bone awls, turtle-shell bowls, bone and antler flakers, shell beads, and ground stone celts (Chapman 1980:151-152).

A radiocarbon date of A.D. 1110 \pm 75 (GX0-677) was obtained from carbonized seeds found in woven bags at Divine Mound. A second date, A.D. 1465 \pm 90, was obtained from the bag itself. Wood (1967:66) believes that the second date is too late and suggests a Late Woodland affiliation and a date of about A.D. 1000 for the complex.

From excavation of three tumuli, Madrigal Mound (23PO300), Petit Cote Cairn (23PO301), and King's Curtain Mound (23PO307), Wood (1965:130) defines the Stockton Burial Complex. The sites are located on high ridges or bluffs overlooking major streams in the Stockton Lake area. A variety of burial types similar to those of the Fristoe Complex is represented.

Ceramics primarily are shell tempered (smooth or cord roughened) although limestone-tempered sherds and a pipe also were recovered. Notched triangular (Huffaker, Cahokia) and Scallorn arrow points also are part of the complex. Trade brass was found in the Petit

Cote Cairn and there was evidence of copper in the King's Curtain and Madrigal mounds. Wood (1965:133) dates the complex at somewhere in the A.D. 500 to 1500 time range.

Chapman (1980:150) suggests adding the Amity (23CE190), Alberti (23CE198), Matthew (23DA219), and Eureka (23DA250) mounds and the Cordwood Cairn (23PO304) to the complex. He also proposes dropping the word "burial" and adding several shelter components which exhibit traits suggestive of Mississippian period occupation. These include the upper components at the Sand Bluff shelters (23DA241 and 23DA300 through 23DA303), the Vance Site (23DA240), Tater Hole Shelter (23DA50), Toler Cave (23DA207), Elmer Long Shelter (23DA245), and Gannaway Cave (23CE105) in the Stockton Lake area.

At Eureka Mound a Spiro Engraved bottle was found associated with a burial. Other material in the mound, however, is essentially similar to that from other mounds in southwestern Missouri (Wood 1966:80). The bottle, together with the Caddoan ceramics from the Sand Bluff shelters, provide firm evidence of contacts with, or visitations by, Caddoan peoples during the Early Mississippian period. South of the project areas, along the James River near the Missouri-Arkansas border, Caddoan occupations appear to be represented by the Loftin Phase (Chapman 1980:142). Chapman sees this phase as representing intrusions of Caddoan peoples from the Arkansas River Valley sometime in the A.D. 900 to 1100 range.

Wood (1961) groups together the most recent component at Blackwell Cave (Component E) with the Mt. India Cairn (23HI30) and the Lytle Cairn (23HI18), all from the Pomme de Terre Lake area, to form the Nemo Complex. Chapman (1980:152) adds Fairfield Mound 2 (23BE6) to the list. Traits associated with the complex include shell-tempered pottery (smoothed and cord roughened); Scallorn and triangular arrow points; Rice Side Notched dart points; end scrapers; oval and beveled knives; rubbed hematite; a stone pipe fragment; and Anculosa and conch shell beads. The diagnostic feature of the complex is rock cairns with rectangular internal structures. Wood (1961:96) considers the complex as late ceramic but predating the historic Osage.

Perttula and Purrington (1981:53-56) discuss a variety of attributes of the various burial complexes which exhibit spatial and temporal variation. Among the differences are: (1) significantly higher numbers of burials per mound in the Bolivar and Stockton components than in the Fristoe components; (2) almost total absence of flexed and extended primary burials in Fristoe components; (3) large quantities of Gulf Coast beads and conch shell gorgets and disk beads in the Bolivar and Stockton complexes relative to the Fristoe Complex; and (4) presence of horticultural products, especially corn and squash, in Bolivar and Stockton components and the absence of these products in Fristoe components. Perttula and Purrington (1981:56) conclude that occupations in the Sac River Basin show evidence of greater exchange for Gulf Coast shell, possibly through the intermediary of Caddoan groups, particularly those represented by the Spiro Phase (ca. A.D. 1200-1350), than do occupations in the Pomme de Terre River Basin. Cultigens more commonly are present with burials in the Sac River Basin, but there is as yet no direct evidence that these were grown locally. The authors also suggest that differences in the number and types of burials between the Bolivar and Stockton complexes (Sac River Basin) and Fristoe and Nemo complexes (primarily Pomme de Terre River Basin) are related directly to trade position with respect to shell from the Gulf Coast and possibly to agricultural products.

HISTORIC PERIOD

The Historic Period at Stockton Lake, comprised of more than 350 years which have elapsed since western Europeans first made contact with aboriginal populations, has been reviewed in a recent report by Espey, Huston and Associates, Inc. (1980:1-7 through 1-28). No similar overview has been prepared for Pomme de Terre Lake, but it is assumed here that, while the particulars of aboriginal occupation, European exploration, and Anglo-American settlement may differ in the two areas, the broad patterns of material culture, availability of goods, migration, economics, architectural styles, and social organization are similar to those in the vicinity of Stockton Lake.

Generally speaking, the project areas were hunting grounds in early historic times for the Osage Indians. However, the late eighteenth and early nineteenth centuries witnessed infiltration by Cherokee, Chickasaw, Choctaw, Shawnee, Kickapoo, Sac, Fox, Delaware, Potawatomi, and other Indian nations who were being pressured into present-day southern Missouri by the American government. Simultaneously, the government was attempting to force the Osage into a series of treaties with the intent of seeing their eventual evacuation from Missouri. In 1826, one year after they signed a treaty with the United States, the Osage were expelled from Missouri and their hunting rights extinguished (Synhorst 1977:17, 43, 69, 71).

By the late 1820s, soon after the land was effectively emptied of its aboriginal inhabitants, Anglo-Americans began to move in from Tennessee, Kentucky, and other nearby states. Having been hunters, farmers, and, in some cases, well-to-do landowners, the new residents along the Sac and Pomme de Terre rivers were attracted to the rich bottomlands, plentiful springs and timber, and the power of the rivers which they used to develop industrial sites such as mills (Figs. 7 and 8). By the 1830s and 1840s, a number of families had settled in the project areas, some of whom were the Hartleys, Lindleys, Rosses, Montgomerys, Haileys, and Englishes along the Sac River; and the Browns, Bollingers, Ingleses, Sapps, Mashburns, and Pittses along the Pomme de Terre (Missouri. Office of the Secretary of State. Surveyors' Maps).

The history of the project areas after the Civil War and until the early twentieth century was generally one of increasing population and a changing subsistence base. Rafferty (1975:300-321) has described the economy of the Ozark Highlands as one which was based on subsistence farming, hunting, and an open range, but which changed to general farming and diversified crop-raising. In the twentieth century, there was a decline in the number of general farms and an increase in dairy farms, and recently residents have focused on the production of unfinished feeder cattle and conversion of timberland to pasture. The creation of reservoirs dealt a severe blow to local populations, many of whom lost the most desirable land in their particular county; and resulting influxes of capitalists from outside the area have also had an impact on the local economy. However, in many other areas surrounding the lakes, long-time residents continue to participate in an agricultural society much as their ancestors did in the nineteenth century.

1617-1826: Aboriginal Occupations

The history of the Osage Indians in southwestern Missouri and of European exploration has been discussed in Synhorst (1977), Chapman (1974:81-89, 90-120), Chapman et al. (1962: 87-95), and Wood (1966:104-109). Briefly summarized, these authors have viewed the history

of Osage occupation as one of expansion followed by an increasing conflict between the Osage and other in-migrating tribes, with the final expulsion of the Osage occurring by 1826. The authors define the Historic Period as beginning in 1617 when the King of France granted control of the area drained by the Mississippi River to the India Company. Initial contact between Indians and Europeans occurred in the early eighteenth century and increased dramatically for the next 70 years, during which time the Osage were allied with and/or courted variously by the French, Spanish, and English. The extent to which trade relations were strong among the groups is reflected in archeological sites where trade items are more in evidence than nativemade goods. Specifically, site 23DA252, an historic burial near Stockton Lake which has been tentatively identified as Osage, contained numerous nineteenth-century grave goods, including a wrought iron strike-a-light, rolled brass sheet metal blades, iron or steel arrow points, an iron butcher knife, and two bracelets of solid brass wire.

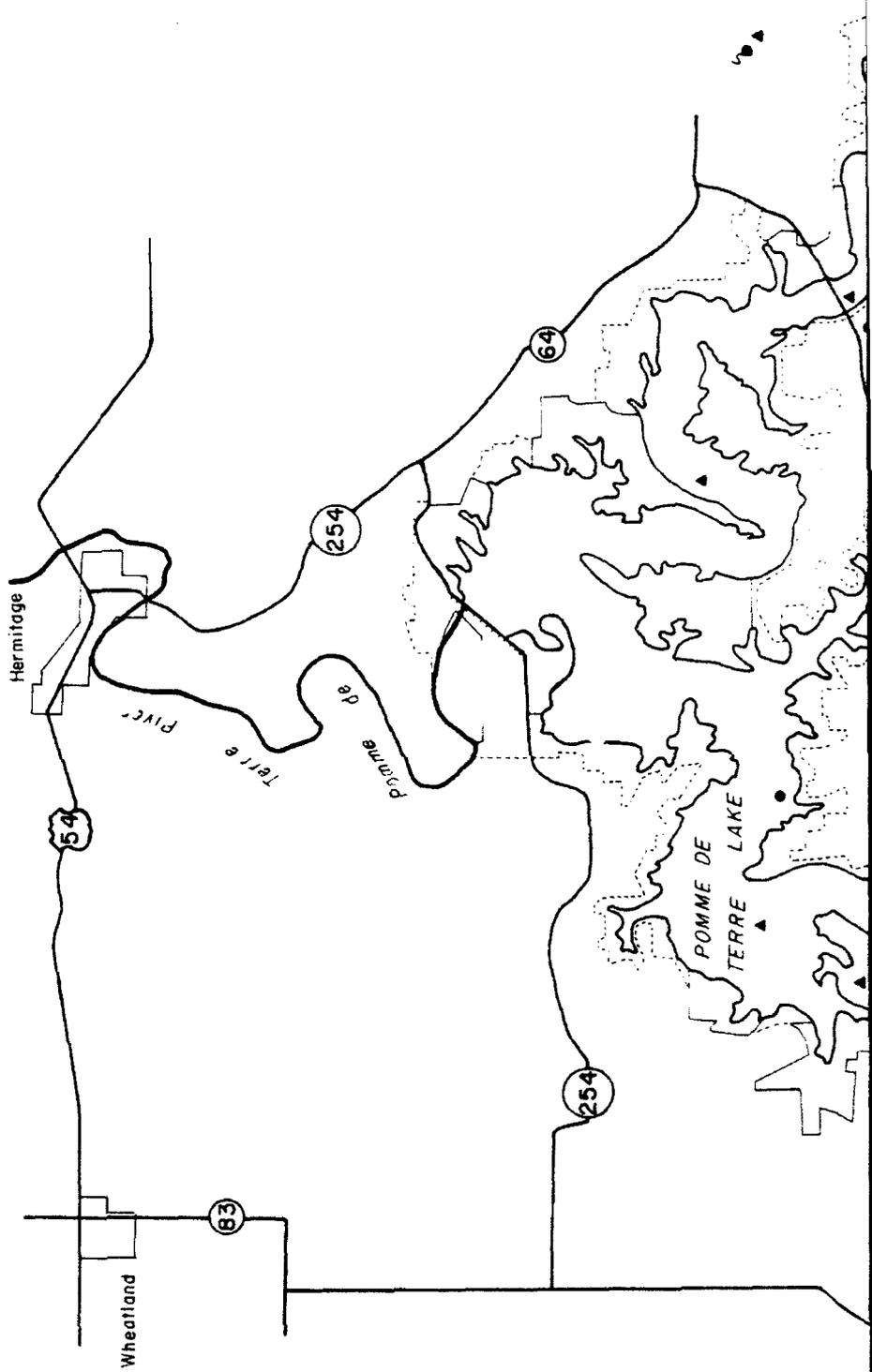
Change occurred for the Osage in the early nineteenth century when the United States gained formal ownership of the western Mississippi River Valley, other tribes moved into the area, and influxes of trappers and Anglo-American settlers resulted in the deterioration of the wild game subsistence base. However, opinions about the cataclysmic nature of change for the Osage have been somewhat tempered by recent scholarly assessments of the period. Chapman (1982:19-26), for example, now views the 150 years between 1675 and 1825 as having been a time when the Osage experienced gradual acculturation, became involved in the Euro-American fur and hide trade, obtained horses, and experienced pressure from the arrival of other tribes and European settlers. Because these mechanisms of change occurred over a relatively extended period of time, Chapman believes that the Osage migration from western Missouri to eastern Oklahoma was voluntary and inevitable. Indeed, by 1825, when the project areas became fully open to Anglo-American settlement, subsistence and other economic activities of the Osage had been attuned to the needs of European traders, and they had adjusted their own needs so that they were dependent on traders' goods. Specifically, the use of fired clay pottery vessels was abandoned for metal utensils, chipped stone cutting tools were largely superceded by iron knives and axes, bone household implements were replaced by metal, skins by cloth, and bows and arrows by guns. Of the native items that were retained, the large chert scrapers used in the preparation of hides were foremost.

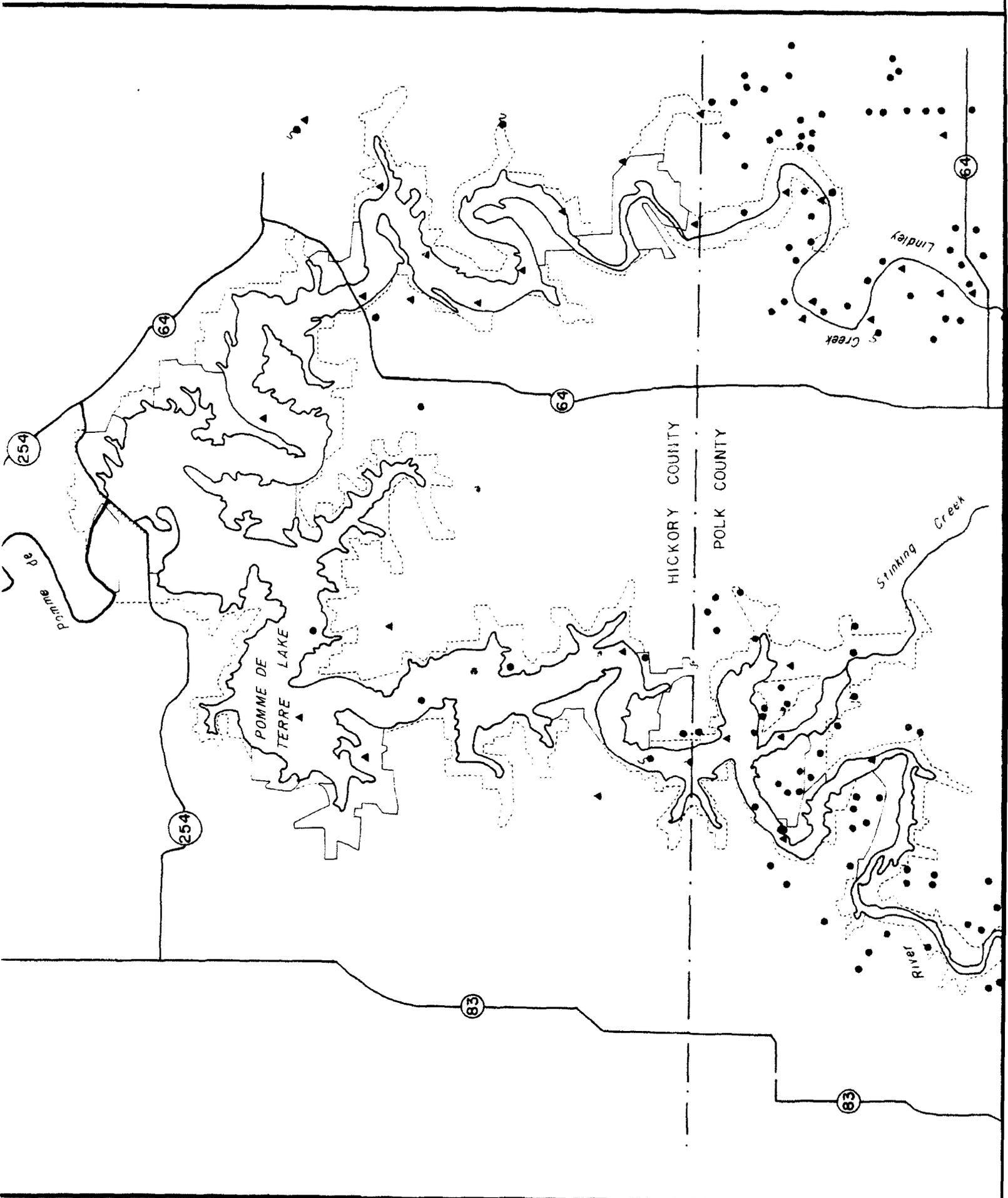
1830-1865: Early Anglo-American Settlement

The general pattern of Anglo-American settlement in Cedar, Dade, and Polk counties has been summarized recently in a report by Espey, Huston and Associates, Inc. (1980:1-12 through 1-17). All three counties have been identified by cultural geographer, Carl O. Sauer (1920), as lying within the Springfield Plain, an area of the western Ozarks which was geographically isolated from the Missouri River system and thus did not experience significant immigration until the late 1820s and early 1830s. At that point, settlers moving largely from Kentucky and Tennessee entered the area, settling first on the upland prairies which offered gentle slopes, fertile soils, and abundant springs. In general, the three-county area offered an ideal physical environment for subsistence farmers who were attracted to timber, water, and bottomlands for hunting (Sauer 1920:40, 66-67; Gerlach 1976:24-25, 33, 178-179; Synhorst 1977:73-75). They also offered some limited possibilities for farmers who preferred upland prairies. Early surveyors' maps of Cedar County, for example, graphically show that while the first land claims were immediately adjacent to the Sac River where some fields were located, almost all other improvements such as cabins and the remaining fields were located well back from the river in the small upland prairies.

POMME DE TERRE LAKE
DOCUMENTED HISTORIC ACTIVITIES

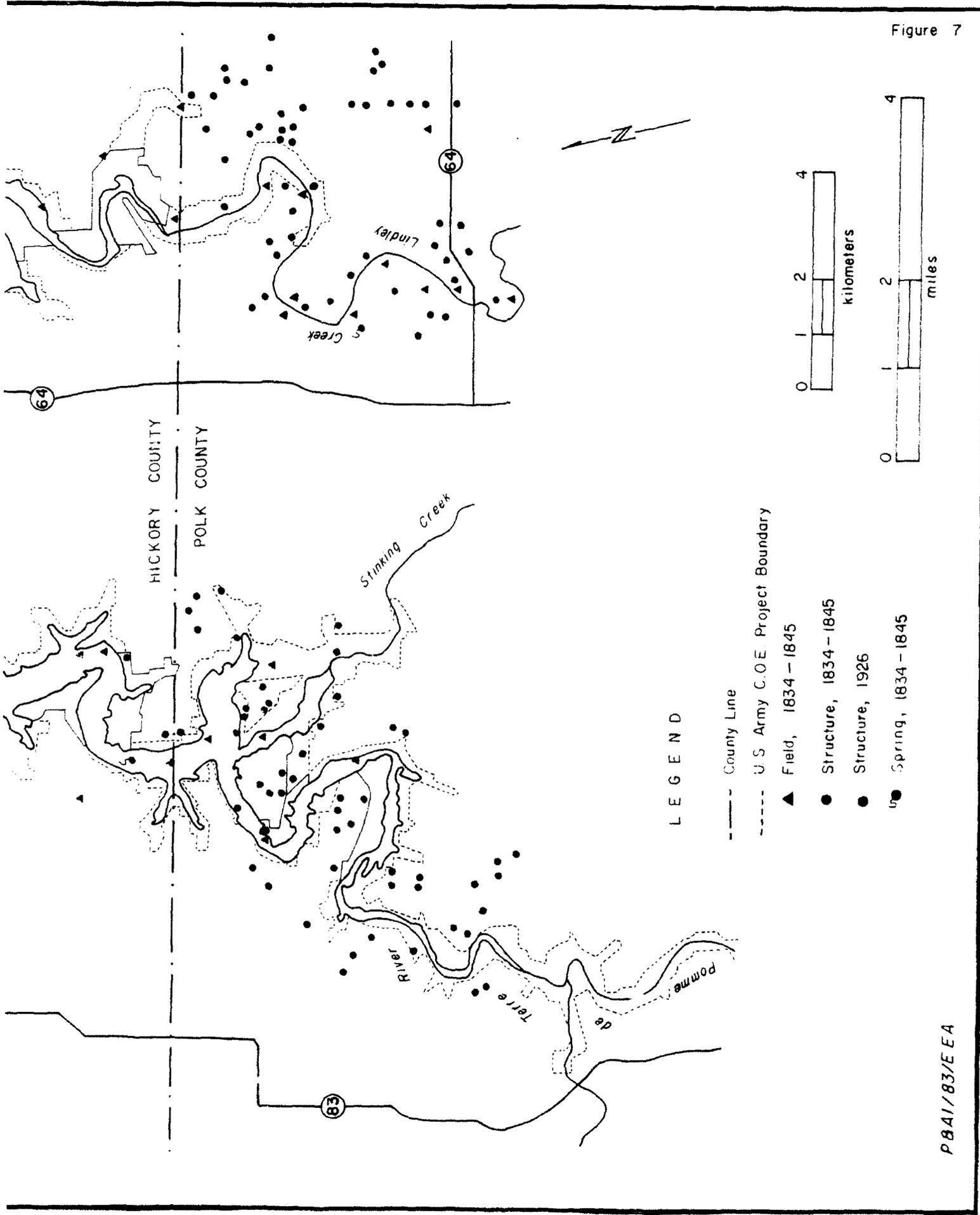
1834-1926





(5)

Figure 7

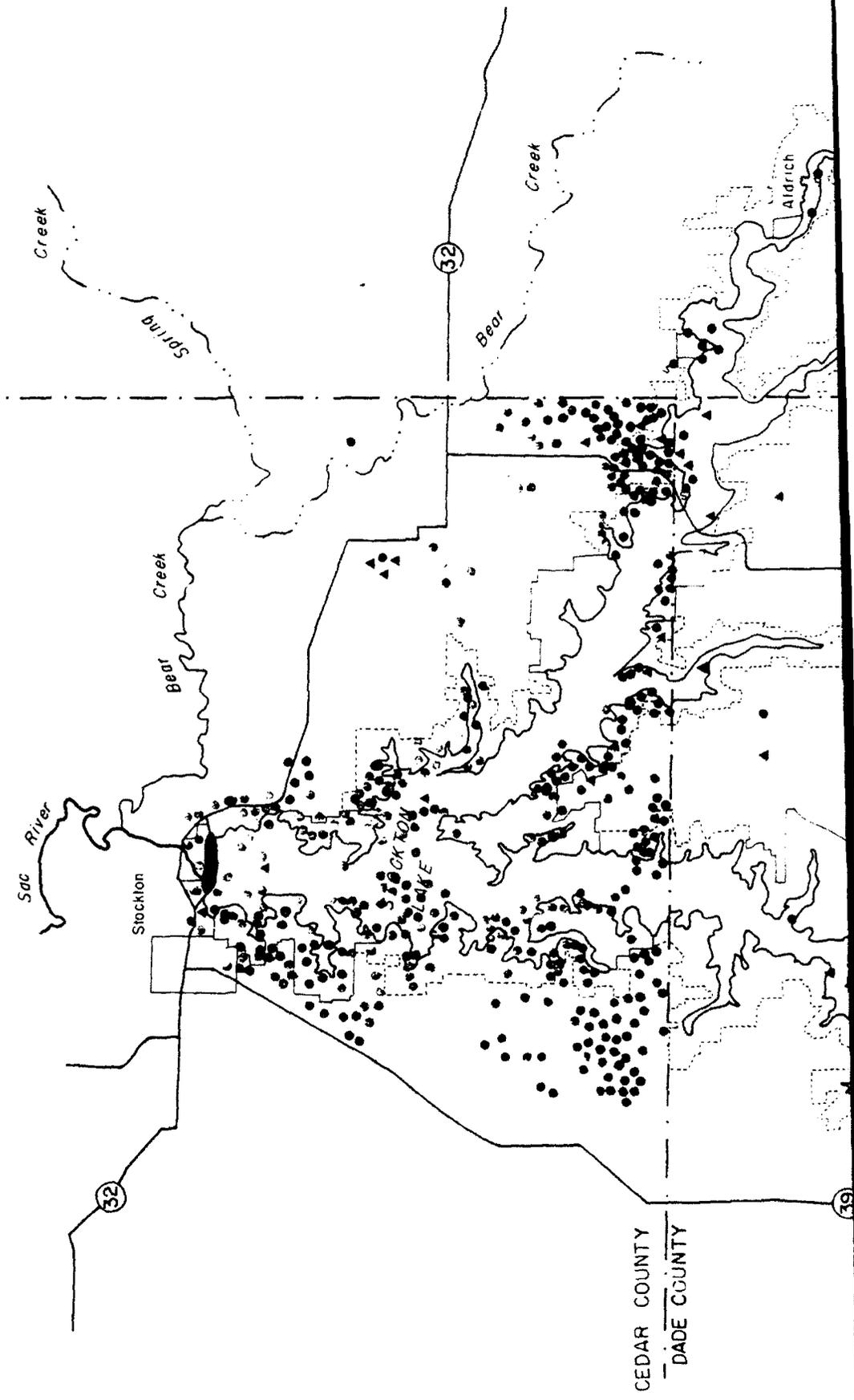


LEGEND

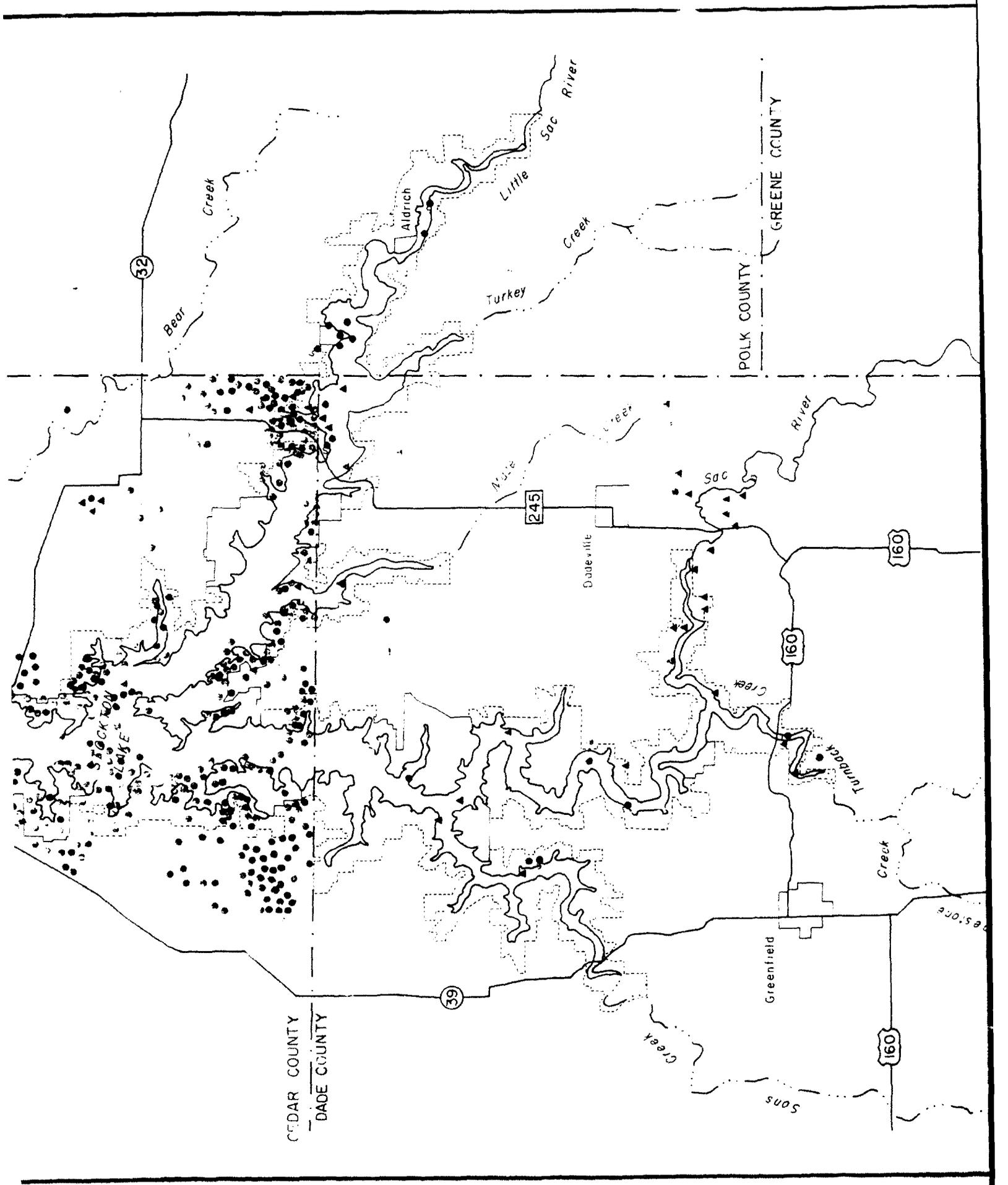
- - - County Line
- - - - U.S. Army C.O.E. Project Boundary
- ▲ Field, 1834 - 1845
- Structure, 1834 - 1845
- Structure, 1926
- Spring, 1834 - 1845

STOCKTON LAKE
DOCUMENTED HISTORIC ACTIVITIES

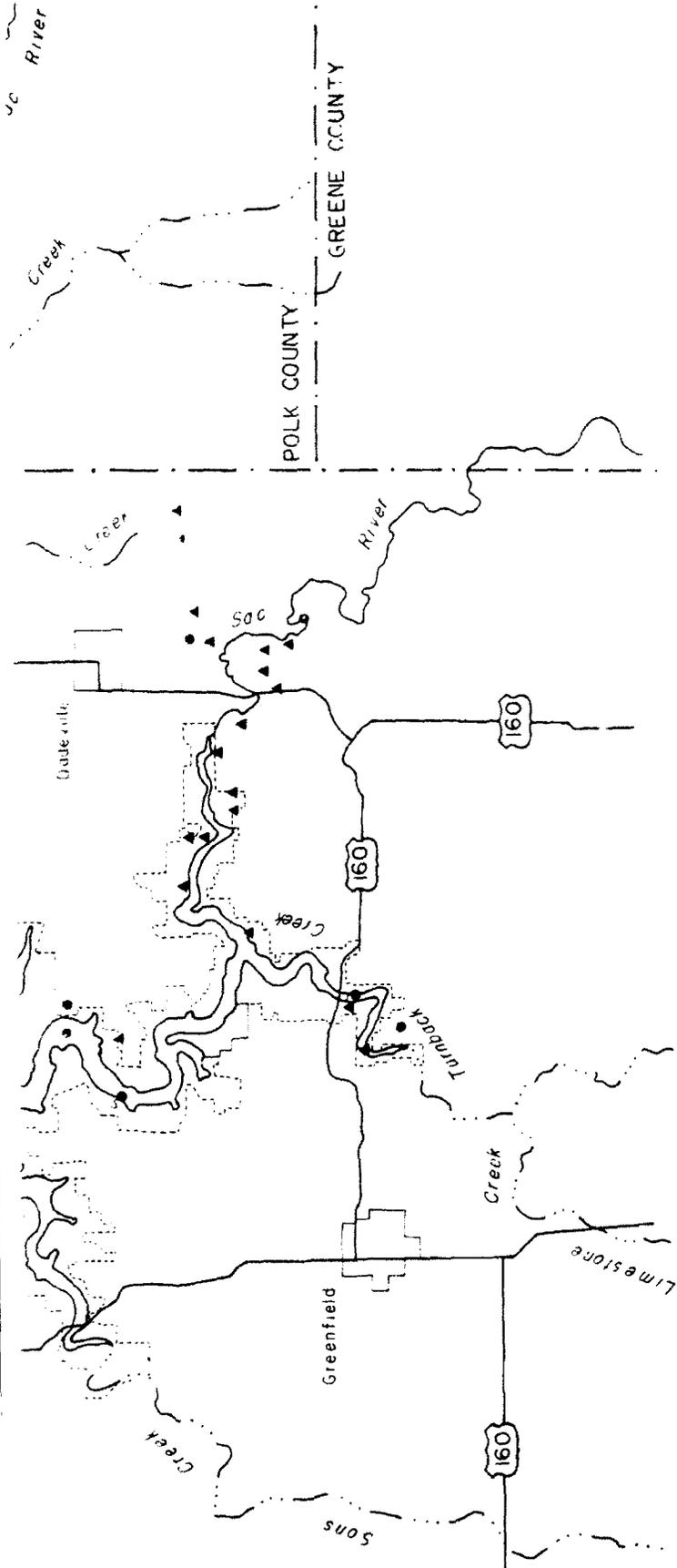
1834 - 1909



①

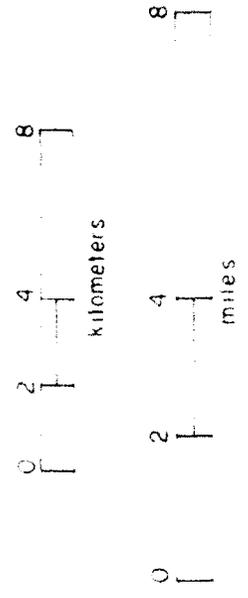
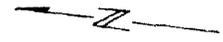


15



LEGEND

- County Line
- U.S. Army C.O.E. Project Boundary
- ▲ Field, 1834 - 1844
- ▲ Field, 1879
- ▲ Field, 1908 - 1909
- Structure, 1834 - 1844
- Structure, 1879
- Structure, 1908 - 1909
- Spring, 1834 - 1844



Although Carl Sauer identified the Pomme de Terre area of Missouri as being part of the Central Plateau of the Ozark Highlands, as opposed to the Springfield Plain (Sauer 1920:62), the history of settlement in the two areas had much in common. Indeed, Goodspeed's history of 1889 more accurately combined the histories of Hickory, Polk, Cedar, Dade, and Barton counties, for like the other four counties, Hickory was settled relatively late because of its distance from the Missouri River. As in Cedar, Dade, and Polk counties, immigrants to Hickory County came primarily from Tennessee and Kentucky. Earliest settlers are thought to have congregated in the vicinity of present-day Pittsburg on Lindley Creek where the Zumalt and Ingles families settled in about 1832. Immigration was stimulated in Hickory County by the financial crash of 1837, and most early settlement of the county occurred after that time when land west of the Pomme de Terre River opened to white settlement (The Goodspeed Publishing Co. 1889:214, 215, 217, 218).

Not only did settlement occur simultaneously in Cedar, Polk, Dade, and Hickory counties, but the pattern of settlement was basically similar throughout the four-county area. In the vicinity of the Sac River, a few settlers farmed the bottomlands but most, such as the Englishes, Lindleys, Haileys, and Hartleys, located their fields and homes in the upland prairies around present-day Cane Hill, Bona, and Masters. In the vicinity of the Pomme de Terre River, the Mashburn, Brown, Pitts, Ingles, and Zumalt families followed a similar pattern of upland prairie usage. In general, however, fewer families lived in the vicinity of Pomme de Terre than at Stockton for the topography of the area was more rugged and less suited to agriculture. Indeed, most settlers who wished to farm probably preferred the Wheatland Prairie which was located approximately 4 miles west of the Pomme de Terre River.

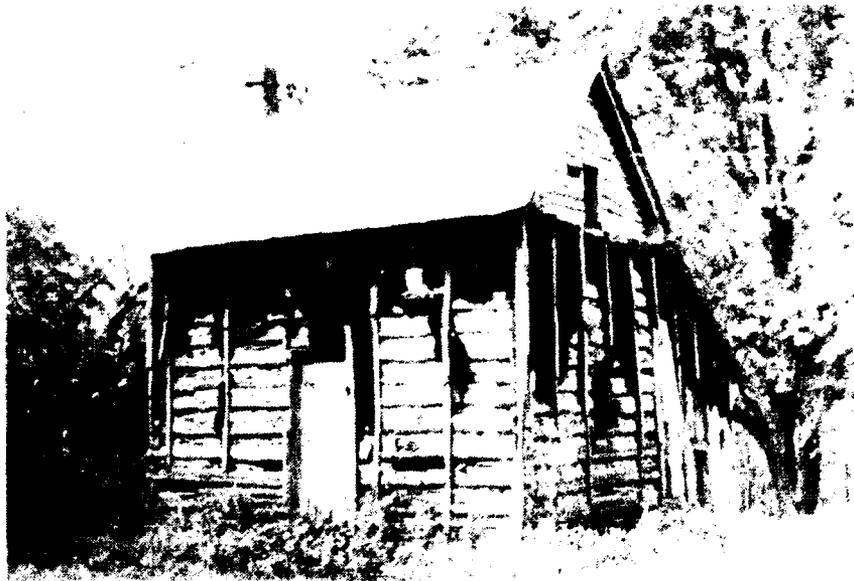
If many aspects of exploration and settlement in the project areas were similar, there was at least one significant difference. Perhaps because the land at Pomme de Terre was not so well suited to large-scale agricultural purposes, slavery was not a practical issue prior to the Civil War. Cedar and Dade counties, on the other hand, were the locations of several large farms which utilized slave labor, a fact which is rarely mentioned in county histories but is readily apparent in estate inventories. The Ross family, for example, whose land lay primarily in the area of present-day Hawker Point, owned slaves who, local hearsay maintains, were buried outside the family cemetery (23CE355). Across the Sac River, Montgomery slaves were buried in a cemetery on the southeastern side of Sorter's Bluff, land which was a part of John W. Montgomery's extensive holdings northwest of Cane Hill. Near Bona, Meredith Hailey owned slaves who became the object of some litigation when John W. Montgomery did not handle their sale to the satisfaction of the Hailey heirs (Cedar County. Probate File 99-B).

On the whole, however, such families were the exception rather than the rule in the project areas. Even had smaller landowners wished to own slaves, it is unlikely that they could have afforded to or that the size of their holdings would have warranted it. The average size of farms in Hickory, Dade, Polk, and Cedar counties ranged between 100 and 140 acres (Sauer 1920:181), a fact which, considering markets were largely inaccessible (Rafferty 1975:300), meant that early settlers tended to practice subsistence farming supplemented by hunting and fishing.

1865-1930: Changing Subsistence Bases

Regardless of the extent of slave-holding in Cedar and Dade counties and its rarity in Polk and Hickory counties, all four counties were devastated by the politics and military

Figure 9



a



b

Figure 10



a



b

events which accompanied the Civil War. Courthouses were burned, making the latter-day recreation of certain events of early history and settlement difficult to reconstruct, and neighbors became divided in their opinions. In general, economic development was checked and a significant percentage of the population in the project areas dispersed.

The slow recovery which occurred after 1870 was aided as railroad transportation became available. The intense boosterism which marked popular publications about the western Ozarks also assisted the recovery by encouraging a repopulation of the area. Subsistence farming gradually disappeared and was replaced by general farming as railroads made the shipping of produce possible.

The general prosperity of the area and the repopulation it experienced from about 1880 to 1910 is nowhere more apparent than in the architecture. Of all the structures which remained when the United States government acquired the tracts around the Sac and Pomme de Terre rivers, perhaps as many as 90% of the domestic buildings dated from the late nineteenth to early twentieth centuries (Figs. 9 and 10). Typical house forms included one-story, frame, Cumberland-plan structures with front porches, and one-and-one-half-story versions of the same layout. A less common pattern was the central-hall form, and, in some rare instances, a one-room log house dating from the initial settlement of the area was incorporated as one-half of a more modern residence (Fig. 9b). Most structures constructed around the turn of the century were located on stone footings, and many had brick chimneys or flues which replaced earlier stone fireplaces and chimneys. Typical outbuildings included barns, granaries, hen houses, corn cribs, sheep sheds, smoke and wood houses, hog houses, and outdoor toilets.

1930-1983: Further Changes in the Economy

The general prosperity which marked the post-Civil War era in the project areas came to an abrupt end during the 1930s Depression and accompanying droughts. As a result, the general and fruit farms which had typified the agricultural scene became unprofitable, and landowners began the change to a livestock economy which still typifies much of the area. The construction of Pomme de Terre and Stockton dams in the 1950s and 1960s dealt another blow to what had become an economically unstable scene. Much prime agricultural land was removed from cultivation, and an equal amount of grazing land was destroyed as well. In 1983 the survey areas remain essentially rural and agrarian in function as well as in appearance. However, many of the social and cultural elements which have been fundamental to the perpetuation of the agrarian landscape are rapidly disappearing as the economic base becomes increasingly recreational and as new immigrants from urban areas enter the vicinity of the lakes.

CHAPTER 2

RESEARCH GOALS AND METHODS OF INVESTIGATION

General Research Goals

The contract Scope of Work for the Pomme de Terre and Stockton lakes projects requires ". . . an intensive on-the-ground survey of a total of 6,905 acres and testing sufficient to determine 1) the number of resources present, 2) their areal and temporal extent, 3) their cultural and scientific importance, 4) their eligibility for the National Register of Historic Places, and 5) appropriate mitigative methods for eligible sites."

Although the primary focus of the investigations is directed toward the above goals, data generated during the project are relevant to the understanding of regional settlement patterns. A secondary goal of this project is to provide preliminary interpretations concerning the kinds of activities carried out in various environmental zones through time and to relate these interpretations to variation in regional settlement systems.

Assessment of Sites

The Scope of Work calls for evaluation of each site in terms of its eligibility for nomination to the National Register of Historic Places. Criteria for eligibility are listed in 36 CFR 60, Section 60.6:

National Register criteria for evaluation. The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in prehistory or history.

Resources encountered during archeological investigations are most often evaluated under Criterion D which requires that a property contain information of importance to our understanding of prehistory or history. Because so many of the sites recorded in the project area are historic, however, and because they represent the only sites known at this time to be associated with certain significant events and individuals, Criteria A and B are also used to evaluate the National Register eligibility of specific properties.

Criterion A requires that a property be associated with events that have made a significant contribution to the broad patterns of our history. The property must be associated with events important in prehistory or history, such as the founding of a town. The events must be important within a theme or pattern, such as settlement. The property should be a good representative of the theme and of specific events, must have strong associations with the theme and selected events, and must possess integrity.

The application of Criterion A usually assumes the presence of buildings. Under other circumstances, this criterion may apply to the locations of important events where few physical remains still exist, such as battlegrounds. The systematic demolition and removal of all standing structures from the project area by the Corps of Engineers at the time of acquisition makes it impossible to nominate buildings under Criterion A, but a number of historic archeological sites do remain which are representative of important themes, are associated with significant events, and which possess integrity.

While Missouri has not yet completed a State Historic Preservation Plan which defines historic themes of statewide significance, it is assumed that one such theme might be that of exploration, migration, and settlement. The evaluation of the historic sites recorded in the project areas reveals that, while many early sites were destroyed by the inundation of the Sac and Pomme de Terre river valleys, a number of other properties remain which date from the period of earliest settlement in the western Ozarks. Such sites include the locations of early farmsteads associated with the Lindley, Hailey, Hartley, Ross, English, and Montgomery families along the Sac River, and with the Ingles, Brown, Pitts, and Mashburn families along the Pomme de Terre River. Most such sites date from the 1830s, the decade of initial migration into the western Ozarks, and most demonstrate a continuum of occupation which remained unbroken until the acquisition of the property by the Corps of Engineers in the mid-twentieth century.

Criterion B, like Criterion A, is used to evaluate historic sites for National Register eligibility. Under this criterion, a property may be eligible if it is associated with individuals whose activities have been important within significant themes in national, state, or local history. Such associations must be demonstrated through accepted methods of historical research, and the specific identity of the individual and his or her contribution must be clear. While the existence of a standing structure is a basic assumption of Criterion B, the systematic removal of all buildings from the project areas has left scholars the problem of preserving the only sites which can be associated with the lives and activities of a number of locally significant historical figures. In the vicinity of Stockton and Pomme de Terre lakes, these figures include individuals or families who were the earliest settlers, made important contributions to the economic and industrial development of the region, or were outstanding public figures in the field of local politics.

Criterion D is relevant for evaluations of significance for the bulk of the sites in the survey area. To be considered eligible under this criterion, a property (site) must contain information of importance to our understanding of prehistory or history:

The importance of information which a property may yield must be evaluated within an appropriate comparative context -- i.e., what is already known from similar properties or other pertinent information sources. The information likely to be obtained from a particular property may be important if, for a given area, the information is unavailable elsewhere; or because it would conform or supplement in an important way information obtained from other sources. In some cases, however, the existence of other information sources, such as modern or historic written accounts or other documentation, or scholarly analyses of other similar properties in the area, may render the information contained within the property less important, with the result that the property will not be eligible under Criterion D. [U.S. Department of the Interior, National Park Service, National Register Division 1982:30-31]

It is necessary to define the particular aspect of prehistory or history to which the information contained in the site pertains. Construction of a research design is considered a necessary step for relating a site to a particular aspect of prehistory or history:

Having established the importance of the information that may be recovered, it is necessary to be explicit in demonstrating the connection between the important information and a specific property. One approach is to determine if specific important research questions may be answered by the data contained in the property. Research questions may be related to property-specific issues, to broader questions about a large geographic area, or to theoretical issues independent of any particular geographic location. These questions may be derived from the academic community or from preservation programs at the local, regional, state, or national level. Research questions are usually developed as part of a "research design," which specifies not only the questions to be asked, but also the types of data needed to supply the answers, and often the techniques needed to recover the data. [U.S. Department of the Interior, National Park Service, National Register Division 1982:31]

A State Historic Preservation Plan which outlines resource management units and pertinent research concerns has yet to be completed in Missouri, although work on such a plan is in progress. The research structure constructed for this project is largely based on concerns of previous archeological research in the region.

Following a brief review of the research concerns of previous investigators within and adjacent to the project areas, theoretical concerns are presented along with identification of research goals, relevant analyses, and data requirements. Specific research problems relating to each cultural period follow.

Research Strategies of Previous Investigations

Studies of Prehistoric Resources

Chapman's (1954) early research in the Pomme de Terre Lake area clearly reflects concern with cultural context and function which were the dominant research themes of the time

(the second phase of the Classificatory-Historic Period described by Willey and Sabloff [1974:131-177]). Temporal and spatial contexts were established primarily through artifact classification. Chapman recognized that a long temporal span was represented by the artifacts collected during his investigations. He attempted to produce temporally significant groupings of artifacts based generally on comparisons with data from surrounding areas because deposits in the limited excavations carried out were shallow and mixed. Relationships of artifact forms with those of surrounding areas were interpreted as representing possible cultural influences or affiliations. Site function was addressed only in very general terms; i.e., statements were made which are applicable to the entire area throughout prehistory.

Wood (1961:4) described two primary objectives of his study of archeological resources in the Pomme de Terre Basin. The first objective was to describe the cultural complexes present; the second was "to determine the relationships of these complexes to the local habitat and to adjoining areas." Following Rouse (1955), Wood structured his research so as to correlate cultural units at three analytical levels: descriptive, distributional, and historical (genetic). At the descriptive level, cultural units (based on McKern's [1939] Midwestern Taxonomic System) were defined principally on the basis of characteristic artifacts and features. These characteristic traits were then discussed in terms of their regional distributions. At the highest level, the historical relationships of the units were considered. Wood's concerns, however, were not totally with historical relationships. Conclusions were drawn which treat subsistence activities and settlement patterns (Wood 1961:113, 117).

The research goals of the investigations at Stockton Lake in the 1960s were similar to those of the earlier work at Pomme de Terre Lake although they were increasingly concerned with possible relationships between regional environmental and cultural variability.

With the shift in American archeology during the late 1960s and 1970s toward a concern with the construction of explanatory models of culture change, reconstruction of subsistence activities and settlement patterns and studies of human adaptation to the environment in general began to be emphasized. The investigations at Rodgers Shelter and nearby sites associated with springs in the Harry S. Truman Reservoir area downstream from Pomme de Terre Lake have provided both a theoretical orientation and substantive data which have guided much of the recent research in southwestern Missouri. The first published synthesis of these investigations was produced by Wood and McMillan (1976). The research goals were to produce a preliminary model for the paleoecology of the western Ozark Highlands for the past 35,000 years and to interpret the ways in which humans have adapted to and exploited the natural resources of the region (Wood 1976b:3). McMillan (1976b:226-231) interprets adaptive changes as being related to several interrelated cultural and environmental factors. Changes in the quantity and distribution of prairie and forest environmental zones during the Holocene are seen as directly affecting food procurement systems and settlement patterns. McMillan (1976b:230) also suggests that population increase and the introduction of cultigens from adjacent areas affected these patterns.

The research concerns of the work at Rodgers Shelter necessitated a broadening in the methodology employed in both fieldwork and analysis. An interdisciplinary perspective was adopted which included studies of geochronology, pollen, animal and human bone, and paleontological remains. Analyses stressed identification of changes in activities rather than in artifact types. McMillan (1976b:211-232) treats inferred activities, faunal remains, and stratigraphic units as variables and, through the use of percentages, chi-square

tables, factor analysis, and cluster analysis, identifies five adaptive patterns. He then correlates these patterns with traditional cultural periods and makes interpretations of corresponding activities. Emphasis is placed on subsistence patterns.

In additional work at Rodgers Shelter and in investigations of the nearby Phillips Spring Site, Kay (1982e:1-7) also pursues an ecological approach. His goal is "to further define those cultural processes through which societies articulate with the natural environment and other cultural systems" (Kay 1982e:5). He adds to this approach an explicitly systemic view of culture:

We submit that the key to modeling cultural adaptation is the understanding of external constraints and systemic responses that keep a culture in balance, or to one degree or another, lead to a new systemic state. . . . Knowledge of cultural systems has been most closely approximated by their stylistic, technological or extractive aspects, particularly as these relate to subsistence or settlement. [Kay 1982e:5]

Kay, however, does not incorporate this systems orientation into an explanatory model of culture change. In his conclusions (Kay 1982c:729-741), he presents a revised model of changing Holocene environmental conditions and corresponding activities associated with the use of Rodgers Shelter and Phillips Spring.

Because the work in the lower Pomme de Terre River Valley focused on intensive investigation of a small number of sites, analysis of regional settlement patterns was necessarily of secondary concern relative to reconstruction of site-specific subsistence and activity patterns. The work of Roper et al. (1977) and Perttula and Purrington (1981) in the Sac River Valley downstream from Stockton Lake is targeted specifically at regional subsistence-settlement patterns. Although data are limited because the survey was carried out only within the floodplain, Roper et al. (1977:4-5) formulate a series of research questions concerning the nature of activities carried out at specific sites, the locations of sites within the floodplain, the chronological sequence of occupations, and the nature of changes in the use of the floodplain through time. Roper et al.'s methodology involves study of recovered artifacts from both a chronological and functional viewpoint and study of site locations through use of site catchment analysis. A model is presented which discusses sites for various temporal periods as representing either limited or generalized activities. Site locations are considered in terms of proximity to potential resources, and changes in the locations of site types are related to corresponding changes in environmental conditions.

In testing three of the sites identified during Roper et al.'s survey, Perttula and Purrington (1981:69-73) take the view that adaptation is a conscious process wherein social groups choose a particular settlement strategy:

Changes in adaptive strategies (i.e., dimensions of settlement subsistence; social and mortuary dimensions; technological and functional dimensions, etc.) are conceived of as a selective process dependent upon the acquisition, management, and distribution of energy within a society. Selection is made by evaluating the relative costs and benefits of alternative settlement strategies (e.g., Earle 1980:1-29). Those strategies or sets of strategies that are more efficient, i.e.,

have lower unit costs and/or higher energy returns relative to other strategies, and vary in the directions favored by the local environment will generally be maintained in future generations so long as they remain most efficient. These strategies have clear functional costs in energy expenditure and procurement. [Perttula and Purrington 1981:71]

Perttula and Purrington focus their research on identification of the nature and range of activities carried out at the sites. Subsistence strategies are not addressed directly because of the lack of recovered subsistence data. Lithic material is used in a manner similar to that of Roper et al. (1977); i.e., differences between sites are investigated in terms of both technological/functional and stylistic criteria in order to reconstruct activity ranges and to place occupations in chronological context.

Studies of Historic Resources

Investigations of historic sites and structures at Pomme de Terre Lake have been notable primarily for their absence in the archeological literature. From the time of the earliest work in the 1940s until the late 1970s, only historic aboriginal sites were recorded, excavated, and reported; historic Anglo-American settlement was given scant attention. Chapman's (1954) report on preliminary salvage archeological projects in the Pomme de Terre Lake area deals almost entirely with prehistoric sites and relegates historic sites to the category of passing mention or as a means of locating prehistoric sites, i.e., "An old house location and a shed are on the site, most of which is in grass and small timber and which has never been cultivated" (Chapman 1954:78). The Bailey Site (23HI43), a multicomponent site that contained some historic artifacts which Chapman conjectured may have been lost by an early settler or may have represented use of the area by historic Indians (Chapman 1954:91), is given more complete attention.

The report on the 1957 and 1958 investigations at Pomme de Terre Lake (Wood 1961) includes a brief description of the writer's opinions about the appearance of the Ozarks when the first Anglo-American settlers arrived and conjectures about changes in vegetation after the area became cultivated (Wood 1961:7-8). Such explanations are offered, however, not because of interest in historic settlement in the western Ozarks per se, but rather for purposes of demonstrating the impact of such settlement on prehistoric ecosystems. Once again, prehistoric sites received most of the attention and only aboriginal historic components were described. In this report, the Fristoe Burial Mound Complex is discussed and speculations are made about the history of the Osage and Kickapoo use of the Pomme de Terre Basin. The material culture of these two tribes is described briefly, and the author concludes that the historic Osage did not occupy the basin intensively enough to leave substantial remains (Wood 1961:26-112). However, interest in that fleeting occupation was strong enough to instigate the publication of another report on the Fristoe Burial Complex (Wood 1967). The 1967 report focuses primarily on the prehistoric components of the burial mounds, but some of Wood's conclusions also may be applicable to an interpretation of the Historic Period: (1) that the Highlands is an area where people have been isolated from developments in areas most favorable for rapid and easy communication; (2) that residents have maintained relatively extensive trade relationships with cultures beyond the Ozarks despite their geographical isolation; and (3) that the culture of the residents did not necessarily become elaborated because they did not always value other cultural variables or orientations (Wood 1967:126).

Treatment of the Pomme de Terre area in traditional historical studies has failed to provide much site-specific information. Two exceptions are cemetery directories for Hickory (The Historical Society of Polk County, Missouri, Inc. 1979) and Polk (Kirchner 1976) counties. However, other studies of the two counties fall into more traditional categories, some of which are the "mug" books of the late nineteenth and early twentieth centuries (The Goodspeed Publishing Co. 1889; Wilson 1907), published nineteenth-century censuses (Ellsberry n.d.), guides to towns and villages (Briggs 1970; Moser 1972, 1973), biographical sketches (Johnson 1973; Dunaway 1978), and general histories (Anonymous 1935; Butts 1966; Ihrig 1970).

If investigations of historic sites at Pomme de Terre Lake have suffered from a paucity of information, the recording of such sites at Stockton Lake has hardly been more complete. The 1961-1962 preliminary investigation of the Stockton Lake area conducted by the University of Missouri Archaeological Research Division does not mention historic populations except insofar as their activities and traditions of land use might have implications for the study of prehistoric populations (Chapman et al. 1962:87-95). Wood's 1965 study mentions one historic aboriginal grave, the Comstock Mound, 23DA221 (Wood 1965), and a 1966 publication similarly neglects to discuss Anglo-American settlement, focusing instead on the historic aboriginal Suttie Bridge Grave, 23DA252 (Wood 1966:104-109). Subsequent salvage work in the Stockton Lake area also failed to deal with historic sites. Indeed, in at least one case, an historic cabin was destroyed to gain access to the prehistoric site beneath it, and archeologists routinely walked by standing structures and easily recognizable housesites without providing even the most cursory documentation.

As in Hickory and Polk counties, most local histories of Cedar and Dade counties traditionally have recorded significant families, institutions, and communities (The Goodspeed Publishing Co. 1889; Goodspeed Brothers, Publishers 1894; Williams 1908; Sechler 1953, 1959; The Pioneer Historical Company 1917; Anonymous 1935; Abbott 1967; Abbott and Hoff 1971; Hulston 1971, 1976; Moser 1971, 1972, 1975; Dade County, Mo. American Revolution Bicentennial Commission 1976; Cedar County Historical Society, Inc. 1977; Ryvers and Gleason 1977; Dunaway 1978; Dade County, Mo., Commissioner of Public Schools [1894-]). However, perhaps because of an awareness of what they were about to lose to inundation, various local groups and individuals also were unusually active in recording specific sites such as cemeteries (Cedar County Historical Society, Inc. 1972; Yates et al. 19--?; Daughters of the American Revolution, Missouri, Rachel Donelson Chapter, Springfield 1974-1975; Kirchner 1976), and in mentioning the locations of nineteenth-century sites which were endangered or had been destroyed by activities associated with the acquisition and clearing of land for Stockton Lake (Abbott 1967; Abbott and Hoff 1971; Fox 1971; Cedar County Historical Society, Inc. 1977).

The first attempt to record historic sites in the vicinity of Stockton Lake occurred in 1979 when the Corps of Engineers contracted with Espey, Huston and Associates, Inc. to perform a survey and assessment of sites located in the Masters, Cedar Ridge, and High Point public use areas. As a result, nine sites with historic components were recorded. Additionally, historic primary and secondary sources were examined at the Missouri State Historical Society, the Records Management and Archives Division of the Secretary of State in Jefferson City, and the Cedar County Courthouse. Informants were interviewed to aid in the identification of specific sites. Finally, a site-specific history of the survey area was developed, the significance of the sites was assessed from the larger perspective of the historic development of the western Ozarks, and a resource management plan was offered (Espey, Huston and Associates, Inc. 1980).

Required by law to provide complete documentation of land and improvements in and around the proposed lakes, the Corps of Engineers generated tract files which include photographs of all standing structures, written descriptions of buildings and other improvements, comparisons of those improvements with others nearby, and occasional interviews with former occupants and owners. While there is little of an analytical nature in the files, they do provide an invaluable research tool for obtaining information about the agricultural and economic status of the project area, raw sociological data about residents, and detailed architectural information about building types, materials, and settings.

Project Research Structure

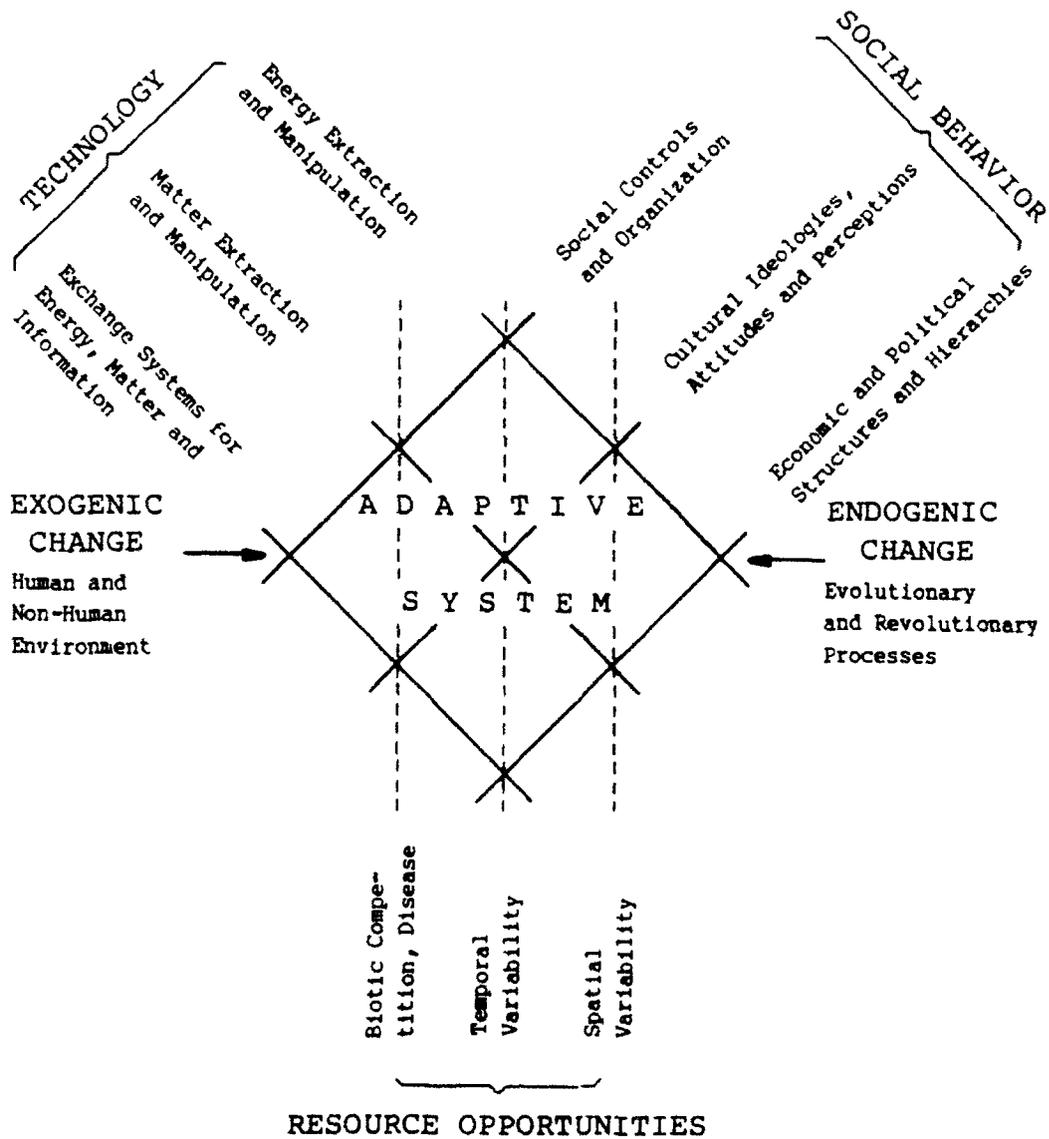
In keeping with the ecological orientation of recent archeological research in southwestern Missouri, culture is viewed in this study as an adaptive system. A complete discussion of the theoretical basis and methodological requirements for the study of adaptive systems cannot be presented here, but a general framework is outlined in order that cultural resources of potential importance may be identified and evaluated. This framework is intended to be sufficiently broad in scope so that a large number of specific research designs may be incorporated within it. The discussion is based primarily on the ideas of Butzer (1982) and Kirch (1980), and the reader is referred to these works for current, in-depth discussions of archeological approaches to the study of adaptation.

Butzer defines adaptive systems in the following manner: "The three-dimensional intersection defined by social behavior, technology, and resource opportunities and limitations represents an adaptive system that is reflected in subsistence strategies and settlement patterns and that responds and adjusts in relation to internal processes as well as changes in the human and nonhuman environment" (Butzer 1982:285). Figure 11 is a graphic representation of the interactive variables of Butzer's definition. Viewing adaptive systems in this manner is useful for the study of cultural adaptation in southwestern Missouri because it provides a framework for identification of key variables which both compose such systems and are factors in the temporal dynamics of such systems. It is realized that all of the system components identified by Butzer cannot presently be operationalized in terms of archeological analysis. However, it is possible to construct models within this framework which are testable utilizing the current archeological methodological and data base. Although construction and evaluation of specific models is not the primary concern of this project, sites identified during the survey can be evaluated in terms of their potential for yielding data useful for addressing questions concerning each of the various system components.

Table 3 presents research goals, relevant analyses, and types of data required for carrying out research within this framework. The table is organized by the three dimensions of an adaptive system in Butzer's framework. The first dimension concerns reconstruction of past environmental conditions and the nature and distribution of natural resources of economic importance. Recent studies at Rodgers Shelter and Phillips Spring (Wood and McMillan 1976; Kay 1982d) provide a large body of data concerning this dimension. The technological dimension involves those aspects of behavior directly related to acquisition and manipulation of both material and energetic resources. Involved in this behavior may be both direct extraction of resources from the environment and acquisition of resources either from specialized (commercial) producers or through the intermediary of

Figure 11

POMME DE TERRE & STOCKTON LAKES
THREE DIMENSIONAL MODEL OF VARIABLES
OF AN ADAPTIVE SYSTEM



Adapted from Butzer, 1982

TABLE 3
RESEARCH GOALS, ANALYSES, AND DATA REQUIREMENTS FOR THE
ARCHEOLOGICAL STUDY OF CULTURAL ADAPTIVE SYSTEMS

Goals	Analyses	Data Requirements
<u>Natural Resources</u>		
Reconstruction of climatic conditions	Botanical, faunal, pollen, geomorphological analyses	Preservation of perishables; stratified deposits
Reconstruction of landforms, fluvial systems	Geomorphological, soils analyses	Stratified deposits
Reconstruction of biotic resources	Botanical, faunal, pollen analyses	Preservation of perishables
Reconstruction of mineral resources	Geomorphological, soils, petrographic analyses	Lithic artifacts; ceramics
<u>Technology</u>		
Reconstruction of manufacturing technologies	Lithic reduction studies; ceramic technology analyses	Broken, unfinished, finished lithic tools; lithic debitage; ceramics; historic industrial features
Reconstruction of tool functions	Tool functional analyses; spatial distribution studies; analyses of ceramic vessel forms	Finished tools; ceramics; spatial integrity
Reconstruction of feature functions	Analyses of feature forms; spatial distribution studies; botanical, faunal studies	Features; preservation of perishables
Identification of nonlocally extracted and manufactured items	Artifact stylistic analyses; petrographic studies	Finished artifacts

Table 3, continued

Goals	Analyses	Data Requirements
<u>Social Behavior and Demography</u>		
Identification of the size and composition of social groups	Artifact stylistic analyses; studies of mortuary behavior; analyses of structures and other features; spatial distribution studies	Finished artifacts; burials; structures and other features; spatial integrity
Identification of intergroup socio-political relationships	Artifact stylistic analyses; studies of mortuary behavior; analyses of structures and other features; spatial distribution studies	Finished artifacts; burials; structures and other features; spatial integrity
Reconstruction of population parameters	Studies of mortuary behavior; analysis of structures and other features; spatial distribution studies	Burials; structures and other features; spatial integrity
<u>Temporal Aspects</u>		
Delimitation of site occupations	Geomorphological studies; spatial distribution studies; artifact stylistic analyses	Stratified deposits; spatial integrity; finished artifacts
Relative site chronology	Geomorphological studies; artifact stylistic analyses	Stratified deposits; finished artifacts
Absolute site chronology	Radiocarbon studies; paleomagnetic studies; thermoluminescence studies; artifact stylistic analyses	Preservation of perishables, hearth features; ceramics; finished artifacts

participants in other adaptive systems through exchange mechanisms. The catchment analysis used by Roper et al. (1977) in the downstream Stockton survey integrates information concerning both the natural resource and technological dimensions. Social behavior and demography are less amenable to archeological analysis, but both should be recognized as important aspects of adaptive systems. Chapman's (1980:91) ideas concerning local Hopewellian influences and the nature of the Fristoe Burial Complex (see Chapter 1) represent attempts to understand behavior within the social dimension, but firmer reconstructions await methodological advances which will enable the development of testable models.

A fourth heading included in Table 3 concerns temporal aspects of Butzer's framework. The goals are to delimit and order site occupations in order to view adaptive systems from a diachronic perspective. Butzer (1982:289-290) classifies causal mechanisms for changes in adaptive systems in two groups -- exogenic and endogenic (see Fig. 11). Exogenic change involves external factors such as geologic hazards (e.g., volcanoes, earthquakes), direct climatic events and indirect climatic repercussions, "directional trends in the productivity of the biophysical environment due to climatic change . . . or ecosystem disbalance," colonization of new environments, intergroup competition (e.g., migration, warfare), and the diffusion of new information from outside the ecosystem. Endogenic change involves internal factors such as innovation, demographic processes, hierarchical elaborations, cybernetics difficulties, and excessive demands on agricultural producers. In order to study any of these potential mechanisms of system change, archeological data must be ordered within a temporal framework.

A primary means for integrating the various aspects of adaptive systems into models of cultural development involves the study of changes in settlement patterns. Such studies involve: (1) isolation of individual occupations; (2) identification of the range of activities associated with occupations; and (3) placement of occupations in temporal and spatial contexts. Interpretations of settlement patterns most often involve articulation of contemporaneous occupations in terms of economic, social, religious, and/or political factors (cf., Chang 1972). Economic aspects of settlement patterns have been stressed in recent research in the project areas, particularly site proximity to subsistence resources (e.g., Roper et al. 1977; Perttula and Purrington 1981).

Research Problems in the Project Areas

Assessments of significance need to consider not only general research goals but also the potential for addressing specific research questions concerning cultural development in the project areas. Current settlement pattern information for the project areas is very limited due to the paucity of data concerning the natures of individual occupations; thus, the research goals summarized in Table 3 are of fundamental importance. However, it is possible to identify a number of more specific problems which relate to each of the cultural periods described in Chapter 1.

The following sections briefly summarize recent interpretations of settlement patterning for each cultural period and present several specific research questions organized within the framework of Butzer's adaptive system model. It is recognized that these questions do not exhaust the potential range of problems relevant to the study of changing adaptive systems in the project areas. However, the questions are useful for assessing the research potential of archeological sites.

DALTON PERIOD

Data from Rodgers Shelter (Wood and McMillan 1976; Kay 1982c) indicate that cooler, moister conditions prevailed during this period than are present in the area today. Kay (1982c:734) hypothesizes that forest, forest-edge, and riparian resources were those exploited most intensively and that Dalton toolkits were specialized toward hunting, hide-working, woodworking, and tool maintenance. McMillan (1976b:223) interprets the Dalton component at Rodgers Shelter as representative of a series of ephemeral campsites. Components relating to the Dalton period within and adjacent to the project areas (Rodgers Shelter, Montgomery Site, possibly 23HI23) all are located on terraces. Because information concerning the distribution of natural resources, the functional nature of individual occupations, and the size and composition of social groups is all very limited, virtually any site with a definable component attributable to this period would have the potential to address a variety of significant research problems. Several important questions are listed below.

Natural Resources:

1. How did the cool, moist conditions of the prehypothermal affect the distribution of floral and faunal resources? Were prairies present in either of the project areas?
2. Were upland sources of chert deeply buried and unavailable for procurement as suggested by Kay (1982c:729)?

Technology:

1. Is Kay's (1982c:734) hypothesis concerning the nature of Dalton toolkits valid? Are differences evident between sites located in different topographic settings?
2. Is the use of river cobbles evident through studies of lithic reduction sequences? Where was reduction carried out -- in the bottomlands, uplands, or both?
3. Was chert from outlying areas brought or traded into the project areas? If so, was it in the form of raw material or finished tools?

Social Behavior/Demography:

1. Do lanceolate Paleoindian projectile point styles commonly found in the Plains to the west of the project areas represent social groups distinct from those utilizing the more easterly distributed Dalton forms? Are the two styles actually contemporaneous as the evidence from Rodgers Shelter appears to indicate?

EARLY/MIDDLE ARCHAIC PERIOD

Settlement changes from the Dalton to the Archaic period may be related to the onset and full development of the relatively dry, warm hypothermal. A fundamental research problem concerns whether human adaptive systems responded to the changing environmental conditions through more-intensive exploitation of certain key environmental zones or whether a broader range of resources were utilized. Roper et al. (1977:85) hypothesize that floodplain resources along the Sac River were exploited intensively with at least

semipermanent habitation of this zone. Kay (1982c:735) and McMillan (1976b:230) believe that environmental conditions forced a broadening of both subsistence and technological bases. There is evidence of occupation of terraces and rockshelters in the project areas, but, as with the Dalton period, there are very little data concerning the nature of individual occupations.

Natural Resources:

1. What were the major changes from the prehypsothermal in kinds, quantities, and distributions of floral and faunal resources? Were upland forests greatly reduced in areal extent at the expense of prairies?

Technology:

1. Is there evidence for a significant expansion of the technological base accompanying the changes in environmental conditions?
2. Does procurement of resources from outside the project areas appear to increase?
3. Was there a shift in lithic technology from reduction of river cobbles to reduction of upland chert nodules?

Social Behavior/Demography:

1. Does the apparent increase in variety of projectile point styles relative to the Dalton period reflect social differentiation?
2. Is there evidence to support McMillan's (1976b:230) suggestion that a general population increase took place in the Pomme de Terre Valley?
3. Is there evidence that an increase in competition for resources accompanied the environmental changes?

LATE ARCHAIC PERIOD

Identified changes of potential major adaptive significance from the Early/Middle to the Late Archaic include the gradual development of more-mesic, modern climatic conditions and the introduction of tropical cultigens. Occupation of terraces and rockshelters appears to have been widespread in both project areas. Settlements associated with artesian springs are apparent for the first time. Kay (1982c:736-737) has classified Late Archaic settlements in the lower Pomme de Terre Valley into three types: annual base camps, small villages, and seasonal encampments. Problems with isolation of components at sites in the project areas, however, preclude such classifications utilizing the current data base. Roper et al. (1977:86) interpret the locations of multiple-activity camps on the Sac River floodplain as reflecting a concern for easy access to both bottomland and upland resources. This pattern is contrasted with apparent earlier Archaic emphasis on floodplain resources.

Natural Resources:

1. Is there evidence of a gradual expansion of the oak-hickory forest?
2. Is there evidence that bottomlands were flooded more frequently than during the hypsithermal as suggested by Roper et al. (1977:86)?

Technology:

1. What was the relative importance of cultigens to the overall subsistence base at this time? In which environmental zones is there evidence of the use of cultigens? Were cultigens acquired through trade or grown locally?
2. Did an increase in specialization and/or diversification of tool forms take place during this period?

Social Behavior/Demography:

1. If regional exchange networks were involved in the introduction of cultigens as suggested by Kay et al. (1980:818), what were the sociopolitical relationships of the participating groups?
2. Is there evidence for an increase in population aggregation during this period?

EARLY/MIDDLE WOODLAND PERIOD

This period is marked by the appearance of ceramics, but shifts in settlement patterns from the preceding Late Archaic period cannot be defined in the project areas because only a few components associated with rockshelters have been identified. Cultigens may have taken on increasing importance, but there is no direct evidence of such a change. Development of the Hopewellian interaction sphere affected surrounding areas. Evidence of its manifestation in the project areas is very limited. Basic chronological problems need to be addressed before adaptive systems can be studied effectively.

Technology:

1. Were ceramics manufactured locally or is their presence the result of trade or brief occupations by groups based in outlying areas?
2. Did a shift from production of large dart points to small arrow points occur at this time? If so, was this shift sudden or gradual? Did a change in lithic technology from direct core reduction to flake blank reduction accompany this shift?

Social Behavior/Demography:

1. How was the Hopewellian interaction sphere manifested in the project areas? How were local settlements related to regional centers such as Kansas City, Big Bend, and Cooper?

POMME DE TERRE AND STOCKTON LAKES PROJECT

LATE WOODLAND/MISSISSIPPIAN PERIOD

Components relating to this period have been identified in several environmental zones within the project areas, but mixed deposits and the paucity of intensive excavations have resulted in little data concerning the nature of the occupations. Multiseasonal base camps or villages located on terraces are present in the Stockton Lake area (e.g., Flycatcher, Dryocopus) and possibly also in the Pomme de Terre Lake area (e.g., Raymond I, Raymond II, Button II, Bailey). Rockshelters were utilized on at least a seasonal basis in both areas. Although not well defined, a variety of small camps on terraces also appear to occur in both areas. Much research has been directed toward investigation of the spatial and chronological relationships of the various identified burial complexes, but correlation of burial sites with open camp or village sites has been difficult to carry out.

Natural Resources:

1. Are vegetation reconstructions based on General Land Office survey data valid for this period? Can short-term climatic trends be identified, and if so, what effect did these trends have on the availability of natural resources?

Technology:

1. Is there evidence of intensive agriculture within the project areas? Were cultigens such as corn acquired through trade networks?
2. Do triangular arrow points eventually replace all other projectile point forms? If so, can this change be related to changes in hunting patterns?

Social Behavior/Demography:

1. How are similarities and differences in mortuary practices related to socio-political factors?
2. What was the relationship of indigenous groups to Caddoan groups to the south (i.e., Loftin Phase)? Do Caddoan materials represent trade items or the presence of Caddoan groups in the Stockton Lake area? Can relationships with Mississippian groups to the north (i.e., Steed-Kisker Focus) be defined?

HISTORIC PERIOD

Data from earlier investigations of historic sites in the Sac and Pomme de Terre areas are so lacking that the identification of specific research questions is difficult and the formulation of research problems is in its most rudimentary stage. In its broadest outlines, the history of the area can be said to date from the early seventeenth century when European explorers recorded the presence of Osage Indians. Initial Anglo-American settlement occurred by the early 1830s, and agricultural and industrial development of the area was continuous through the early twentieth century. Economic stagnation has typified later decades, with the construction of the two reservoirs contributing little to economic vitality and permanent influx of new populations.

Natural Resources

1. To what extent have historic settlement and land-use practices altered the nature and availability of natural resources?

Technology

1. To what extent did the acquisition of specific tracts of land reflect the constraints of a superimposed land system, and to what extent did acquisition respond to environmental factors? How did patterns of land ownership change through time?

2. To what degree and in what ways were historic aboriginal groups dependent upon European and/or Anglo-American goods?

3. To what extent were material goods introduced from outside the project areas and to what extent were they traded within neighborhoods?*

4. How were the broad Middle or Deep South cultural patterns expressed in the project areas?

Social Behavior/Demography

1. What are the various ethnic backgrounds represented in early settlement of the region and is this variation reflected in material goods?

2. Do mortuary practices expressed in graveyards in the project areas reflect broader patterns of mortuary practices in America? Did practices differ among ethnic groups?

3. What were nineteenth-century concepts of community, social relationships and space, and aesthetics in the project areas, and how were these expressed in graveyards and on gravestones?

4. To what extent and in what manner was variation in socioeconomic status expressed in the early settlements of the region?

5. What are the sociopolitical implications of historic aboriginal economic interactions with European and Anglo-American populations?

6. Did different generations of the same family organize the various elements of their farmsteads in similar ways?

*Mid to late nineteenth-century estate inventories and records of estate sales from Cedar County demonstrate that, even in situations where stores existed locally, families routinely purchased goods from the estates of neighbors.

Methods of Investigation

Methods of investigation were designed to enable identification of (1) archeological sites in the field, and (2) the range of types of data (as shown in Table 3) present at each site. The investigations can be separated into four parts -- intensive survey, test excavations, archival research, and data analyses.

Intensive Survey

SURVEY SAMPLE

The Scope of Work requests intensive survey of 3400 acres at Pomme de Terre Lake and 3500 acres at Stockton Lake. At Pomme de Terre Lake, a 100% survey of nine Public Use areas was carried out during 1982:

<u>Public Use Area</u>	<u>Acres</u>
Outlet	198
Quarry Point	95
Wheatland	96
Lightfoot Landing	114
Bolivar	230
Pomme de Terre State Park	312
Hermitage State Park	323
Nemo Landing	100
Pittsburg Landing	<u>156</u>
	1624

In addition, the Scope requests selection and survey of 1776 acres of Fish and Wildlife Management lands. Selection of Fish and Wildlife areas to be surveyed was made through consensus of the Park Ranger at Pomme de Terre Lake, the Kansas City Corps of Engineers District Office, and the project archeologist. Areas were chosen which sampled a variety of environmental zones and contained known cultural resources. The following tracts were investigated:

<u>Real Estate Tract</u>	<u>Acres</u>
Segment B	498
Segment D	142
Segment E	415
Segment F	264
Segment J	<u>424</u>
	1743

The acreage figure provided above represents areas actually surveyed. The high level of the lake at the time of investigations slightly reduced the total planned survey acreage.

CHAPTER 2: RESEARCH GOALS AND METHODS OF INVESTIGATION

At Stockton Lake, the Scope requests a 40% survey of nine Public Use areas and a 22% survey of three Public Use areas (an 18% survey of the latter three areas was carried out in 1979 by Espey, Huston and Associates, Inc. [1980]). Survey areas were delineated as 40-acre rectangular tracts whenever possible. The tracts were placed so as to sample the full range of landforms in each area. Because it was not practical to devise a sampling plan in exact accordance with the percentage figures called for in the Scope, actual sample percentages differ slightly. The sampling plan was approved by the U.S. Army Corps of Engineers, Kansas City District, prior to initiation of fieldwork. After fieldwork began, the Corps of Engineers requested that survey of a 60-acre tract of Fish and Wildlife Management land near the town of Aldrich be substituted for the Old Mill Public Use Area. The following areas were surveyed:

<u>Public Use Areas</u>	<u>Total Acres</u>	<u>Surveyed Acres</u>	<u>Percent Surveyed</u>
40% Survey:			
Stockton	285	130	45.6
Orleans Trail	1075	400	37.2
Hawker Point	852.5	360	42.2
Ruark Bluff	512.5	210	41.0
Greenfield	335	140	41.8
Murton Creek	1882.5	750	39.8
Crabtree Cove	585	180	30.8
Stockton State Park	<u>2012.5</u>	<u>680</u>	<u>33.8</u>
	7540	2850	37.8
22% Survey			
Cedar Ridge	341	80	23.5
High Point	168	40	23.8
Masters	<u>1200</u>	<u>280</u>	<u>23.3</u>
	1709	400	23.4
<u>Fish and Wildlife Management Area</u>			
Aldrich	-	60	-

RECORDS AND LITERATURE SEARCH

A records and literature search was carried out prior to the start of fieldwork. In order to determine the number, locations, and types of previously recorded sites in the project areas, published reports and maps, the preliminary cultural resource management plans, the National Register of Historic Places, the Archaeological Survey of Missouri, and the Missouri Office of Historic Preservation were consulted.

FIELD TECHNIQUES

The survey was carried out on foot by a crew of four persons. Each person walked in a linear transect spaced at approximately 25-m intervals. In general, the areas surveyed can be classified into one of five categories:

(1) Wooded slopes and uplands: Surface visibility usually is less than 5% although humus and leaf litter is easily cleared by foot or with a shovel (Fig. 12a). Small areas (ca. 50 cm in diameter) were cleared at 15-25-m intervals along the transects. Soils are shallow and bedrock outcrops are frequent in these areas. Shovel tests, 5 to 10 cm in depth, were excavated at irregular intervals. The possibility that buried sites were missed is minimal; however, there is a chance that a few small, dispersed lithic scatters were not identified.

(2) Cleared, uncultivated terraces and slopes: Several areas apparently had been cleared in the past but at the time of the survey were grown over with thick grasses, brambles, saplings, blackberry, and honeylocust (Fig. 12b). Surface visibility is generally less than 50% although eroded areas and rodent disturbances are numerous. Subsurface tests of 5 to 10 cm in depth were excavated with a shovel or trowel at 15-25-m intervals. There is some possibility that deeply buried deposits were not identified.

(3) Plowed terraces: Surface visibility varies from about 50% to over 90% depending on the density of cultivated plants (Fig. 13). In general, sites are easily identified in these areas without the use of shovel tests. Soils generally are deep and, in areas where stream cutbanks are not present, there is a possibility that deeply buried sites were not identified. However, with a single exception, shovel tests indicated that all superficially exposed sites were shallow.

(4) Shorelines: Due to lake level fluctuations, many shoreline areas are deflated and their surfaces covered with flood debris (e.g., tree limbs, large logs, gravels, recent trash) (Fig. 14a). Surface visibility is generally greater than 50%. Because deposits are eroded, shovel tests were not used in these areas. The possibility that the survey failed to identify sites in these areas is minimal.

(5) Developed recreation areas: Surface visibility varies substantially in developed areas. Cuts along the sides of roads provide excellent visibility. Many areas have been planted in thick domestic grasses resulting in less than 5% surface visibility (Fig. 14b). In grassy areas, 5-10-cm-deep shovel tests were excavated at approximately 25-m intervals. In some cases, gravels which completely obscure the surface have been brought in to level campground, road, and park facility areas. It was not feasible to cut through the gravels with shovels or trowels, and thus nearby eroded areas or road cutbanks were relied upon. Because most developed areas are on ridges or slopes with shallow soils, the possibility that intact significant sites were not identified is minimal.

Once identified, sites were recorded in a narrative set of notes and on Archaeological Survey of Missouri site forms. A scaled compass-and-pace sketch map was made of each site. Each map includes site limits, field boundaries, roads and public use facilities, major topographic features, shorelines, locations of features, artifact concentrations, and locations of shovel tests and test pits. Black-and-white and color photographs were taken of most sites. The Project Historian revisited each historic site to supplement data recorded initially by adding information provided by informants and providing interpretations of artifacts, features, and site spatial structure.

An attempt was made to excavate a sufficient number of shovel tests to determine both the vertical and horizontal extent of each site. The matrix from all of these tests was screened through 1/4-inch-mesh hardware cloth. A few exceptions occurred where soil moisture and clay content were very high. In these cases, the matrix was carefully sorted through with a trowel. Shovel tests were not excavated at sites where artifacts were encountered in dense exposures of gravels or at several historic sites where heavy machinery had extensively disturbed the deposits.

Artifacts were collected from all but a few sites. All cultural materials recovered from shovel tests were retained. In general, all shaped tools were collected and their locations plotted on the site map. Exceptions occurred at large sites, such as 23HI76, where the large amount of exposed tools necessitated collection of a sample from dispersed areas of the site. In addition to the tool collections, all artifacts were collected from one to three surface collection units. In 1982, 2-m-diameter circular units were used; in 1983, 1-by-1-m units were used. These units were subjectively placed in areas of concentrated surface-exposed artifacts. Originally, the units were intended to enable quantitative comparisons of surface artifact densities. However, because there was no consistent means of placement, the collections are of little use as indicators of artifact densities. Also, very low numbers of surface artifacts precluded use of the units at many sites.

Test Excavations

Test excavations were carried out in 1983 at 17 sites from which the survey data were not sufficient for evaluation in terms of National Register criteria. Two additional "sites," recorded during the survey as possible prehistoric artificial mounds, were tested but results indicate that they represent very recent or natural features and site designations have not been retained. Excavations consisted of one or more 1-by-1-m test pits and, in most cases, a series of shovel tests. Test pits were used to obtain information concerning the nature of site deposits and the range of artifacts present. Shovel tests were used when the horizontal extent of the site was not clear. In one case (at 23HI516), fill within a stone-lined well was excavated in order to determine if the feature related to a nineteenth- or twentieth-century component. The 1-by-1-m test pits were excavated in 10-cm-thick arbitrary levels until sterile or nearly sterile levels were reached or until dense basal clay was encountered. In those cases where the lowermost level was not completely sterile, there was reason to believe that artifacts had been displaced downward by bioturbation. Shovel tests generally were excavated in 25-cm levels. All excavated fill was screened through 1/4-inch-mesh hardware cloth, and all artifacts recovered in the screen were retained.

A set of narrative notes was written for each tested site, and a standardized form was filled out for each 10-cm level of all test pits. Site sketch maps and site forms were revised to reflect all additional information.

Archival Research

Archival research and oral interviews concerning historic resources were conducted throughout the project area with several objectives in mind. First, an attempt was made to

Figure 12. Environment of the Stockton Lake Area.

a. Typical wooded upland area adjacent to Stockton Lake showing density of leaf litter (23DA224, April 1983).

b. Ridgeslope near Stockton Lake, formerly cleared and cultivated, now grown over with saplings, brambles, and grasses (23CE339, April 1983).

Figure 12



a



b

Figure 13. Environment of the Pomme de Terre Lake Area.

a. Terrace in Fish and Wildlife Segment F showing dense growth of cultigens and relatively poor surface visibility (June 1982).

b. Terrace of Stinking Creek in Fish and Wildlife Segment E prior to cultivation showing good surface visibility (23P0338, April 1983).

Figure 13



a



b

Figure 14. Environment of the Pomme de Terre Lake Area.

a. Deflated shoreline of Pomme de Terre Lake on upper terrace in Fish and Wildlife Segment E showing flood debris (23P0108, March 1983).

b. Archeological site in a Public Use Area at Pomme de Terre Lake, now planted in grass and containing a playground and picnic area (23H15, April 1983).

Figure 14



a



b

assign a name to each site which would reflect the earliest ownership known by the informant. Second, information was sought which would assist in determining the span of occupation for each site. Finally, it was necessary to acquire as much information as possible about the recorded history of the western Ozark Highlands in general and the Cedar, Dade, Hickory, and Polk county area in particular so that individual sites could be placed in an historical context and assessed in terms of National Register Criteria A, B, and D.

A number of archives and records depositories were contacted and visited in 1982 and 1983 to obtain information about the history of the Pomme de Terre area. The office of the Secretary of State for Missouri in Jefferson City provided early to mid-nineteenth-century township and range survey maps making it possible to plot the earliest historic sites and improvements in the vicinity of the Pomme de Terre River. In addition, deed and tax records were examined at the Hickory and Polk county courthouses as part of the effort to assign dates to initial property improvements. Finally, local informants were contacted, and they provided tentative site identifications as well as information about historic roads and the appearance of the area prior to its acquisition by the government.

Research pertaining to the history of Cedar and Dade counties in the area of the Sac River focused on the acquisition, settlement, and development of specific sites and tracts of land, and the delineation of nineteenth-century material culture in the area through the examination of probate records. Additional information was obtained from local histories and printed censuses available at the Southwest Regional Library in Stockton, and new informants were contacted and old ones revisited. Finally, extensive use was made of tract files available at the Kansas City offices of the Corps of Engineers.

Analysis of Results

As discussed above, in order to meet the requirements of Criterion D, a site must contain information of importance for addressing research questions concerning knowledge of prehistory and/or history. The research framework presented earlier concerns understanding changes in human adaptive systems as such changes are represented in shifting patterns of settlement. Sites assessed as significant under Criterion D are those that contain data necessary for the investigation of various aspects of adaptive systems (i.e., natural resources, technology, social behavior and demography, and chronology) and which represent a variety of temporal and spatial contexts. As an aid in evaluating the importance of individual resources, the results of the site investigations are used to identify spatial and temporal variations of settlements in the project areas. Four types of data (site chronology, location, artifacts, and size) are summarized and discussed in terms of recent interpretations of settlement patterns in the project areas.

SITE CHRONOLOGY

Interpretations of settlement patterns are most meaningful when fine chronological controls are employed. Unfortunately, at the present level of investigation, it is only possible to assign a portion of the sites to one or more of the broad temporal periods described in Chapter 1 on the basis of the presence of temporally diagnostic projectile

point forms or historic artifacts and features. The projectile points* recovered during the site investigations are classified in Appendix I according to morphological characteristics which have been shown to have temporal implications (Chapman 1975, 1980; Kay 1982b). Each recognized form is correlated with the temporal period with which it is most often associated. Problems with defining the Early/Middle Woodland period in the project areas necessitate combining this period with the preceding Late Archaic period. On the basis of the classification, 15 sites are inferred to have components dating to the Early/Middle Archaic period, 25 sites have components dating to the Late Archaic and/or Early/Middle Woodland periods, and 20 sites have components dating to the Late Woodland/Mississippian period. None of the projectile points can be attributed to the Dalton period. Occupation during the Historic Period is evident at 70 sites.

SITE LOCATION

For each site encountered during the survey, the following information has been recorded: landform, drainage, and distance to nearest perennial water source. The breakdown of landforms upon which the sites are situated is as follows:

<u>Landform</u>	<u>No. of Sites</u>
Ridges	79 (51.6%)
Ridgeslopes	45 (29.4%)
Upper terraces	15 (9.8%)
Lower terraces	14 (9.2%)
	<u>153 (100%)</u>

The high percentage of upland sites is a reflection of the fact that floodplains and most terraces are inundated. Site distribution according to nearest perennial drainage is as follows:

<u>Drainage</u>	<u>No. of Sites</u>
Pomme de Terre River	36 (23.5%)
Lindley Creek	21 (13.7%)
Other tributaries of the Pomme de Terre River	18 (11.8%)
Sac River	33 (21.6%)
Little Sac River	13 (8.5%)
Tributaries of the Sac and Little Sac rivers	<u>32 (20.9%)</u>
	<u>153 (100%)</u>

*For the purposes of this study, all bifacially chipped lithic specimens which (1) are roughly symmetrical, (2) have, or have evidence of formerly having had, pointed distal ends, and (3) have modifications of the proximal portions to enhance hafting are classified as projectile points regardless of the range of activities actually carried out with the tools.

POMME DE TERRE AND STOCKTON LAKES PROJECT

Also recorded is the horizontal distance from each site to the nearest source of perennial water (not including springs). This distance has been calculated using USGS topographic maps which date prior to construction of the lakes. Each calculation has been plotted on a number line using 50-m class intervals in order to obtain a distance frequency distribution. Based on clustering evident in this distribution (assessed subjectively), six classes of sites are defined on the basis of their distance to the nearest source of perennial water:

<u>Distance to Water</u>	<u>No. of Sites</u>
< 100 m	35 (22.9%)
≥ 100 m < 350 m	58 (37.9%)
≥ 350 m < 600 m	22 (14.4%)
≥ 600 m < 850 m	19 (12.4%)
≥ 850 m < 1.25 km	12 (7.8%)
≥ 1.25 km	<u>7 (4.6%)</u>
	153 (100%)

SITE ARTIFACTS

All lithic artifacts recovered during the site investigations are classified into groups of morphologically similar specimens (Appendix I). The intent is to delimit the range of forms present at each site as a basis for interpretations concerning the time periods and ranges of activities associated with site activities. For historic resources, archival research generally supercedes historic artifacts as a means of obtaining such information, but an inventory of recovered historic materials is provided in Appendix II.

SITE SIZE

The approximate size of each site has been calculated in hectares. Sizes of prehistoric sites vary considerably, and a size frequency distribution has been plotted in a manner similar to that described for distance to nearest perennial water source. Four size classes are defined:

<u>Site Size</u>	<u>No. of Sites</u>
≤ 1 ha	113 (73.9%)
> 1 ha ≤ 3 ha	26 (17.0%)
> 3 ha ≤ 7 ha	7 (4.6%)
> 7 ha	<u>7 (4.6%)</u>
	153 (100%)

Size calculations of the historic sites are based on extents of feature and artifact remains, not on property boundaries.

CHAPTER 3

DESCRIPTIONS AND EVALUATIONS OF CULTURAL RESOURCES

This chapter provides descriptions of all archeological sites encountered during the 1982 and 1983 surveys. The descriptions are organized by Public Use Area or Fish and Wildlife Management Area. Figures 15 and 16 show all sites identified during this survey and during previous investigations at Pomme de Terre and Stockton lakes.

Pomme de Terre Lake

Table 4 lists sites in numerical order and provides locational information. Also included is the page number reference for the site description in the text.

Outlet Public Use Area

This area is a relatively level, undissected portion of the left bank of the Pomme de Terre River floodplain immediately below the dam (Fig. 17). Much of the area has been cultivated or altered significantly by road and dam construction and development of recreational facilities. However, several areas of uncleared woodlands remain.

Archeological sites in the Outlet area have not been reported from previous surveys although one site, 23HI150, was recorded by Wood (1961:Fig. 1) immediately to the east on the dam axis. In the 198 acres surveyed during 1982, a single site, 23HI510, was encountered.

23HI510

Site 23HI510 consists of a small (ca. 40 by 25 m), low density scatter of chipped stone debitage located on the floodplain approximately 30 m south of the river and 1 km downstream from the dam. The site has been plowed and cultivated, and it is possible that some of the deposits were disturbed during dam construction. Prior to development, the site probably was in bottomland forest.

Artifacts exposed on the surface were sampled by three 1-m-diameter collection units. Six chert flakes were collected, two of which have edge modification. A single shovel test yielded no cultural materials indicating that the lithic scatter is predominantly surficial. No cultural features were observed.

The small amount of cultural materials, their spatial displacement as a result of plowing, and the absence of buried cultural deposits and features indicate that this site is unlikely to yield significant information within the research framework presented in Chapter 2. It is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

Quarry Point Public Use Area

The Quarry Point area is situated on an upland ridge (see Fig. 17). The lower, eastern portion of this ridge now forms a narrow peninsula extending into the lake. To the north, a small cove has been formed as a result of quarrying activities carried out during construction of the dam. Most of the eastern half of the area has been altered by development of recreational facilities including roads, camping areas, a concession area, marina, and a laundry/shower facility. Prior to development, Quarry Point was part of the upland oak/hickory forest.

During earlier surveys, three archeological sites were reported in this area. Two of these, 23HI5 and 23HI151, were relocated in 1982.* The third site, 23HI148, a single mound recorded by Wood (1960:Table 4), is now located within a campground and, due to landscape alterations, is no longer identifiable. Two historic structures located adjacent to the Quarry Point area have been removed and their sites apparently destroyed by the quarrying and dam construction activities.

23HI5

Site 23HI5 is located on the easternmost and lowest portion of the ridge. The site consists of a scatter of chipped stone tools and debitage extending over an area of approximately 300 by 180 m. The former channel of the Pomme de Terre River was located 200 m to the south. The mound recorded by Wood (23HI148) apparently is located immediately west of the site. It is not known if there was any association between the mound and 23HI5, nor is it certain that the mound represented a definite cultural feature. Portions of the surface of 23HI5 have been leveled, and gravel fill has been introduced for development of camp pads and roads which now cover the entire site area.

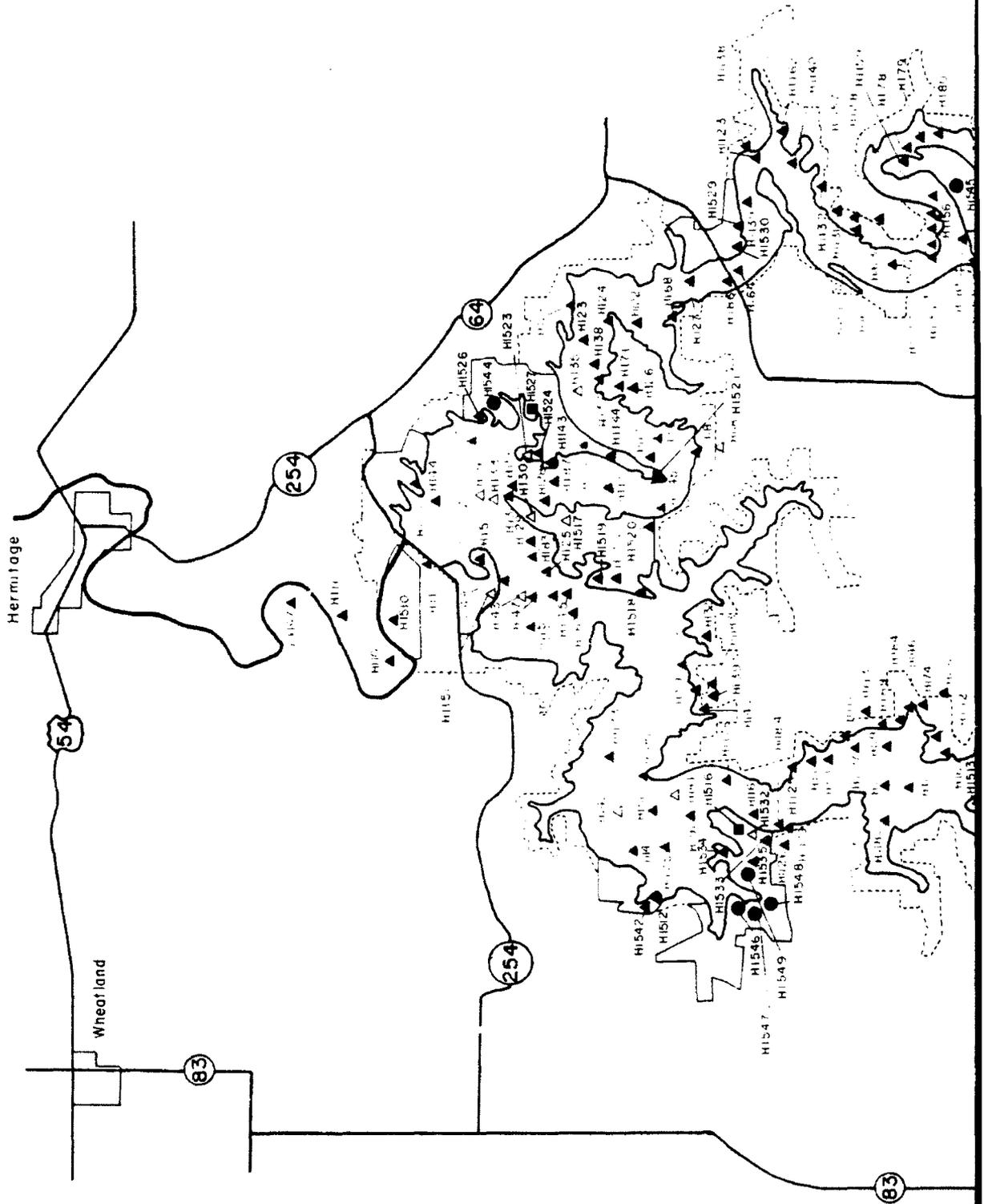
Surface collection units were not employed at the site, but all recognizable tools were collected and plotted on the site sketch map. Four shovel tests were excavated. The upper 25 to 35 cm of soil consists of a dark grayish brown clay loam which contains a few chert flakes underlying the fill gravels. Beneath this zone, extending to at least 40 cm below the surface, is a yellowish brown clay which contains no cultural material. A total of 33 flakes and angular fragments, 5 historic sherds, and 1 square nail were recovered from the shovel tests. Collected from the surface were three biface fragments and two projectile points. Chapman (1954) originally recorded the site but did not report any recovered artifacts.

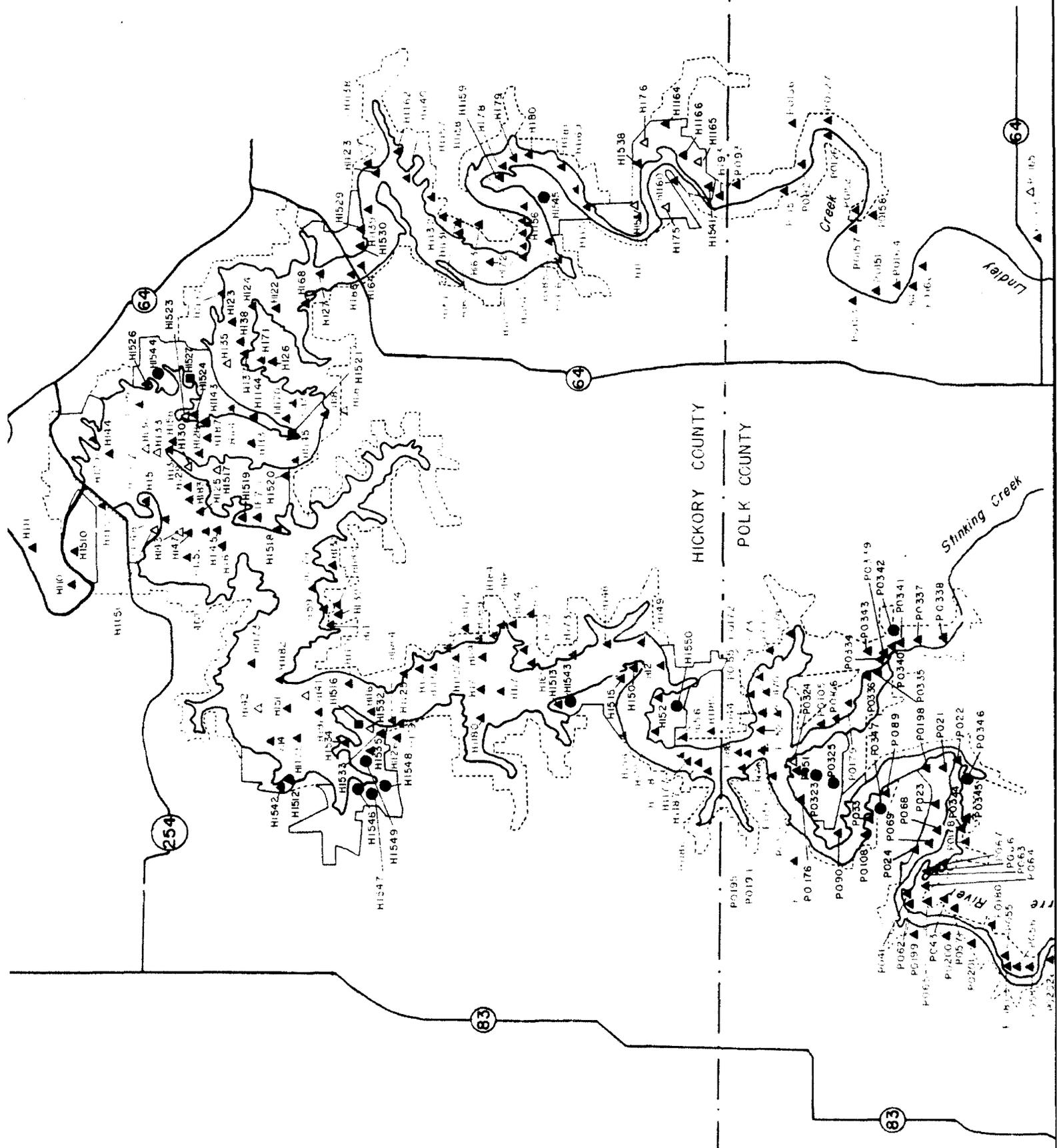
The projectile point styles suggest that the site was occupied during the Late Archaic and Late Woodland/Mississippian periods. Disturbances have been severe, but artifacts appear to be limited in number and variety suggesting a narrow range of site activities.

*During the 1982 survey, sites 23HI5 and 23HI151 were recorded as a single site and a new site number (23HI511) was assigned (Andrews et al. 1982). However, since the two sites are topographically distinct, it is felt that they are best designated as separate sites.

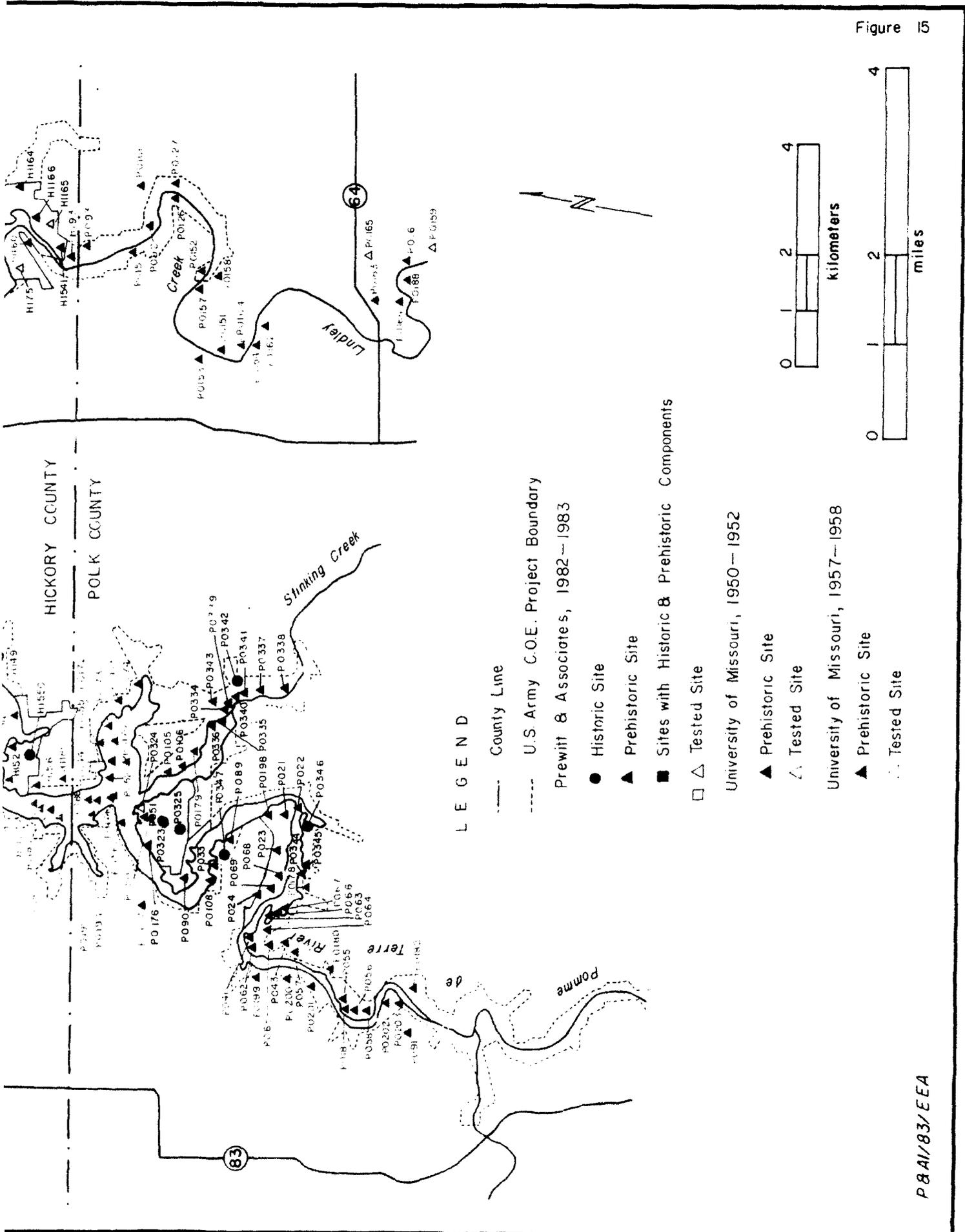
POMME DE TERRE LAKE

IDENTIFIED ARCHEOLOGICAL SITES





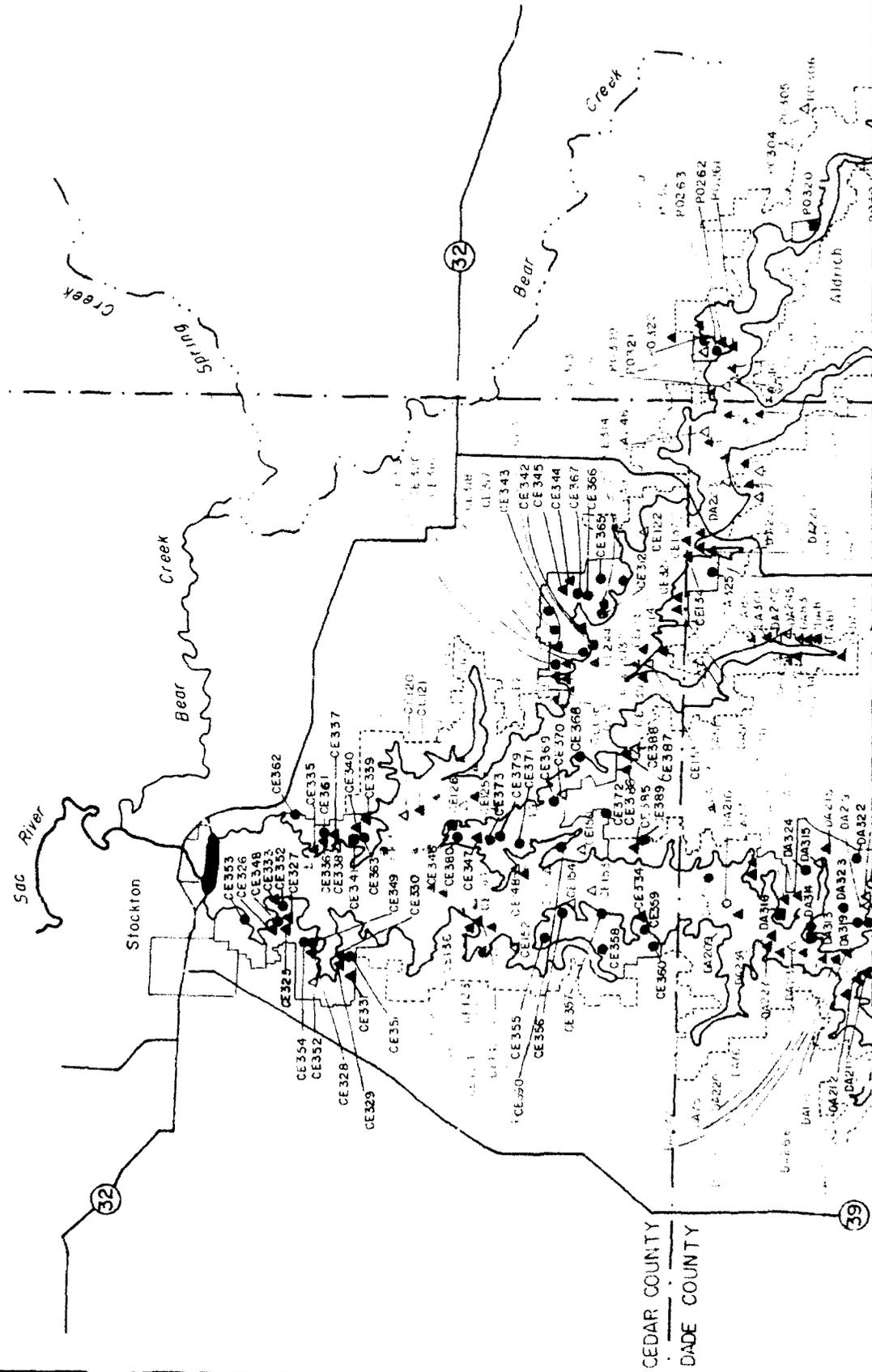
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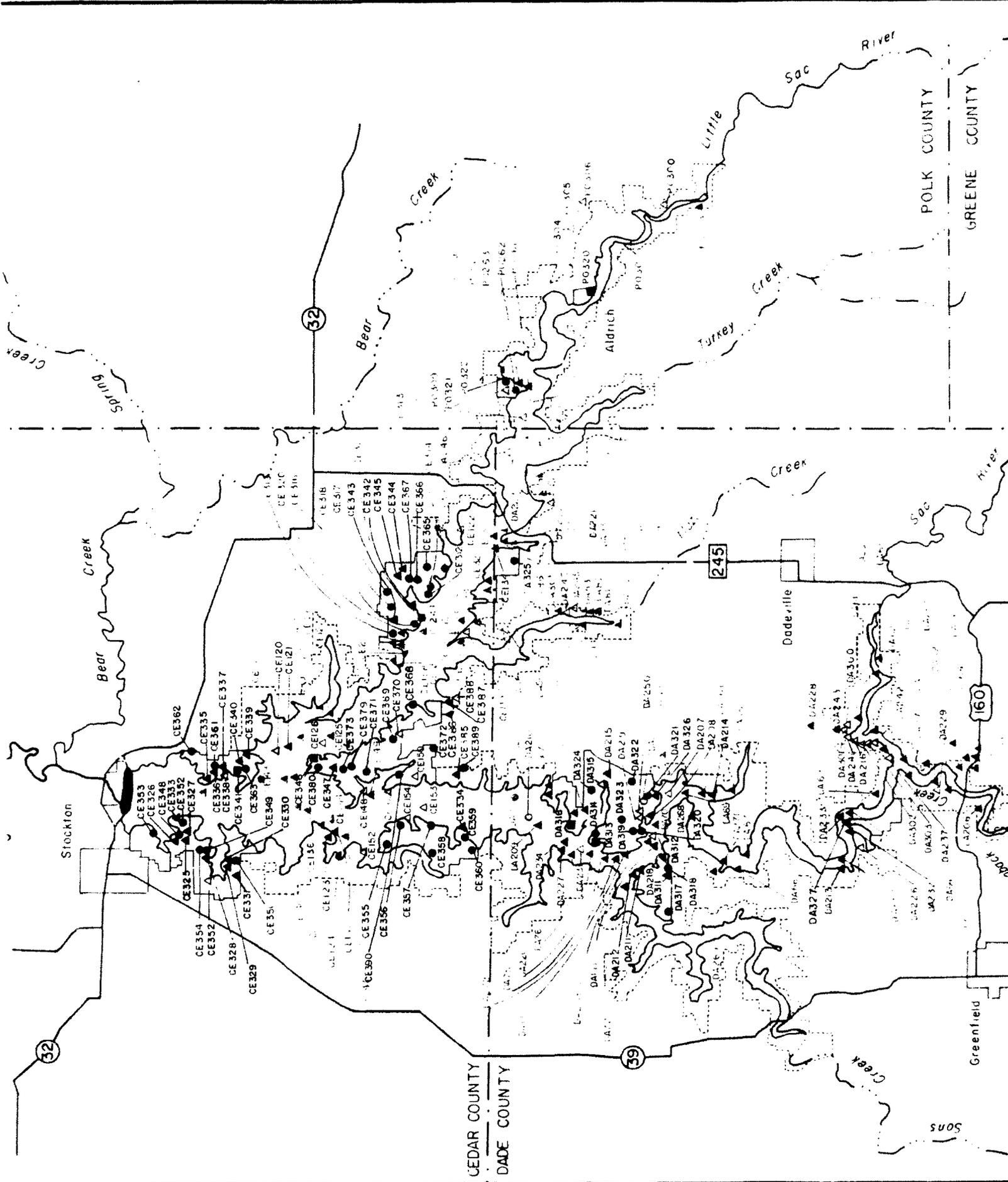


P&A/83/EEA

STOCKTON LAKE

IDENTIFIED ARCHEOLOGICAL SITES





32

32

39

245

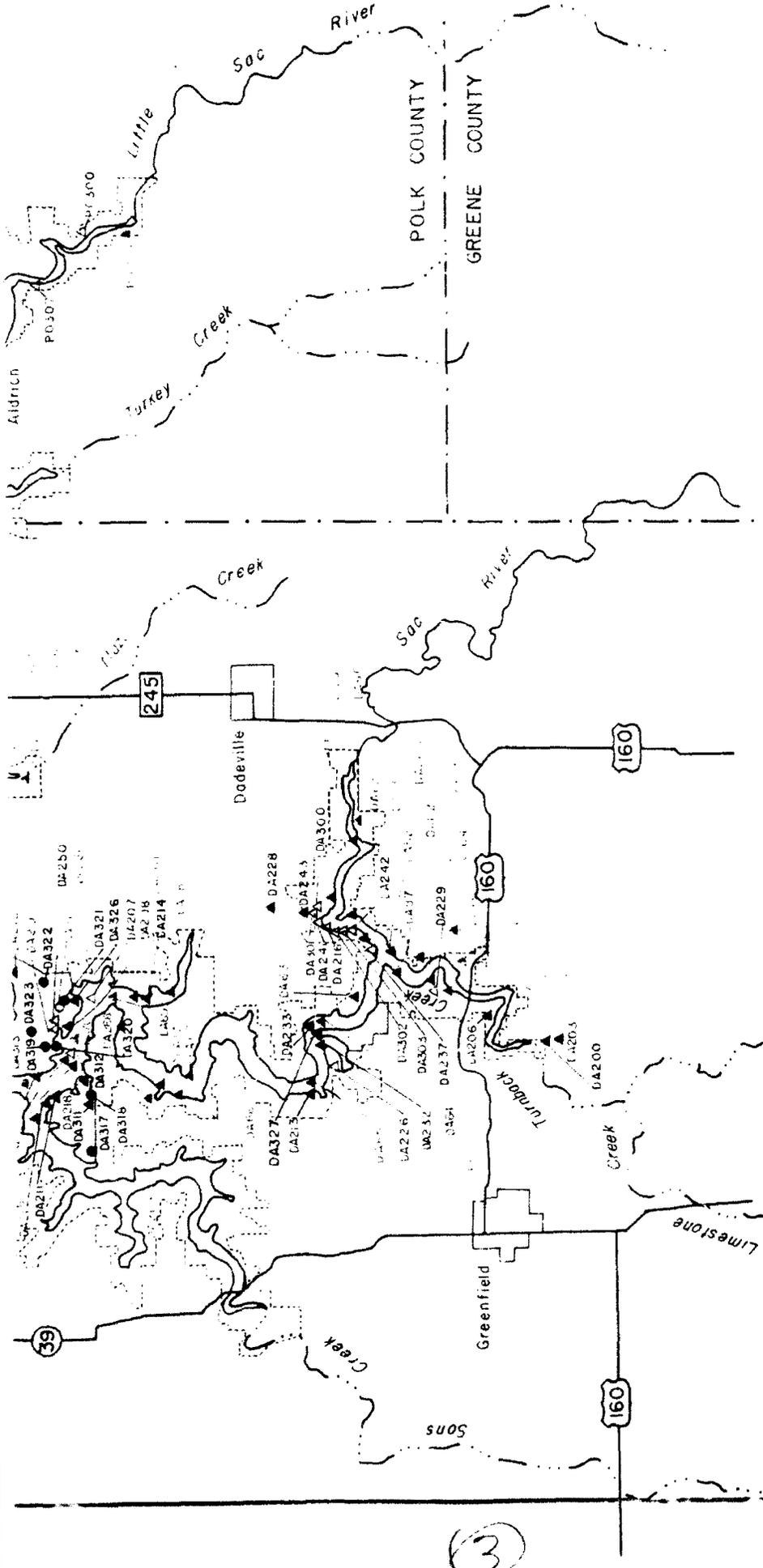
160

CEDAR COUNTY
DADE COUNTY

POLK COUNTY
GREENE COUNTY

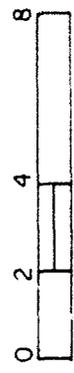
10

Figure 16



LEGEND

- - - County Line
- - - - U.S. Army C.O.E. Project Boundary
- Prewitt & Associates, 1982-1983
 - Historic Site
 - ▲ Prehistoric Site
 - ◻ Tested Site
- Espey Huston & Associates, 1979
 - Historic Site
 - ▲ Prehistoric Site
 - ◻ Tested Site
- Data Bank, Archaeological Survey of Missouri
 - Historic Site
 - ▲ Prehistoric Site
 - ◻ Tested Site
- University of Missouri, 1961-1962
 - ▲ Prehistoric Site
 - ◻ Tested Site



kilometers



miles

TABLE 4

INDEX TO ARCHEOLOGICAL SITES ENCOUNTERED DURING THE SURVEY AT POMME DE TERRE LAKE

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23HI5	Quarry Point	Hermitage NE	Pomme de Terre	Ridge	Late Archaic; Late Woodland/Mississippian	Lithic scatter	76
23HI30	State Park	Hermitage NE	Pomme de Terre	Ridge	Late Woodland/Mississippian	Stone and earth stone cairn, lithic scatter	120
23HI50	Lightfoot	Sentinel	Pomme de Terre	Ridge	Late Archaic	Lithic scatter	96
23HI52	Segment D	Sentinel	Pomme de Terre	Upper terrace	Late Archaic and/or Early/Middle Woodland	Lithic scatter	99
23HI75	Segment J	Sentinel	Lindley Creek	Lower terrace	Early/Middle Archaic; Late Archaic; Early/Middle Woodland; Mississippian	Lithic scatter	133
23HI76	Segment J	Sentinel	Lindley Creek	Lower terrace	Early/Middle Woodland; Late Woodland/Mississippian	Lithic scatter	134
23HI143	Hermitage	Hermitage NE	Lindley Creek	Ridge	Late Woodland	Lithic scatter	124
23HI144	Hermitage	Hermitage NE	Lindley Creek	Ridge	Prehistoric	Stone mounds (?), lithic scatter	125
23HI151	Quarry Point	Hermitage NE	Pomme de Terre	Ridge	Prehistoric	Lithic scatter	86
23HI159	Pittsburg	Sentinel	Lindley Creek	Ridge	Prehistoric	Lithic scatter	132
23HI164	Segment J	Sentinel	Lindley Creek	Lower terrace	Early/Middle Archaic; Late Archaic	Lithic scatter	134

Table 4, continued

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23HI165	Segment J	Sentinel	Lindley Creek	Upper terrace	Late Woodland/ Mississippian	Lithic scatter	135
23HI166	Segment J	Sentinel	Lindley Creek	Lower terrace	Prehistoric	Lithic scatter	136
23HI510	Outlet	Hermitage NE	Pomme de Terre	Lower terrace	Prehistoric	Lithic scatter	75
23HI512	Wheatland	Elkton	Pomme de Terre	Ridgeslope	Late Archaic	Lithic scatter	88
23HI513	Lightfoot	Sentinel	Pomme de Terre	Ridge	Prehistoric	Lithic scatter	96
23HI515	Lightfoot	Sentinel	Pomme de Terre	Ridge	Prehistoric	Lithic scatter	98
23HI516	Segment B	Sentinel	Pomme de Terre	Ridge	Late Woodland/ Mississippian; Historic	Lithic scatter, cemetery, housesite	90
23HI517	State Park	Hermitage NE	Pomme de Terre	Ridge	Prehistoric; Historic	Lithic scatter, housesite	122
23HI518	State Park	Sentinel	Pomme de Terre	Ridgeslope	Prehistoric	Lithic scatter	123
23HI519	State Park	Hermitage NE	Pomme de Terre	Ridge	Prehistoric	Lithic scatter	123
23HI520	State Park	Sentinel	Lindley Creek	Ridge	Prehistoric; Historic	Lithic scatter, artifact scatter	124
23HI521	Hermitage	Sentinel	Lindley Creek	Ridge	Prehistoric; Historic	Lithic scatter, artifact scatter	125
23HI523	Hermitage	Hermitage NE	Lindley Creek	Ridge	Historic	Housesite	126
23HI524	Hermitage	Hermitage NE	Lindley Creek	Ridge	Prehistoric	Lithic scatter	126
23HI526	Hermitage	Hermitage NE	Lindley Creek	Ridge	Prehistoric	Lithic scatter	127
23HI527	Hermitage	Hermitage NE	Lindley Creek	Ridge	Prehistoric; Historic	Lithic scatter, housesite (?)	127

Table 4, continued

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23HI529	Nemo	Sentinel	Lindley Creek	Ridge	Prehistoric	Lithic scatter	130
23HI530	Nemo	Sentinel	Lindley Creek	Ridge	Prehistoric	Lithic scatter	130
23HI532	Segment B	Sentinel	Pomme de Terre	Ridge	Prehistoric	Lithic scatter	91
23HI533	Segment B	Sentinel	Pomme de Terre	Ridge	Early/Middle Archaic	Lithic scatter	92
23HI534	Segment B	Sentinel	Pomme de Terre tributary	Ridge	Late Archaic and/or Early/Middle Woodland	Lithic scatter	92
23HI535	Segment B	Sentinel	Pomme de Terre tributary	Ridge	Early/Middle Archaic	Lithic scatter	93
23HI537	Segment J	Sentinel	Lindley Creek	Ridge	Prehistoric	Lithic scatter	136
23HI538	Segment J	Sentinel	Lindley Creek	Ridge	Prehistoric	Lithic scatter, stone cairn (?)	137
23HI541	Segment J	Sentinel	Lindley Creek	Upper terrace	Prehistoric	Lithic scatter	137
23HI542	Wheatland	Elkton	Pomme de Terre	Ridgeslope	Historic	Housesite	88
23HI543	Lightfoot	Sentinel	Pomme de Terre	Ridge	Historic	Cemetery, housesite	98
23HI544	Hermitage	Hermitage NE	Lindley Creek	Ridge	Historic	Housesite	128
23HI545	Pittsburg	Sentinel	Lindley Creek	Ridge	Historic	Housesite (?)	132
23HI546	Segment B	Elkton	Pomme de Terre tributary	Ridgeslope	Historic	Housesite	93
23HI547	Segment B	Elkton	Pomme de Terre tributary	Ridgeslope	Historic	Cemetery	93
23HI548	Segment B	Elkton	Pomme de Terre tributary	Ridgeslope	Historic	Housesite	94
23HI549	Segment B	Sentinel	Pomme de Terre tributary	Ridge	Historic	Housesite	95

Table 4, continued

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23HI550	Segment D	Sentinel	Pomme de Terre tributary	Ridgeslope	Historic	Housesite	100
23PO21	Segment F	Elkton	Pomme de Terre	Upper terrace	Early/Middle Archaic; Late Archaic; Early/ Middle Woodland; Late Woodland/Mississippian	Lithic scatter	113
23PO22	Segment F	Elkton	Pomme de Terre	Lower terrace	Late Archaic and/or Early/Middle Woodland	Lithic scatter	114
23PO23	Segment F	Elkton	Pomme de Terre	Upper terrace	Prehistoric	Lithic scatter	114
23PO24	Segment F	Elkton	Pomme de Terre	Upper terrace	Late Archaic (?); Early/ Middle Woodland; Late Woodland/Mississippian	Lithic scatter	115
23PO33	Segment E	Elkton	Pomme de Terre	Upper terrace	Early/Middle Archaic; Late Archaic	Lithic scatter	105
23PO51	Bollivar	Elkton	Pomme de Terre	Ridge	Early/Middle Archaic (?)	Lithic scatter	102
23PO68	Segment F	Elkton	Pomme de Terre	Upper terrace	Prehistoric	Lithic scatter	115
23PO69	Segment F	Elkton	Pomme de Terre	Upper terrace	Late Woodland/ Mississippian	Lithic scatter	116
23PO89	Segment E	Elkton	Pomme de Terre	Upper terrace	Early/Middle Archaic; Late Archaic	Lithic scatter	106
23PO90	Segment E	Elkton	Pomme de Terre	Ridgeslope	Late Archaic; Early, Middle and Late Woodland	Lithic scatter	106
23PO108	Segment E	Elkton	Pomme de Terre	Upper terrace	Late Woodland/ Mississippian	Lithic scatter	107
23PO176	Bollivar	Elkton	Pomme de Terre	Ridgeslope	Prehistoric	Lithic scatter	102

Table 4, continued

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23P0198	Segment F	Elkton	Pomme de Terre	Upper terrace	Prehistoric	Lithic scatter	116
23P0323	Bolivar	Elkton	Pomme de Terre	Ridge	Historic	Housesite	103
23P0324	Bolivar	Sentinel	Stinking Creek	Ridgeslope	Prehistoric	Lithic scatter	103
23P0325	Bolivar	Elkton	Pomme de Terre	Ridge	Historic	Housesite	104
23P0334	Segment E	Sentinel	Stinking Creek	Gravel bar	Prehistoric	Lithic scatter	107
23P0335	Segment E	Sentinel	Stinking Creek	Ridgeslope	Prehistoric	Lithic scatter	108
23P0336	Segment E	Sentinel	Stinking Creek	Ridgeslope	Prehistoric	Lithic scatter	108
23P0337	Segment E	Sentinel	Stinking Creek	Lower terrace	Late Woodland/ Mississippian	Lithic scatter	109
23P0338	Segment E	Sentinel	Stinking Creek	Lower terrace	Early/Middle Archaic; Late Archaic	Lithic scatter	109
23P0339	Segment E	Sentinel	Stinking Creek	Lower terrace	Late Archaic and/or Early/Middle Woodland	Lithic scatter	109
23P0340	Segment E	Sentinel	Stinking Creek	Lower terrace	Late Archaic; Woodland	Lithic scatter	110
23P0341	Segment E	Sentinel	Stinking Creek	Lower terrace	Late Archaic	Lithic scatter	110
23P0342	Segment E	Sentinel	Stinking Creek	Ridgeslope	Historic	Housesite	111
23P0343	Segment E	Sentinel	Stinking Creek	Lower terrace	Prehistoric	Lithic scatter	112
23P0344	Segment F	Elkton	Pomme de Terre	Ridgeslope	Prehistoric	Lithic scatter	116
23P0345	Segment F	Elkton	Pomme de Terre	Ridgeslope	Early/Middle Archaic Late Archaic	Lithic scatter	117
23P0346	Segment F	Elkton	Pomme de Terre	Ridgeslope	Historic	Outbuildings	117
23P0347	Segment E	Elkton	Pomme de Terre	Ridgeslope	Historic	Housesite	112

Although little is known concerning upland sites for any period, the severity of disturbances at 23HI5 indicates that information may be limited to an incomplete inventory of material items. The spatial structure of the site has been damaged, and it is not likely that cultural features have been preserved. Therefore, it is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23HI151

Site 23HI151 is situated on the upper portion of the ridge in the Quarry Point Public Use Area, directly west of site 23HI5. Lithic tools and debitage are scattered across the ridgetop and northern and eastern slopes, covering an area of approximately 165 by 165 m. The site is bounded on the south by a steep bluff which drops directly to the former river channel. Most of the surface of the site is planted in grass, and a shower/laundry facility is present in the central portion.

In 1982 a general surface collection was made of lithic materials (three biface fragments) exposed in small eroded areas on the slopes. In 1983 the site was tested through excavation of seven shovel tests and one 1-by-1-m test pit. The test pit was located on the highest point of the ridge near the bluff edge. This pit revealed 30 cm of clay loam overlying limestone bedrock. A total of 79 flakes and angular fragments (including 2 with edge modification) were recovered in the shovel tests. The test pit yielded 569 flakes and angular fragments (including 14 with edge modification), 3 biface fragments, and 1 projectile point fragment. Cultural materials were distributed throughout the three levels.

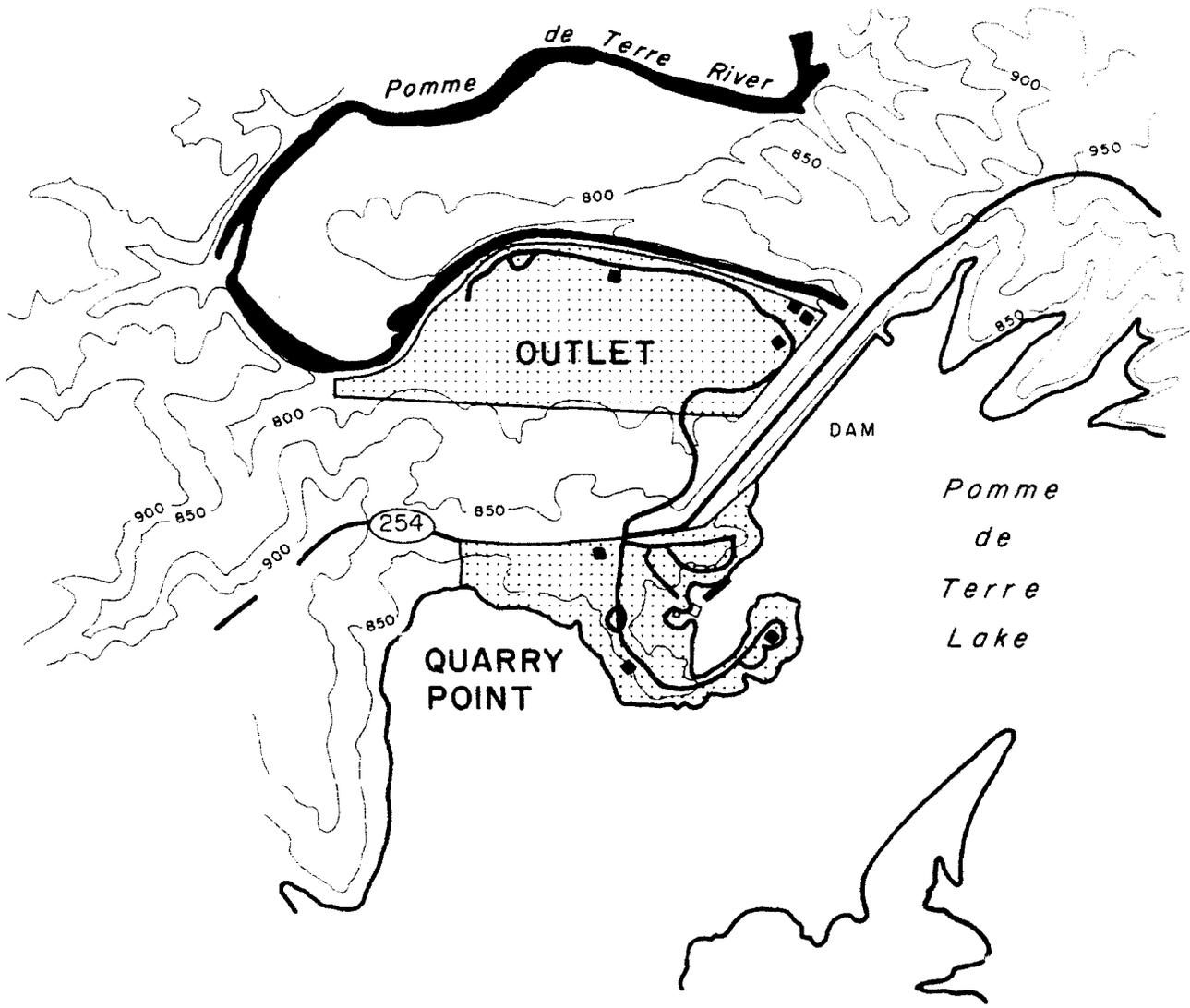
The projectile point is too fragmented for classification, and thus there is no information concerning the time of occupation(s). The variety of bifaces and debitage and the high density of artifacts suggest that multiple activities and/or long-term occupation of the site are represented.

Construction of the shower/laundry facility and landscaping activities have disturbed portions of the site, but extensive undisturbed buried deposits remain. The presence of complete tools suggests that there is good potential for recovery of forms diagnostic of particular cultural periods. Significant questions concerning subsistence activities, lithic manufacturing technology, and site spatial structure potentially can be addressed with data obtainable from this site. It is recommended that 23HI151 be considered eligible for nomination to the National Register of Historic Places.

Wheatland Public Use Area

The Wheatland area encompasses 96 acres on three low ridgeslopes separated by ephemeral drainages (Fig. 18). The area is on the left bank of the Pomme de Terre River and formerly overlooked a broad floodplain. Soils generally are shallow, and bedrock outcrops are numerous. The western ridge is wooded, but the eastern ridge is cleared and planted in grass. Most of the area has been cleared for recreational purposes (camping, swimming, boating). Upland forest probably was present in the area prior to development. The extensive Wheatland Prairie is located approximately 2 km to the west.

POMME DE TERRE LAKE OUTLET & QUARRY POINT AREAS SURVEYED



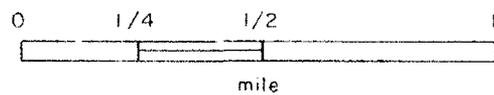
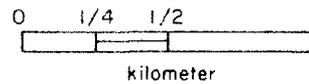
L E G E N D

-  Survey Area
-  Park Facility Structure
-  Boat Ramp & Dock



MN

Contour Interval = 50'



POMME DE TERRE AND STOCKTON LAKES PROJECT

Two archeological sites, 23HI512 and 23HI542, were encountered in this area during the 1982 survey. No sites were recorded during previous surveys.

23HI512

This site consists of a small scatter of chipped stone tools and debitage located on a gentle southeast-facing ridgeslope bordered by ephemeral drainages. The site is located 1 km southwest of the former channel of the Pomme de Terre River but only 40 m from the broad floodplain. The lithic scatter covers an area of about 60 by 50 m along the present shoreline and lower slope; it is likely that portions of the site are inundated continuously. The remaining portions are subject to shoreline erosion. Natural angular chert gravels occur on the site and often are difficult to distinguish from chipping debris.

Investigation of 23HI512 included excavation of seven shovel tests and a general collection of artifacts exposed on the surface. One of the shovel tests yielded a single chert flake. Collected surface cultural materials consist of two biface fragments, one square-stemmed projectile point, and six flakes (two with edge modification). The projectile point form suggests that the site was occupied during the Late Archaic.

Because this site is confined primarily to the surface, is partially inundated, and has been affected negatively by shoreline erosion, research potential is low. It is recommended that 23HI512 be considered not eligible for nomination to the National Register of Historic Places.

23HI542

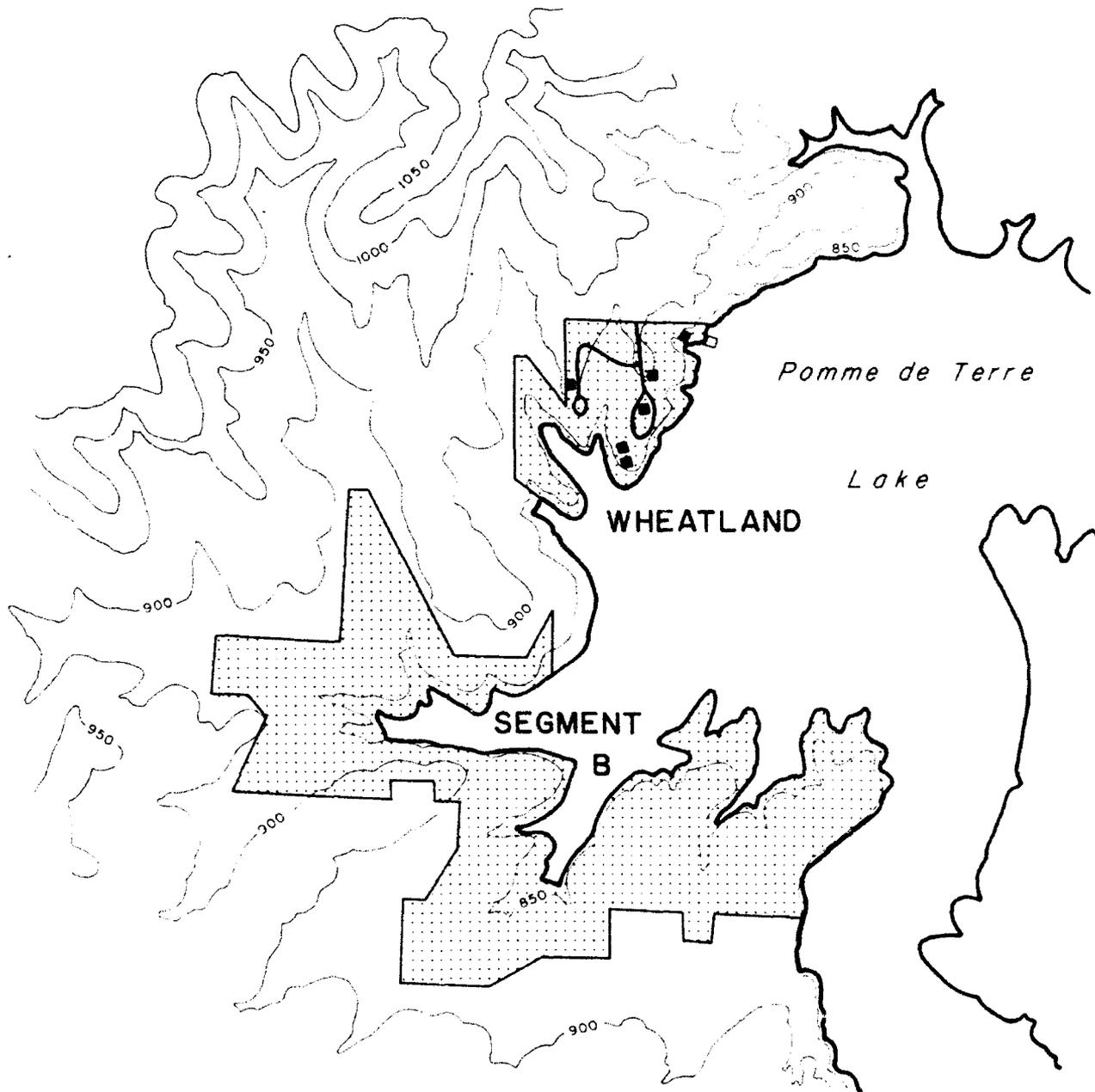
This historic housesite is located northwest of 23HI512 on the same ridgeslope. The former channel of the Pomme de Terre River is approximately 1.2 km to the east; the former floodplain is approximately 0.6 km to the east. The site area (ca. 75 by 55 m) is undeveloped and wooded. Immediately downslope is an apparently natural clearing containing native grasses.

No shovel tests or surface collections were carried out at 23HI542. The site consists of the remains of a house, an outbuilding foundation, and a dugout (or cellar). Piles of planks containing both cut nails and wire nails mark the housesite and suggest that twentieth-century modifications have been made to a late nineteenth-century or early twentieth-century structure. A stone-lined dugout measuring 2.3 by 4.3 m (7.5 by 14 ft) lies east of the housesite and north of a stone foundation which measures 2 by 4 m (6.5 by 13 ft). Other cultural features and historic artifacts observed during the survey include an apparent cistern, tin gutters, buckets and tubs, roofing and tin sheets, wooden boards and planks, and an unusual stone slab which displays a pattern of grooves carved into the stone.

An informant (Berg 1982) identified 23HI542 as the former location of the Crance House, an identification which was confirmed in County records (Hickory County Warranty Deed Record 41:567, 568; Hickory County Land & Personal Tax Book 1891:37, 1904:40). This site appears to represent one of the few mostly intact, turn-of-the-century domestic complexes remaining in the Pomme de Terre Lake area. While the house has been destroyed and portions of the dugout are collapsed, the remaining architectural features are very

POMME DE TERRE LAKE SEGMENT B & WHEATLAND AREAS SURVEYED

Figure 18

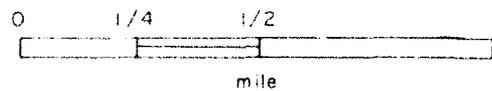


L E G E N D

-  Survey Area
-  Park Facility Structure
-  Boat Ramp & Dock



Contour Interval: 50'



distinct and spatial integrity appears to be reasonably intact. It is recommended that 23HI542 be considered eligible for nomination to the National Register of Historic Places.

Fish and Wildlife Management Segment B

Segment B of the Fish and Wildlife Management areas is located upstream from the Wheatland area and encompasses the lower slopes surrounding several ephemeral drainages which feed into a perennial left-bank tributary of the Pomme de Terre River (see Fig. 18). The eastern portion of the area lies adjacent to the former main channel of the river. A steep bedrock bluff separates the ridge from the lake. Most of the central and western portion of the area is cleared and cultivated, but hardwood forest with a dense understory is present near the bluff to the east. Segment B has not been developed for recreation.

A total of 498 acres of Segment B were surveyed in 1982, and nine archeological sites (23HI516, 23HI532, 23HI533, 23HI534, 23HI535, 23HI546, 23HI547, 23HI548, and 23HI549) were encountered. No sites were recorded in this area during previous surveys.

23HI516

This is a large site (ca. 400 by 300 m) which includes both prehistoric and historic components. The prehistoric component consists of an extensive scatter of lithic tools and debitage. The historic components include the former locations of the Cooper Cemetery and the John Fisher House.

The site is located on a high ridge which slopes to the east and northeast to the terraces of the Pomme de Terre River. Adjacent to the site on the south is a steep bluff which drops directly to the former river channel. The site is bounded on the west by an ephemeral drainage. Severe surface disturbances in the area probably relate to removal of the historic structures during reservoir construction. In addition, several recent dirt roads cross the area.

All identified features at the site relate to historic occupations. Eleven surface depressions in the eastern portion represent former burial locations associated with the Cooper Cemetery. The burials have been removed by the Corps of Engineers. Remains of the John Fisher House consist of a concrete footing which measures approximately 5 by 6 m (16 by 20 ft). A circular, stone-lined well is located north of the footing.

During the 1982 survey, three 2-m-diameter surface collection units were employed and one shovel test was excavated. Prehistoric materials collected from the surface consist of 89 flakes and angular fragments (8 with edge modification), 4 biface fragments, 1 projectile point fragment, and a Scallorn arrow point. Historic cultural materials include 3 whiteware sherds, 3 stoneware sherds, 8 fragments of bottle glass, 1 glass jar lid fragment, 1 horseshoe, and 2 unidentified pieces of metal and concrete. No artifacts were recovered from the shovel test.

An informant (Berg 1982) related that a one-room log house was located a short distance north of the Fisher frame house. Because it was felt that significant information concerning nineteenth-century settlements might be obtained if the log structure and

associated material remains could be located, additional investigations were carried out during 1983. Thirteen shovel tests were excavated, but no evidence of the log structure was encountered. Artifacts recovered from these tests include 28 flakes and angular fragments (2 with edge modification), 1 core, 2 biface fragments, 8 whiteware/ironstone sherds, 5 stoneware sherds, 11 bottle glass fragments, 8 window glass fragments, 1 lamp glass fragment, 4 unidentified glass fragments, 13 wire nails, 1 cut nail, 10 unidentified metal pieces, 1 button, and 1 brick fragment.

In order to test for the presence of artifacts relating to the nineteenth-century occupation, the upper 60 cm of fill was excavated from the well. Recovered cultural materials consist of 40 whiteware/ironstone sherds, 5 decorated earthenware sherds, 4 stoneware sherds, 2 porcelain sherds, 53 bottle or jar glass fragments, 28 pieces of windowglass, 3 unidentified glass fragments, 70 wire nails, 83 unidentified metal pieces, 2 plastic pieces, 6 brick fragments, 1 fragment of linoleum, 1 fragment of slate, 32 flakes and angular fragments (6 with edge modification), and 2 biface fragments.

The single classifiable projectile point, a Scallorn point, suggests that the site was occupied during the Late Woodland/Mississippian period, but additional components may be present. All prehistoric cultural materials are located in the upper 10 cm of soil and are mixed with historic debris across most of the site. Because of the shallow and disturbed nature of the deposits and the absence of intact features, the potential of the site for yielding significant information concerning research problems relating to the regional prehistory is considered to be low.

Although a small number of artifacts possibly reflect the nineteenth-century occupation, significant information relating to this period appears to be absent. The Cooper Cemetery has been removed, and the location of the frame Fisher House is so disturbed that site integrity has been destroyed. It is recommended that 23HI516 be considered not eligible for nomination to the National Register of Historic Places.

23HI532

Site 23HI532 consists of a scatter of lithic debitage and tools located on a ridge about 100 m south of 23HI516. The site covers an area of approximately 150 by 100 m and lies immediately west of a steep bluff which drops directly to the former channel of the Pomme de Terre River. Lithic materials are exposed in a dirt road which extends along the bluff edge, but most of the site is in an undeveloped wooded area.

Other than in the roadcut, no artifacts are visible on the surface. During the 1982 survey, four shovel tests were excavated in order to determine the site limits; 14 flakes and 1 ground and pecked cobble were recovered from these tests. In 1983 further testing was carried out through the excavation of two 1-by-1-m test pits. One of these pits was excavated to 40 cm below the surface. The upper 35 cm of matrix consisted of grayish brown clay loam and yielded 450 flakes and angular fragments (18 with edge modification), 3 cores, 2 biface fragments, and 1 graver. The second test pit was excavated to 20 cm below the surface; 491 flakes and angular fragments (23 with edge modification) were recovered.

No projectile points were recovered from 23HI532, and it is not possible to assign the occupation(s) to temporal periods. However, completed tools are present and it is possible that, with additional investigation, temporally diagnostic forms may be recovered. The

extremely high density of chipping debris indicates that the site has the potential to yield significant information concerning lithic manufacturing technology. The presence of tools and absence of major disturbances suggest that reconstructions of the range of site activities and spatial structure of the site are possible. It is recommended that 23HI532 be considered eligible for nomination to the National Register of Historic Places.

23HI533

Site 23HI533 is a small (ca. 50 by 50 m) lithic scatter located on a ridge in the eastern portion of Fish and Wildlife Segment B. The site is located approximately 25 m west of a steep bluff which drops directly to the former channel of the Pomme de Terre River. Lithic materials are exposed on a rise which is approximately 10 m in diameter and 1 m high. There is no evidence that the rise is an artificially constructed mound.

No systematic surface collections were made because the area is heavily wooded and leaf litter covers the surface. However, a single projectile point base was collected from the surface of the rise. Five shovel tests were excavated adjacent to the rise in order to determine the extent of the lithic scatter. Three of these tests yielded a total of 10 flakes and indicated that the deposits are approximately 25 cm deep.

The form of the projectile point base suggests that the site was occupied during the Early/Middle Archaic period, and the small size and limited range of materials suggest that a single occupation and limited number of activities are represented. This site has the potential to yield significant information regarding the spatial structure of a small upland camp dating to a time period about which little is known. Information concerning the range of site activities and lithic technology also potentially is present. It is recommended that 23HI533 be considered eligible for nomination to the National Register of Historic Places.

23HI534

Site 23HI534 is a dense scatter of chipped stone tools and debitage exposed in a plowed field on a low ridgecrest overlooking a perennial left-bank tributary of the Pomme de Terre River. The site covers an area of approximately 80 by 80 m and is located 50 m southeast of the tributary channel. The area probably was part of the upland forest prior to clearing.

Surface artifacts were sampled through the use of three 2-m-diameter collection units; all recognizable tools also were collected and their loci plotted on a site sketch map. A total of 61 flakes and angular fragments (9 with edge modification), 10 bifaces (including 1 chopper), 6 projectile point fragments, 1 core, and 1 pitted quartzite cobble were collected. One shovel test was excavated, but no subsurface artifacts were recovered.

The projectile point styles suggest that the site was occupied during the Late Archaic and/or Early/Middle Woodland periods. The apparent absence of buried deposits at this site severely limits its research potential. Spatial integrity has been damaged due to lateral displacement of artifacts as a result of plowing. The density of materials suggests repeated occupations, and the possibility of adequately isolating components is minimal. Research questions concerning upland occupations relating to this period are best addressed

at other sites. It is recommended that 23HI534 be considered not eligible for nomination to the National Register of Historic Places.

23HI535

Site 23HI535 is located on a low ridge overlooking an ephemeral left-bank tributary of the Pomme de Terre River. The site consists of a small scatter of chipped stone tools and debitage exposed in a gently sloping plowed field. The site covers an area of approximately 75 by 35 m and is located 350 m southeast of the tributary channel.

In 1982 a projectile point and biface fragment were plotted and collected from the surface but no subsurface tests were carried out. The site was revisited in 1983 and found to have been severely disturbed by rill and gully erosion. Only a small amount of debitage was present on the surface, and a shovel test excavated to 25 cm below the surface yielded no cultural materials.

Although firm identification of the projectile point type cannot be made, it is similar to forms associated with the Early/Middle Archaic period. However, because of the limited evidence of occupation at this site and the apparent absence of buried cultural materials, research potential is minimal. It is recommended that 23HI535 be considered not eligible for nomination to the National Register of Historic Places.

23HI546

Site 23HI546, an historic housesite, is located on a ridgetop approximately 200 m northwest of an unnamed perennial tributary of the Pomme de Terre River. Northeast of the site, an ephemeral drainage runs to the southeast eventually draining into the tributary. The site covers an area of approximately 85 by 55 m. The area has been cleared, and domestic vegetation is present. A dirt road pass through the site.

The site area is marked by the domestic vegetation and a single large chunk of concrete. No artifacts were noted, and no shovel tests were excavated. According to an informant (Berg 1982), 23HI546 is the former location of the James Carson House, a late nineteenth- or early twentieth-century one-and-one-half-story frame structure. There is no indication from records examined in 1982 that any part of this section (Section 20) was settled prior to the late nineteenth century. Owners of the house after Carson included members of the Hofstaeder, Morrison, and Fisher families. The house was removed by the Corps of Engineers prior to construction of the reservoir.

Due to the recent nature of the site, its lack of association with significant local historical figures, and the paucity of archeological remains, it is recommended that 23HI546 be considered not eligible for nomination to the National Register of Historic Places.

23HI547

Site 23HI547, the former location of the Mashburn Cemetery, is located on a low, gentle ridgetop approximately 200 m northwest of the upper portion of a perennial

POMME DE TERRE AND STOCKTON LAKES PROJECT

tributary of the Pomme de Terre River. The Mashburn Housesite (23HI548) is located approximately 230 m to the southeast. The former cemetery encompasses an area of approximately 25 by 25 m.

In 1982 the site was marked by gate posts and portions of a barbed wire fence. A concrete footing approximately 7.6 m (25 ft) long runs north-south on the western side of the former cemetery. The burials were exhumed and reinterred by the Corps of Engineers prior to construction of the reservoir.

Although the Mashburn Cemetery was one of the oldest in Hickory County, the site presently contains no significant research potential; and it is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23HI548

This historic housesite is located approximately 30 m southeast of a perennial tributary of the Pomme de Terre River on a gentle ridgetop. The site covers an area of approximately 100 by 80 m. The area was probably cleared in the past but now is in dense woods.

On the eastern side of the site, a wire fence strung between trees apparently encloses an area once used for stock retention. A barbed wire fence approximately 35 m to the west terminates on the south in a pile of concrete rubble; two other debris piles are located to the southwest and include tires, a washtub, and a stove part.

Approximately 15 m west of the rubble pile is a concrete slab measuring 3 by 3.7 m (10 by 12 ft) which may be either a foundation or a displaced element from a dugout or root cellar which has been filled in. A large dead tree lies across a large portion of the feature, and the disturbance which has occurred makes the identification of specific features very difficult. One shovel test was excavated at the site to determine if buried cultural deposits are present. The test yielded no cultural materials.

Site 23HI548 is located in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 20, T36N, R22W. Initially, that property, together with the SW $\frac{1}{4}$ NE $\frac{1}{4}$, the SE $\frac{1}{4}$ NW $\frac{1}{4}$, the SE $\frac{1}{4}$ SW $\frac{1}{4}$, the SW $\frac{1}{4}$ SW $\frac{1}{4}$, and NW $\frac{1}{4}$ SE $\frac{1}{4}$, Section 20, T36N, R22W, was owned by Manuel (Emanuel) and Sarah Mashburn. They, in turn, deeded the subject tract and the NW $\frac{1}{4}$ SE $\frac{1}{4}$ to their son, George W. Mashburn, on September 13, 1875, for \$100 (Hickory County Land & Personal Tax Book 1874:36, 170; Hickory County Warranty Deed Record V:360-361). It is not clear when Mashburn constructed improvements on the NE $\frac{1}{4}$ SW $\frac{1}{4}$, but the total 80 acres which he owned were evaluated at \$500 in 1883, at which time he was raising some livestock on the tract (Hickory County Land & Personal Tax Book 1883:32, 148).

According to a grandson (Mashburn 1983), George Mashburn constructed the house which was recorded as site 23HI548, from which it is possible to conclude that the site dates from the last quarter of the nineteenth century. Corps of Engineers photographs made prior to the destruction of the George Mashburn House show a one-and-one-half-story, wood-frame, Cumberland-plan residence with a central brick flue which appears to date to the turn of the century. An "L" which projects from the rear of the house has a roof, the slope of which suggests a construction date preceding that of the main portion of the building (U.S. Army Corps of Engineers. Tract file B-236).

Because of the poor condition of the site, no significant information remains concerning late nineteenth-century Ozark homesteads. It is recommended that site 23HI548 be considered not eligible for nomination to the National Register of Historic Places.

23HI549

Site 23HI549, the former location of the Mat Brown House, is located on a low ridge-crest approximately 250 m southeast of a perennial tributary of the Pomme de Terre River. An ephemeral tributary of the Pomme de Terre River is located approximately 200 m to the east. The site covers an area of about 75 by 50 m. The area probably was cleared in the past but currently is overgrown with saplings and tall grasses.

The site, which is largely obscured by dense vegetation, appears as two structures on the 1949 topographic sheet. The only cultural features visible in 1982 consisted of domestic vegetation. No artifacts were present on the site surface, and no shovel tests were excavated.

According to a local informant (Berg 1982), the site was the former location of the Mat Brown House, a two-story frame structure with a rock fireplace. Three rooms were located on the first floor, and two rooms were located on the second floor. A porch and portico on the front facade faced west. Acquisition of the property by the Corps of Engineers resulted in its dismantlement and removal to Weaubleau.

The Mat Brown with whom the site is associated was probably Matthew Brown, son of Jesse C. Brown and Nancy C. Parker Brown, who was born in 1830, moved to Hickory County in 1840, and married Manerva A. Hastain in 1859 (Wilson 1907:115). There is no indication in records examined in 1982 that Brown was a particularly early settler in the area, and Berg (1982) noted that Brown's property ran generally north and east of 23HI549. Later owners included Billy Pitts (see also 23HI523), his heirs (the Owens family), and Mr. and Mrs. A. H. Berg.

Several houses still standing in the project vicinity are of a type similar to that of the former Mat Brown House. Artifacts appear to be absent from the site. It is recommended that 23HI549 be considered not eligible for nomination to the National Register of Historic Places.

Lightfoot Landing Public Use Area

The Lightfoot Landing Public Use Area is situated on a low ridge on the left bank of the Pomme de Terre River (Fig. 19). On the eastern and southern sides, the area is separated from the former river channel by steep bedrock bluffs. Soils are shallow loams overlying residual clays. Most portions of the 114-acre area are wooded, but there has been extensive development of camp, boat dock, picnic, and concession facilities.

Chapman (1954) recorded one prehistoric site, 23HI50, in the Lightfoot area. During the 1982 survey, this site was relocated and two additional prehistoric sites, 23HI513 and 23HI515, and one historic site, 23HI543, were encountered.

23HI50

This site consists of a dense scatter of lithic tools and debitage located on a low ridge near the southern end of the Lightfoot Public Use Area. The site encompasses an area of approximately 150 by 150 m. Lithic materials are exposed in the bed of a park road and along the eastern shoreline of the lake. To the southwest, the ridge drops steeply to the former channel of the river. A road, picnic area, and swimming facilities now occupy portions of the site area; however, most of the site has been planted in grass and has not been subject to extensive disturbances.

Investigations during the 1982 survey included the collection of a sample of surface artifacts from two 2-m-diameter units and excavation of five shovel tests. Sterile clay was encountered in the tests between 10 and 25 cm below the surface. Artifacts recovered from the overlying horizon are 28 flakes and angular fragments, 1 core, and 1 projectile point. A total of 32 flakes and angular fragments (3 with edge modification) were collected from the surface units. Materials from this site reported by Chapman (1954) consist of four projectile points, nine bifaces (including six chopperlike forms), one core, one ovoid uniface, and one mano.

The projectile point forms recovered during the 1982 survey and by Chapman suggest that the site was occupied during the Late Archaic period. Although no features have been detected at 23HI50, the variety and density of artifacts present suggest that a wide range of activities are represented. Multiple occupations may have occurred, but all temporal evidence indicates that these occupations relate to a single cultural period.

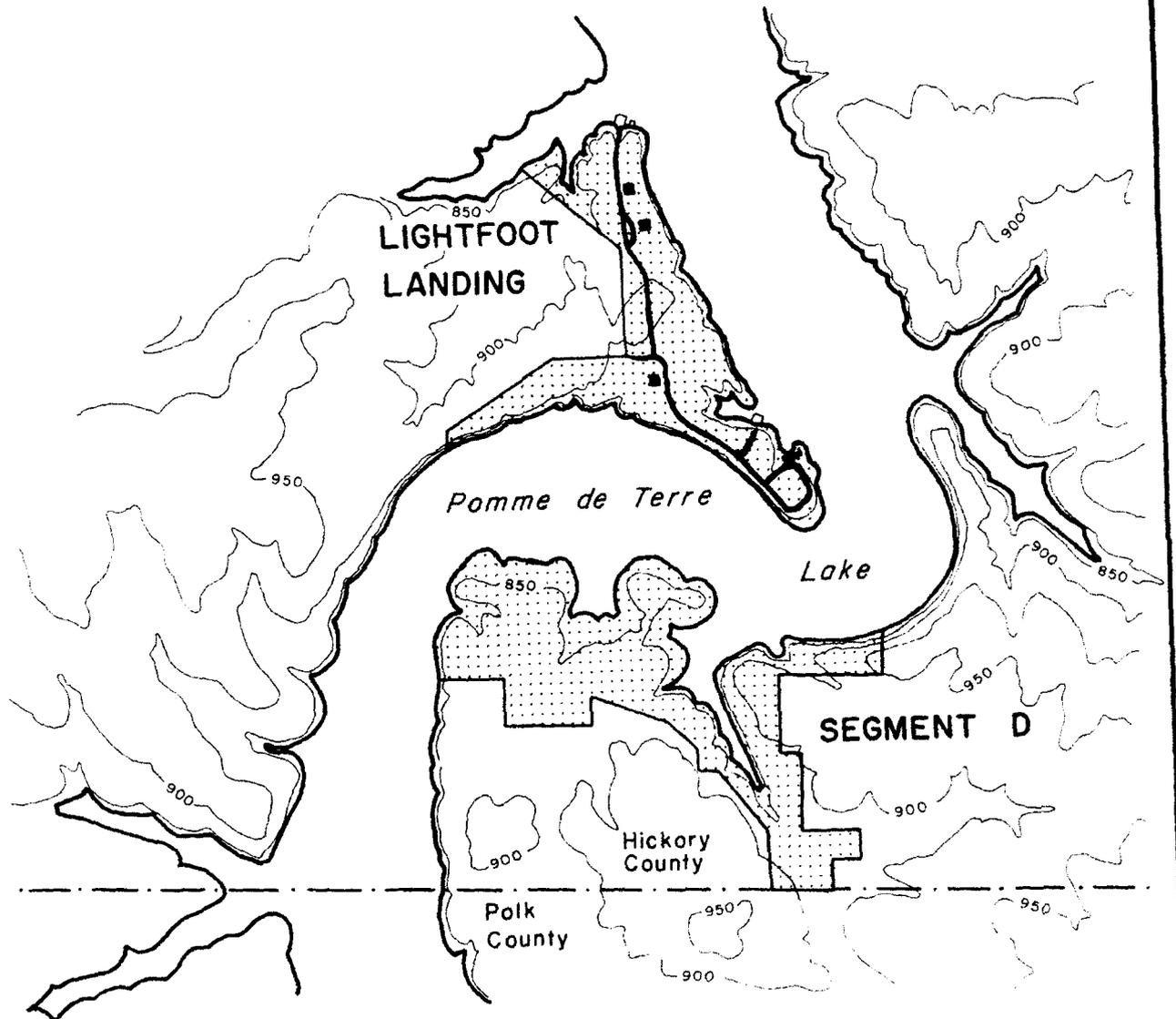
Data appear to be sufficiently intact at 23HI50 to enable reconstruction of site activities and site spatial structure. Since Late Archaic upland campsites have not been investigated in the project area, this site has the potential to yield significant data concerning several research questions presented in Chapter 2. It is recommended that the site be considered eligible for nomination to the National Register of Historic Places.

23HI513

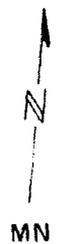
Site 23HI513 is a relatively extensive scatter (ca. 250 by 150 m) of lithic tools and debitage located in the northern portion of the Lightfoot Public Use Area. The site is on a ridge bounded on the west by an ephemeral drainage and on the east by a steep bedrock bluff which drops to the former floodplain of the Pomme de Terre River. The former river channel lies approximately 175 m to the east. The entire site area has been cleared and developed for boating, camping, and picnicking. Roads cross the area, and gravels have been introduced to the surface.

During the 1982 survey, the site was divided into three areas and general surface collections were made from each. All recognizable tools were plotted on the site sketch map. A total of 171 flakes and angular fragments (17 with edge modification) and 7 bifaces were collected. Corps Ranger Bradley Meyers also has made a collection of surface artifacts from this site. This collection consists of 14 flakes and angular fragments (1 edge modified) and 7 biface fragments. One shovel test was excavated during 1982. In the upper soil horizon (ca. 25 cm deep), a single flake was recovered.

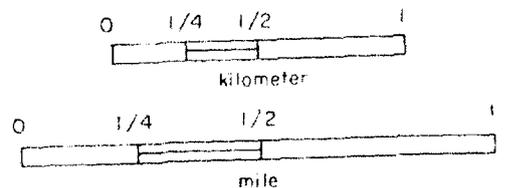
POMME DE TERRE LAKE LIGHTFOOT LANDING & SEGMENT D AREAS SURVEYED



- LEGEND**
-  Survey Area
 -  Park Facility Structure
 -  Boat Ramp & Dock
 -  County Line



Contour Interval = 50'



The extensive disturbances at 23HI513 severely limit the potential for obtaining significant research data. Despite extensive collections, no time-diagnostic artifacts have been recovered. The area is heavily used by visitors to the lake, and artifacts are readily visible. Because of the limitations of the physical integrity, it is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23HI515

This small (ca. 60 by 60 m) lithic scatter is located in the southern portion of the Lightfoot Public Use Area on a ridgetop with a steep bluff to the south which drops to the former channel of the Pomme de Terre River. The site is bounded on the west by a steep drainage. The site area has been cleared and cultivated in the past but is now covered with tall grasses. A park road crosses the area.

Because of poor visibility, no surface collections were made. Two shovel tests were excavated, one of which yielded 23 flakes and angular fragments (1 with edge modification) and 2 cores. The tests indicated, however, that materials are confined to the plowzone which extends to about 15 cm below the surface.

Although lithic materials are relatively dense, few interpretations can be made regarding the nature or time of occupation. Cultural materials at 23HI515 are shallow and displaced laterally as a result of plowing. There is no evidence of the presence of features or finished tool forms which might be time diagnostic. Other upland lithic scatters in the area have greater potential for yielding significant data of a similar nature. It is recommended that 23HI515 be considered not eligible for nomination to the National Register of Historic Places.

23HI543

Site 23HI543, an historic cemetery and the Richard Sapp Housesite, is located on the eastern side of the public use area near the bluff edge approximately 250 m west of the former channel of the Pomme de Terre River. The area has been cleared and is grown over with short grasses. The site covers an area of about 150 by 30 m.

The site is composed of a cemetery and the former location of the Richard Sapp House. The cemetery, which has been recorded previously (Williams and Williams [1968?]:43-44), contains approximately 21 marked graves associated with the Beesley, McCracken, Coon, Pitts, Hellums, Fisher, Green, Reeves, and Grecot families. The earliest marked grave is that of Henry W. Green (September 1, 1856), and the most recent is that of Cody McCracken (July 7, 1948). The absence of any stones on which the Sapp name appears suggests that members of that family may be interred in graves which were never marked, or that the markers have been destroyed, or, finally, that the cemetery derived its name from the property owner at the time of its dedication. The graves have been maintained, and a chain-link fence encloses the area.

On a gentle rise approximately 60 m south of the cemetery are the remains of a site identified by a local informant (Richardson 1982) as the former location of the Richard Sapp House. Survey maps suggest that Andrew and Alexander Sapp were among the earliest

settlers of Hickory County and that they farmed in two different locations on Lindley Creek by 1840 (T36N, R21W, northeast and southwest quarters of Section 20). However, no records examined in the course of the 1982 survey indicated that the Sapp family were early (i.e., 1840s) residents in the Lightfoot Public Use Area.

Domestic vegetation still marks the former site of the house, which an informant (Richardson 1982) noted had been moved to the vicinity of Elkton. Other remains were largely destroyed when the Corps of Engineers drilled through the foundation area.

The Sapp Cemetery does not appear to contain the remains of any unusually noteworthy area residents, and the archeological remains at the Sapp Housesite are too few and disturbed to yield significant information concerning the research problems presented in Chapter 2. It is recommended that site 23HI543 be considered not eligible for nomination to the National Register of Historic Places.

Fish and Wildlife Management Segment D

During the 1982 field season, 142 acres of Segment D of the Fish and Wildlife Management Lands were surveyed. The area occupies a low ridge which slopes gently upward to the southeast away from the former Pomme de Terre River floodplain (see Fig. 19). An unnamed perennial tributary bisects the survey area. Most of the area is wooded, although portions of the western half have been cleared and cultivated. The shoreline has undergone some erosion from lake level fluctuations and a few unimproved roads cross the area. Overall, however, modern disturbances are not severe.

Two prehistoric sites, 23HI52 and 23HI55, were recorded in this area prior to the 1982 survey. The former site was relocated, but no evidence of prehistoric cultural activity remained at the plotted location of 23HI55. Chapman (1954) described the latter site as a camp and reported that 14 projectile points were recovered along with 5 bifaces. It is possible that materials were confined to the surface and have been completely collected. One historic site, 23HI550, was encountered during the 1982 survey.

23HI52

This site consists of a sparse scatter of chipped stone debitage located on an upper terrace approximately 250 m west of an unnamed perennial tributary of the Pomme de Terre River. The site covers an area of approximately 100 by 30 m. The scatter extends to the eroded shoreline suggesting that portions of the site are inundated.

Surface collections were not carried out, but four shovel tests were excavated. No cultural materials were recovered. Chapman (1954:Tables III and IV) collected two projectile points, two adzes, two bifaces, and a chopper from the site.

The projectile points recovered by Chapman had contracting stems and probably relate to the Late Archaic and/or Early/Middle Woodland periods. Currently the site appears to be confined to the surface and contains very few cultural materials, and the potential for containing significant information regarding the research questions presented in Chapter 2 is low. It is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23HI550

Site 23HI550, an historic housesite, is located on a low ridge approximately 150 m west of an unnamed perennial tributary of the Pomme de Terre River. The site area is approximately 80 by 50 m and has been partially cleared but now is grown over in native grasses. The surface has been disturbed from use of heavy machinery during reservoir clearing activities.

No artifacts are exposed on the surface at 23HI550, and no shovel tests were excavated. The site consists of a broken-up concrete foundation, a fence which runs east-west on the southern side of the site, a row of sugar maples southwest of the concrete foundation, and stands of irises.

According to an informant (Keith 1982), the site was the location of a house built by Joseph Glover which burned about 1910. Glover sold the property to Mr. A. Roberts, who built a new two-story house which consisted of two rooms on each floor. Further construction around the time of World War I resulted in the addition of a living room and kitchen on the first floor and a sleeping room on the second floor. Nearby was a concrete cellar in which canned fruits were stored.

After 1918 Roberts sold the property to the Beazley family. Later owners included "Doc" Robbins and Hallie Reynolds. Abner Fellers assisted in the eventual destruction of the site.

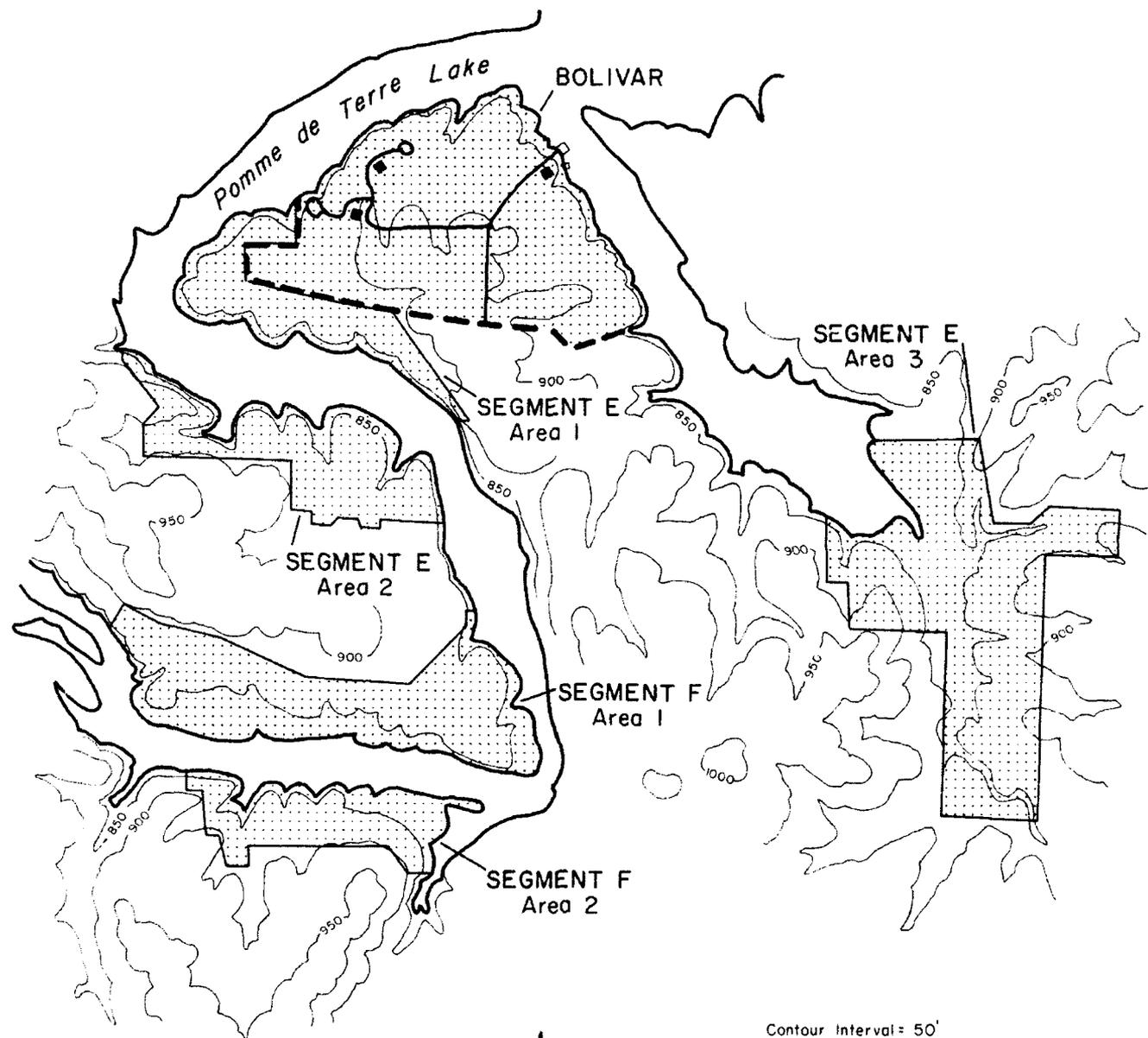
This site has no associations with noteworthy Hickory County residents and dates from a period from which many local standing structures exist. It is recommended that 23HI550 be considered not eligible for nomination to the National Register of Historic Places.

Bolivar Public Use Area

The Bolivar area (Fig. 20) is situated on a large flat ridge and the surrounding moderate to steep slopes. To the northwest, the slopes drop directly to the former channel of the Pomme de Terre River; to the northeast, the area is bounded by Stinking Creek. Several small tributary drainages dissect the area. Soils generally are shallow and gravelly. Much of the area has been cleared and presently is overgrown with tall grasses and brambles. Forest species are present on the slopes. The area is large (230 acres) and has not been developed as extensively as other public use areas. However, a camping area is located in the northwestern portion, a boat ramp has been constructed on the northeastern shore, and several roads cross the area.

Three prehistoric sites, 23PO50, 23PO51, and 23PO176, were recorded in the Bolivar area during previous surveys. Site 23PO50 could not be relocated during the 1982 survey. Chapman (1954:Table IV) reported recovering two bifaces, a chopper, and two edge modified flakes from the site, but the surface was reported as being obscured at the time of survey. It is possible that cultural materials were limited in number, confined to the surface, and have been removed entirely. Three additional sites, 23PO323, 23PO324, and 23PO325, were recorded during the 1982 survey.

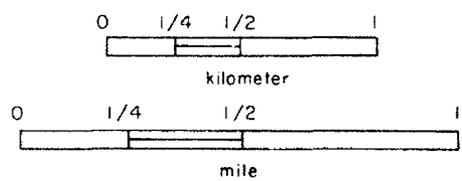
POMME DE TERRE LAKE BOLIVAR & SEGMENTS E & F AREAS SURVEYED



- LEGEND**
-  Public Use Area
 -  Survey Area
 -  Park Facility Structure
 -  Boat Ramp & Dock



Contour Interval = 50'



23PO51

Site 23PO51, a scatter of chipped stone debitage, is located in the Bolivar Public Use Area near the point of a ridge adjacent to the present lake shoreline. The site is approximately 150 m south of the former confluence of the Pomme de Terre River and Stinking Creek. The site covers an area of approximately 150 by 40 m and is bounded on the east and west by ephemeral drainages. The area has been cleared, and a parking lot and boat ramp are present along the western edge. It is probable that much of the site is inundated.

Five of the seven shovel tests excavated at this site yielded cultural materials. Eight flakes and angular fragments, one core, and one quartzite cobble with a ground surface were recovered. The shovel tests indicated that the cultural deposits are in the upper 15-20 cm of brown sandy loam which overlies a reddish brown clay. Very little material was exposed on the surface, and no collections were conducted. Chapman (1954) initially recorded the site and reported recovering a projectile point, a biface, a chipped stone axe, and a pitted stone. Chapman classified the projectile point in his lanceolate (L) category which suggests that it may relate to the Early/Middle Archaic, but this interpretation is very tenuous. The diversity of artifacts reported from the site suggests that multiple activities are represented.

This site has been disturbed severely by lake level fluctuation and park developments. Although some subsurface deposits remain, material density is very low and there is no indication of preserved features. It is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23PO176

Site 23PO176 is an extensive scatter of lithic tools and debitage located on a gentle slope approximately 200 m from the former channel of the Pomme de Terre River. The site encompasses an area of approximately 700 by 100 m. The area is dissected by three small drainages. A park road and picnic and camping areas are present in the northern portion of the site. Uncleared areas are wooded. The site was recorded by Wood (1960:Table 4) as located on the adjacent (and now inundated) terrace, but in 1982 materials were noted along the lower portions of the ridgeslope just above the terrace.

Surface artifacts were sampled through the use of two 2-m-diameter collection units. A total of 33 flakes and angular fragments (4 with edge modification), 2 cores, and 1 biface were collected. In addition, two bifaces were collected in a roadcut, and Corps Ranger Bradley Meyers collected two unmodified and four edge modified flakes. Nine shovel tests were excavated, six of which yielded cultural materials. Recovered were 11 flakes and angular fragments (1 with edge modification). All of the materials were in the upper 10 cm of sandy clay. Wood did not publish descriptions of the materials observed or collected from this site.

The lack of diagnostic artifacts precludes interpretation of the time of occupation. A variety of tool forms are present and the site area is large, suggesting that numerous occupations and a wide range of activities are represented.

Most of 23PO176 is inundated, and the northern portion has been disturbed extensively by park developments. Remaining deposits are very shallow. Other sites in the project

area have much greater potential for yielding significant information of a nature similar to that available at 23PO176. It is recommended that this site be considered not eligible for nomination to the National Register of Historic Places.

23PO323

Site 23PO323, an historic housesite, is located on a low ridge approximately 500 m south of the former river channel. An ephemeral drainage borders the site area (ca. 150 by 100 m) on the west. The area has been cleared, and grasses and domestic vegetation are present. Portions of the site are presently cultivated by occupants of a nearby trailer house. The surface of the site has been extensively disturbed by heavy machinery.

Remains of the Blue-Wheeler House are represented by an incomplete stone foundation which encompasses an area approximately 4.5 by 9 m (15 by 30 ft). A pile of bulldozed stone foundation remains and brick also is present at the site. One small corner notched dart point was found on the surface, but there was no other indication of prehistoric occupation. Because of the severe disturbances, no surface collections or shovel tests were employed.

While early survey maps indicate that the vicinity of Sections 8 and 17, T35N, R22W, was settled and cultivated as early as 1845, site 23PO323 does not appear to date from this period of initial settlement. According to an individual who lived in the Blue-Wheeler House, the site originally was the location of a structure owned by an individual named Hatler. The Blue-Wheeler House, which eventually occupied the site, was built by Jack Blue and was originally located to the northeast of site 23PO323. When Jack Blue died, his son, E. B. Blue, moved the Hatler house to the south, moved the Jack Blue House to 23PO323, and then sold it to James Wheeler of Kentucky in 1886 (Wheeler 1982). Ownership of the property remained with the Blue and Wheeler families until acquisition by the Corps of Engineers when the Blue-Wheeler House was removed and the barn and housesite leveled. The severe disturbances and lack of cultural materials indicate that 23PO323 is not likely to yield significant research information. It is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23PO324

Site 23PO324 is a relatively small (ca. 50 by 50 m) scatter of lithic debitage and tools located on a small knoll which represents a portion of a dissected ridgetop above the northeastern shoreline of the Bolivar area. The knoll slopes downward to Stinking Creek located approximately 50 m to the northeast. The surface of the site appears formerly to have been plowed; presently it is covered with tall grasses, small oaks, and blackberry vines. No park development has taken place on the site.

In 1982 a general surface collection was made and four shovel tests were excavated. One core and one biface fragment were collected from the surface. Two of the shovel tests contained artifacts. These consisted of seven flakes (two with edge modification) and one biface. Since relatively undisturbed buried cultural deposits appeared to be present, testing was carried out in 1983 through excavation of a 1-by-1-m test pit located in the central portion of the site. The upper 20-25 cm of soil consisted of a brown clay loam which contained numerous chert artifacts. Below this horizon, a reddish brown clay was

encountered which contained little cultural material. Excavation was stopped at 30 cm below the surface when artifacts no longer were being recovered. Materials recovered from the test pit consist of 561 flakes and angular fragments (6 with edge modification), 5 biface fragments, 1 projectile point fragment, 3 cores, and 2 whiteware sherds. The projectile point fragment is too small to provide information on when the site was occupied.

The high density of debitage and tools at this site can potentially provide significant data relating to a small upland camp. Although some lateral displacement of artifacts might have resulted from plowing, substantial intact buried deposits are present. Unfortunately, materials diagnostic of a particular time period have not been recovered, and no features have been identified. However, recovered biface and projectile point fragments suggest that diagnostic artifacts may be present through which the site may be dated. It is recommended that 23PO324 be considered eligible for nomination to the National Register of Historic Places.

23PO325

Site 23PO325, an historic housesite, is located on a ridge adjacent to a south-facing slope approximately 300 m north of the former channel of the Pomme de Terre River. The site covers an area of approximately 60 by 30 m and has been partially cleared. Open areas were overgrown with tall grasses at the time of the survey.

No surface collections or shovel tests were conducted at the site. Remains consist of a concrete slab foundation for a barn or shed, a displaced portion of a concrete house foundation, and scattered clear windowglass and red brick. Walnut and peach trees also mark the area.

On the basis of a number of primary documents, it is apparent that the vicinity of 23PO325 has been the location of settlement and development since at least January 1845 when surveyors recorded the presence of extensive, cultivated fields in the northwest quarter of Section 17, a short distance northwest of 23PO325. While it still is not known precisely when occupation began at 23PO325, architectural evidence points to the existence of two buildings at or near 23PO325 by the third or fourth quarter of the nineteenth century. The building with the lesser degree of documentation is a log structure identified by Wheeler in 1982 as the Henry Kepley Place which was later sold to the Wheeler family and used as hay storage before it was destroyed. The Polk County Land Tax Book (1926:185) and a 1926 soil survey map suggest that this log structure was located in the N $\frac{1}{2}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 17 a short distance north of 23PO325. However, archeological survey in 1982 failed to locate evidence of historic occupation in this area.

Corps of Engineers records confirm that 23PO325 was the location of a second log structure which may have dated to the mid-nineteenth century and which, during the early twentieth century, was incorporated into a frame Cumberland-plan house. An inventory describes the main residence as "old, floors uneven, cold type, but well painted & in good repair. . . . One room is log with weather boarding." The inventory provides the further information that the building rested on rock foundations and that the roof of the log portion was wood shingle. Dimensions given for the various components of the house are confusing, but photographs show a frame Cumberland-plan house with a central brick flue. A cut stone chimney stands to the outside of the frame structure and denotes the point at which it joins the smaller, framed-in log room (U.S. Army Corps of Engineers. Tract file E-514).

The slab which was recorded in 1982 was associated with the early twentieth-century Cumberland-plan residence which was connected to the nineteenth-century log room. Because no structural remains or artifacts relating to the mid-nineteenth century occupation were observed, it is felt that the integrity of the early remains is poor and that the site is unlikely to yield important information. It is recommended that 23PO325 be considered not eligible for nomination to the National Register of Historic Places.

Fish and Wildlife Management Segment E

Portions of Segment E of the Fish and Wildlife Management Lands were surveyed during 1982 and 1983 (see Fig. 20). Eighty acres of the lower ridgeslopes (Area 1) south of the Bolivar area were surveyed in 1982. Directly south of the Pomme de Terre River, a second area (Area 2) was surveyed in 1983. This area, consisting of 115 acres, includes a gentle north-facing ridgeslope and an upper terrace of the river. A third area (Area 3), consisting of 220 acres of a low terrace and adjacent slopes of Stinking Creek, also was surveyed in 1983. Much of Area 1 has been cleared and was cultivated at the time of the survey. The lower slopes of Area 2 have been cleared, but most portions are not cultivated and the surface is covered with tall grasses, brambles, blackberry vines, and small locust trees. The western portion is on a moderately steep to steep slope and is wooded. One large plowed field is present in the northwestern portion of the area on the terrace. In Area 3, most of the terrace of Stinking Creek is plowed and cultivated, but bottomland forest remains in periodically inundated swampy areas near the creek channel. The slopes are covered with stands of cedar and hardwoods.

Chapman (1954) recorded four sites within the survey areas. Site 23PO90 is located in Area 1; sites 23PO33, 23PO89, and 23PO108 are in Area 2. Eleven additional sites were recorded during 1983. These are 23PO347 in Area 2 and 23PO334 through 23PO343 in Area 3.

23PO33

Site 23PO33 consists of a sparse scatter of lithic tools and debitage located in a plowed field on an upper terrace of the Pomme de Terre River, approximately 260 m south of the former channel. The site covers an area of approximately 100 by 50 m. Ephemeral drainages border the site on the east and west. The area probably was in bottomland forest prior to clearing.

During the 1983 survey less than 10 flakes were encountered scattered widely across the field. Two projectile point fragments, located about 150 m apart, were collected from the western portion of the field. During the investigation, these fragments were recorded as isolated finds since no additional evidence of occupation was found near them. Three or four unscreened shovel tests were excavated in the vicinity of each. None of the shovel tests yielded cultural materials. It later was ascertained that this area probably relates to Chapman's 23PO33 from which he reported collecting six projectile points, one chipped axe, three bifaces, and an ovoid scraper (Chapman 1954:Tables III and IV).

The projectile point forms recovered during the 1983 survey and those reported by Chapman appear to relate to the Early/Middle and Late Archaic periods. Although in 1954 Chapman recorded a substantial number of artifacts at 23PO33, very little material was

POMME DE TERRE AND STOCKTON LAKES PROJECT

observed in 1983. It is likely that deposits are largely surficial and that most artifacts have been collected from the site. Because of the paucity of surface materials and apparent absence of buried deposits, the information yield potential of this site is low. It is recommended that 23P033 be considered not eligible for nomination to the National Register of Historic Places.

23P089

This site consists of a scatter of lithic debitage and tools located on an upper terrace of the left bank of the Pomme de Terre River, approximately 150 m west of the former channel. A small drainage borders the site on the west. The cultural materials are present in a plowed field, primarily on a low rise which extends beyond the boundary of government-owned land, and thus the total horizontal extent is not known. Within Corps of Engineers boundaries, the site covers approximately 50 by 40 m. The southeastern portion of the site is located on private property and may be significantly disturbed as a result of construction of a road and houses.

One 1-by-1-m surface collection unit yielded 11 flakes and angular fragments. One projectile point was plotted on the site sketch map and collected. Four flakes were recovered from two shovel tests. These tests indicated that cultural materials are present throughout the upper clay loam soil horizon which extends to 30 cm below the surface. Underlying this horizon is a dense red clay from which no cultural materials were recovered. Chapman (1954:Tables III and IV) reported recovering three projectile points and one biface.

The form of the single projectile point recovered during the 1983 survey suggests occupation during the Early/Middle Archaic period. However, the three specimens recovered by Chapman probably date to the Late Archaic period. The site does not appear to be extensive and cultural materials are not dense, suggesting that relatively few occupations representing a limited range of activities are represented.

Some lateral displacement of artifacts may have occurred during plowing, but spatial integrity of the deposits is relatively good. Since few limited activity Archaic sites on terraces have been defined in the project area, this site can potentially yield significant information concerning the research problems presented in Chapter 2. It is recommended that the site be considered eligible for nomination to the National Register of Historic Places.

23P090

Site 23P090 is an extensive (ca. 700 by 150 m) scatter of lithic tools and debitage located along the south-facing slopes of the western portion of Fish and Wildlife Segment E (Area 1). The site is located approximately 50 m north of the former channel of the Pomme de Terre River. Two small drainages cross the site. The area has been cleared and was plowed and cultivated at the time of the survey.

All recognized tools were plotted and collected. These tools consist of six biface fragments, four projectile points, and one edge modified flake. Bradley Meyers, Ranger with the Corps of Engineers, has made a collection from the surface of the site consisting

of 13 flakes and angular fragments (5 with edge modification), 1 core, and 1 projectile point. Chapman (1954) reported collecting six projectile points. Four shovel tests were excavated; one contained cultural materials (five flakes). The upper soil horizon from which the flakes were recovered varied in depth from 20 to 30 cm below the surface.

The recovered projectile point forms suggest that the site was occupied from the Late Archaic to the Late Woodland periods. Artifacts are not dense but are distributed widely across the site, and areas of concentration were noted during the survey. It is possible that the site represents a repeatedly occupied camp with some horizontal separation of occupations.

Vertical separation of components is not evident, but the apparent clustering of materials suggests that spatial structure is reasonably intact despite probable lateral displacement of artifacts as a result of plowing. The quantity and diversity of artifacts indicate that the site has the potential to yield significant information regarding several research problems presented in Chapter 2. It is recommended that 23P090 be considered eligible for nomination to the National Register of Historic Places.

23P0108

This site, approximately 80 by 20 m in extent, consists of a moderately dense scatter of chert flakes along the present shoreline of Pomme de Terre Lake in Area 2. The site is located 150 m south of the former river channel on a dissected upper terrace which probably supported bottomland forest prior to clearing. The flakes are exposed in sandy alluvium among recent flood debris. The deposits are badly disturbed by modern boat dock facilities and appear to be deflated by erosion from lake level fluctuation. Most of the site is probably inundated.

A surface collection was made from a 1-by-1-m area. Collected artifacts consist of 20 flakes and angular fragments, 1 biface, and 1 core. A second biface fragment also was plotted and collected. No shovel tests were excavated. Chapman (1954:Tables III and IV) reported collecting four projectile points, one chipped adze, and two bifaces from this site.

The only projectile point identified by Chapman appears to relate to the Late Woodland/Mississippian period. The integrity of this site has been severely damaged by reservoir construction and development, and little research potential remains. It is recommended that 23P0108 be considered not eligible for nomination to the National Register of Historic Places.

23P0334

Site 23P0334 consists of a small (ca. 35 by 12 m) scatter of flakes located on a gravel bar along the shoreline of Stinking Creek in Area 3. A single biface fragment also was present at the site. All of the cultural materials are on the surface and may have been redeposited by the creek. Some chert fragments that appear flakelike are waterworn. No collections or shovel tests were made.

POMME DE TERRE AND STOCKTON LAKES PROJECT

Since it is likely that cultural materials at this site were redeposited from erosion of the cutbank or were washed in from upstream, the site lacks spatial integrity. Research potential is very low, and it is recommended that 23PO334 be considered not eligible for nomination to the National Register of Historic Places.

23PO335

Site 23PO335 consists of a scatter of large cores, thick bifaces, thick flakes, and angular fragments located in a natural clearing of a wooded slope approximately 70 m west of the channel of Stinking Creek in Area 3. The site covers an area of approximately 50 by 40 m. Bedrock is shallow and chert cobbles outcrop in the area which is covered by short grasses. There are no notable disturbances to the site although very little soil is present.

Surface artifacts were sampled through the use of two 1-by-1-m collection units. A total of 27 angular fragments (3 edge modified), 5 cores, and 1 thick biface were collected. Two shovel tests were excavated. These indicated that soils consist of 10-30 cm of clay loam overlying thick gravels and bedrock. Twelve flakes and angular fragments (3 edge modified) were recovered from the shovel tests.

The evidence strongly suggests that this site represents a lithic procurement and initial reduction area. Since similar sites have not been identified in the project area, the research potential of 23PO335 for addressing questions concerning lithic technology is high despite the lack of datable artifacts and the shallow nature of the deposits. It is recommended that this site be considered eligible for nomination to the National Register of Historic Places.

23PO336

Site 23PO336 consists of a scatter of lithic debitage, approximately 20 by 14 m in extent, located on a ridgepoint adjacent to Stinking Creek and a small tributary drainage. Upland forest covers the area. The ridgepoint is being eroded by lake level fluctuations. Flakes are exposed in the steep banks of the ridge. At the time of the survey, a portion of the surface was covered by a beaver dam. A dirt road may have disturbed a small portion along the southern edge of the site.

One 1-by-1-m surface collection unit was employed, and one shovel test was excavated. Twenty-five flakes and angular fragments were collected from the surface. The shovel test yielded 34 flakes and angular fragments and 1 core. Most cultural materials were recovered from the upper 25 cm of clay loam, but a few specimens were recovered as deep as 40 cm below the surface.

Although some intact buried deposits remain, the research potential of this site has been lessened by erosion. Identified artifacts are limited to chipping debris, and because of the small size of the site, the potential for the presence of time-diagnostic tool forms is low. It is recommended that site 23PO336 be considered not eligible for nomination to the National Register of Historic Places.

23PO337

This site consists of a scatter (ca. 170 by 130 m in extent) of lithic debitage and tools located in a plowed field on a low terrace approximately 40 m east of Stinking Creek in Area 3. Ephemeral drainages border the site on the north and south. The area probably was bottomland forest prior to clearing.

Surface materials were sampled through the use of two 1-by-1-m collection units as well as collection of all recognizable tools. Eight flakes and angular fragments, five biface fragments, one projectile point, and a perforator were collected. Two shovel tests were excavated. These tests showed the soils to consist of 40 cm of brown clay loam overlying a reddish brown gravelly clay. A single flake was recovered from the upper 10 cm of one of the tests.

The form of the projectile point suggests occupation sometime during the Late Woodland/Mississippian period although it is possible that other components are present. Because the deposits are shallow and spatial integrity has been damaged by plowing, research questions are best addressed at other similar sites in the area. It is recommended that 23PO337 be considered not eligible for nomination to the National Register of Historic Places.

23PO338

Site 23PO338 consists of a dense scatter of lithic tools and debitage on a low rise of a terrace adjacent to the channel of Stinking Creek in Area 3. The site covers an area of about 110 by 75 m. The area has been plowed and cultivated. Lithic material is eroding from the stream cutbank on the western portion of the site at least 1.5 m below the terrace surface. Prior to clearing, the area probably was in bottomland forest.

Two 1-by-1-m surface collection units and one 50-cm-deep shovel test were used in the investigation of this site. All recognized tools were plotted and collected. Surface materials consisted of 20 flakes and angular fragments (1 with edge modification), 7 bifaces, 1 uniface, 2 cores, and 3 projectile points. The shovel test yielded 43 flakes and angular fragments (2 with edge modification). Soils consisted of a light brown clay loam about 30 cm deep underlain by a reddish brown clay loam to at least 50 cm below the surface. Flakes were recovered throughout both horizons.

The projectile point styles suggest that occupation of the site occurred during the Early/Middle Archaic and Late Archaic periods. The depth of the site suggests that vertical separation of components may be present. This site has a high potential for yielding significant information concerning a variety of research questions presented in Chapter 2. Especially important are questions concerning chronology. It is recommended that 23PO338 be considered eligible for nomination to the National Register of Historic Places.

23PO339

This site consists of a scatter of lithic tools and debitage located in a small plowed field on a terrace approximately 30 m east of Stinking Creek in Area 3. The site is bordered on the south by a small tributary drainage and on the east by a low-lying swampy area. The site covers an area of approximately 120 by 30 m.

All recognized tools were collected from the surface, and one 1-by-1-m collection unit was employed. Recovered cultural materials consist of one core, two flakes (one edge modified), two unifaces, one pitted stone, four bifaces, one chert hammerstone, three projectile point fragments, and two historic sherds. A single shovel test was excavated to 35 cm below the surface. The upper 25 cm consisted of a brown clay loam; beneath this zone was a reddish brown clay. One flake was recovered in the upper 10 cm.

The projectile point forms suggest that occupation took place during the Late Archaic and/or Early/Middle Woodland periods. Deposits appear to be similar to those at 23P0337 with artifacts confined mostly to the surface and displaced laterally as a result of plowing. It is recommended that 23P0339 be considered not eligible for nomination to the National Register of Historic Places.

23P0340

This site is an extensive (ca. 225 by 70 m) dispersed scatter of lithic tools and debitage located in a large plowed field immediately east of site 23P0339. The sites are separated by a low swampy area. The site is on a terrace of Stinking Creek and is bordered on the south by a tributary drainage. Site 23P0337 lies just south of this drainage. The area probably was covered by bottomland forest prior to clearing. The channel of Stinking Creek lies approximately 100 m west of the site.

One 35-cm-deep shovel test and one 1-by-1-m collection unit were used in the investigation of the site. All recognized tools were plotted and collected from the surface. Six flakes were collected in the surface unit. Plotted tools consist of 10 bifaces, 1 uniface, 1 edge modified flake, and 3 projectile points. Two flakes were recovered in the upper few centimeters of the shovel test. Soils are similar to those at 23P0339 with 25 cm of brown clay loam overlying a reddish brown clay.

Because the cultural deposits are shallow and plowed, the research potential of this site is considered to be low. The projectile point forms suggest Late Archaic and Woodland period occupations. It is recommended that 23P0340 be considered not eligible for nomination to the National Register of Historic Places.

23P0341

This site consists of a small (ca. 75 by 45 m) lithic scatter immediately east of 23P0340 on a terrace at the base of the ridgetop. No physiographic feature separates the two sites, but two distinct artifact concentrations are apparent. The site lies in the same plowed field as 23P0340. An ephemeral drainage borders the site on the south. Stinking Creek lies approximately 160 m to the west.

One 40-cm-deep shovel test and one 1-by-1-m surface collection unit were employed in the investigation of the site. Three angular fragments were collected from the surface unit. Also plotted and collected from the surface was one projectile point. No artifacts were recovered from the shovel test. The soil consists of 35 cm of brown clay loam underlain by reddish brown clay.

The projectile point appears to relate to the Late Archaic period. This site, together with 23PO337, 23PO339, and 23PO340, forms an extensive scatter of lithic tools and debitage over a portion of the east-bank terrace of Stinking Creek. A series of short-term camps may be represented; but because the deposits are shallow and mixed, the potential for isolating components and defining site activities is low. It is recommended that 23PO341 be considered not eligible for nomination to the National Register of Historic Places.

23PO342

Site 23PO342, measuring approximately 100 by 100 m, is located on a west-facing ridge-slope dissected by numerous drainages. Stinking Creek is located approximately 300 m to the west. Soils are shallow (30 cm) over limestone bedrock, which was the probable source of the stone footings which once provided foundations for a house and associated barn, granary, and hoghouse (U.S. Army Corps of Engineers. Tract file E-521).

While the site area has become overgrown with vegetation since it was abandoned in the late 1950s, the former locations of buildings are easily detected and the relationships of those structures to natural and manmade features are readily discernible. A narrow lane runs generally east-west through the site and joins another old road on the western end which runs north-south. Cultivated fields lie downslope of the site. Irises and other domesticated flowers are present in the area of the former house location.

The site was tested with the placement of one shovel test within the former location of each of two structures. Artifacts recovered from the tests include 8 whiteware and stoneware sherds, 13 pieces of glass, 11 wire nails, 3 pieces of metal, and 1 slate fragment. The artifacts appear to date from the late nineteenth and early to mid twentieth centuries. These dates conform to the apparent age of other features which were observed on the ground surface, among which are concrete walkways, rusted sheet metal, wire nails, and stone footings.

A review of photographs taken when the buildings were still standing and a comparison of a Corps of Engineers property inventory with the site as it exists in 1983 make it possible to conclude that 23PO342 dates from the turn of the century and was largely destroyed when it was acquired by the government. Photographs reveal a one-and-one-half-story frame house in a Cumberland plan with a rear L. Four-over-four, double-hung windows existed on the front facade which also showed evidence of having been the location, prior to 1959, of a front porch or portico over the front entrances. Measurements taken by the Corps indicate that the dwelling had five rooms covering approximately 768 square ft, a wood shingle roof, stone footings, and no electricity. Nearby structures and features include a 1080-square-ft frame barn on a rock foundation having a wood shingle and metal roof, a 140-square-ft frame granary on a rock foundation having a metal roof, a 140-square-ft frame chicken house with a metal roof and concrete foundation, a 140-ft² frame hoghouse with a metal roof and rock foundation, and a cave (U.S. Army Corps of Engineers. Tract file E-521).

It is recommended that site 23PO342 be considered not eligible for nomination to the National Register of Historic Places. While the structure was an excellent example of a Cumberland house type, its removal by the Corps of Engineers makes it impossible to nominate it on the basis of architectural merit. Similarly, the severe disturbance of the area at the time of the removal of the buildings compromises the integrity of the site and

makes it unlikely that significant information could be derived concerning western Ozarks material culture of the turn of the century.

23PO343

Site 23PO343 is a small (ca. 50 by 30 m), dispersed lithic scatter on a small rise in a plowed field on a terrace approximately 100 m east of Stinking Creek. The site is adjacent to an ephemeral tributary of the creek. Surrounding vegetation indicates that the area was bottomland forest prior to clearing.

No surface collection units were employed, but three bifaces were plotted and collected from the surface. A shovel test indicated that the soils consist of 30 cm of brown clay loam overlying a clay loam of slightly coarser texture containing numerous gravels. Four flakes were recovered from the upper few centimeters of soil.

Because of the paucity of cultural materials, the shallow nature of the deposits, and the probability of lateral displacement from plowing, the research potential of this site is considered to be low. It is recommended that 23PO343 be considered not eligible for nomination to the National Register of Historic Places.

23PO347

Site 23PO347, measuring approximately 64 by 64 m, is located in Area 2 on a high terrace of the Pomme de Terre River, the former channel of which lies approximately 400 m to the east. The area surrounding the site on the southern, eastern, and western sides is wooded, while open fields are present across a fence to the north. An ephemeral stream borders the site on the west.

The site is marked by a large number of domesticated plants scattered throughout the area and concentrated along an east-west-running dirt road which borders the site on the south. No shovel tests or surface collections were made because readily datable artifacts were scattered abundantly across the area.

The most recent components of the site are easily identified. In the southern area, a concrete slab which marked the former location of a house measures about 7 by 10 m (23 by 33 ft) and is littered with recent trash. Immediately south is a second, smaller concrete slab, a depression measuring about 3 by 5 m (10 by 16.5 ft), and a scattering of blocks and bricks, all possibly representing refuse from a root cellar. A third feature is located to the north, approximately 6 m from the fence marking the northern perimeter of the site. This feature consists of a three-sided concrete footing which measures 7 by 8 m (23 by 26 ft). A small concrete trough is located approximately 6 m to the east.

Descriptions of activities of the last owner, such as repairing all buildings and raising and converting the barn, which were found in Corps of Engineers Tract file E-519 suggest that another, earlier house may have existed on the site. The presence of two large walnut trees measuring at least 1 m (3 ft) in diameter and aligned along cardinal directions approximately 12 m (40 ft) apart led to the discovery of a cobble-lined, cement-plastered well adjacent to the southernmost walnut tree and the east-west-running dirt road. No artifacts were noted in the area of this earliest occupation, which was heavily disturbed by the activities either of the last private owner or by the Corps of Engineers.

The Corps of Engineers inventory for Tract E-519 indicates that the buildings which stood at site 23PO347 when it was acquired by the government were architecturally undistinguished and were constructed or received major alterations within the last 30 years. A farmstead appears to have existed on the site by the 1920s, as evidenced by a 1926 soil survey map of Polk County, but its absence from earlier mapped surveys suggests that settlement at the site was not concurrent with initial immigration to the Pomme de Terre area. It is recommended that 23PO347 be considered not eligible for nomination to the National Register of Historic Places.

Fish and Wildlife Management Segment F

Portions of Segment F of the Fish and Wildlife Management areas were surveyed along both shorelines of the southern portion of an eastward meander of the Pomme de Terre River. The area on the northern (left) bank was surveyed in 1982. It consists of 184 acres of a gently sloping terrace dissected by several small ephemeral drainages (see Fig. 20). The area was cleared and cultivated at the time of the survey. Eighty acres along the southern (right) bank (Area 2) were surveyed in 1983. This area includes a low terrace and the lower portions of a moderately steep ridgeslope. The area is bordered on the east by a perennial tributary known as West Branch. At the time of the survey, the terrace was cleared but not cultivated. The surface was covered with thick grass and brambles. Following heavy rains which occurred during the course of the fieldwork, the terrace was completely inundated. In the western portion of the survey area, the ridgeslopes extend to the river bank. The lower portions are cleared and deeply dissected by tributary drainages. The remaining portions of the slopes are heavily wooded.

Chapman (1954) recorded five sites (23PO21, 23PO23, 23PO24, 23PO68, and 23PO69) along the terrace in Area 1. Wood (1961) recorded one additional site, 23PO198. All of these were relocated during the 1982 survey. Delimitation of site boundaries was difficult as there appeared to be one continuous scatter of lithic materials across the entire terrace. In Area 2 Chapman (1954) recorded one site, 23PO22, and Wood (1961) a second site, 23PO177. The latter was located on the terrace near the river. It was not relocated in 1983 and may be inundated. Two additional prehistoric sites, 23PO344 and 23PO345, and one historic site, 23PO346, were encountered during the 1983 survey.

23PO21

Site 23PO21, an extensive scatter of lithic tools and debitage, is located in the eastern portion of Segment F (Area 1) on a gently sloping terrace immediately adjacent to the Pomme de Terre River. The site was plowed and cultivated at the time of the survey but probably supported bottomland forest prior to clearing. The site extends across an area of approximately 500 by 200 m.

Surface artifacts were sampled by collection of all recognizable tools as well as collection of all artifacts within a 2-m-diameter collection unit. Collected cultural materials consist of eight bifaces, two projectile points, one core, and eight flakes (one with edge modification). Chapman's (1954:Tables III and IV) collection from this site consisted of 33 projectile points, 3 chipped adzes, 3 chipped axes, 29 bifaces, 7 choppers, 2 drills, 3 scrapers, 2 hammerstones, and 2 retouched flakes. No shovel tests were

excavated, but tests at 23PO198 located just north of 23PO21 on the same terrace suggest that cultural deposits are confined to the upper 15 to 20 cm.

The projectile points recovered during the 1983 survey suggest a Late Archaic and/or a Late Woodland/Mississippian occupation, but forms recovered by Chapman indicate that occupation throughout the entire Archaic period may also be represented. Because the deposits appear to be shallow and mixed, there is little chance for isolating components or reconstructing site activities. The potential for significant information regarding the research questions presented in Chapter 2 appears to be low, and it is recommended that 23PO21 be considered not eligible for nomination to the National Register of Historic Places.

23PO22

Site 23PO22 consists of a sparse scatter of lithic debitage and tool fragments located along the present shoreline in the eastern portion of Area 2 in Segment F. Prior to construction of the lake, the site was on a low terrace of West Branch near its confluence with the Pomme de Terre River. The site area is approximately 100 m south of the former channel of the Pomme de Terre River. The original distance from West Branch is not known since the eastern boundary of the site cannot be ascertained. Presently the entire site area is periodically inundated. The site covers an area of approximately 35 by 25 m. The surface contains flood debris and has been eroded by lake level fluctuations. It is likely that most of the site lies to the east beneath Pomme de Terre Lake. Vegetation of the area is bottomland oak-hickory forest.

Investigation of the site in 1983 included collections from a 2-by-2-m surface unit and a 50-cm-deep shovel test. A homogeneous brown clay loam was present throughout the soil profile, and cultural materials (six flakes) were recovered only in the upper few centimeters. Surface materials collected consist of five flakes and angular fragments and one biface fragment. Chapman (1954:Tables III and IV) recovered 10 projectile points, 1 biface, and 3 retouched flakes.

The projectile point forms reported by Chapman appear to relate to the Late Archaic or Early/Middle Woodland periods. This site has been severely disturbed due to construction of the reservoir and subsequent erosion, and the potential for recovering significant information is considered to be very low. It is recommended that 23PO22 be considered not eligible for nomination to the National Register of Historic Places.

23PO23

Site 23PO23, a lithic scatter measuring approximately 50 by 50 m, is located in Area 1 approximately 250 m north of the channel of the Pomme de Terre River. Bottomland forest probably covered the site area prior to clearing and cultivation.

A single biface fragment was plotted and collected from the surface of the site. No collection units or shovel tests were employed. Chapman (1954) originally recorded the site but did not report any artifacts.

Because of the paucity of cultural materials and probable disturbance from plowing, the potential of this site for yielding significant information is considered to be low. It is recommended that 23PO23 be considered not eligible for nomination to the National Register of Historic Places.

23PO24

Site 23PO24 is located in the northern portion of the terrace in Area 1 immediately adjacent to the ridgetop and approximately 200 m northeast of the former channel of the Pomme de Terre River. The site covers an area of approximately 150 by 100 m and consists of a scatter of lithic tools and debitage in a plowed and cultivated field. Bottomland forest probably covered the site area prior to clearing.

Three 2-m-diameter collection units were used to sample surface artifacts. All recognizable tools also were plotted and collected. No shovel tests were excavated. Recovered artifacts consist of 45 flakes and angular fragments (3 with edge modification), 1 biface, and 1 core. Chapman (1954:Tables III and IV) reports a collection of 11 projectile points, 2 adzes, 3 bifaces, and 7 choppers.

The projectile point forms reported by Chapman appear generally to relate to the Early/Middle Woodland and Late Woodland/Mississippian periods although Late Archaic period forms also may be present. Because deposits appear to be mixed, shallow, and displaced as a result of plowing, the potential of this site for addressing the research questions presented in Chapter 2 is considered to be low. It is recommended that 23PO24 be considered not eligible for nomination to the National Register of Historic Places.

23PO68

This site consists of a moderate sized (ca. 150 by 100 m) lithic scatter located on a terrace along the present left-bank shoreline of Pomme de Terre Lake, approximately 100 m north of the former channel. Portions of the site were plowed and cultivated at the time of investigation although most cultural materials are exposed in an area eroded by lake level fluctuations. It is likely that much of the site is inundated.

No artifacts were collected from 23PO68 during the 1982 survey, and no shovel tests were excavated. Chapman (1954:Tables III and IV) collected six projectile points, three bifaces, and two choppers from the site surface.

The projectile point forms reported by Chapman vary considerably. A long span of occupation and a wide range of activities appear to be represented at the site. Although some intact deposits are present at 23PO68, the spatial integrity of the site has been severely damaged and only a partial artifact inventory remains. The potential for yielding significant information concerning the research problems presented in Chapter 2 is low relative to other nearby sites. It is recommended that 23PO68 be considered not eligible for nomination to the National Register of Historic Places.

23PO69

Site 23PO69 consists of a relatively dense scatter of chipped stone tools and debitage located on the left-bank terrace approximately 150 m from the channel of the Pomme de Terre River in Area 1. The site area, approximately 100 by 75 m, has been plowed and cultivated. The southern portion has been eroded by lake level fluctuations, and it is possible that portions of the site are inundated.

One 2-m-diameter collection unit was used to sample surface artifacts. In addition, all recognizable tools were plotted and collected. No shovel tests were excavated. Recovered cultural materials consist of five bifaces, one projectile point, one core, and nine flakes. Chapman's (1954:Tables III and IV) surface collections consist of 15 projectile points, 1 chipped adze, 5 bifaces, 2 scrapers, 2 choppers, and 2 pitted stones.

The single projectile point recovered during 1982 appears to relate to the Late Woodland period as do most of the forms reported by Chapman. Like other sites in this area, deposits at 23PO69 appear to be shallow and displaced laterally from plowing. The potential for addressing research questions concerning settlement patterning, as presented in Chapter 2, is considered to be low. It is recommended that 23PO69 be considered not eligible for nomination to the National Register of Historic Places.

23PO198

Site 23PO198, a scatter of lithic tools and debitage, is located on a plowed and cultivated upper terrace in Area 1 approximately 100 m southwest of the former channel of the Pomme de Terre River. A relatively steep slope separates the terrace from the river channel to the northeast; the south part of the terrace containing the site is gradually sloping. Site 23PO198 covers an area of approximately 150 by 150 m. Prior to clearing, the area probably supported bottomland forest vegetation.

No surface collections were made during the 1982 survey, but two shovel tests were excavated. Three flakes were recovered from the upper soil horizon of one test; the other test yielded no cultural materials. Soils consist of 20 cm of brown silty loam overlying a finer textured reddish brown silty loam of unknown depth. Wood (1961) originally recorded the site but did not describe artifacts collected or observed.

Cultural materials reported from this site are sparse, and the deposits apparently are shallow. It is probable that lateral displacement of artifacts has occurred due to plowing. The potential for addressing the research problems presented in Chapter 2 is considered to be low, and it is recommended that 23PO198 be considered not eligible for nomination to the National Register of Historic Places.

23PO344

Site 23PO344 is a small (ca. 10 by 5 m) lithic scatter located on a ridgetop overlooking the Pomme de Terre River in the central part of Area 2 approximately 100 m south of the former river channel. An ephemeral drainage lies approximately 20 m to the east. Oak trees are scattered across the slope, and the surface is covered with leaf litter and short grasses. The site is approximately 40 m southwest (and upslope) of 23PO345.

No surface collections were made at the site, but one shovel test was excavated to a depth of 40 cm. Nine flakes and angular fragments and one core were recovered in the upper 25 cm, and four flakes were recovered in the upper portions of the lower 15 cm. The soil profile consists of brown clay loam without apparent horizon change.

It is possible that occupations of this site are associated with those at 23PO345 because of the close proximity of the sites. The range of activities represented at 23PO344 probably is very limited, possibly being confined to lithic tool manufacture. However, research at this site in conjunction with research at 23PO345 has the potential to yield significant information regarding reconstruction of site activities and lithic manufacturing technology. It is recommended that 23PO344 be considered eligible for nomination to the National Register of Historic Places.

23PO345

Site 23PO345 consists of a dispersed scatter of lithic tools and debitage on a dissected lower portion of a ridgetop in the central portion of Area 2 approximately 40 m south of the former channel of the Pomme de Terre River. The site encompasses an area of approximately 100 by 50 m. A tributary drainage cuts through the western portion of the site, and cultural materials are eroding from the drainage cutbanks. Vegetation is dense and consists of scattered oak trees with a thick understory of saplings, tall grass, and brambles.

A projectile point fragment (proximal) and a large ground sandstone slab were found in the cutbank of the drainage, but it was not possible to ascertain at which depth they originated. Four shovel tests were excavated. Artifacts were confined to the upper soil horizon which consists of 15 to 35 cm of clay loam. These artifacts consist of 25 flakes and angular fragments, 1 projectile point fragment, and 1 cut nail.

The projectile point fragment from the cutbank probably relates to the Early/Middle Archaic period. The second projectile point fragment (also proximal) more likely relates to the Late Archaic period, and thus more than one occupation may be represented. The presence of chipped and ground stone tools suggests multiple activities were carried out at the site, but the sparse nature of the cultural materials does not indicate intensive occupations.

Although this site has undergone some negative impact from erosion, undisturbed buried deposits are present. The spatial structure of the site remains relatively intact, and there is a high potential that several significant research questions presented in Chapter 2 can be addressed with data from the site. It is recommended that 23PO345 be considered eligible for nomination to the National Register of Historic Places.

23PO346

Site 23PO346, measuring approximately 30 by 35 m, is located at the foot of a very steep ridgetop approximately 300 m south of the former channel of the Pomme de Terre River. The area is heavily wooded.

The site consists of limestone footings which mark the former locations of two structures and the remains of a well. The easternmost feature, closest to a dirt road which runs generally north-south along the eastern perimeter of the site, is a foundation measuring approximately 10 by 6 m (33 by 19.5 ft). A second feature, located approximately 4 m to the northwest, is a stone foundation about 20 cm (8 inches) thick and measuring about 6 by 8 m (19.5 by 26 ft) in size. A stone well, thinly plastered with cement on the rim, lies about 14 m to the northwest and measures approximately 1 m (3.3 ft) in diameter. The inscription "AU. 15 1914" is etched in the cement. Evidence that the two structural features burned appears in the colors and fracture patterns of the limestone footings and chert.

Two shovel tests (15 and 23 cm deep) were excavated within and adjacent to the westernmost feature; 22 nails (both cut nails and wire nails), 1 metal fragment, and 1 windowglass fragment were collected. No surface collections were made, but a number of readily observable features were identified and recorded.

At first glance, it was apparent that site 23P0346 was an inappropriate location for a housesite, not only because of its proximity to the floodplain but also because of the presence of a spring-fed drainage which carried a considerable amount of water through the narrow area between the two structural features. Recognition of the presence of domestic vegetation upslope from the site, together with information derived from Corps of Engineers records, led to the conclusion that the site most likely represents the remains of out-buildings formerly associated with a frame house on the hill. Photographs suggest that the structures dated from the 1900-1915 period (U.S. Corps of Engineers. Tract file F-4).

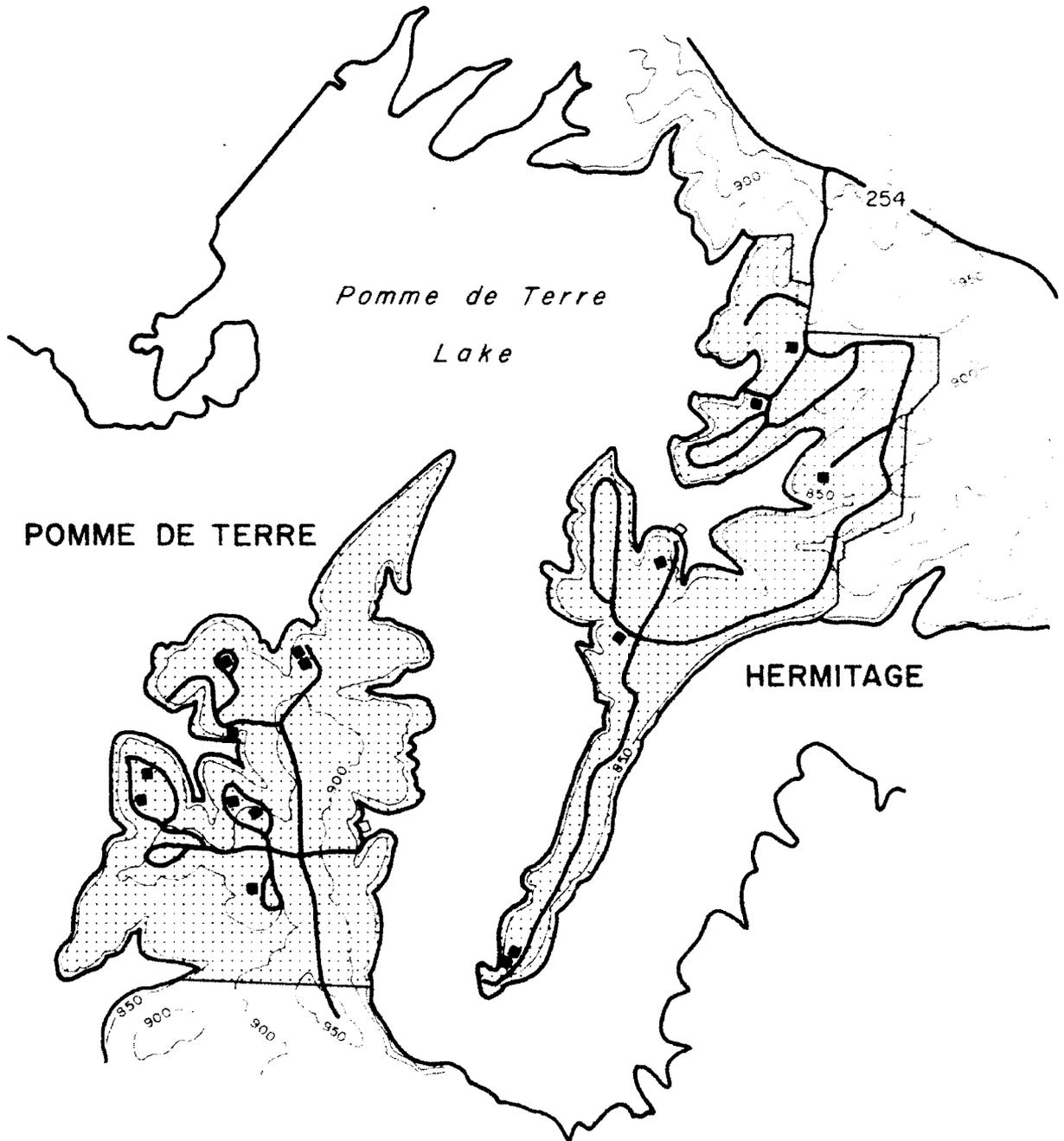
Because of the incomplete nature of the complex (i.e., the lack of a significant associated residential structure which has been recorded and assessed) and the relatively recent date of construction, this site has a fairly low potential for addressing research problems presented in Chapter 2. It is recommended that 23P0346 be considered not eligible for nomination to the National Register of Historic Places.

Pomme de Terre State Park

Pomme de Terre State Park is situated on an upland ridge which is bordered by the former channel of the Pomme de Terre River on the west and Lindley Creek on the east (Fig. 21). The northern point of the ridge is above the former confluence of the river and creek. The area is dissected by numerous drainages. Soils consist of thick residual clays overlying shallow bedrock or bedrock gravel. Undeveloped areas are covered by dense upland oak-hickory forest with numerous stands of red cedar (juniper). Most of the State Park, particularly areas to the south and west, has been developed through construction of camping and boat dock facilities. Numerous roads and a nature trail wind through the park. All 312 acres were surveyed during 1982.

Chapman (1954) recorded two sites (23HI30 and 23HI82) in the area. Both of these sites were recorded as 23HI30 during the 1982 survey, and this designation is retained in this report. Also recorded during 1982 were four additional archeological sites: 23HI517, 23HI518, 23HI519, and 23HI520.

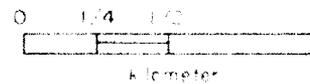
POMME DE TERRE LAKE HERMITAGE & POMME DE TERRE STATE PARKS AREAS SURVEYED



LEGEND

-  Survey Area
-  Park Facility Structure
-  Boat Ramp & Dock

Contour Interval - 50'



23HI30

Site 23HI30 consists of a burial cairn (Mt. India Cairn), two stone and earth mounds (Murelle Mounds), and a lithic scatter (reported by Chapman [1954] as 23HI82). The site is located along a linear ridge (ca. 700 by 200 m) in the northern portion of Pomme de Terre State Park. Prior to construction of the lake, the ridge overlooked the confluence of the Pomme de Terre River and Lindley Creek. Steep slopes bound the ridge on the eastern and western sides. The area is wooded and has not been developed although a nature trail extends around the perimeter of the ridge. Numerous depressions and small rises mark extensive previous excavations.

Chapman (1954) first reported the site and described the collection of Mrs. H. L. Besser which apparently was obtained from excavation of burials, but it is not clear if the burials were located in one of the two reported mounds or in the cairn (or both).

In 1957 Wood (1961:11-21) returned to the site and excavated the Mt. India Cairn and half of Murelle Mound No. 1. Both features had been significantly disturbed by relic hunters prior to excavation. The Mt. India Cairn originally was reported as having been 3 ft high, 39 ft long, and 31 ft wide. It consisted of about 90% stone and 10% soil. Two structural remains were delimited: (1) a "burial chamber" consisting of two rows of large stone slabs, and (2) a "secondary feature" consisting of two stone walls and a cistlike structure. Human bones in the cairn had been disturbed to the degree that the mode of burial was not identifiable. Also recovered were animal bones and ceramic, shell, and stone artifacts.

Stone comprised about 50% of the fill of Murelle Mound No. 1. Fragments of burned and unburned human bones were found scattered throughout the fill but concentrated near the center. Also recovered were a small number of projectile points, bifaces, and chipping debris (Wood 1961:40-41).

Murelle Mound No. 2 was excavated by Bray in 1961. The mound had an ovoid shape of approximately 35 by 40 ft. Human and animal bone fragments were found scattered in the earth and stone fill. A bundle burial with a deer antler was found in the mound underlain by a cache of projectile points and ovoid bifaces. Other chipped stone artifacts were recovered in the mound fill along with several shell beads (Table 5) (Bray 1963:55-61).

During the 1982-1983 investigations, it was noted that the surface appeared to have been disturbed by numerous small excavations, particularly in the area of the cairn and mounds. It was not possible to distinguish backdirt areas from possibly undisturbed, not previously reported, low mounds. The fact that investigators in the 1950s and early 1960s all reported only three mounds suggests that the current hummocky surface is the result of numerous small excavations.

Subsequent to the mound excavations, a nature trail which extends the length of the ridge was constructed. During the 1982 survey, an extensive exposure of flakes was found in the trail southwest of the cairn and mounds suggesting that debris from habitation is present at the site.

In 1982 surficially exposed lithic materials were collected from four 2-m-diameter areas. Three of these were on the peripheries of the flake scatter, and one was immediately north of Mt. India Cairn. Included in these surface collections were 89 flakes and

TABLE 5
ARTIFACTS REPORTED FROM PREVIOUS INVESTIGATIONS AT 23HI30

	<u>Besser Collection</u>	<u>Mt. India Cairn</u>	<u>Murelle Mound No. 1</u>	<u>Murelle Mound No. 2</u>
<u>Lithic:</u>				
Projectile Points				
Small Triangular	X	4		
Scallorn	X	1	1	
Rice Side Notched	12*		1	3
Large Corner Notched				2
Thinned Bifaces				
Beveled		1		
Ovoid			1	3
Fragments		5	2	
Ground Stone and Hematite				
Fragments		22		
<u>Ceramics</u>				
Smoothed, Crushed Shell Temper	X	107		
Cord Roughened, Crushed Shell Temper	X	52		
<u>Shells</u>				
Conch Columella Beads	2			
Conch Disc Beads	X	27		3
Gastropod Beads	X	8		2
<u>Bone and Antler</u>				
Antler Handles	2			
Bone Pins	1			
*Two reworked into drills X = present, but quantity not reported				

angular fragments (1 edge modified), 1 core, and 1 biface fragment. In addition, a biface was plotted and collected near the eastern slope of the ridge. A shovel test was placed between Murelle Mounds Nos. 1 and 2, and a second test was placed on the highest portion of the ridge near the flake scatter. Neither test yielded cultural materials, and the deposits were found to be very shallow (6-12 cm of soil overlying bedrock or dense gravels). In 1983 the site was revisited, and a third shovel test was excavated to a depth of 25 cm below the surface near the exposed flake scatter. The upper 15 cm consisted of grayish brown clay loam and humus. Within this zone, 13 flakes and angular fragments were recovered. No cultural materials were recovered in the underlying red clay. In addition, one projectile point fragment was recovered from the road.

Mt. India Cairn was used by Wood (1961) as a primary component in the definition of the Nemo Burial Complex; the Murelle Mounds were used similarly in defining the Fristoe Burial Complex (see Chapter 1). However, these investigations were directed exclusively toward the burial features and very little effort was made to explore possible surrounding habitation areas. The projectile point fragment recovered in 1983 from the lithic scatter is badly fragmented but appears to be very similar to a specimen illustrated by Bray (1963: Fig. 31) from Murelle Mound No. 2.

Although disturbances are severe in the mound and cairn areas, the lithic scatter to the south retains spatial integrity. With the present data, it is not possible to demonstrate association between the lithic materials and burial features. However, because of their spatial proximity, this possibility is strong. Investigation of the lithic scatter is considered to be of high potential significance for addressing several research questions presented in Chapter 2. It is recommended that 23HI30 be considered eligible for nomination to the National Register of Historic Places.

23HI517

This site, which consists of a sparse lithic scatter, historic debris, domestic vegetation, and possible structure footing stones, is located on a low ridge approximately 500 m southwest of Lindley Creek in Pomme de Terre State Park. Cultural materials are scattered over an area of approximately 150 by 80 m, all of which shows evidence of having been bulldozed.

Five shovel tests were excavated at the site, yielding five pieces of glass, one wire nail, and 21 pieces of debitage (2 with edge modification). Large limestone or dolomite slabs observed on the surface may represent former structure footings. Very little additional cultural material was present on the surface, and no collections were made.

According to an informant (Clymore 1982), there were at least two building sequences at 23HI517. The earliest structure on the site was described as a log room measuring approximately 5 to 5.5 m (16 to 18 ft) square with the logs hewn on two sides, joined with V-notching, and extending past the corner joint for 15 to 30.5 cm (6 to 12 inches). Oak board floors were rough, and some individual boards measured 30.5 cm (12 inches) in width. Later additions to the log room included a frame room and side shed. Both log and frame rooms had attic space. Names associated with the construction and/or occupation of the structures include King, Clymore, and Boler.

The method of notching described by an informant suggests that the log portion of the structure may not have been constructed earlier than the late nineteenth or early twentieth century. Since the structures have been destroyed and deposits are severely disturbed, it is felt that the site does not contain significant information relating to this period which is not obtainable from other sources. Likewise, the prehistoric component appears to be too disturbed to contain important information. It is recommended that 23HI517 be considered not eligible for nomination to the National Register of Historic Places.

23HI518

Site 23HI518 is located in the southwestern portion of the State Park on a ridgetop near the confluence of the Pomme de Terre River and Decker Branch. The former channel of the Pomme de Terre River lies approximately 200 m to the west. The site, which covers an area of approximately 150 by 50 m, consists of a scatter of chipped stone tools and debitage. The area supports upland forest vegetation. An unimproved road extends across the site, but the area has not been developed for camping or day-use activities.

Surface materials were sampled through the use of three 2-m-diameter collection units. In addition, all recognizable tools were plotted and collected. Recovered cultural materials consist of 37 flakes and angular fragments (11 with edge modification), 1 core, and 2 biface fragments. One shovel test was excavated but did not yield any cultural materials. Soils consist of 5 to 15 cm of residual clay overlying bedrock gravels.

The apparent absence of diagnostic artifacts and buried cultural deposits severely limits the potential of this site to yield significant data concerning the research problems presented in Chapter 2. It is recommended that 23HI518 be considered not eligible for nomination to the National Register of Historic Places.

23HI519

Site 23HI519 consists of a sparse scatter of chipped stone debitage covering an area of about 10 by 10 m on the top of a ridge in the western portion of Pomme de Terre State Park. The ridge drops steeply to the former channel of the Pomme de Terre River approximately 125 m to the west. To the north is a deep drainage which now forms an inlet of the lake. The area is part of the upland forest but has been partially cleared for development. A campground, picnic area, and roads cover the entire site area. Bedrock outcrops in the area, and, where present, soils are thin.

All surficially exposed cultural materials were collected from the site. These materials consist of five edge modified flakes and one biface. No shovel tests were excavated.

Due to the paucity of cultural materials, extreme thinness of deposits, and absence of cultural features, site 23HI519 has little potential for yielding significant information concerning the prehistory of the area. It is recommended that this site be considered not eligible for nomination to the National Register of Historic Places.

23HI520

This site consists of lithic debitage and two historic ceramic fragments located on a ridge approximately 150 m west of Lindley Creek in the southeastern portion of the park. The bluff to the east of the site drops directly to the former creek channel. The site, which covers an area of approximately 130 by 70 m, is located in the park administration area and has been significantly disturbed by construction of the Park Manager's residence and a maintenance area. A park road cuts through the western portion of the site. The surrounding area is in upland oak-hickory forest. Most of the site surface is covered with cultivated grass.

One 2-m-diameter surface collection unit was employed, and three flakes and angular fragments were collected. Six shovel tests were excavated. These tests contained about 10 cm of clay loam overlying residual clay. Recovered artifacts consist of 12 flakes and angular fragments (2 with edge modification) and two whiteware/ironstone sherds.

Cultural deposits are very shallow and have been disturbed significantly by construction activities. Other upland sites in the project area have better potential for containing significant information regarding research problems presented in Chapter 2. It is recommended that 23HI520 be considered not eligible for nomination to the National Register of Historic Places.

Hermitage State Park

Hermitage State Park is situated on a low linear ridge overlooking the former floodplain of Lindley Creek (see Fig. 21). The ridge lies within a sharp meander of the former creek channel. The area is moderately dissected by ephemeral drainages. Residual clay and clay loam soils overlie shallow bedrock. Uncleared areas support upland oak-hickory forest vegetation. The entire park has been developed extensively and includes swimming, picnicking, camping, and boating facilities. All 323 acres of this area were surveyed in 1982.

No sites were recorded in the Hermitage area during Chapman's early surveys. Wood (1960), however, recorded three prehistoric sites (23HI142, 23HI143, and 23HI144). Site 23HI142 was recorded as a campsite located on a hillslope but was not relocated during the 1982 survey. Sites 23HI143 and 23HI144 were relocated along with two additional prehistoric sites (23HI524 and 23HI526), two sites with evidence of both prehistoric and historic occupations (23HI521 and 23HI527), and two historic sites (23HI523 and 23HI544).

23HI143

Site 23HI143 consists of a relatively large (ca. 250 by 100 m), dense scatter of chipped stone tools and debitage located on a ridgetop directly overlooking the former channel of Lindley Creek in the western portion of the Hermitage area. Tributary drainages border the site on the north and south. The area formerly was upland forest, but a campground with roads, camp pads, and cultivated grass is now present.

Surface artifacts were sampled through the use of three 2-m-diameter collection units. Collected materials consist of 86 flakes and angular fragments (5 with edge modification)

and 1 projectile point. Eight shovel tests were excavated, six of which yielded 58 flakes and angular fragments (4 with edge modification) and 2 biface fragments. The artifacts were recovered from the upper 15-20 cm of clay loam. Wood (1960) did not report the artifacts collected or observed at the site.

The projectile point form suggests that occupation took place during the Late Woodland period, but this interpretation is tenuous. This site is located within an intensively used camping area, and disturbances from park roads are extensive. Research questions concerning occupations of this nature are best addressed at other sites in the project area. It is recommended that 23HI143 be considered not eligible for nomination to the National Register of Historic Places.

23HI144

Site 23HI144, a sparse scatter of lithic debitage, is located on a narrow ridgetop with steep slopes on the east and west which drop to the former floodplain of Lindley Creek. The site covers an area of approximately 35 by 20 m and is in upland forest vegetation. A park road runs through the site, and the surface is extensively disturbed by apparent construction activities including a large bulldozer cut.

Wood (unpublished site form) recorded two stone mounds at 23HI144. Mound 1 was 25 ft in diameter and 2 ft high; Mound 2 was 20 ft in diameter and less than 2 ft high. Both mounds were reported as being undisturbed. During the 1982 survey, no evidence of either mound was located.

Surface artifacts were sampled through the use of one 2-m-diameter collection unit. Twenty-two flakes and angular fragments were collected (two with edge modification). Two shovel tests were excavated, one of which yielded a core. Gravels were encountered a few centimeters below the surface, and it is evident that the deposits have been significantly disturbed.

This site has little potential to yield significant information regarding the research problems presented in Chapter 2 because of the severity of the disturbances to both site deposits and features. It is recommended that 23HI144 be considered not eligible for nomination to the National Register of Historic Places.

23HI521

Site 23HI521 contains both historic and prehistoric cultural materials. The site, situated on the ridgepoint at the southern end of the Hermitage area, is surrounded on three sides by steep bluffs which drop to the former floodplain of Lindley Creek. Most of the area contains upland forest, but portions have been cleared and a park road, parking lot, and picnic area are present. The site covers an area of approximately 75 by 75 m.

Historic occupation is represented by a scatter of historic ceramics and glass. The artifacts probably are associated with the Dorman Housesite which is plotted on the 1959 USGS 7.5' Sentinel topographic map as having been located northeast of 23HI521. A parking lot now covers the former housesite. The house was described by one informant (Clymore 1982) as having been a one-story frame structure with a fireplace. Another informant (Button 1982) identified 23HI521 as the location of a barn associated with the house.

Prehistoric occupation is represented by a relatively dense scatter of chipped stone tools and debitage. Surface artifacts were sampled through the use of three 2-m-diameter collection units. A total of 114 flakes and angular fragments (4 with edge modification), 1 core, 1 biface fragment, and 1 bottle glass fragment were collected. One shovel test was excavated, and seven flakes and angular fragments were recovered from the upper 20 cm of clay loam.

Although some buried deposits remain, the site area is small and has been extensively disturbed. Neither the prehistoric nor historic components appear to retain integrity sufficient for addressing the research problems presented in Chapter 2. It is recommended that 23HI521 be considered not eligible for nomination to the National Register of Historic Places.

23HI523

Site 23HI523, the site of an historic farmstead, covers an area of approximately 150 by 100 m on a ridge 40 m east of the former channel of Lindley Creek. The site is located in a campground on both sides of a paved park road. The area has been partially cleared and planted in grass.

The site consists of intact concrete slab foundations and mounds of earth and concrete rubble. Because of the dense grass cover, no artifacts are exposed on the surface. Two shovel tests were excavated, one of which yielded six fragments of glass, two whiteware/ironstone sherds, and an unidentifiable metal fragment.

Site 23HI523 is an historic farmstead which dates from the 1940s. The house, which was located on a rise on the inside curve of the park road, was constructed about 1940 by Bill Davis whose wife was a member of the Pitts family of Pittsburg and Hermitage. The Davises ran a stock farm in the area surrounding the housesite until the late 1940s when Roy H. Button purchased the property (Button 1982).

Associated outbuildings included a smokehouse west of the house; a garage, silo, and barn to the northwest; a machine shop to the north; and a concrete-floored corn crib and hog barn to the east. Cattle corrals and a hog wallow were located north of the housesite, and a roadway to the northeast led from the property to the vicinity of the present dam site area (Button 1982). After acquisition of the property by the government, the Davis-Button House was purchased by the Cane family and moved to a new location several miles to the northeast.

Because of the relatively recent date of construction and occupation, this site lacks potential for containing significant information relating to the research problems presented in Chapter 2. It is recommended that 23HI523 be considered not eligible for nomination to the National Register of Historic Places.

23HI524

This site consists of a small (ca. 24 by 8 m), dispersed scatter of chipped stone debitage exposed in deposits disturbed by a trench excavated for buried electrical cables. The site lies on a ridgecrest approximately 300 m east of Lindley Creek. The ridge is

bounded on the east by an ephemeral drainage. A park road and modern campground are now present in the site area. Prior to development, the area probably supported upland forest vegetation.

Two 2-m-diameter surface collection units were employed in the investigation of the site. Recovered were 21 flakes and angular fragments (1 with edge modification) and 1 milk glass fragment. One shovel test was excavated adjacent to the area disturbed by the cable excavation. Six flakes and angular fragments were recovered from the upper 20 cm of clay loam.

Because of the small size of this site, the disturbances have had a severe negative impact on the deposits. It is not likely that 23HI524 contains significant information regarding the research problems presented in Chapter 2, and it is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23HI526

Site 23HI526 consists of a scatter of lithic tools and debitage on a ridgetop overlooking a wide terrace approximately 1 km east of the confluence of the Pomme de Terre River and Lindley Creek. The site covers an area of approximately 150 by 150 m. A park road, a parking area, and a picnic area are presently located over much of the site. Prior to development, the area probably contained upland forest vegetation.

All recognizable tools were plotted and collected from the surface. In addition, three 2-m-diameter surface collection units were employed. Collected artifacts consist of 104 flakes and angular fragments (11 with edge modification) and 3 bifaces. One 30-cm-deep shovel test was excavated; six flakes and one biface fragment were recovered from the upper 10 cm of clay loam.

Because this site has been extensively disturbed by the construction of picnic areas and roads and portions are subject to erosion from lake level fluctuations, the spatial integrity of the deposits has been damaged. The site does not appear to have a high potential for yielding significant information relating to the research problems presented in Chapter 2. It is recommended that 23HI526 be considered not eligible for nomination to the National Register of Historic Places.

23HI527

Site 23HI527 is located on a ridge in the central portion of the Hermitage area. The site lies approximately 400 m north of Lindley Creek and is bounded by ephemeral drainages on the north and south. Evidence of prehistoric occupation of the site consists of a dispersed scatter of chipped stone debitage. Historic occupation is represented by displaced stone footings, windowglass, and piles of stone and concrete. The site covers an area of about 240 by 50 m. Vegetation consists of a scatter of upland forest trees as well as thick grasses. A paved park road bisects the site.

Because of the dense grasses, artifacts were not visible on the site surface. Five shovel tests were excavated, four of which contained cultural materials in the upper soil horizon (20 to 25 cm of reddish brown clay loam). Recovered artifacts consist of 35 flakes

and angular fragments (2 with edge modification), 1 core, 2 glass fragments, and 1 piece of metal.

Local informants (Button 1982; Clymore 1982) claim that 23HI527 does not represent a housesite, but rather that the observed historic materials are associated with a residence formerly located approximately 0.8 km to the southwest.

The potential for yielding significant information relating to either prehistoric or historic research problems appears to be low at this site. Historic artifacts probably have been displaced and few were visible during the investigations. Prehistoric artifacts also are sparse and finished tools appear to be absent. The deposits have been disturbed by road construction and other recent activities. It is recommended that 23HI527 be considered not eligible for nomination to the National Register of Historic Places.

23HI544

Site 23HI544, an historic housesite, covers an area approximately 50 by 30 m on a ridge 1.1 km east of the confluence of the Pomme de Terre River and Lindley Creek. The site area has been cleared and presently is grown over with tall grasses and scattered oak and walnut trees.

The site is marked by domestic vegetation. No surface artifacts or structural remains are visible. One shovel test was excavated, but no cultural materials were recovered.

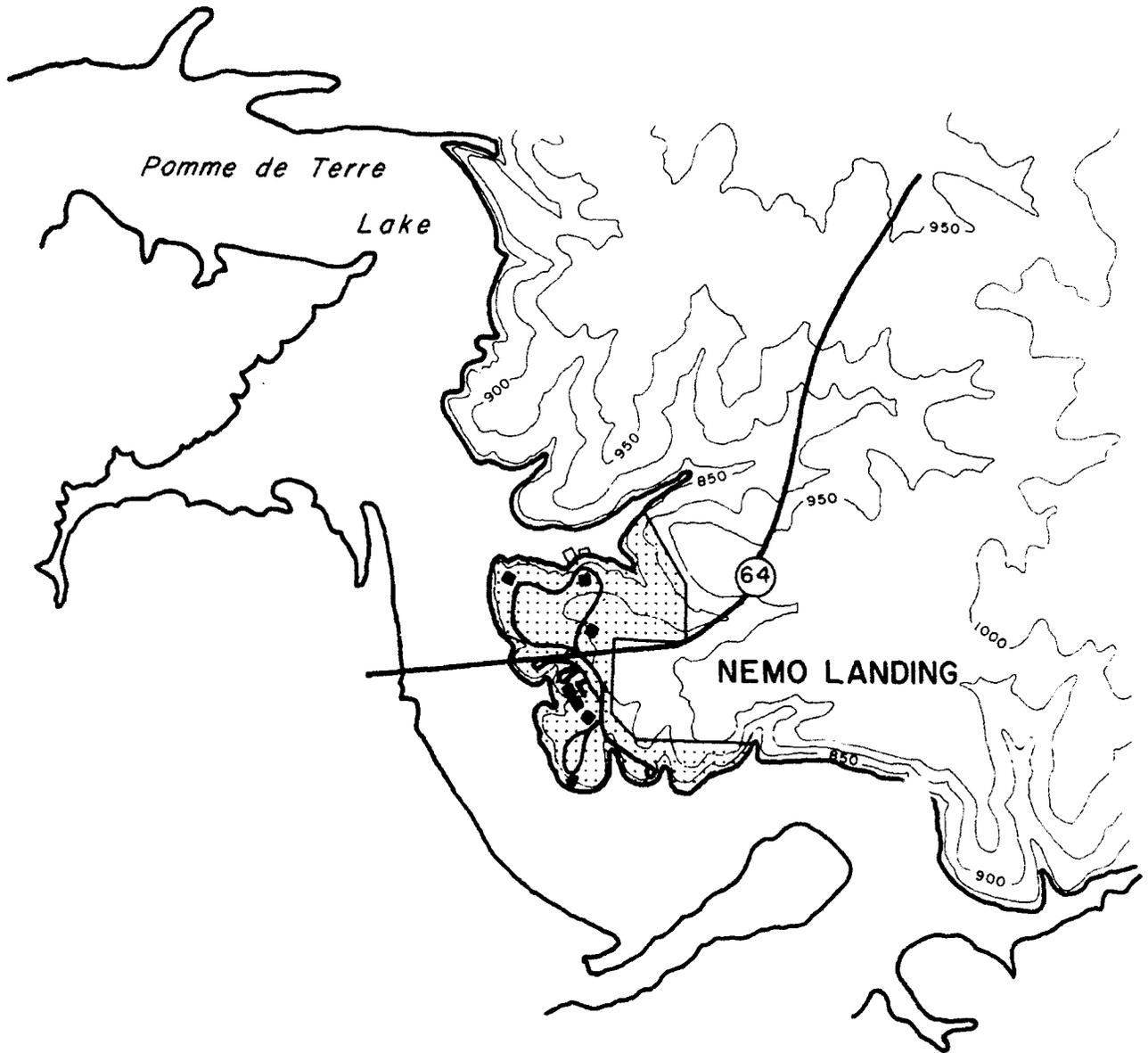
According to a local informant (Button 1982), one of the last owners of the property was Bob Ridge. However, the house which stood at the site considerably predated Ridge's ownership. It was described as having been a one-story frame structure which faced north, had one front door, and a kitchen in a side room. The structure was present on a 1951 USGS 15' Hermitage quadrangle map but did not appear on earlier survey maps. There is nothing to suggest that the site is earlier than the last quarter of the nineteenth century. The site area is 1.6 km north-northeast of the oldest known occupation area in Sections 12 and 13, the Josiah Brown claim of 1846 (The Goodspeed Publishing Co. 1889:223).

Because construction and occupation at this site are relatively recent and few artifacts or features remain, the potential for yielding significant information relating to the research problems presented in Chapter 2 is low. It is recommended that 23HI544 be considered not eligible for nomination to the National Register of Historic Places.

Nemo Landing Public Use Area

The Nemo Landing area is located on a west-facing slope of an upland ridge on the right (east) bank of Lindley Creek (Fig. 22). The area is dissected by several ephemeral drainages. Soils consist generally of gravelly residual clays overlying shallow limestone and dolomite bedrock. Undeveloped areas support upland forest, usually with a dense understory. Development of park roads and camping, boating, and concession facilities has been extensive. All 100 acres of this area were surveyed in 1982.

POMME DE TERRE LAKE NEMO LANDING AREAS SURVEYED



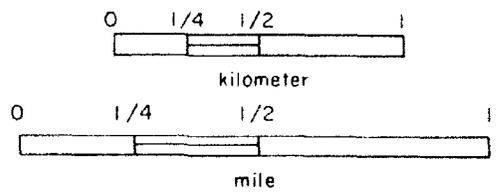
LEGEND

-  Survey Area
-  Park Facility Structure
-  Boat Ramp & Dock



MN

Contour Interval = 50'



Previous archeological surveys in the Pomme de Terre Lake region did not locate any sites in the Nemo area. In 1982 two prehistoric sites (23HI529 and 23HI530) were recorded.

23HI529

Site 23HI529 consists of a small (ca. 75 by 65 m), dispersed scatter of chipped stone debitage located on a ridgetop approximately 50 m north of Lindley Creek in the southern portion of the Nemo Landing area. The site is bounded on the east and west by ephemeral drainages. A park road and picnic area presently are located on the site. Surrounding vegetation is upland oak-hickory forest.

Three 2-m-diameter surface collection units were employed in the investigation of the site. Collected were 39 flakes and angular fragments (7 with edge modification). One shovel test was excavated to 15 cm below the surface. The upper 7 cm of soil consists of dark brown clay loam and yielded five flakes and angular fragments. Underlying this zone is a grayish brown gravelly clay which contains no cultural materials.

Much of this site is exposed on the surface, and the cultural materials have been disturbed through development and use of the park facilities. In a relatively small site such as 23HI529, this damage to the site spatial integrity severely limits the potential for yielding significant research data. It is recommended that 23HI529 be considered not eligible for nomination to the National Register of Historic Places.

23HI530

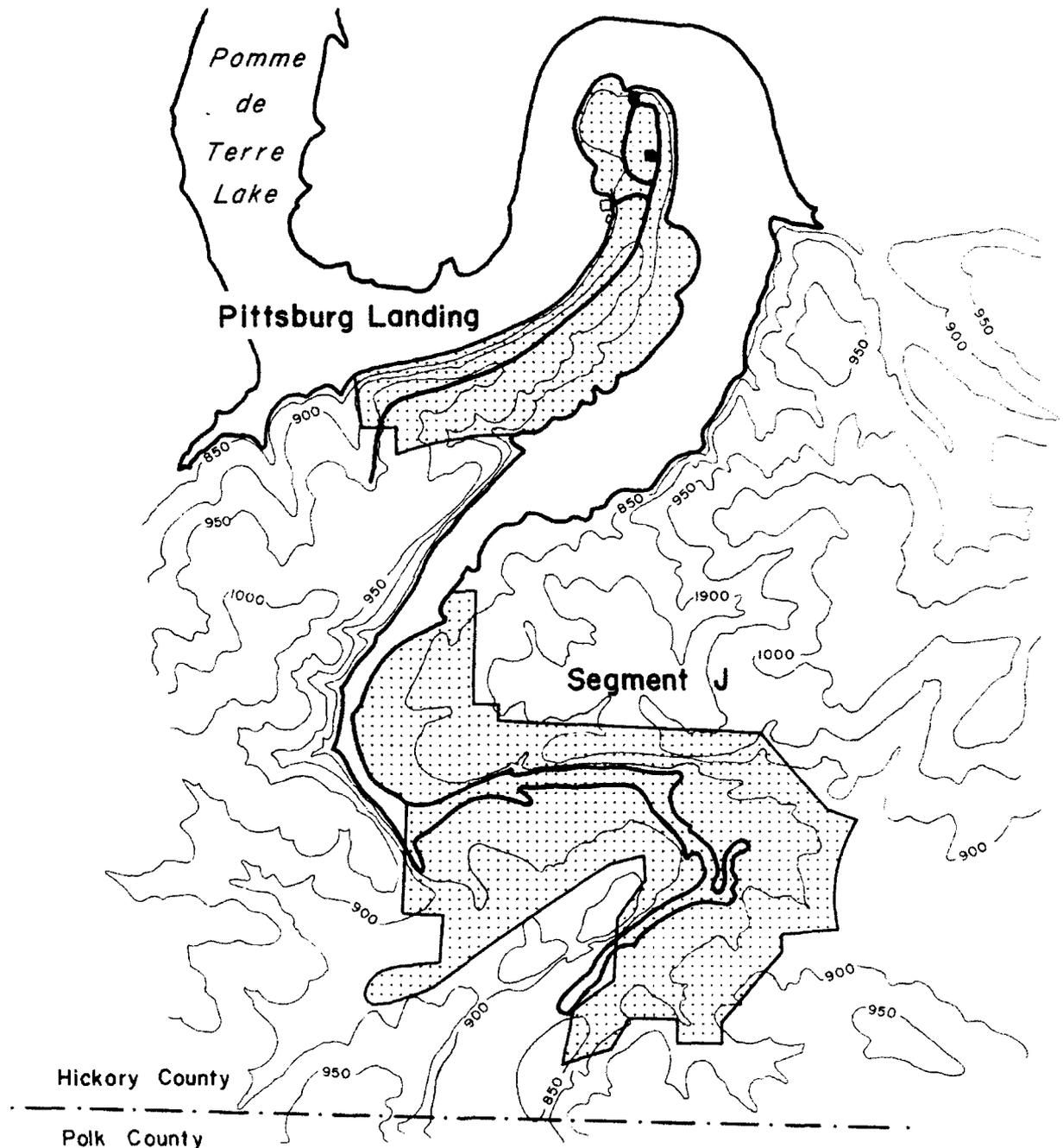
Site 23HI530 covers an area of approximately 200 by 50 m and consists of a dispersed scatter of chipped stone debitage located on a dissected ridge in the southwestern portion of the Nemo Landing area. The site is approximately 200 m northwest of Lindley Creek. Park roads, parking lots, and camping facilities cover the entire site area. It is probable that portions of the site have been leveled and gravel fill introduced.

Because of the severe disturbances, no surface collections or shovel tests were carried out at this site. The potential for yielding significant research information is very low. It is recommended that 23HI530 be considered not eligible for nomination to the National Register of Historic Places.

Pittsburg Landing Public Use Area

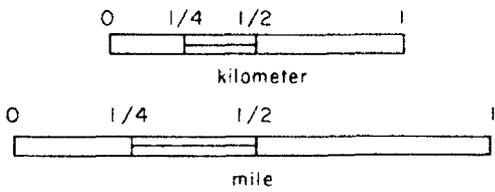
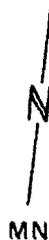
The Pittsburg Landing area is situated on a narrow, linear, upland ridge which forms the interior of a sharp meander of Lindley Creek (Fig. 23). Within the area are terraces of the creek on the northwestern and eastern sides of the ridge. The upland soils consist of shallow, gravelly, residual clays and clay loams. The vegetation consists of oak-hickory forest with a dense understory. At the time of the survey, the terraces were inundated. Although this area has not been developed as extensively as most of the other public use areas, roads, picnic areas, and boating facilities are present. Developed areas have been cleared and planted in grass. All 156 acres that were not under water were surveyed in 1982.

POMME DE TERRE LAKE PITTSBURG LANDING & SEGMENT J AREAS SURVEYED



LEGEND

-  Survey Area
-  Park Facility Structure
-  Boat Ramp & Dock
-  County Line



Contour Interval: 50'

PBA1 / 82 / SHP

Adapted from USGS, Sentinel, MO, 7.5' Sheet, 1949 & U.S. Army COE, K.C. District, Public Use Map, 1981

Wood (1960) recorded one site, 23HI159, in this area. This site was relocated in 1982, and one historic site, 23HI545, was recorded.

23HI159

Site 23HI159 is a relatively extensive, dense scatter of chipped stone debitage located along the ridgepoint in the northern portion of the Pittsburg Landing area. The site covers an area of approximately 400 by 100 m and is bounded on the east by a steep bluff which drops directly to the former channel of Lindley Creek. A picnic area including roads and a parking lot are located on the site. Prior to development, the area probably supported upland oak-hickory forest.

Three 2-m-diameter collection units were used to sample surface cultural materials. Collected were 48 flakes and angular fragments (10 with edge modification) and 1 core. Two shovel tests were excavated. Soils consist of 29 to 30 cm of clay loam containing chipping debris in the upper few centimeters. Thirteen flakes and angular fragments (two with edge modification) and one core were recovered in the tests. Wood (1960) did not describe the cultural materials collected or observed at the site.

Although this site is extensive, construction and use of park facilities appear to have had significant negative impacts on the deposits. Completed tools were not encountered, and the potential for placing the site in a temporal context appears to be low as numerous overlapping occupations probably are represented. Site 23HI159 does not appear to contain significant information relating to the research problems presented in Chapter 2, and it is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23HI545

Site 23HI545 consists of a scatter of domestic irises on a narrow linear ridge approximately 50 m southeast of a steep bluff which directly overlooks the former channel of the Pomme de Terre River. A park road borders the area on the west. The area has been cleared and is grown over with native grasses.

No artifacts or structural features were noted at the site. One shovel test was excavated, but no cultural materials were recovered. The irises may be associated with an unoccupied structure which appears on the 1949 USGS Sentinel 7.5' quadrangle approximately 250 m to the southwest but which could not be located during the 1982 survey. No site appears at this location on other historic maps of Hickory County.

It is recommended that 23HI545 be considered not eligible for nomination to the National Register of Historic Places.

Fish and Wildlife Management Segment J

In 1982, 424 acres of Segment J of the Fish and Wildlife Management lands were surveyed. The survey area lies predominantly on low terraces along Lindley and Ingalls creeks

(see Fig. 23). Also in the area is the edge of a ridge overlooking a steep bluff on the northern side of Lindley Creek. Almost all of the terrace areas have been cleared and cultivated. The ridge contains mostly upland forest, but portions have been cleared and presently are covered with tall grasses, saplings, and brambles. A few unimproved roads cross the area.

During previous surveys, several sites were recorded on the terraces near the juncture of Lindley and Ingalls creeks. Chapman (1954) recorded 23HI75 and 23HI76. Wood (1960) recorded 23HI164, 23HI165, and 23HI166. All of these sites were relocated in 1982. Three additional prehistoric sites (23HI537, 23HI538, and 23HI541) also were encountered.

23HI75

Site 23HI75 consists of an extensive (ca. 800 by 250 m) scatter of lithic tools and debitage located on a low terrace of Lindley Creek downstream from its juncture with Ingalls Creek. The area has been cleared, plowed, and cultivated. Portions of the site are periodically inundated by Lindley Creek. Prior to clearing, it is likely that the terrace supported bottomland forest vegetation.

Chapman (1954) originally recorded the site. He reported collecting two projectile points from the surface. During the survey in 1982, all recognized surficially exposed tools (six bifaces, three projectile points, three edge modified flakes) were plotted on a site sketch map and collected. Five shovel tests, none of which yielded cultural materials, were excavated to a depth of 40 cm below the surface.

Because of muddy conditions at the time of the 1982 survey, it was recommended that the site be revisited and tested for the presence of intact subsurface deposits. In 1983 most of the lower lying, northern portion of the site was inundated, but a 1-by-1-m test pit was excavated in the higher southern portion of the field where most of the surface cultural materials were collected. The test pit was excavated in 10-cm levels to a depth of 30 cm. The upper 20 cm yielded 54 flakes and angular fragments. Only one flake was recovered from the lowest level. Soils consist of light brown sandy clay loam with small rounded gravels underlain at 20 to 25 cm by a light reddish brown silty clay loam. Plowing appears to have disturbed the upper 10 to 15 cm of the site.

In order to obtain better definition of the site limits, the plowed fields adjacent to the site were resurveyed in 1983. Chert debitage was present on the higher portions of the field adjacent to the site (as originally defined) to the east. Extensive rill erosion has severely deflated the deposits in this area. No additional cultural materials were encountered; however, Bradley Meyers (Ranger with the Corps of Engineers) has collected lithic tools and debitage from portions of the terrace to the east. His collection consists of 39 flakes and angular fragments (9 with edge modification), 12 bifaces, 7 projectile points, 1 core, and 1 perforator.

Projectile point forms suggest that this site was occupied from the Early/Middle Archaic period through the Late Woodland/Mississippian period. Unfortunately, the deposits are relatively shallow and have been mixed by plowing and natural soil processes. Although a substantial number of artifacts are present at 23HI75, the potential for isolating and identifying the nature of occupations is low. It is recommended that this site be considered not eligible for nomination to the National Register of Historic Places.

23HI76, 23HI164

These two sites constitute an extensive scatter of lithic tools and debitage located on a large terrace approximately 0.5 km north and east of the confluence of Ingalls and Lindley creeks. The western portion of the area was recorded by Chapman (1954) as 23HI76. The surface was obscured by vegetation at the time of the survey (Chapman 1954:109), and no description of the site or associated artifacts was provided. Wood (1960:16) recorded 23HI164 on the eastern side of an ephemeral tributary drainage of Ingalls Creek adjacent to 23HI76. No specific information concerning the site was published, but the site form indicates that numerous bifaces, projectile points, and pieces of chert debitage were encountered over an area of about 200 by 200 ft. Because these sites are adjacent and similar, they are discussed together. Site 23HI76 covers an area of approximately 400 by 300 m; 23HI164 covers approximately 400 by 150 m.

At the time of the 1982 survey, both areas were plowed and cultivated. The tributary separating the areas was wooded and marshy. Lithic materials at 23HI164 were present in two fields separated by an ephemeral branch of the tributary, and the site appeared to cover a much larger area than originally indicated by Wood. The sites are bounded on the north by a sharp rise to an upland ridge. The western portion of this rise is a sharp bluff where limestone/dolomite outcrops. To the northeast, the slope is gentler and a modern house and outbuildings are located on a small hill beyond the government boundary. On the western and southern sides of 23HI76, no cultural materials were encountered in the wooded low-lying area adjacent to Lindley and Ingalls creeks. The eastern boundary of 23HI164 is less clear as it is not marked by a distinct topographic feature. No cultural materials were encountered east of a gravel road at the eastern edge of the area, although a low rise in the terrace extends a short distance east of the road. Small rises are present throughout the terrace, and these seem to contain higher surface densities of lithic materials.

During the 1982 survey, surface collections and shovel tests were carried out at both sites. At 23HI76, surface collections were made from two 2-m-diameter units as well as from five plotted areas with high tool densities. Collected were 7 bifaces, 6 projectile points, 25 flakes and angular fragments (? with edge modification), 1 perforator, and 1 ground and pecked cobble. Collections at 23HI164 were made from three 2-m-diameter collection units. In addition, all recognized tools were plotted and collected. Collected were 9 bifaces, 6 projectile points, and 52 flakes and angular fragments (5 with edge modification). Three shovel tests at 23HI76 and four at 23HI164 were excavated, but no cultural materials were recovered.

In 1982 it was recognized that the surface scatter of tools and debitage was extensive, but the presence of subsurface deposits was in doubt. The sites were revisited in 1983 in order to investigate the subsurface deposits through the use of test pits. Most of both site areas were wet and marshy at the time of the investigation so one 1-by-1-m test pit was placed on each of the two low rises which were relatively well drained at 23HI76. Test Pit 1 was excavated in 10-cm levels to a depth of 40 cm beneath the surface. The first three levels yielded 144 flakes and angular fragments, 1 biface fragment, and 1 core. The fourth level contained only four flakes. Heavy showers and resulting muddy conditions prevented deeper excavations, but the decrease in artifact density in the lowest level is a reasonable indication that the base of the cultural deposit was reached. The upper soil horizon consists of a brown clay loam with few gravels. This horizon is underlain at 23-25 cm below the surface by a yellowish brown clay loam with greater moisture and clay content. The depth of the lower horizon was not determined.

At the base of the second 10-cm level along the southern edge of Test Pit 2, a very dark brown, charcoal-flecked stain was encountered. In order to determine the full horizontal extent of the stain, a third unit (1 by 0.5 m) was excavated immediately to the south. The stain was found to be roughly oval in shape and approximately 25 by 40 cm in size. The stain was cross sectioned and found likely to represent the tap root of a small tree or large shrub. Although the central shape of the stain is suggestive of a posthole, its depth and the presence of rootlike extensions laterally and at the base suggest otherwise. The cross section trench (40 by 50 cm) was excavated to 80 cm below the surface, and no cultural materials were recovered in the fill. Test Pits 2 and 3 contained 43 flakes and angular fragments (1 with edge modification) and 1 biface fragment.

Projectile point forms suggest that 23HI76 was occupied primarily in the Early/Middle Woodland and Late Woodland/Mississippian periods. No ceramics were recovered, however. Projectile point types at 23HI164 relate to the Early/Middle Archaic and Late Archaic periods. The sites appear to have been repeatedly occupied, and some horizontal separation of components seems likely. Although some lateral displacement of artifacts as a result of plowing probably has occurred, intact deposits appear to underlie the plowzone. These sites have a high potential for yielding information relating to the research problems presented in Chapter 2, and it is recommended that both 23HI76 and 23HI164 be considered eligible for nomination to the National Register of Historic Places.

23HI165

This site consists of a dispersed scatter of lithic debitage and tools on a low rise on the right-bank upper terrace of Lindley Creek approximately 120 m southeast of the creek channel. The site is located in a plowed and cultivated field. Wood (1960:16) originally recorded 23HI165 as a probable campsite. On an unpublished site form, it was noted that several projectile points, a scraper, and a mano were recovered and fragments of a possible milling stone were observed. In 1982 artifacts were found scattered thinly over an area of about 130 by 60 m. No features or artifact concentrations were observed.

During the 1982 survey, the extent of the surface lithic scatter was determined, a sketch map was produced, a general surface collection was made, and five shovel tests were excavated. From the surface, 14 flakes (1 edge modified) and a projectile point were recovered. Four flakes were recovered from two of the shovel tests.

In 1983 the site was revisited in order to obtain better information concerning the depth and nature of the deposits. The investigation was carried out by excavation of a 1-by-1-m test pit near the highest point of a small rise in the terrace. The upper 20 cm of matrix (light brown silty clay loam) yielded 216 flakes and angular fragments (5 with edge modification). The third level contained a reddish brown clay loam. Thirty flakes and angular fragments were recovered, mostly from the upper portion of the level.

The projectile point form suggests that occupations relate to the Late Woodland/Mississippian period. Deposits are shallower than those at 23HI76 and likely have been disturbed by plowing to a greater extent. It is unlikely that data from 23HI165 could yield additional significant information pertaining to this period, and it is recommended that 23HI165 be considered not eligible for nomination to the National Register of Historic Places.

23HI166

Site 23HI166 is located on the right-bank terrace of Lindley Creek about 30 m downstream from 23HI165 and 150 m southeast of the channel of Lindley Creek. Wood (unpublished site form) reported that scattered flakes and chips were observed amongst the grass and weeds. One mano was recovered. In 1982 flakes were noted thinly scattered over an area of about 60 by 25 m. The site was plowed and cultivated. Because of the very low density of materials, no surface collections were made and no shovel tests were conducted.

It does not appear likely that future investigation of this site would yield significant information relating to the research problems presented in Chapter 2. It is recommended that 23HI166 be considered not eligible for nomination to the National Register of Historic Places.

23HI537

This site consists of a scatter of lithic tools and debitage located on a ridge adjacent to a bluff which drops steeply to Lindley Creek. The site area (ca. 150 by 150 m) has been cleared and plowed but is overgrown with tall grasses, brambles, saplings, and wild roses. An unimproved road crosses the western edge of the site.

Wood (1961) reported 23HI170 as a campsite covering an area of approximately 200 by 300 ft on the terrace and slope immediately west of 23HI537. In 1982 no materials were observed in this area, but the surface was disturbed by several large linear depressions which appear to have been cut by heavy machinery. An uninhabited structure marked on the 1949 USGS 7.5' Sentinel quadrangle also was in this area, but the site could not be located.

Dense vegetation at 23HI537 obscured most of the surface, but a general collection was made of materials exposed in the roadcut. Four flakes and a biface fragment were recovered. Ten shovel tests were excavated, and four contained cultural materials consisting of 30 flakes and angular fragments (3 with edge modification) and 1 core.

There was some doubt about the depth and degree of disturbance to the buried deposits so the site was revisited in 1983. A 1-by-1-m test pit was excavated east of the road in three 10-cm levels. A total of 63 flakes and angular fragments were recovered (5 with edge modification) along with 1 core. No distinct soil horizon boundary was noted, but a gradual increase in soil redness, clay content, and moisture was noted in the lower portion of Level 2. Artifact density decreased steadily with depth, and no cultural materials were recovered from the lowest 5-6 cm.

It is likely that the site originally was continuous with Wood's 23HI170 and that major portions have been severely disturbed. Remaining deposits are not deep and artifact density is low. The potential of this site for addressing significant research problems is considered to be low. It is recommended that 23HI537 be considered not eligible for nomination to the National Register of Historic Places.

23HI538

Site 23HI538 consists of a scatter of lithic tools and debitage dispersed along the bluff edge on the right bank of Lindley Creek in the northern portion of the survey area. The scatter extends about 60 m north of the bluff edge over a distance of approximately 800 m. The western edge of the site lies about 200 m east of 23HI537; the two sites are separated by a steep drainage. A cluster of limestone slabs identified during the 1982 survey as a possible stone cairn is present near the eastern edge of the site. The entire area is in upland forest, and the surface was covered with leaf litter at the time of investigation. A general surface collection from the western part of the site yielded three edge modified flakes. Four shovel tests were excavated. Three of these yielded a total of 16 flakes and angular fragments (6 with edge modification).

Although shallow, the site deposits appear to be undisturbed at this time. Since most other identified upland campsites in the vicinity of Lindley Creek are significantly disturbed by modern park developments, 23HI538 potentially can yield significant information concerning site activities, perhaps including mortuary behavior. It is recommended that this site be considered eligible for nomination to the National Register of Historic Places.

23HI541

Site 23HI541 consists of a small, dispersed scatter of lithic debitage located on the right-bank upper terrace of Lindley Creek in the southern portion of the survey area. The site encompasses an area of about 40 by 50 m. The area was plowed and in pasture at the time of the 1982 survey with bottomland forest present near the creek channel which lies 150 m to the west.

Because of the dense vegetation on the surface, a general surface collection was made from an unimproved road along the eastern edge of the site. Two edge modified flakes, one uniface, and four bifaces were collected. Six shovel tests were excavated, two of which yielded a total of seven flakes (two with edge modification) in the upper few centimeters of matrix.

Deposits are relatively shallow, and it is likely that spatial integrity has been damaged from lateral displacement of artifacts due to plowing. Significant information of a similar nature is more likely to be present at sites such as 23HI76 and 23HI164. It is recommended that 23HI541 be considered not eligible for nomination to the National Register of Historic Places.

Stockton Lake

All sites encountered in the Stockton Lake project are listed in numerical order in Table 6. Locational information and the page number reference for the description in the text also are provided.

TABLE 6

INDEX TO ARCHEOLOGICAL SITES ENCOUNTERED DURING THE SURVEY AT STOCKTON LAKE

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23CE325	Orleans Trail	Stockton	Edge Branch	Ridgeslope	Prehistoric	Lithic scatter	144
23CE326	Orleans Trail	Stockton	Edge Branch	Ridgeslope	Prehistoric	Lithic scatter	144
23CE327	Orleans Trail	Stockton	Edge Branch	Ridge	Prehistoric	Lithic scatter	144
23CE329	Orleans Trail	Stockton	Cothwell Branch	Ridgeslope	Prehistoric	Lithic scatter	146
23CE330	Orleans Trail	Stockton	Cothwell Branch	Ridgeslope	Early/Middle Archaic	Lithic scatter	146
23CE332	Orleans Trail	Stockton	Cothwell Branch	Ridgeslope	Prehistoric	Stone mounds, lithic scatter	147
23CE333	Orleans Trail	Stockton	Edge Branch	Ridge	Prehistoric	Lithic scatter	147
23CE334	Hawker Point	Crisp	Sac River	Ridge	Late Woodland	Lithic scatter	152
23CE335	Crabtree Cove	Stockton	Sac River	Ridge	Early/Middle Archaic	Lithic scatter	182
23CE336	Crabtree Cove	Stockton	Sac River	Ridge	Late Archaic (?)	Lithic scatter	184
23CE337	Crabtree Cove	Stockton	Sac River	Ridge	Prehistoric	Lithic scatter	184
23CE338	Crabtree Cove	Stockton	Sac River	Ridge	Prehistoric	Lithic scatter	185
23CE339	Crabtree Cove	Bearcreek	Little Sac River	Ridgeslope	Late Archaic; Late Woodland/Mississippian	Lithic scatter	185
23CE340	Crabtree Cove	Stockton	Little Sac River	Ridge	Prehistoric	Lithic scatter	186
23CE341	Crabtree Cove	Stockton	Sac River	Ridgeslope	Prehistoric; Historic	Lithic scatter, artifact scatter	186
23CE342	Masters	Bona	Little Sac tributary	Ridgeslope	Prehistoric	Cave, lithic scatter	188

Table 6, continued

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23CE343	Masters	Bona	Little Sac River	Ridge	Late Archaic	Lithic scatter	190
23CE344	Masters	Bona	Little Sac tributary	Ridgeslope	Prehistoric	Lithic scatter	190
23CE345	Masters	Bona	Little Sac tributary	Ridgeslope	Prehistoric; Historic	Rockshelter	191
23CE346	State Park	Stockton	Sac River	Ridge	Prehistoric; Historic	Lithic scatter, housesite	172
23CE347	State Park	Stockton	Sac River	Ridge	Prehistoric	Lithic scatter	172
23CE348	Orleans Trail	Stockton	Edge Branch	Ridge	Historic	Housesite	148
23CE349	Orleans Trail	Stockton	Cothwell Branch	Ridgeslope	Historic	Housesite	148
23CE350	Orleans Trail	Stockton	Cothwell Branch	Ridge	Historic	Housesite	150
23CE351	Orleans Trail	Stockton	Cothwell Branch	Ridge	Historic	Housesite	150
23CE352	Orleans Trail	Stockton	Edge Branch	Ridgeslope	Historic	Housesite	151
23CE353	Stockton	Stockton	Edge Branch	Ridge	Historic	Housesite	143
23CE354	Orleans Trail	Stockton	Cothwell Branch	Ridge	Historic	Rock wall	151
23CE355	Hawker Point	Crisp	Hawker Branch	Ridge	Historic	Cemetery	154
23CE356	Hawker Point	Crisp	Sac River	Ridge	Historic	Housesite	154
23CE357	Hawker Point	Crisp	Sac River	Ridge	Historic	Housesite	155
23CE358	Hawker Point	Crisp	Hawker Branch	Ridgeslope	Historic	Housesite	155
23CE359	Hawker Point	Crisp	Sac River	Ridgeslope	Historic	Housesite	155
23CE360	Hawker Point	Crisp	Sac River	Ridge	Historic	Well	156
23CE361	Crabtree Cove	Stockton	Sac River	Ridge	Historic	Housesite	187

Table 6, continued

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23CE362	Crabtree Cove	Bearcreek	Sac River	Ridgeslope	Historic	Housesite	187
23CE363	Crabtree Cove	Stockton	Sac River	Ridge	Historic	Housesite	187
23CE364	Masters	Bona	Little Sac River	Ridgeslope	Historic	Housesite	191
23CE365	Masters	Bona	Little Sac River	Ridge	Historic	Housesite	192
23CE366	Masters	Bona	Little Sac tributary	Ridgeslope	Historic	Housesite	192
23CE367	Masters	Bona	Little Sac tributary	Ridgeslope	Historic	Housesite	192
23CE368	State Park	Bona	Little Sac River	Ridge	Historic	Housesite	172
23CE369	State Park	Bona	Little Sac River	Ridge	Historic	Cemetery	174
23CE370	State Park	Bona	Hartley Branch	Ridge	Historic	Church site	174
23CE371	State Park	Crisp	Hartley Branch	Ridge	Historic	Housesite	175
23CE372	State Park	Bona	Hartley Branch	Ridge	Historic	Housesite	175
23CE373	State Park	Stockton	Sac River	Ridge	Historic	Cemetery	176
23CE379	State Park	Crisp	Sac River	Ridgeslope	Historic	Structure	176
23CE380	State Park	Stockton	Sac River	Ridge	Historic	Housesite	176
23CE385	State Park	Crisp	Sac River	Ridgeslope	Prehistoric	Lithic scatter	177
23CE386	State Park	Bona	Little Sac River	Ridge	Historic	Trash dump, well	178
23CE387	State Park	Bona	Little Sac River	Ridgeslope	Historic	Cemetery	178
23CE388	State Park	Bona	Little Sac River	Ridgeslope	Historic	Housesite	179
23CE389	State Park	Crisp	Sac River	Ridge	Historic	Housesite	180
23CE390	State Park	Crisp	Hartley Branch	Ridgeslope	Historic	Housesite	181

Table 6, continued

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23DA211	Ruark Bluff	Crisp	Sac River	Ridge	Early/Middle Archaic (?); Late Woodland	Lithic scatter	157
23DA215	Mutton Creek	Crisp	Mutton Creek	Lower terrace	Early/Middle Woodland; Late Woodland	Lithic scatter	164
23DA224	Mutton Creek	Crisp	Sac River	Ridge	Prehistoric	Lithic scatter	164
23DA311	Ruark Bluff	Crisp	Sac River	Ridge	Prehistoric	Lithic scatter	157
23DA312	Ruark Bluff	Crisp	Sac River	Ridge	Prehistoric	Lithic scatter	158
23DA313	Mutton Creek	Crisp	Mutton Creek	Ridge	Early/Middle Archaic; Late Woodland/ Mississippian; Historic	Lithic scatter, housesite	165
23DA314	Mutton Creek	Crisp	Mutton Creek	Ridgeslope	Historic	Structure	166
23DA315	Mutton Creek	Crisp	Mutton Creek	Upper terrace	Late Woodland	Lithic scatter	166
23DA316	Mutton Creek	Crisp	Sac River	Ridge	Prehistoric; Historic	Lithic scatter, housesite	168
23DA317	Ruark Bluff	Crisp	Sons Creek	Ridgeslope	Historic	Housesite	158
23DA318	Ruark Bluff	Crisp	Sac River	Ridgeslope	Historic	Housesite	160
23DA319	Mutton Creek	Crisp	Sac River	Ridgeslope	Historic	Stone dam	168
23DA320	Mutton Creek	Crisp	Sac River	Ridge	Historic	Housesite	168
23DA321	Mutton Creek	Crisp	Sac River	Ridge	Historic	Housesite	169
23DA322	Mutton Creek	Crisp	Sac River	Ridge	Historic	Housesite	169
23DA323	Mutton Creek	Crisp	Sac River	Ridgeslope	Historic	Housesite	170
23DA324	Mutton Creek	Crisp	Mutton Creek	Ridge	Historic	Cemetery	170

Table 6, continued

Site	Survey Area	7.5' USGS Map	Drainage	Landform	Cultural Period	Site Type	Page in Text
23DA325	Cedar Ridge	Bona	Big Branch	Ridge	Historic	Housesite	193
23DA326	Mutton Creek	Crisp	Sac River	Ridge	Prehistoric	Lithic scatter	171
23DA327	Greenfield	Greenfield	Sac River	Upper terrace	Prehistoric	Lithic scatter	162
23PO320	Aldrich	Aldrich	Little Sac River	Upper terrace	Early/Middle Archaic; Late Archaic; Early/ Woodland; Late Woodland/Mississippian	Lithic scatter, cemetery, housesite	198
23PO321	High Point	Aldrich	Little Sac River	Ridge	Prehistoric	Lithic scatter	194
23PO322	High Point	Aldrich	Little Sac River	Ridge	Late Archaic; Historic	Lithic scatter, housesite	196

Stockton Public Use Area

The Stockton Public Use Area occupies a series of ridges and adjoining slopes on the west side of the lake (Fig. 24). The area is northwest of a large inlet which represents a former perennial tributary known as Edge Branch. Stockton Dam is approximately 1.6 km (1 mile) downstream. The Stockton area is dissected by numerous ephemeral drainages. Upland forest covers most of the sloping areas, whereas many portions of the ridgetops are open and covered with tall grasses, brush, and scattered hardwood trees. Developments in the area include facilities for picnicking, camping, swimming, and boating.

In 1982 two survey tracts were investigated covering an area of 130 acres. One historic site, 21CE353, was encountered. No sites were recorded during previous surveys.

23CE353

This historic housesite covers an area of 100 by 40 m on a ridgetop approximately 700 m northwest of Edge Branch. The area is in an open meadow containing native grasses and scattered hardwood trees. The presence of small areas of mounded earth suggests that bulldozing or other recent earth-moving activities have taken place at the site. The site also has been severely disturbed by construction of gates and the plowing of a track for summer mule races.

The site consists of portions of a concrete slab (6.7 by 5.5 m [22 by 18 ft]), displaced concrete rubble, and domestic vegetation. Four shovel tests were excavated, yielding two wire nails which were collected. No artifacts were visible on the site surface.

Habitation is shown in the area on a 1909 soils map, and a bungalow was present at the site in the 1920s. A local informant (Preston 1982) stated that owners of the structure included Bill York, Lucien Dixon, Charles Spencer, and Harvey Levy.

The structure has been removed, the deposits are very disturbed, and the potential for obtaining significant research information from this site is very low. It is recommended that 23CE353 be considered not eligible for nomination to the National Register of Historic Places.

Orleans Trail Public Use Area

This area is located on a series of dissected ridges and ridgetops adjoining the Stockton area on the south side of former Edge Branch (see Fig. 24). The area extends a short distance south of a large inlet which represents the former perennial tributary known as Cothwell Branch.

Most portions of the area are hilly and support upland oak-hickory forest. Open woodlands with brush and thickets occur on a few relatively level ridgetops. Soils are deep, cherty alfisols (Goss series) and shallow mollisols (Gasconade), both of which are formed on limestone of the Burlington-Keokuk Formation. Developments in the area include facilities for fishing, boating, camping, biking, swimming, and concessions in addition to

several park roads. A large quarry is present on a peninsula in the eastern portion of the area.

No sites were found in the Orleans Trail area during previous surveys around Stockton Lake. In 1982 seven prehistoric sites (23CE325, 23CE326, 23CE327, 23CE329, 23CE330, 23CE332, and 23CE333) and six historic sites (23CE348, 23CE349, 23CE350, 23CE351, 23CE352, and 23CE354) were encountered. A total of 400 acres were surveyed in seven survey tracts.

23CE325

Site 23CE325 is a small (ca. 12 by 4 m) scatter of lithic debitage and tools located on a north-facing ridgeslope along the present lake shoreline. The slope drops to a former ephemeral tributary of Edge Branch, the channel of which was located approximately 350 m to the north. The site area is wooded and the surface is covered with grasses. Disturbance from shoreline erosion has been severe.

The scatter of flakes and tools was encountered in an area of exposed gravels. No shovel tests were excavated; one uniface and one biface fragment were plotted and collected from the surface.

Because of the paucity of artifacts, the very shallow nature of the deposits, and the disturbances from shoreline erosion, it is unlikely that this site has the potential to yield significant information relating to the research problems presented in Chapter 2. It is recommended that 23CE325 be considered not eligible for nomination to the National Register of Historic Places.

23CE326

This site consists of a sparse scatter of debitage located on a steep ridgeslope overlooking a tributary drainage of Edge Branch. The former channel of Edge Branch is approximately 400 m to the north. The site covers an area of about 90 by 50 m and is in upland forest with little understory.

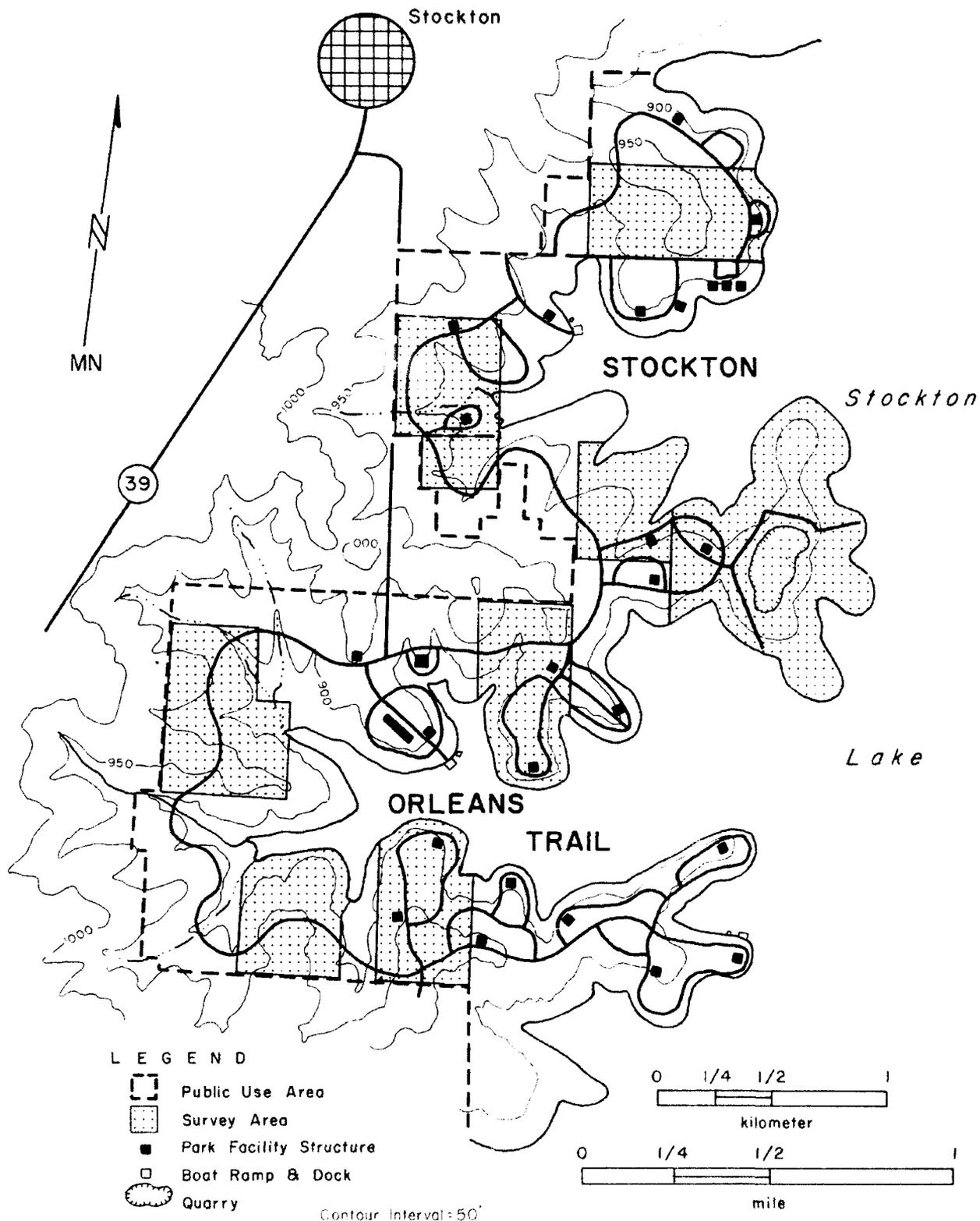
Because of the dense gravels exposed on the surface, no shovel tests were excavated. A general surface collection was made; 10 flakes and angular fragments, 2 cores, and 1 projectile point fragment were collected.

The projectile point is too fragmented for classification, and no inferences can be made concerning the time of site occupation. Cultural materials are very sparse, and the deposits have been eroded. As little additional information is present at 23CE326, it is recommended that it be considered not eligible for nomination to the National Register of Historic Places.

23CE327

Site 23CE327 is a scatter of lithic debitage and tools covering an area of about 50 by 40 m on a moderately sloping ridge bordered on the northwest and southeast by ephemeral drainage tributaries of Edge Branch. The site lies approximately 500 m south of the former

STOCKTON LAKE ORLEANS TRAIL & STOCKTON AREAS SURVEYED



PBAI / 82 / SHP

Adapted from USGS, Stockton, MO, 7.5' Sheet, 1981 & U.S. Army GCE, K.C. District, Public Use Map (in part)

channel of Edge Branch. The area is a cleared and formerly cultivated field now grown in tall grass with scattered cedars, persimmons, and blackberry vines. An unimproved road bisects the site.

A general collection of artifacts was made from the road and other disturbed areas where the ground surface was visible; 1 edge modified flake and 1 biface fragment were collected. Ten shovel tests were excavated, four of which contained 11 flakes and angular fragments (2 with edge modification) in the upper few centimeters of cherty loam.

Because cultural materials at this site are confined to the surface and plowzone, the spatial integrity of the site likely has been damaged. No evidence has been recovered concerning the time of site occupation. Information concerning the research problems presented in Chapter 2 appears to be very limited. It is recommended that 23CE327 be considered not eligible for nomination to the National Register of Historic Places.

23CE329

Site 23CE329, a dense scatter of lithic tools and debitage, covers an area of about 70 by 15 m on a steep northwest-facing slope along the present lake shoreline, directly overlooking the former channel of Cothwell Branch. The site has been scoured by shoreline erosion, and portions are inundated continuously. The slope is in upland forest.

Because the artifacts were exposed along with dense natural chert gravels, no shovel tests were excavated. Three 2-m-diameter surface collection units were employed, and all recognized tools were plotted and collected. Recovered specimens consist of 283 flakes (40 with edge modification), 2 cores, 3 bifaces, and 1 uniface.

Cultural materials are confined to the surface and probably have been displaced by erosion from lake level fluctuations. Potential information from this site appears to be limited to a partial artifact inventory. It is recommended that 23CE329 be considered not eligible for nomination to the National Register of Historic Places.

23CE330

This site consists of a scatter of lithic tools and debitage over an area of about 400 by 15 m along the present lake shoreline approximately 100 m south of the former channel of Cothwell Branch. The artifacts are exposed on a slope among natural gravels in a shallow cherty soil. Vegetation consists of hardwood trees with little understory. The site has been extensively disturbed from wave action and is periodically inundated.

Three 2-m-diameter collection units were employed to sample surface artifacts, and all recognizable tools were plotted and collected. Because of the dense gravels, no shovel tests were excavated. Recovered cultural materials consist of 214 flakes and angular fragments (35 with edge modification), 1 biface, 1 projectile point, and 1 perforator/graver.

The projectile point appears to relate to the Early/Middle Archaic period, but it is likely that occupations which relate to other time periods also are represented. The deposits have been severely disturbed by shoreline erosion, and cultural materials probably have been displaced. The potential of this site to yield significant information relating

to the research problems presented in Chapter 2 is low. It is recommended that 23CE330 be considered not eligible for nomination to the National Register of Historic Places.

23CE332

This site covers an area of about 40 by 30 m on a moderately steep slope approximately 700 m north of the former channel of Cothwell Branch. The site consists of a low density scatter of lithic tools and debitage and two stone mounds located adjacent to an ephemeral tributary drainage of Cothwell Branch and a small spring. The area is wooded with a moderate understory and is relatively undisturbed.

The smaller of the two mounds is 2 m in diameter, whereas the larger is 4 m in diameter. Both mounds are approximately 20 cm high. Large tabular limestone or dolomite cobbles constitute about one-half of the rocks in each mound and smaller cherty, angular cobbles constitute the remaining rocks. None of the rocks appear to be burned or fire-cracked. There is very little soil interspersed amongst the rocks. The smaller mound was investigated in 1983 to determine whether it represents a natural or cultural feature. All superficially exposed rocks were plotted and removed revealing a large (1 by 0.8 m), thin limestone slab at the mound base (Fig. 25). The slab was removed and a projectile point fragment recovered directly beneath. Two 0.5-by-0.5-m test pits were excavated to 20 cm beneath the base of the mound. Soils consisted of 10-12 cm of brown cherty clay loam overlying reddish brown clay, a profile similar to that encountered in the shovel tests. A total of 28 flakes and angular fragments were recovered (8 with edge modification), but bones, ceramics, and finished lithic artifacts were absent.

During the 1982 survey, one biface was collected from the surface of the site near the spring. In 1983 two shovel tests were excavated in this area, one of which yielded nine flakes and angular fragments (two with edge modification).

Although the mounds do not appear to be natural, the excavated mound did not contain evidence of a burial and both are smaller than most rock burial mounds reported in the area. The presence of the projectile point (unfortunately, too fragmented for classification) directly beneath the large limestone slab suggests that the mounds are cultural features. It is possible that one or more burials were associated with the mound but that the skeletal material has not been preserved. Although deposits are shallow and cultural materials are sparse, there is evidence of human activity in the area immediately downslope from the mounds. Since few remaining sites with features are known in the project area, this site has the potential to yield significant information concerning prehistoric mortuary practices and as-yet-undefined associated activities. It is recommended that 23CE332 be considered eligible for nomination to the National Register of Historic Places.

23CE333

Site 23CE333 consists of a scatter of lithic debitage exposed in a roadcut on a ridge approximately 200 m southeast of the former channel of Edge Branch. The scatter extends across an area of approximately 50 by 30 m. Vegetation in the area consists of upland forest with a dense understory.

POMME DE TERRE AND STOCKTON LAKES PROJECT

Because of the thick leaf litter, no surface collection units were employed, but a general surface collection was made from the road. Eleven flakes (7 with edge modification) were recovered. A single shovel test was excavated, but no cultural materials were recovered.

Because of the paucity of artifacts, apparent absence of buried deposits, and disturbances from the road, the research potential of this site is low. It is recommended that 23CE333 be considered not eligible for nomination to the National Register of Historic Places.

23CE348

Site 23CE348, an historic housesite, is located on a ridge approximately 300 m south of the former channel of Edge Branch. The site covers an area of approximately 100 by 95 m and is in an open deciduous woodland. Cleared areas to the south and southwest may represent former agricultural fields associated with the house. The structures have been removed from the site, and some disturbances from heavy machinery are evident.

The site is the former location of the Fred Gray House and includes foundation remnants from at least two structures. The first foundation lies in the eastern portion of the site, approximately 16 m southeast of what appears to have been a root cellar. About 65 m west of the first foundation is another foundation remnant that includes scattered wooden timbers embedded with wire nails. Historic materials observed on the surface include a glass mason jar lid, woodburning stove, steel bed frame, wire nails, purple glass, spark plugs, and a clear bottle neck with a blown lip.

No shovel tests were excavated, but a general surface collection was made near each of the structural remains. Recovered artifacts consist of 19 earthenware sherds, 10 stoneware sherds, 22 glass fragments, 2 metal plate fragments, and 1 piece of galvanized sheet metal.

A local informant (Preston 1982) identified two occupants of the site as Fred Gray and Elmer Turner, but he did not know the identity of the builder or original owner. Artifacts and historic maps strongly suggest a construction date which postdates 1909 when a county map shows a house nearby in Section 16 but no structure at 23CE348.

Because cultural materials date to the twentieth century and the structures have been destroyed, this site does not appear to contain significant information relating to the research problems presented in Chapter 2. It is recommended that 23CE348 be considered not eligible for nomination to the National Register of Historic Places.

23CE349

This site, covering an area of about 15 by 15 m, represents the remains of an historic structure and is on a ridgetop approximately 650 m north of the former channel of Cothwell Branch. In the area are scattered deciduous trees, native grasses, and domestic vegetation. The structure has been removed but the area is not extensively disturbed.

The site, located in dense underbrush, is marked by irises, lilies, scattered glass, bricks, and metal, and a rock foundation. The foundation, which is continuous on three

STOCKTON LAKE 23 CE 332 PLAN MAP & CROSS SECTION OF MOUND I



PBAI / B3 / SHP

sides, is oriented north-south and measures 6.3 m (20.5 ft) north-south by 5 m (16.5 ft) east-west. A second stone wall, possibly a retaining wall, lies some 6.1 m south of the southernmost wall of the foundation and is about 7.6 m (25 ft) long. No surface collection or shovel tests were carried out at the site.

A structure at 23CE349 is shown on maps dating from 1908 and 1909, and an informant (Preston 1982) noted that this structure was located on land owned by Solomon Hartley whose residence lay some 762 m to the west in an area now covered by Stockton Lake.

Although the site possibly is associated with a member of a prominent Cedar County family, the nature of the association is not clear. The site postdates the Hartley House-site located to the east. Significant information relating to the research problems presented in Chapter 2 is lacking. It is recommended that 23CE349 be considered not eligible for nomination to the National Register of Historic Places.

23CE350

This is a small site (ca. 6 by 6 m) which apparently represents the location of a former historic structure. The site is located approximately 50 m north of 23CE349 and 700 m north of the former channel of Cothwell Branch. The site area is partially cleared but contains scattered oak trees and irises.

Site 23CE350 appears to have been the location of an historic outbuilding or habitation which is marked only by irises and rock rubble. Oak trees grow within the rock piles. No artifacts are visible on the surface, and no shovel tests were excavated. The proximity of the site to 23CE349 and to the Solomon Hartley Housesite suggests that the former structure may have been associated with them in some way.

Because very little evidence of the structure remains and artifacts appear to be absent, the research potential of this site is low. It is recommended that 23CE350 be considered not eligible for nomination to the National Register of Historic Places.

23CE351

Site 23CE351, a former historic housesite and trash dump, covers an area of about 140 by 40 m on a ridge approximately 500 m south of Cothwell Branch. The site is in an open field of native grass, scattered deciduous trees, and domestic vegetation. The housesite has been significantly disturbed by modern road construction activities.

The housesite is situated at a point of woods between two cleared fields and is marked by abundantly scattered irises; surface artifacts are lacking. An outbuilding which formerly stood some 76 m to the southeast is no longer present.

The historic trash dump associated with the housesite fills a ravine and is gradually being covered by washing soil. Most articles visible in the dump are no more than 50 years old and include glass jars, a wringer washer, enamelware, a cream separator, a gas stove, barbed wire, a lantern, a stovepipe, and bricks. No surface collections or shovel tests were carried out at the site.

A local informant (Preston 1982) was unable to identify the building or original owner of the house which once stood on the site, but he noted that the structure was weather-boarded and probably followed the one-story, T-shaped pattern typical of the area. Early maps show that a structure existed on the site by 1909, but no structures appear on a map published in 1879.

The structures have been removed, and artifacts in the trash dump are of relatively recent origin. This site does not contain data of potential significance for addressing the research problems presented in Chapter 2. It is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23CE352

This site consists of the remains of an historic residence located on a west-facing ridgetop approximately 300 m south of Edge Branch. The site covers an area of about 40 by 40 m and is bisected by an unimproved road. Vegetation in the area consists of tall grasses, yuccas, irises, and scattered walnut, locust, elm, and hackberry trees.

In 1982 site 23CE352 was comprised of a well and pumphouse foundation; rock piles which may be the remains of foundations from a domestic structure; scattered artifacts such as a buggy part, milk glass, and glazed earthenware; and domestic vegetation such as yuccas and irises.

The site does not appear on a 1909 Cedar County soils map nor on any earlier maps. An informant (Preston 1982) described the structure as having been a frame board and strip (board and batten) house which he assisted in dismantling for the Corps of Engineers.

The structure has been destroyed and the site appears to lack association with significant persons or events. Research potential relating to the problems presented in Chapter 2 is low. It is recommended that 23CE352 be considered not eligible for nomination to the National Register of Historic Places.

23CE354

This site consists of a single feature -- an historic stone wall of variable height and thickness which extends approximately 100 m north-south, makes a right angle turn, and continues for 70 m east-west. The wall is located on a heavily wooded ridgetop. Portions have collapsed, but it appears to be about 75% intact.

An informant (Preston 1982) believes that the wall represented a boundary line for property owned by Solomon Hartley, Jr. Local folklore suggests that it was constructed by slaves.

The wall is an obvious landmark for the Prairie Valley community, both because of its physical size and its sociocultural associations; however, it does not appear to meet the criteria of eligibility for nomination to the National Register of Historic Places.

Hawker Point Public Use Area

This area is located on a dissected upland ridge and the adjoining slopes (Fig. 26). On the west the ridge is bordered by Hawker Branch, a former perennial tributary of the Sac River; on the east the ridge is bordered by the former floodplain and channel of the Sac River. Numerous ephemeral tributaries dissect the area; the largest of these flow eastward to the Sac River.

The upper portions of the ridge are relatively level and contain native bluestem grasses which may represent a former upland prairie. Portions of these areas have been cultivated. Slopes are mostly in hardwood forest or open woodlands with tall grasses. Steep limestone bluffs separate the ridge from the adjoining Sac River floodplain. Soils are similar to the those of the Stockton and Orleans Trail public use areas. Several park roads cross the area, and facilities have been constructed for fishing, picnicking, boating, camping, and horseback riding.

A stone mound, the Sycamore Bridge Mound (23CE154), is located in the Hawker Point area, but it was completely excavated in 1965 (Wood 1966:38-49) and no evidence of the site remains. One prehistoric site, 23CE334, and six historic sites, 23CE355 through 23CE360, were recorded during 1982. Although site 23CE355 is an historic cemetery located on a small tract of land not acquired by the Corps of Engineers, a description of the site and a statement of significance are included in this report.

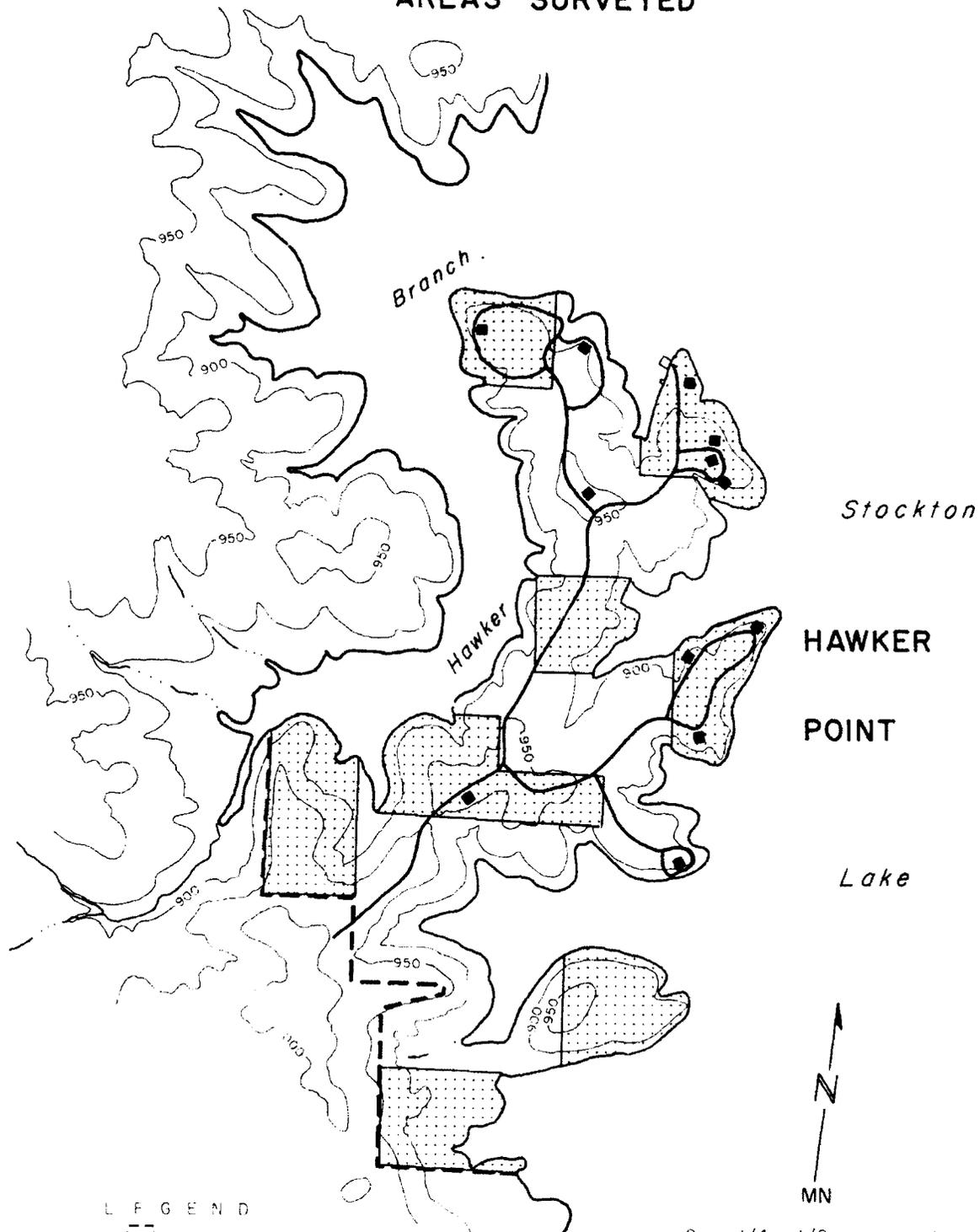
23CE334

This site consists of a scatter of lithic debitage and tools located on a ridgepoint adjacent to a steep bluff which drops sharply to the former channel of the Sac River. The site is approximately 150 m west of this channel and covers an area of about 85 by 60 m. Hardwood forest with very little understory is present in the area, and few disturbances were observed.

No surface collections were carried out, but four shovel tests were excavated to 35 cm below the surface. Cultural materials collected from all four tests consist of 105 flakes and angular fragments (8 with edge modification) and 1 projectile point. The artifacts were scattered throughout the upper soil horizon which consists of brown clay loam. A rise (ca. 0.75 m high and 5 m in diameter) present in the western portion of the site was identified in the field as a possible artificial earthen mound, but this possibility has not been tested.

The projectile point form suggests a possible Late Woodland occupation of the site. Spatial integrity of the deposits appears to be excellent, and the potential for reconstruction of site activities appears to be high. This site has the potential to yield significant information concerning several research problems presented in Chapter 2. It is recommended that 23CE334 be considered eligible for nomination to the National Register of Historic Places.

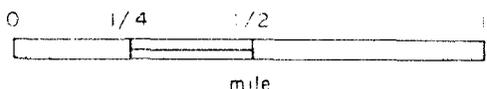
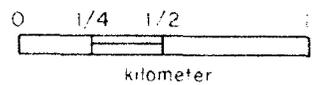
STOCKTON LAKE HAWKER POINT AREAS SURVEYED



L E G E N D

-  Public Use Area
-  Survey Area
-  Park Facility Structure
-  Boat Ramp or Dock

Contour Interval: 50'



23CE355

This site, an historic cemetery, is located within the boundaries of the Hawker Point Public Use Area, but on a tract of land (ca. 150 by 125 m) not owned by the Government. The site is on a ridgetop approximately 200 m east of the former channel of Hawker Branch.

A portion of the cemetery lies inside a metal fence and measures 18 m north-south by 10 m east-west (60 by 32 ft). A slave section is thought to lie outside the fenced area (Robinson 1982), but it is unlikely that it is located on Government lands. Graves inside the enclosure number in excess of 13, and several of those marked are indicated by stones or monuments which are either uninscribed or so weathered that the inscriptions are unreadable.

Individuals interred include members of the Hill, Rutledge, Ross, and Pollard families, all names which represent early settlement in Cedar County. The earliest marked burial is that of George Ross (September 11, 1841), and the most recent is that of Eliza Pollard (December 14, 1905). Graves are undecorated, but most early limestone markers demonstrate sophistication in both lettering and design.

Cemeteries normally do not qualify for nomination to the National Register of Historic Places. However, the Ross Cemetery may be eligible for nomination due to its intact condition, its unusual (for Cedar County) slave burials, the presence of a number of significant Cedar County historic figures, and its potential for providing information on demography and mortuary practices for a specific segment of the population which has not been documented elsewhere. Thomas Ross, who filed on land in Section 9, T33N, R26W, was one of the County's earliest residents; his son, Hugh F. Ross, was a prominent planter, the proceeds of whose estate were used to construct the Presbyterian Church in Stockton (The Goodspeed Publishing Co. 1889:362-363; Abbott and Hoff 1971:237). Since the site is not on land owned by the Corps of Engineers, however, the Corps has no obligation to consider the potential eligibility of this site for the National Register. Should the site become endangered by Corps-sponsored earth-moving activities or should the cemetery be acquired by the Corps, an effort should be made to locate the slave burials and to further assess the significance of the site.

23CE356

Site 23CE356, an historic housesite, covers an area of about 50 by 50 m on a ridgetop approximately 650 m west of the former channel of the Sac River. The site is in an open grassy area.

No artifacts remain at this housesite which appears on a 1908 Cedar County map as well as the 1956 USGS 7.5' Crisp quadrangle. Several shovel tests were excavated, but none yielded cultural materials. Cultural features consist of a row of six mature walnut trees running roughly southeast-northwest parallel to an abandoned park road. The areas of both the probable housesite and of an associated field across a park road to the east are generally open and grassy. An informant (Wilson 1982) tentatively identified 23CE356 as the Omar Marcum housesite. While Marcum's ancestors were not original claimants in Section 10, the Wilson Marcum family lived in another area of Cedar County by 1850 (The Goodspeed Publishing Co. 1889:363; Ellsberry n.d.:n.p.)

The paucity of cultural remains indicates that the site lacks further research potential. It is recommended that 23CE356 be considered not eligible for nomination to the National Register of Historic Places.

23CE357

This historic housesite covers an area of about 35 by 35 m on a ridgetop adjacent to a steep slope overlooking an ephemeral tributary of the Sac River. The former channel of the Sac River is located approximately 250 m to the east. The site area is adjacent to a park road and has been partially cleared. Scattered hardwoods and domestic vegetation remain. All evidence of structures was removed by the Corps of Engineers prior to reservoir construction.

The site was identified by the presence of a drill press embedded in a walnut tree, by domestic plantings, and by scattered artifacts such as pieces of metal and earthenware sherds. Domestic vegetation in the general area of the clearing, which probably represents the original housesite, includes jonquils, roses, lilies, and peach trees. Six shovel tests were excavated, one of which contained two fragments of bottle glass. No surface collections were made.

A 1908 Cedar County map indicates the presence of a structure at the site, and an 1879 map suggests that a house may have been located a short distance to the southeast, where an informant (Wilson 1982) has indicated that a spring existed.

Because of the lack of significant cultural material remains and structural evidence, this site has little potential to yield significant information regarding the research problems presented in Chapter 2. It is recommended that 23CE357 be considered not eligible for nomination to the National Register of Historic Places.

23CE358

Site 23CE358 represents the very disturbed remains of an historic housesite located on a slope approximately 100 m south of Hawker Branch in a densely wooded area. The site, which covers an area of about 50 by 30 m, apparently has been disturbed by bulldozer activity.

In 1982 the site was identified by clumps of jonquils and irises, three piles of mounded stone and earth, scattered tin cans, a metal chain, and glass fragments. No surface collections were made, and no shovel tests were excavated.

Because of the small amount and very disturbed nature of the cultural remains at this site, research potential is low. It is recommended that 23CE358 be considered not eligible for nomination to the National Register of Historic Places.

23CE359

Site 23CE359 covers an area of approximately 35 by 35 m on a ridgetop overlooking an ephemeral tributary of the Sac River about 600 m west of the former Sac River channel.

Vegetation in the area consists of grasses and scattered hardwoods and junipers. Very little disturbance is evident.

The site is comprised of a number of elements -- an historic road which runs east to the site and then turns northwestward, a dugout or root cellar, and the foundations of a residence. The stone-lined cellar is located in an embankment on the northern end of the site and measures approximately 3 m (10 ft) wide by 4.5 m (15 ft) deep. To the southeast, stone footings outline a 4 by 9 m (13 by 30 ft) structure littered with bricks and corrugated metal. No shovel tests or surface collections were made at the site.

An informant (Wilson 1982) identified this site as the residence of an individual named John Birdsong who may or may not have actually owned the property. Portions of Section 21 were claimed by the 1850s (The Goodspeed Publishing Co. 1889:363), and an 1879 map of Cedar County shows a structure in the area.

Unfortunately, because of the size of the tract on which 23CE359 is located (ca. 353.8 acres), Corps of Engineers records could not be used to pinpoint the improvements at the site because Tract file 441 apparently included more than one set of such improvements. Indeed, the omission from the inventory of any structures which resembled the recorded structural remains in type or size suggests that the site was demolished prior to 1964 when it became public property. Tract file 441 does mention that the tract on which 23CE359 is located was, until 1960, owned by the heirs of J. P. Hartley, a member of an early and prominent Cedar County family.

Although cultural materials are exposed on the surface or buried shallowly, the nature of the artifacts and structures as well as their apparent spatial intactness indicate that this site has high potential for addressing problems concerning nineteenth century settlements in the area. It is recommended that 23CE359 be considered eligible for nomination to the National Register of Historic Places.

23CE360

Site 23CE360 consists of features associated with a nearby historic housesite. The site covers an area of about 30 by 25 m and is located on a ridgetop approximately 1.2 km west of the former channel of the Sac River. The area is covered with scattered hardwoods and grasses, and little disturbance is evident.

The site consists of four round steel tanks, a gasoline-powered water pump, a 6-inch-diameter well surrounded by a concrete pad, scattered lumber and fencing, and miscellaneous artifacts such as aqua and brown glass, metal gas cans, a shovel blade, metal machine parts, and one sheet of galvanized corrugated metal. No shovel tests or surface collections were conducted. An informant (Nipps 1982) identified 23CE360 as a well associated with J. P. Hartley's house and barn which formerly were located on an elevation approximately 244 m west of the site, beyond the survey area. Since the site represents a relatively insignificant portion of a larger historic residence, research potential is low. It is recommended that 23CE360 be considered not eligible for nomination to the National Register of Historic Places.

Ruark Bluff Public Use Area

This area is located south of the confluence of the Sac River and Sons Creek on a ridge with relatively steep slopes dissected by numerous ephemeral drainages (Fig. 27). The area is separated from the former Sac River channel on the east by a limestone bluff known as Ruark Bluff. Hardwood forest covers most of the area, but dispersed grassy open areas also are present. Soils have not been mapped or described but appear to consist mostly of shallow clay loams overlying residual clays. Burlington-Keokuk limestone underlies almost the entire area.

This is the most heavily visited public use area at Stockton Lake. Developments include several park roads and facilities for camping, fishing, boating, picnicking, and swimming.

In 1982 five segments were surveyed covering 210 acres. One prehistoric site, 23DA211, reported by Chapman et al. (1962) was relocated; two additional prehistoric sites, 23DA311 and 23DA312, and two historic sites, 23DA317 and 23DA318, were located.

23DA211

This site consists of a scatter of lithic tools and debitage covering an area of about 60 by 20 m located on the edge of a ridge adjacent to Ruark Bluff. The site is approximately 50 m west of the former channel of the Sac River. The area has been cleared and planted with domestic grass. Park roads pass through the site, and a picnic area is present.

Because of the grass cover no surface collection units were employed, but a general collection was made of specimens exposed in the roadcuts. Collected were one projectile point fragment, two biface fragments, and one drill fragment. Two shovel tests were excavated and debitage was recovered from the upper 20 cm of both. A total of 64 flakes and angular fragments (1 with edge modification) were recovered. Chapman et al. (1962) reported seven projectile points, four scrapers, one chert adze, eight blade (biface?) fragments, and one flake blade from earlier collections at the site. Most of the projectile points appear to relate to the Late Woodland period although two of those described by Chapman et al. may be Early/Middle Archaic period forms.

Disturbances from road construction and picnic area use are severe, and deposits are relatively shallow and may be mixed. The potential for addressing research problems presented in Chapter 2 is low. It is recommended that 23DA211 be considered not eligible for nomination to the National Register of Historic Places.

23DA311

Site 23DA311 is a small (ca. 30 by 30 m) scatter of lithic debitage located on a ridge approximately 800 m southwest of the former channel of the Sac River. Scattered hardwoods and tall grass cover the area which has been extensively disturbed by road construction and the excavation of a backhoe trench.

No surface collections were made, but four shovel tests, all positive, were excavated. A total of 48 flakes and angular fragments (1 with edge modification) were recovered; all specimens were confined to the upper few centimeters of soil.

This site is severely disturbed, and the deposits are shallow. There is no evidence that finished artifacts are present or that the site can be dated. The potential for yielding significant research information is low. It is recommended that 23DA311 be considered not eligible for nomination to the National Register of Historic Places.

23DA312

This site consists of a scatter of lithic tools and debitage on a ridgepoint adjacent to a bluff which drops to the former channel of the Sac River. Ephemeral tributary drainages border the ridge on the north and south. The area (ca. 100 by 100 m) is planted in domestic grass and contains several scattered sycamore trees. A camping area extends across the site which has been disturbed by a dirt road and possibly by shoreline erosion.

No surface collection units were employed but two bifaces were plotted and collected. Three shovel tests were excavated, all of which contained cultural materials. Recovered were 12 flakes and angular fragments (1 with edge modification) from the upper few centimeters of clay loam.

Construction and public use impacts have severely disturbed the shallow site deposits, and the potential of this site for yielding significant information is low. It is recommended that 23DA312 be considered not eligible for nomination to the National Register of Historic Places.

23DA317

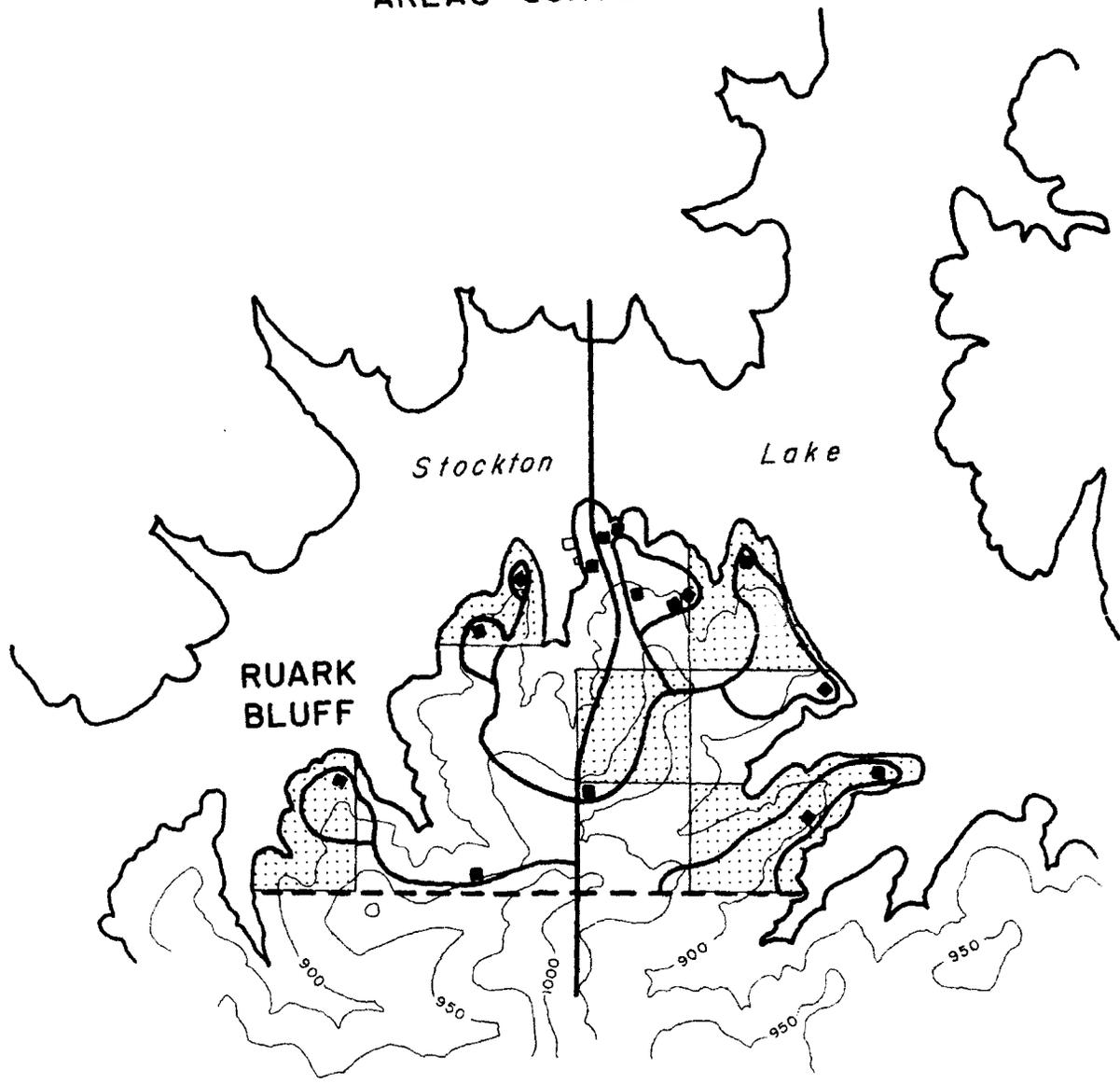
Site 23DA317, an historic housesite, is located on a ridgetop approximately 500 m southeast of the former channel of Sons Creek. The site covers an area of about 110 by 40 m and contains scattered hardwoods and domestic vegetation. Structures were removed by the Corps of Engineers prior to reservoir construction, but significant surface disturbances are not evident.

Two structures appear in the site area on the 1956 USGS Crisp 7.5' quadrangle. In 1982 visible evidence of historic occupation included two areas of artifact concentrations. The first, on the eastern side of the site, consists of large stands of irises and a gear assembly; the second, downslope to the west, consists of a pile of brick and rubble and miscellaneous artifacts such as a bed frame, bucket, barrel hoops, and wires. No surface collections or shovel tests were carried out. An old roadbed runs between two parallel fences on the southern edge of the site from a drainage on the west to an apparent intersection with another road upslope to the east.

A local informant was unable to identify the site by family name, and all artifacts observed date from the twentieth century.

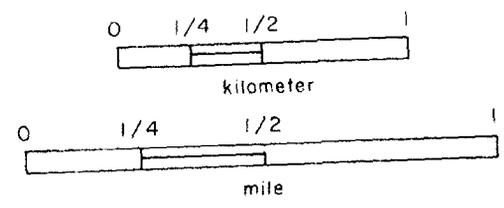
Because of the apparently recent date of occupation and the lack of significant artifacts or structural remains, the potential of this site to yield significant information

STOCKTON LAKE RUARK BLUFF AREAS SURVEYED



LEGEND

-  Public Use Area
-  Survey Area
-  Park Facility Structure
-  Boat Ramp or Dock



Contour Interval = 50'

Adapted from USGS, Crisp, MO, 7.5' Sheet, 1956 & U.S. Army COE, K.C. District, Public Use Map (n.d.)

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relating to the research problems presented in Chapter 2 is low. It is recommended that 23DA317 be considered not eligible for nomination to the National Register of Historic Places.

23DA318

This site covers an area of about 50 by 30 m on a ridge approximately 750 m southwest of the former channel of the Sac River. The ridge overlooks an ephemeral drainage tributary of the river. The area contains scattered hardwood trees, grasses, and domestic vegetation.

The site consists of a pile of stone and wood rubble, a 1-by-2-m (3.3-by-6.6-ft) stone-filled depression located approximately 14 m northeast of the rubble pile, a metal artifact, and several clumps of purple and yellow irises. No surface collections or shovel tests were carried out at the site.

Many county records were destroyed during the Civil War, but a township and range plat which survived intact identifies the area of 23DA318 as the "Robert E. Fanning Homestead-1868." An examination of deed records demonstrated that Fanning held the property -- the SW $\frac{1}{4}$ of Section 9 and the NW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 16 -- until 1879 when it became the subject of an abstract of attachment and was sold to satisfy a sum of \$48.61 in a lawsuit between L. L. Carlock and Robert E. Fanning (Dade County Deed Record 26:489).

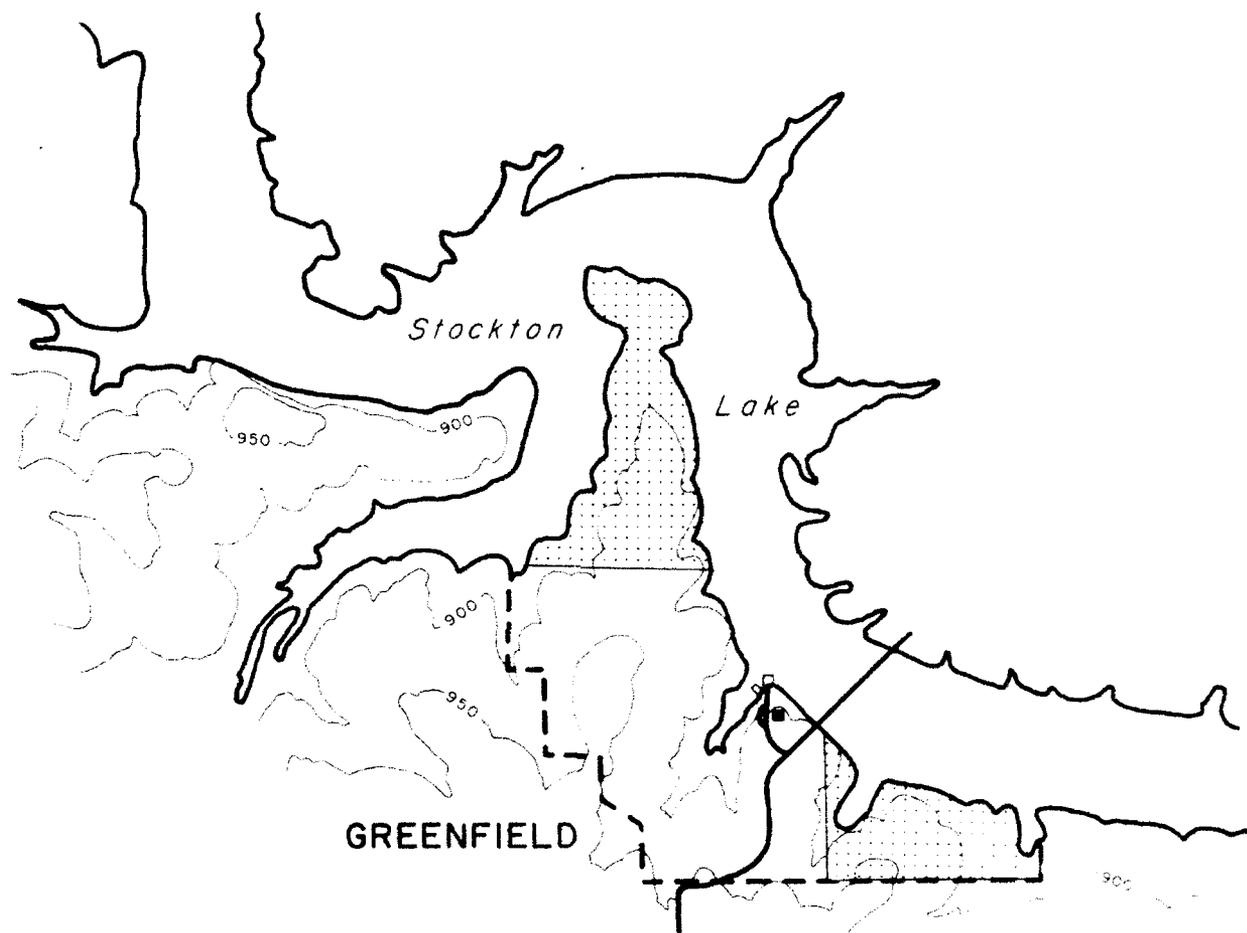
Two structures, which may have been removed prior to reservoir construction, are plotted on the 1956 USGS Crisp 7.5' quadrangle. It is unclear whether or not these structures dated to the time of the Fanning Homestead. In any event, the sparse nature of the remains indicates that the site has little potential to yield additional significant information. It is recommended that 23DA318 be considered not eligible for nomination to the National Register of Historic Places.

Greenfield Public Use Area

The Greenfield area is located on a ridge and adjacent slopes in the southern part of the Stockton Lake area (Fig. 28). The ridge is dissected by several ephemeral drainages, and the resulting terrain is hilly. Portions of an upper terrace of the Sac River also are included in the area. The ridgetops support oak-hickory forest with a moderate understory. Large portions of the ridgetops have been cleared and are in pasture or are covered by thickets. The terraces are cleared and cultivated. Burlington-Keokuk limestone underlies the upland areas; limestones and dolomites of the Pierson Formation are exposed along the shorelines. Alfisols (Goss series) dominate on the ridges; soils on the slopes are shallow and cherty. Soils on the terraces have not been mapped or described, but during the 1983 survey they were found to consist of silty loams overlying clay loams. Park development in the area is limited to a single park road, boat dock, and boat ramp.

Two tracts totaling 140 acres were surveyed in the Greenfield area. Three sites were recorded within the proximity of the area prior to the 1982-1983 survey. Two of these sites, 23DA232 and 23DA233, were recorded by Chapman et al. (1962) and the third, 23DA64, is in the data bank of the Archaeological Survey of Missouri. Unfortunately there are

STOCKTON LAKE GREENFIELD AREAS SURVEYED

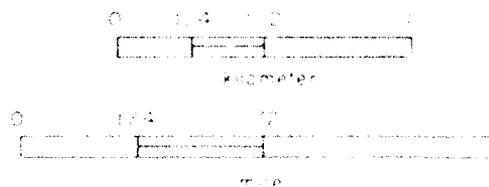


LEGEND

-  Public Use Area
-  Survey Area
-  Park Facility Structure
-  Boat Ramp or Dock



Contour Interval: 50'



discrepancies between the original survey report (Chapman et al. 1962), the Stockton Lake Cultural Resources Management Plan (Espey, Huston and Associates, Inc. 1980), and information provided by the Archaeological Survey of Missouri as to the exact location of these sites. It is likely that 23DA232 is inundated. In 1983 one site, recorded as 23DA327, was encountered in the Greenfield area which may correspond with 23DA64 or 23DA233 (or both?). It appears more likely, however, that the latter two sites lie outside of the survey area.

23DA327

This site is a small (ca. 20 by 20 m) scatter of lithic debitage located on a slight rise on an upper terrace of the Sac River approximately 300 m south of the former channel. An unnamed perennial tributary is located about 250 m to the west. The area was cleared and planted in hay at the time of the 1983 survey. Slight disturbances of the site deposits have occurred from plowing and rodent activity.

The site was discovered through shovel testing as no cultural materials were exposed on the surface. A total of 17 flakes and angular fragments were recovered from five shovel tests. These artifacts were confined to the upper 15 to 25 cm of soil.

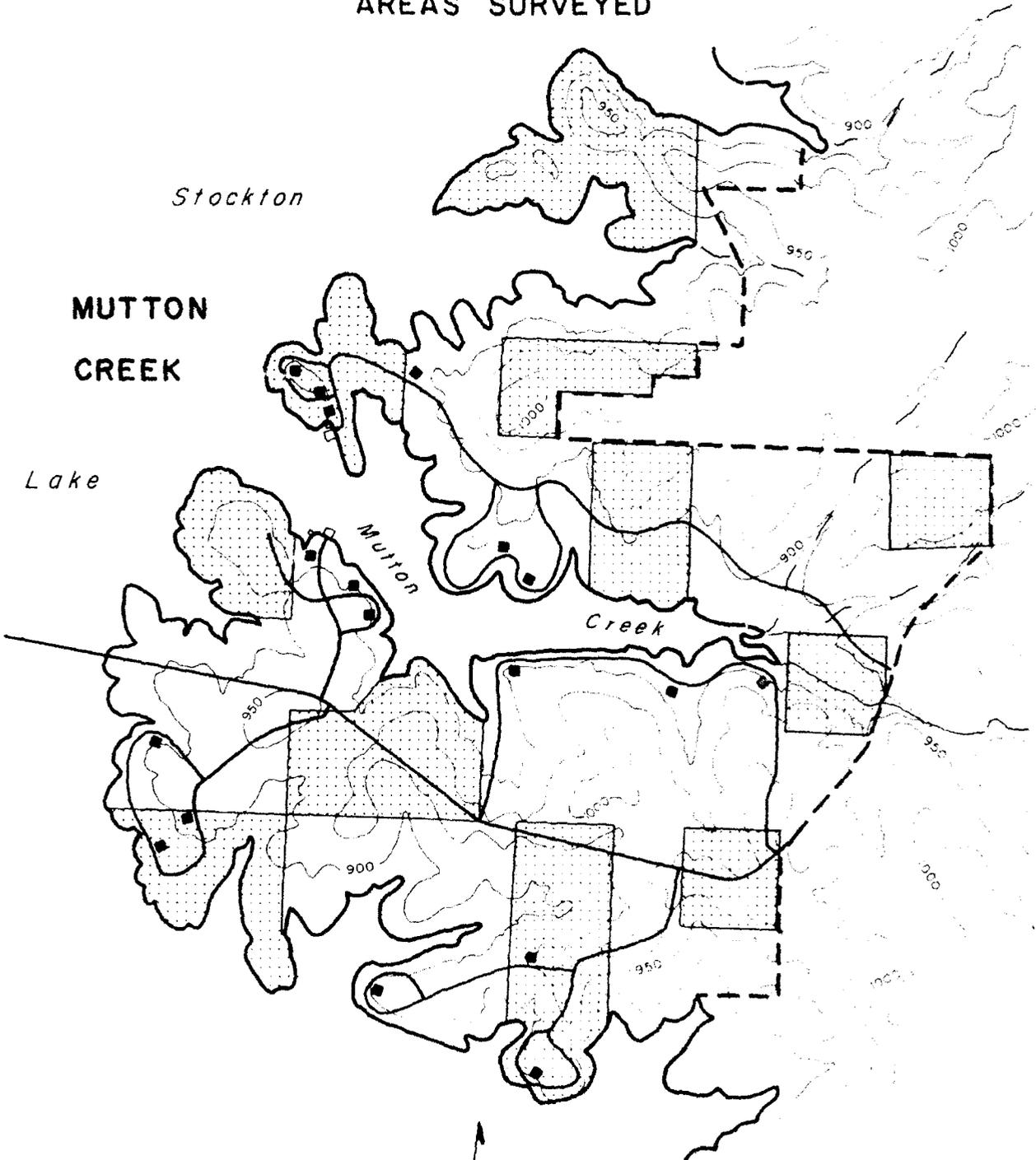
Artifacts are very limited in number and diversity at this site, and some spatial displacement from plow and rodent disturbances is likely. The potential for containing significant research information is low. It is recommended that 23DA327 be considered not eligible for nomination to the National Register of Historic Places.

Mutton Creek Public Use Area

This area is situated on a series of dissected upland ridges surrounding Mutton Creek, a perennial tributary of the Sac River (Fig. 29). A small portion of a terrace of Mutton Creek remains above water in the eastern side of the area. Most portions are covered by upland oak-hickory forest, but scattered open grassy areas also are present. The terrace remnant has been plowed and cultivated. The Dadeville fault crosses the area; west of the fault, Burlington-Keokuk limestone constitutes the surface geology while to the east are the Cotter, Northview, and Pierson formations. Most upland soils are shallow, cherty alfisols (Britwater, Goss) and mollisols (Gasconade). The terrace contains deeper alfisols (Ashton). Park roads cross the area and facilities for camping, boating, and picnicking are present, but developments are not extensive and most of the area has few disturbances.

Several archeological sites have been recorded in the Mutton Creek area during previous surveys. Sites in the data bank of the Archaeological Survey of Missouri are 23DA73, 23DA7, and 23DA224. Site 23DA73 is not located within one of the 1982-1983 survey tracts. Site 23DA224 was relocated in 1983. The search for 23DA77 was unsuccessful, and it is likely that the site is inundated. Site 23DA215, first recorded by Chapman et al. (1962), was relocated in 1982. Wood (1965) reported on excavations at an historic cabin, 23DA217, but no evidence of the site was present in 1982. Three other sites have been reported in the Mutton Creek Public Use Area, but all are located outside of the tracts surveyed in 1982-1983. Two of these are mound sites -- 23DA219, Matthews Mound (Wood 1965), and 23DA250, Eureka Mound (Wood 1966). Espey, Huston and Associates, Inc. (1980) recorded a possible lithic procurement site, 23DA306, in a campground area.

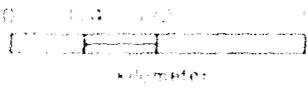
STOCKTON LAKE MUTTON CREEK AREAS SURVEYED



- LEGEND**
-  Fishery Use Area
 -  Survey Area
 -  Park Facility Structure
 -  Boat Ramp or Dock



Contour Interval = 50'



FWRI / RP / SHP

Adapted from USGS, Camp, MO, 7.5 Sheet, 1956 R
US Army, 1951, K.C. Forest, Lake and Marshland

In 1982 and 1983, 11 tracts covering approximately 750 acres were surveyed. In addition to the relocated previously recorded sites, two prehistoric sites (23DA315 and 23DA326), two sites with prehistoric and historic components (23DA313 and 23DA316), and seven historic sites (23DA314 and 23DA319 through 23DA324) were encountered.

23DA215

This site, a scatter of lithic tools and debitage, covers an area of about 65 by 55 m on a lower terrace of Mutton Creek approximately 25 m northeast of the channel. The site area, formerly plowed and cultivated, was overgrown in tall grasses at the time of the 1982 survey. No park developments exist in the area.

No surface collection units were employed due to poor surface visibility, but a single biface fragment was plotted and collected. Four shovel tests were excavated, all of which contained cultural materials. Recovered were 59 flakes and angular fragments (5 with edge modification). Soils consist of sandy loam overlying clay. When initially recorded, Chapman et al. (1962:63) reported that the site deposits were severely eroded. A total of 18 projectile points, 5 scrapers, 11 flake blades, 1 utilized core, and 14 blade (biface?) fragments were collected. The projectile points appear to relate to the Early/Middle Woodland and/or Late Woodland periods.

Because deposits at the site have been significantly disturbed by erosion and plowing, the potential for yielding additional significant information relating to the research problems in Chapter 2 is low. It is recommended that 23DA215 be considered not eligible for nomination to the National Register of Historic Places.

23DA224

Site 23DA224 consists of a dense scatter of lithic tools and debitage covering an area of about 60 by 20 m on a low ridge adjacent to a bluff overlooking the former floodplain of the Sac River. The site is located approximately 150 m southeast of the former river channel. The area is in oak-hickory forest and is undisturbed except for a former unimproved road, now barely visible, which crosses the site.

A thick layer of leaf litter and humus completely obscures the surface of the site, although a single biface fragment was recovered from the roadcut after scraping off the leaf litter. Twelve shovel tests were excavated; these indicated that cultural materials are present in the upper 20 to 30 cm of clay loam. A total of 131 flakes and angular fragments (8 with edge modification) were recovered.

The site deposits are relatively undisturbed. Although occupations cannot presently be dated, the presence of one shaped tool suggests that time-diagnostic artifacts may be present. There appears to be good potential for successful studies concerning reconstruction of site activities and aspects of lithic technology. It is recommended that 23DA224 be considered eligible for nomination to the National Register of Historic Places.

23DA313

This site, which contains both prehistoric and historic components, covers an area of about 80 by 45 m on a ridgetop approximately 350 m east of the former channel of the Sac River. The area is in oak-hickory forest with numerous small clearings and bedrock outcrops. Mounded and scoured areas indicate that bulldozer activity has taken place at the site.

The prehistoric component consists of a dense scatter of lithic debitage and tools. The historic component is marked by limestone footings which apparently represent at least two structures. The footings are spatially intact in one portion of the site and are arranged in a rectangular pattern measuring approximately 4 by 8 m (13 by 26 ft). Surface depressions, scattered footing stones, and mounded earth to the east of this structure all probably relate to a second structure. A concrete slab to the north of the first structure probably represents the footing for a windmill.

In 1982 nine shovel tests were excavated, and it was discovered that a dense scatter of historic and prehistoric cultural materials was present. However, the relationship of the historic and prehistoric artifacts to one another was not clear and the site limits were not well defined. Test excavations were carried out in 1983 in order to address these problems. Eight additional shovel tests were excavated in addition to two 1-by-1-m test pits. A general collection of artifacts exposed on the surface also was made. Table 7 is an inventory of all cultural materials recovered from the investigations.

One of the projectile point fragments appears to relate to the Early/Middle Archaic period whereas another relates to the Late Woodland/Mississippian period. The third is too fragmented for identification. Although there is no evidence of vertical separation of the prehistoric occupations, the two classified projectile points were recovered from widely separated portions of the site, and it may be possible to isolate components horizontally. The test pits revealed that although prehistoric and historic artifacts are mixed in the upper 10 to 15 cm, undisturbed prehistoric deposits underlie the historic materials to about 30 cm below the surface.

No informants were able to associate a specific family with site 23DA313. However, published sources indicate that the first land entries in T32N, R26W were made in 1840 by James Hobbs, L. T. Dunnaway, Eber E. White, William M. Roark, S. E. Seybert, John F. Son, Thomas Fleming, and William Johnson (The Goodspeed Publishing Co. 1889:444). Additionally, a nineteenth-century survey map indicates that a cabin existed by 1837 in the immediate vicinity of either this site or 23DA314.

Corps of Engineers photographs taken of the house standing at 23DA313 revealed a typical one-and-one-half-story, Cumberland-plan, wood-frame residence which dated from the late nineteenth to early twentieth century. Artifacts collected from this site in 1983 not only are contemporaneous with this structure but may date from a considerably earlier period as well.

This site has the potential to yield significant information concerning both prehistoric and nineteenth-century settlements in the project area. Reconstruction of prehistoric activities, site spatial structure, and methods of lithic tool manufacture all appear to be possible as well as isolation and dating of occupations. The identified structures might date to the turn of the century, but historic records and some artifacts suggest that

an earlier nineteenth-century occupation is represented which includes significant material remains. It is recommended that 23DA313 be considered eligible for nomination to the National Register of Historic Places.

23DA314

This site contains the remains of a historic structure located on a ridgetop along the present lake shoreline. The site covers an area of approximately 15 by 9 m and lies 200 m south of the former channel of Mutton Creek. The area is wooded with a moderate to dense understory. The site is periodically inundated and may be slightly disturbed as a result of shoreline erosion.

The site consists of a series of limestone or dolomite footing stones arranged in a rectangular pattern. The southern portion lies in a large shallow depression. Remnants of dry-laid walls remain standing at the site.

This site lies approximately 60 m northeast of 23DA313 on the same historical property. As noted, there is evidence that a cabin existed at 23DA314 or 23DA313 by 1837, and the artifacts recovered from 23DA313 clearly suggest that the complex of sites was occupied during the mid nineteenth century. No shovel tests or surface collections were carried out at 23DA314 in 1982, and attempts to relocate the site in 1983 were unsuccessful because of the high lake level. Investigations of this site in conjunction with those at 23DA313 would have a high potential to yield information significant to understanding mid nineteenth-century settlements in the project area. It is recommended that 23DA314 be considered eligible for nomination to the National Register of Historic Places.

23DA315

This site consists of a scatter of lithic tools and debitage exposed along the present lake shoreline. Most of the site is periodically inundated. The site covers an area of about 60 by 30 m on an upper terrace approximately 150 m north of the former channel of Mutton Creek. In areas not scoured by shoreline erosion, the surface is covered by tall grasses and scattered locust trees.

In 1982 three 2-m-diameter collection units were employed along the shoreline and all recognizable tools were plotted and collected. Recovered were 5 bifaces, 1 projectile point, 27 flakes and angular fragments (12 with edge modification), and 1 core. Three shovel tests were excavated, one of which contained cultural material (one flake). Because few remaining sites on terraces have been identified in the area, it was considered necessary to investigate further the extent and condition of the remaining subsurface deposits. In 1983, 12 additional shovel tests and one 1-by-1-m test pit were excavated. A total of 14 flakes and angular fragments (4 with edge modification) were recovered from the shovel tests. The test pit was excavated in three 10-cm levels and yielded 113 flakes and angular fragments (21 with edge modification), almost all of which were recovered from the upper two levels.

The projectile point form suggests that the site was occupied during the Late Woodland period, possibly contemporaneous with excavated sites 23CE120 (Dryocopus Village) and 23CE153 (Flycatcher Village). However, because of the disturbances to a large portion of

TABLE 7
ARTIFACTS RECOVERED FROM 23DA313

	Surface	Shovel Tests	Test Pits		
			Level 1*	Level 2*	Level 3*
Unmodified Flakes	2	182	197	640	390
Edge Modified Flakes	0	10	6	14	8
Bifaces	1	0	4	4	4
Projectile Points	0	1	0	0	2
Mano Fragment	0	0	0	1	0
Whiteware/Ironstone	6	4	16	0	0
Decorated Earthenware	1	0	1	0	0
Stoneware	0	5	3	0	0
Porcelain	0	0	2	0	0
Ceramic Doorknob	0	1	0	0	0
Bottle Glass	1	2	47	19	0
Windowglass	0	0	160	31	0
Jar Lid Glass	1	0	1	0	0
Lamp Glass	0	0	3	4	0
Glass Bead	0	0	0	1	
Round Nails	0	0	73	3	0
Square Nails	0	0	14	0	1
Misc. Metal Fragments	0	1	45	10	0
Slate Fragments	0	0	7	6	0

*Arbitrary 10-cm excavation levels.

the site, it is doubtful that significant additional or comparative data are obtainable from 23DA315. It is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23DA316

Site 23DA316 covers an area of about 50 by 50 m on a ridgetop adjacent to a steep slope overlooking a former broad terrace of the Sac River. The former channel was located approximately 325 m to the west. An historic structure is plotted on the 1956 USGS Crisp 7.5' quadrangle at this location, but no artifacts or structural evidence were encountered in 1982. The site is marked by a cleared grassy area and an old roadcut. Portions of the surface appear to have been disturbed by heavy machinery. The surrounding area is wooded with a moderate to dense understory.

Four shovel tests were excavated, and angular chert fragments were observed in three of these. These fragments could not definitely be identified as chipping debris and were not collected.

Due to the apparent lack of artifacts and structural remains, this site has a very low potential for yielding significant research information. It is recommended that 23DA316 be considered not eligible for nomination to the National Register of Historic Places.

23DA319

This site consists of the remains of a stone dam located at the upper end of a spring-fed tributary of the Sac River approximately 900 m from the former channel.

The dam measures approximately 0.9 m (3 ft) high, 6.1 m (20 ft) wide, and 17 m (56 ft) long. The pool is completely silted in. Large locust, elm and walnut trees which grow out of the top of the dam area have probably served to stabilize the structure. Associated cultural materials include a piece of 7.6 cm (3 inch) square, full-dimension lumber lying on the eastern end of the spillway and an 0.8 m (2.5 ft) square piece of concrete located in the woods about 10.7 m east of the end of the stone spillway. The dam does not appear to be sufficiently large to have been associated with an industrial activity such as milling. The springs which flowed down the drainage and were impounded behind the stone dam were not running in 1982.

There is little research potential at this site, and it is recommended that it be considered not eligible for nomination to the National Register of Historic Places.

23DA320

Site 23DA320, an historic housesite, is located on a low ridge adjacent to an ephemeral tributary drainage of the Sac River. The former river channel is approximately 400 m to the southwest. The site covers an area of about 65 by 65 m. Structures were removed by the Corps of Engineers prior to construction of the reservoir, but abundant cultural materials remain. The area has been cleared and is grown over with thick grasses.

The site is located south of an open field and is separated from the field by a row of seven pecan trees which run east-west. Remains of a house and associated outbuildings are located between the pecan trees and the shoreline in an open grassy area. The house is marked by a cleared area located in the southeastern portion of the site which measures 10 by 16 m (32.8 by 52.5 ft). Approximately 20 m to the northwest is a concrete foundation measuring 3.5 by 5 m (11.5 by 16.4 ft). Three meters to the northeast is a 1-by-1.53-m (39.4-by-60.2-inch) concrete wall which lines a pit. Artifacts are scattered throughout the site and are especially profuse along the shoreline where machinemade bricks, wire, blue and white bottle glass, a switch box, and one piece of whiteware were observed. A piece of plywood lay on the ground under the grasses between the housesite and shoreline.

Eight shovel tests were excavated; a single iron hinge was recovered. A general surface collection was made along the eroded shoreline and three whiteware sherds, one stone-ware sherd, one wire nail, and seven miscellaneous metal objects were recovered.

Inhabitants of the former house are not known, but all material remains date to the twentieth century. The site does not appear to contain significant information concerning the research problems presented in Chapter 2. It is recommended that 23DA320 be considered not eligible for nomination to the National Register of Historic Places.

23DA321

Site 23DA321, an historic housesite, covers an area of about 60 by 10 m on a gentle ridgetop approximately 450 m north of the former channel of the Sac River. Recently constructed park roads extend across the site which is marked only by irises and a 60-cm-square piece of concrete. Two structures are plotted in the area on the 1956 USGS Crisp 7.5' quadrangle.

No shovel tests were excavated at the site but 40 fragments of a molded earthenware vessel (vase?) with a brown painted exterior and glazed white interior were collected.

A local informant (Toler 1982) identified the site as the former location of the home of William Henry and Frances Toler who had come to the area from New Amsterdam, Indiana in about 1893.

Little information is potentially available from this site because of its very disturbed condition. It is recommended that 23DA221 be considered not eligible for nomination to the National Register of Historic Places.

23DA322

This historic housesite is located on a ridgetop approximately 1.25 km northeast of the former channel of the Sac River and 1 km south of Mutton Creek. The site area (ca. 100 by 40 m) is covered with native grasses and scattered deciduous trees. The house which was formerly present on the site has been moved and is still standing. The surface of the site is disturbed as the result of clearing activities carried out by the Corps of Engineers prior to construction of the reservoir.

The site consists of a trash dump and an apparently relict garden which is assumed to have been associated with a house. The dump contains mostly rusted tin cans and bottles. The relict garden on the northwestern edge of the site contains large onions and at least a dozen peach trees which are clustered in an area measuring about 15 m (50 ft) square. North of the garden is a dammed-up spring which may or may not be associated with the housesite. No shovel tests or surface collections were carried out at the site.

A local informant (Toler 1982) identified 23DA322 as the former location of the Aaron and Rosie Toler House and noted that Aaron was the brother of W. H. Toler, owner of the house which stood at 23DA321. After the property on which the house stood was acquired by the Corps of Engineers, the Toler House was acquired by Marvin Witt and moved north to a new location near the intersections of Highways Y and 215 (Toler 1982). A brief examination of the house on May 18, 1982 revealed a two-story frame structure with a front porch and ell-additions on the back. The house represents an excellent example of a late Victorian style which is very typical of the Dade-Cedar County area.

The structure has been removed from this site, and little evidence of occupation remains. It is recommended that 23DA322 be considered not eligible for nomination to the National Register of Historic Places.

23DA323

Site 23DA323 is located on a south-facing ridgetop approximately 650 m southwest of the former channel of Mutton Creek. The site covers an area of about 110 by 40 m and consists of a scatter of historic artifacts and domestic vegetation. No structural remains are evident, and the surface appears to have been disturbed by heavy machinery. The surrounding area is wooded.

Four shovel tests were excavated, and a general surface collection was carried out. All of the shovel tests were negative. Two fragments of bottle glass and a glass jar lid fragment were collected from the surface.

No evidence of the three structures plotted on the 1956 USGS Crisp 7.5' quadrangle was observed in 1982. Inhabitants of the structures are not known. This site has little potential to yield significant information relating to the research problems presented in Chapter 2. It is recommended that 23DA323 be considered not eligible for nomination to the National Register of Historic Places.

23DA324

Site 23DA324 is the historic Bald Mound Cemetery. The site is located on a tract of land which has not been acquired by the Corps of Engineers. The cemetery covers an area of 122 by 61 m on a ridgetop approximately 500 m north of the former channel of Mutton Creek.

Bald Mound is a well-maintained historic cemetery surrounded by a chainlink fence. The cemetery contains about 100 graves marked by both inscribed monuments and unmarked stones. The older portion of the cemetery appears to be in the northern section where common names are Montgomery, Ayers, Grisham, Rowland, Wilson, Fox, Hayward, Duncan,

Buckner, White, Martin, Mack, Ellis, Curtis, Porterfield, and Gibson. The oldest marked stones date from the early 1870s, and the cemetery is still in use.

The cemetery is not eligible for nomination to the National Register of Historic Places because it has little potential for providing information on demography and mortuary practices for a specific segment of the population which has not been documented elsewhere.

23DA326

Site 23DA326 consists of a small (ca. 30 by 30 m) dispersed scatter of chipped stone tools and debitage located on a ridgetop approximately 250 m north of the former channel of the Sac River. The surrounding area is in upland oak-hickory forest, but the site has been cleared and is in a campground.

All cultural materials exposed on the surface were collected, but no shovel tests were excavated because most artifacts were exposed among outcrops of gravels. Recovered artifacts consist of 13 flakes and angular fragments (3 with edge modification) and 5 biface fragments.

Construction and use of campground facilities have severely disturbed this site. Most cultural materials are exposed on the surface. The potential of 23DA326 for yielding significant research information is low, and it is recommended that this site be considered not eligible for nomination to the National Register of Historic Places.

Stockton State Park

Stockton State Park is located on an upland ridge which divides the former valleys of the Sac and Little Sac rivers (Fig. 30). On the west side of the park a perennial tributary known as Hartley Branch separates a smaller ridge from the main park area. Both ridges are dissected by numerous ephemeral tributaries, and the resulting terrain is hilly. Most of the area is underlain by the Burlington-Keokuk and Pierson formation limestones and dolomites. Soils are primarily rocky and shallow alfisols (Castillon 1982:367, 376). The park has been developed intensively in only a few areas, and most portions are in relatively undisturbed oak-hickory forest. The area was occupied relatively intensively in historic times, however, and formerly cleared fields are dispersed throughout the park. Most of these fields presently support dense secondary growth including a variety of saplings, thickets, and grasses. Park developments include a trailer park, campgrounds, picnic areas, a boat ramp, and a restaurant.

In 1982 seven tracts totaling 440 acres were surveyed. Four additional tracts were surveyed in 1983 resulting in an overall survey total of 680 acres. No sites were recorded in the park during previous surveys. In 1982 one prehistoric site (23CE347), eight historic sites (23CE368 through 23CE373, 23CE379, and 23CE380), and one site with both historic and prehistoric components (23CE346) were recorded. In 1983 one prehistoric site (23CE385) and five historic sites (23CE386 through 23CE390) were encountered.

23CE346

Site 23CE346 shows evidence of both prehistoric and historic occupations. The site covers an area of about 50 by 30 m on a ridge located approximately 1 km southeast of the former channel of the Sac River. The site area has been partially cleared and is overgrown with thick grass and thickets.

Historic features consist of a concrete slab approximately 25 cm thick which measures 1.2 by 1.5 m (4 by 5 ft); rose bushes and peach trees; and a trash dump containing numerous glass jars, tin cans, and metal fragments. No artifact collections were made. Prehistoric occupation is marked by a small scatter of chipped stone tools and debitage. Five shovel tests were excavated, four of which contained cultural materials in the upper few centimeters of soil. Recovered were 20 flakes and angular fragments and one broken perforator which apparently was reused as a scraper.

The area apparently was cleared by the Corps of Engineers prior to reservoir construction. Historic cultural materials all appear to date to the twentieth century. Few prehistoric artifacts are present, and these are shallow and probably disturbed by historic activities. The potential of this site to yield significant data relating to the research problems presented in Chapter 2 is low. It is recommended that 23CE346 be considered not eligible for nomination to the National Register of Historic Places.

23CE347

This site consists of a dispersed scatter of lithic debitage and tools located on a ridge overlooking the floodplain of the Little Sac River. The former river channel is located approximately 1 km to the northwest. The site covers an area of about 100 by 40 m and has been partially cleared. Presently it is grown over with thickets, saplings, and grasses. A park road crosses the eastern portion of the site.

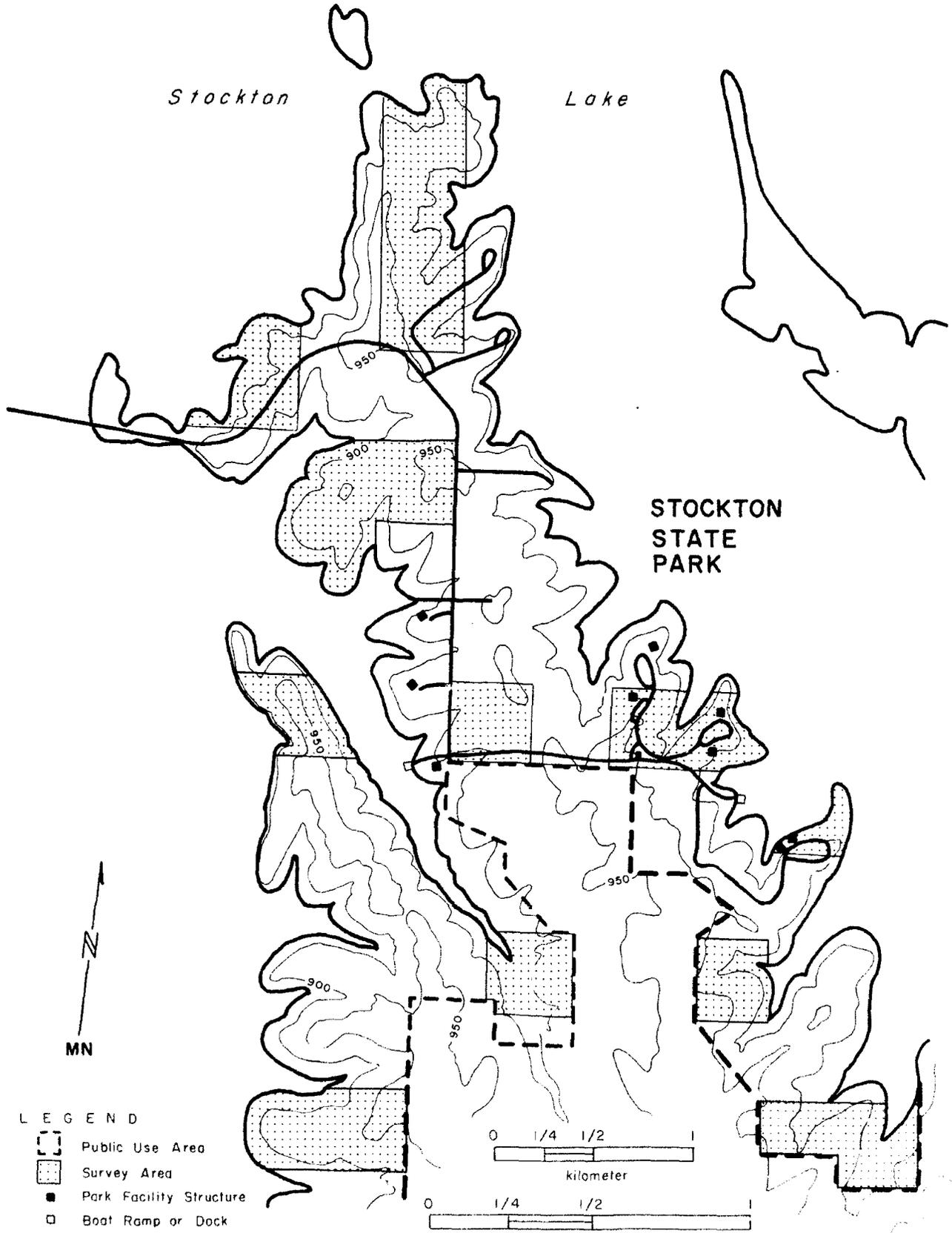
A general collection was made of artifacts exposed in the roadcut; surface vegetation was too dense to allow the use of collection units. Nine flakes and angular fragments (one with edge modification) were recovered. Five shovel tests were excavated, two of which contained artifacts in the upper few centimeters of soil. Recovered were four flakes and angular fragments and one biface fragment.

Because the deposits are shallow and contain no cultural features and few artifacts, it is unlikely that the site contains significant research data. It is recommended that 23CE347 be considered not eligible for nomination to the National Register of Historic Places.

23CE368

Site 23CE368, an historic housesite, covers an area of about 50 by 30 m on the point of a ridge overlooking the floodplain of the Little Sac River. The former river channel is located approximately 750 m to the east. The area has been partially cleared, but scattered oaks and domestic vegetation remain. Structures were removed by the Corps of Engineers prior to construction of the reservoir.

STOCKTON LAKE STOCKTON STATE PARK AREAS SURVEYED



LEGEND

-  Public Use Area
-  Survey Area
-  Park Facility Structure
-  Boat Ramp or Dock

Contour Interval: 50'

P841 / 82 / SHP

Adapted from USGS, Bearcreek, Bona, Crisp & Stockton, MO,
7.5' Sheets, 1956 & 1981, U.S. Army COE, K.C. District, Public Use Map (n.d.)

The site is marked by a scatter of tin, concrete, bricks, and a portion of a stove as well as by domestic vegetation. No surface collections or shovel tests were carried out.

A 1909 Cedar County map indicates that a structure was located in the general site vicinity. Artifacts and information given by local informants indicate that the house, formerly occupied by Shell O'Bryant, probably did not much predate 1909 (Pyle and Kenney 1982) although an historical source does list members of an O'Bryant family as claimants to land in adjoining sections between 1840 and 1854 (The Goodspeed Publishing Co. 1889:363).

Because of the sparse and disturbed nature of artifacts and structural remains at this site, research potential is very low. It is recommended that 23CE368 be considered not eligible for nomination to the National Register of Historic Places.

23CE369

23CE369 is the site of the historic Mount Carmel Cemetery. The cemetery covers an area of 11 by 8 m on a ridge approximately 1.3 km west of the former channel of the Little Sac River. This site is located on a tract of land not acquired by the Government.

The site is a well-maintained historic cemetery. Eight limestone headstones are standing, but all names and dates have been obliterated by weathering. A granite memorial stone includes the inscription: "In memory of the Family of Elias O'Bryant/Elias O'Bryant 1788-1845 Born in Ireland."

According to informants, the cemetery stands on property which belonged to Herbert Landers in the 1920s but which had been owned earlier by John Ball and then John Alder, Herbert Landers' grandfather (Pyle and Kenney 1982). Documents indicate that Elias O'Bryant was one of the area's first landowners and that he acquired property in Section 12 in 1840 and Section 11 in 1842 (The Goodspeed Publishing Co. 1889:363).

The site is not eligible for nomination to the National Register because the preponderance of the graves do not date from a very early period of settlement or formation of the general Cane Hill/Umber community area; they are not burials of relatively great age in a particular geographical or cultural context.

23CE370

This is an historic church site located on a ridgetop approximately 250 m southwest of the Mount Carmel Cemetery. The former channel of the Little Sac River runs approximately 1.5 km to the east. The site covers an area of about 24.5 by 16.5 m, has been partially cleared, and contains scattered hardwoods and grasses.

The site is the former location of the Mount Carmel Methodist Church which was removed by the Corps of Engineers prior to construction of the reservoir (Pyle and Kenney 1982). The southern portion of the site is under park road pavement and the northern portion is grown up in sumac, walnut, and elm trees and grasses. A concrete slab fragment is located in the approximate center of the site; a second concrete slab fragment and scattered bricks are located in the eastern portion. No surface collections or shovel tests were carried out at the site.

Few artifacts or structural remains are present, and the potential of the site to yield significant research information is low. It is recommended that 23CE370 be considered not eligible for nomination to the National Register of Historic Places.

23CE371

Site 23CE371, an historic housesite, covers an area of about 6.5 by 13 m on a ridge approximately 700 m northeast of the former channel of Hartley Branch near its juncture with the Sac River. The surrounding area is in upland oak-hickory forest, but the site has been cleared and is grown in scattered trees and grasses.

The site is comprised of a concrete foundation measuring about 6.4 m (21 ft) north-south by 12.5 m (41 ft) east-west which is punctuated by bolts which appear to have secured framing; no other cultural materials were observed in the area. No shovel tests were carried out.

Informants (Pyle and Kenney 1982) identify the site as the former location of the Jim O'Bryant House. Early maps of Cedar County indicate that the house was not present in 1879 but that it had been constructed by 1908.

Several intact housesites of a similar age and nature are present in the area. This site has little potential for yielding significant research information. It is recommended that 23CE371 be considered not eligible for nomination to the National Register of Historic Places.

23CE372

This historic housesite is located on a ridge approximately 150 m east of the former channel of Hartley Branch. The site covers about 140 by 40 m in a cleared area of the oak-hickory forest. All structures have been removed, but the site surface has not been extensively disturbed.

The site is comprised of several features. On the northern end is a concrete foundation measuring approximately 3.7 m (12 ft) east-west by 6.4 m (21 ft) north-south; 120 m south of this foundation are two additional foundations measuring about 3.7 by 15 m (19 by 50 ft) and 5.5 by 7.3 m (12 by 24 ft). Both foundations are at least partially stone. Also present is a metal tank associated with the smaller of the two southernmost foundations.

In 1982 this site was identified as the former location of the T. J. Hartley house, a two-story structure which was moved to a new location after the surrounding acreage was acquired by the Government. Indications of a structure or improvements as early as 1837 are included in historic maps which also demonstrate the presence of buildings on the site in 1879, 1908, and 1909.

Several types of historical sources have been examined to attempt to determine the sensitivity of the area, duration of human occupation, and the National Register potential of the site and surrounding area. Corps of Engineers tract file 424 reveals that the site is associated with the Hartley family and that it was the location of a two-story, wood

frame, central-hall-plan, nineteenth-century residence with a basement, a large barn, smoke house, chicken house, and brooder house. An informant (Kenney 1983) confirmed the identity of the house and provided information that a log house formerly stood a short distance south of the site. The site is significant in terms of Criteria A and B because it represents the period of early settlement in the region and was associated with a family which played a prominent role in local history.

23CE373

Site 23CE373 is the location of the historic Gordon Cemetery. The site covers an area of about 12 by 6 m on a ridge located approximately 1.2 km southeast of the former channel of the Sac River. The tract of land on which the site is located has not been acquired by the Government.

The site consists of a fenced, well-maintained cemetery that includes at least 11 burials from the Gordon and other families associated with the community of Umber. Most of the stones are of granite.

This cemetery does not meet criteria for nomination to the National Register of Historic Places.

23CE379

Site 23CE379 consists of the remains of an historic structure on a gentle ridgeslope at the head of an ephemeral drainage. It is approximately 750 m west of the former channel of the Little Sac River. The area, approximately 9 by 9 m, is in oak-hickory forest.

The site is the former location of a structure, assumed to be associated with the Umber community, the function of which has not been determined. Physical remains include a gas can, iron pole, decaying wood, and a trough measuring about 1.8 m (6 ft) northeast-southwest by 1.2 m (4 ft) northwest-southeast. Since a structure is not shown on historic Cedar County maps, it is possible that 23CE379 is in some way associated with the Arthur Higgins Housesite located across Highway 215 to the southwest (Pyle and Kenney 1982).

The potential of this site to yield significant information relating to the research problems presented in Chapter 2 appears to be low because of the recent and very disturbed nature of the remains. It is recommended that site 23CE379 be considered not eligible for nomination to the National Register of Historic Places.

23CE380

This site consists of the remains of an historic residence covering an area of about 26 by 26 m on a ridge approximately 800 m east of the former channel of the Sac River. The site is in an uncleared portion of the oak-hickory forest. The structure apparently has burned, but the site is in good condition relative to other similar housesites in the project area.

An apparent sandstone house foundation measuring about 1.8 m (6 ft) east-west by 5.5 m (18 ft) north-south is located in the southeastern portion of the site. Sheet metal is present to the northwest of the foundation and a 6-inch-diameter metal pipe for a well or septic system is in the northwestern quadrant of the site. The site abounds with metal, bricks, glass, and collapsed stone walls. The condition of the artifacts suggests that the structure burned.

Research in 1982 tentatively identified the site as having been a building owned in 1879 by J. E. Gordon, an individual who had claimed land in the adjoining Section 3 in 1840. While the site does not appear on historic maps of the area and no diagnostic artifacts were located in 1982, certain aspects of the site suggest that it dates from the nineteenth century, an assumption strengthened by its associations with Gordon.

Information obtained in 1983 from Corps of Engineers files, from a grandson of John E. Gordon, and from Cedar County deed records confirms that 23CE380 is an early site. While little biographical information is available about Gordon, it appears that he was one of Cedar County's earliest settlers. He obtained the land upon which 23CE380 is located from James Mitchell in 1867 (an earlier owner having been the very important William Montgomery family) and soon thereafter constructed a log house located some 100 ft to the north of the site recorded in 1982 (Cedar County Deed Record E:88, Deed Record 7:247-248; Gordon 1983). Other buildings were soon constructed, including the Cumberland-plan, wood frame house on a rock footing recorded as 23CE380. Nearby were a garage, smokehouse, hen houses, brooder house, toilet, two corn cribs, mill shed, two barns, two granaries (one of which apparently had been Gordon's first house in Section 2), and a stone cellar (U.S. Army Corps of Engineers. Tract file 361).

An examination of various documents suggests that site 23CE380 is significant for a number of reasons. First, it was the residence of John E. Gordon, one of Cedar County's earliest settlers. While the site probably is not the location of Gordon's first house, it very likely is the only domestic site which relates to his activities that has not been inundated. Second, the site seems to be in a relatively undisturbed condition and could yield significant information about the post-Civil War-era material culture in the Stockton Lake area. Finally, the site, as recorded by the Corps of Engineers, is an unusually complete mid to late nineteenth-century farmstead. If the location of all the main structures and outbuildings can be identified, it might be possible to obtain information about such topics as the spatial relationships of the various building elements and the evolution of a typical western Ozarks farmstead over a period of more than 100 years. It is recommended that 23CE380 be considered eligible for nomination to the National Register of Historic Places.

23CE385

This site consists of a scatter of flakes in an area (ca. 50 by 25 m) of outcropping chert cobbles on a west-facing slope approximately 130 m east of the former channel of the Sac River. The area is in oak-hickory forest with little understory. The site is relatively undisturbed although it has not been buried and is subject to slope erosion.

One 2-by-2-m surface collection unit and one shovel test were employed to obtain an artifact sample. The shovel test contained 38 flakes and angular fragments (7 with edge modification). Artifacts were recovered to about 15 cm below the surface. Nine flakes and angular fragments were collected from the surface.

POMME DE TERRE AND STOCKTON LAKES PROJECT

Although it may be difficult to assign this site to a particular cultural period, significant information regarding lithic tool manufacture is potentially present at 23CE385. The site appears to primarily represent a lithic procurement and primary reduction area. It is recommended that 23CE385 be considered eligible for nomination to the National Register of Historic Places.

23CE386

Site 23CE386, measuring approximately 80 by 60 m, is located at the base of a ridge-slope on a small flat terrace associated with a spring-fed tributary of the Little Sac River. The former channel of the Little Sac is located approximately 1.9 km to the east.

No roads or other transportation routes appear to have extended to the site, which is an unlikely candidate for the location of a residence due to its topographic situation. However, the area clearly has been the setting for historic human activity drawn, no doubt, by the strongly flowing spring which runs north to a stock pond, also fed by a northeast-southwest-running drainage.

Two 25-cm deep shovel tests were excavated -- one adjacent to two rosebushes located on a terrace east of the stock pond and one east of the spring. No cultural materials were recovered. A large number of twentieth-century artifacts (ceramics, colored glass, a kerosene lamp part, metal cans, roofing material, scrap metal, a 1976 license plate, miscellaneous sandstone blocks, and wire fencing) are present in two trash dumps at this site. Four glass fragments and one ceramic sherd were collected from one of these areas.

A well, lined with circular limestone cobbles and limestone slabs, measures approximately 1 m in diameter and is located adjacent to the spring. The well is clear of debris and contains water. No other features are present at the site, and it is surmised that no domestic structures have stood in the vicinity since such buildings are absent from nineteenth- and twentieth-century maps.

Examination of a variety of documents suggests that the site served as a combination dump and stock-watering facility for the Rountree family whose residential improvements stood upslope, adjacent to Highway T. The site is on land which was owned by that family, and Corps of Engineers' photographs of nearby homes which show nineteenth- as well as twentieth-century structures probably explain the presence of artifacts covering a broad range of time (U.S. Army Corps of Engineers. Tract file 1242).

Because the residential features of the site are located at a distance and because the site itself is ephemeral in nature, it is felt that its research potential is poor. It is recommended that 23CE386 be considered not eligible for nomination to the National Register of Historic Places.

23CE387

Site 23CE387, an historic cemetery measuring approximately 30 by 30 m, is located on a gentle southeast slope of a southwest-northeast-trending ridge overlooking the former Little Sac River floodplain. It is located approximately 1.7 km west of the former river channel.

The site has been designated by the Corps of Engineers as Dale Cemetery. The fence-enclosed cemetery contains irises, grasses, a cedar tree in the southeastern corner, a walnut tree in the approximate center, and a metal park bench in the southwestern portion. Approximately 40 headstones still stand; nearly all are legible. Dates of interment range from ca. 1861 to 1922, and names represented include members of the Rountree, Cox, Dale, Ferguson, Johnson, Curnutt, Edge, Holman, White, Martin, and Huber families. Most of the individuals are associated with the post-Civil War settlement of Cedar County, a typical example being the Rountree family who owned the land on which 23CE388 is located. A county history notes that the patriarch of the clan, John M. Rountree, was born in neighboring Polk County on May 10, 1847, married Mary Dale (whose family also is represented in the cemetery), and had seven children, some of whom also are buried at Dale Cemetery. In 1869 he became a resident of Cedar County where he farmed on about 260 acres. His mother-in-law, Lavina Dale, an early Dade County settler (The Goodspeed Publishing Co. 1889:772), also is buried in the cemetery.

Site 23CE387 is a mid nineteenth-century historic site which is in good condition. However, it fails to conform to certain National Register criteria for cemeteries. First, a cemetery may qualify for nomination if it contains the graves of a number of persons who were prominent in events on a statewide level. The Dale Cemetery only includes graves of persons who were typical for the Cedar County area. Second, a cemetery may qualify for nomination to the National Register if it dates from very early periods of settlement in a particular geographical area. The Dale Cemetery includes graves which date well after that early era, with most burials occurring during the last quarter of the nineteenth century and later. The site does not exemplify any aesthetic principles related to funerary design since twentieth-century grave markers prevent the conveyance of a nineteenth-century character and appearance. Finally, it is doubtful that further study of the Dale Cemetery would yield important demographic or mortuary information. It is recommended that 23CE387 be considered not eligible for nomination to the National Register of Historic Places. Of course, the Corps of Engineers would not be obligated to consider the importance of this site, even if it were National Register eligible, since the site is not on Corps-owned property.

23CE388

Site 23CE388, measuring approximately 200 by 150 m, is an historic housesite located on an east-facing slope of a ridge which overlooks a spring-fed, ephemeral stream. The ridge trends northeast-southwest and terminates on the northeast at the Little Sac floodplain, approximately 1.75 km from the former channel.

The site, which has become overgrown by trees, is located adjacent to a flowing spring. A number of domestic flowering plants such as irises and other unidentified bulb plants also are in the area. The general location of the house is marked by a large, dead walnut tree.

The site consists of features and artifacts scattered across a relatively large area. In the southern portion, adjacent to a north-south-running fence, are limestone blocks which formerly were used as structural footings. The layout of the building which stood in the area cannot be discerned, and the surface is littered with widely scattered mortar, glass, and brick fragments. To the north, trash such as corrugated tin and displaced stone blocks are scattered downslope from a concrete footing and squared limestone blocks.

Upslope, a number of concrete blocks and some tin are scattered in a cleared area. All features and artifacts appear to date after 1900. Two shovel tests were excavated, but only a single brick fragment was recovered.

While most of the historic sites recorded in the Stockton Lake area were removed by the Corps of Engineers prior to reservoir construction, 23CE388 apparently was gone by the time the Government acquired the property. According to an informant, the property once belonged to the Rountree family who also owned land to the north and east. John Rountree, Sr. obtained the tract, passed it to his son, John, Jr. (Kenney 1983), who sold it to the J. H. Landers family on March 8, 1948 (U.S. Army Corps of Engineers. Tract file 1425). According to Kenney (1983), the house which once stood on the site was a one-story, two-room, frame structure with a lean-to on the back. However, this building burned down before Corps acquisition, at which time the standing structures were a 13.7-by-61-m (45 by 200 ft) corral and chute near the northwestern corner of the tract and a deteriorated barn measuring 9.1 by 9.8 m (30 by 32 ft) with a "basement" measuring 6.1 by 9.8 m (20 by 32 ft). This semisubterranean room faced east and opened at ground level. A final asset of the property noted by Government appraisers was the "never-failing spring, . . . an excellent source of livestock water" which was "one of the better springs found in the area" (U.S. Army Corps of Engineers. Tract file 1425).

Historical documents, interviews, and historic maps make it possible to conclude that, despite the presence of a strong spring which normally would have been attractive to settlers, there is no physical or documentary evidence which demonstrates historic activity in the area prior to ca. 1900. Additionally, the site is in poor condition since the house which once stood there burned and the general area appears to have been bulldozed. These conditions make it unlikely that 23CE388 contains significant information relating to the research problems presented in Chapter 2. It is recommended that 23CE388 be considered not eligible for nomination to the National Register of Historic Places.

23CE389

Site 23CE389, an historic housesite, covers an area of about 100 by 50 m on a level ridgetop approximately 1.4 km east of the former channel of the Sac River. The ridge is bounded on the north and south by tributary drainages.

The site, which until recently lay within an area which had been cleared of vegetation, confirms the former presence of structures which appear on an historic map compiled in 1908 and 1909. The site appears to have consisted of a main residence and a number of outbuildings, fences, and pens.

Two structural features are clearly evident at 23CE389. The first, located in the southeastern portion of the site, is a rectangular concrete foundation measuring 7 by 7 m (23 by 23 ft) with south- and west-facing openings and the remains of a wooden floor joist. The second feature, located in the northwestern portion of the site, consists of limestone footings which are so disturbed that the original outline of the structure cannot be discerned. A circular ring of stones (2 m [6.5 ft] in diameter) nearby may be the remains of a cistern or well.

Two shovel tests placed near the structural remains were excavated to a depth of 15 cm below the surface. One of the tests contained six brick fragments, two fragments of glass,

and a wire nail. Artifacts which were noted on the surface of the site include wire fencing, scrap metal, buckets, jars, metal cans, tractor tires, and ceramics. No surface collections were carried out. The area abounds in domestic vegetation which includes irises, daffodils, narcissuses, spearmint, and dogwoods. Typical trees and shrubs include locusts and black walnuts.

Information available in the form of county histories, interviews, Corps of Engineers records, and historic maps indicates that the oldest buildings on the site were constructed after 1879 and before 1909. Corps of Engineers photographs show a late Victorian (ca. 1900), L-plan, wood frame cottage which a Corps inventory described as consisting of three rooms, an enclosed porch which was used as a kitchen and pantry, and a partially enclosed porch on the southern and eastern sides (U.S. Army Corps of Engineers. Tract files 428, 451). Corps records also identify an earlier owner of the property as having been John M. Headlee, doubtless a descendant of Samuel N. Headlee who owned land in Section 22, T33N, R26N by 1853 and in Section 23 (the subject section), T33N, R26N by 1855.

It is doubtful that site 23CE389 is the location of Samuel Headlee's mid nineteenth-century homestead since at least two structures existed in Sections 22 and 23 prior to the construction of those at John M. Headlee's farm. Because the site does not date to the period of initial settlement of the area and has been disturbed by land-clearing activities, research potential is low. It is recommended that 23CE389 be considered not eligible for nomination to the National Register of Historic Places.

23CE390

Site 23CE390, measuring approximately 75 by 40 m, is located on the slope of a peninsular ridgecrest protruding into the Sac River floodplain. The site lies along the present shoreline of Stockton Lake approximately 100 m west of the former channel of Hartley Branch.

The site apparently has been bulldozed, but former locations of structures are easily discernible. A road which dates from 1908 or before runs east-west across Hartley Branch and along the southern edge of the site. The site is marked by three foundations and historic artifactual debris. A spring is located on the westernmost portion of the site and flows freely down to the lake where a pond was once located.

Four shovel tests were excavated, two in the northwestern and two in the southeastern portions of the site. Recovered artifacts consist of a piece of amber-colored bottle glass, 10 wire nails, leather strapping, 1 fragment of windowpane glass, charcoal, and concrete chunks.

The twentieth-century character of the artifacts is consistent with the nature of the three features. One feature, located in the northernmost area, consists of rough limestone blocks and concrete blocks with rebar and protruding metal pieces. It is likely that these remains mark the former location of a barn or other substantial outbuilding.

In the southern area of the site, two parallel concrete footings adjacent to a barbed wire fence located at the end of the still-visible road probably formed the foundation for a garage. To the north is a concrete slab which marked the former location of a house. Artifacts scattered throughout the area include chunks of concrete, scattered bricks,

bed springs, windowglass, a metal jug, miscellaneous metal scraps, a shoe, bottle glass, nails, and galvanized tubs.

Historical maps and information provided by an informant and the Corps of Engineers make it possible to reconstruct in general terms the history of 23CE390. Maps demonstrate that improvements were made on the site after 1879 and before 1909. A photograph of the residence shows a one-and-one-half-story, Cumberland-plan, wood-frame house with a front porch over the two entrances which was typical of homes built in the project area ca. 1890-1910. Information provided by a local informant (Kenney 1983) that the property formerly belonged to Herbert Preston who purchased it from Herbert Sorters ties the house and property to a family who owned land on both sides of Hartley Branch around the turn of the century.

The relatively recent nature and poor condition of this site make it unlikely that significant information relative to the research problems presented in Chapter 2 can be obtained from further investigation. It is recommended that 23CE390 be considered not eligible for nomination to the National Register of Historic Places.

Crabtree Cove Public Use Area

This area is located on a series of ridges and adjacent slopes to the northeast of the former confluence of the Sac and Little Sac rivers (Fig. 31). The area is dissected by numerous ephemeral streams which drain into the Sac River. Steep bluffs separate the ridge from the former Sac floodplain on much of the western side of the area. Oak-hickory forest covers most ridgetops and slopes, but several open, relatively level areas are present which formerly were cultivated. These areas presently are grown in thickets and small trees. Soils and the surface geology are similar to those at Stockton State Park.

Much of the northern part of the Crabtree Cove area has been developed with park roads and facilities for camping, picnicking, and boating. A few areas in the southern portion of the park continue to be cultivated.

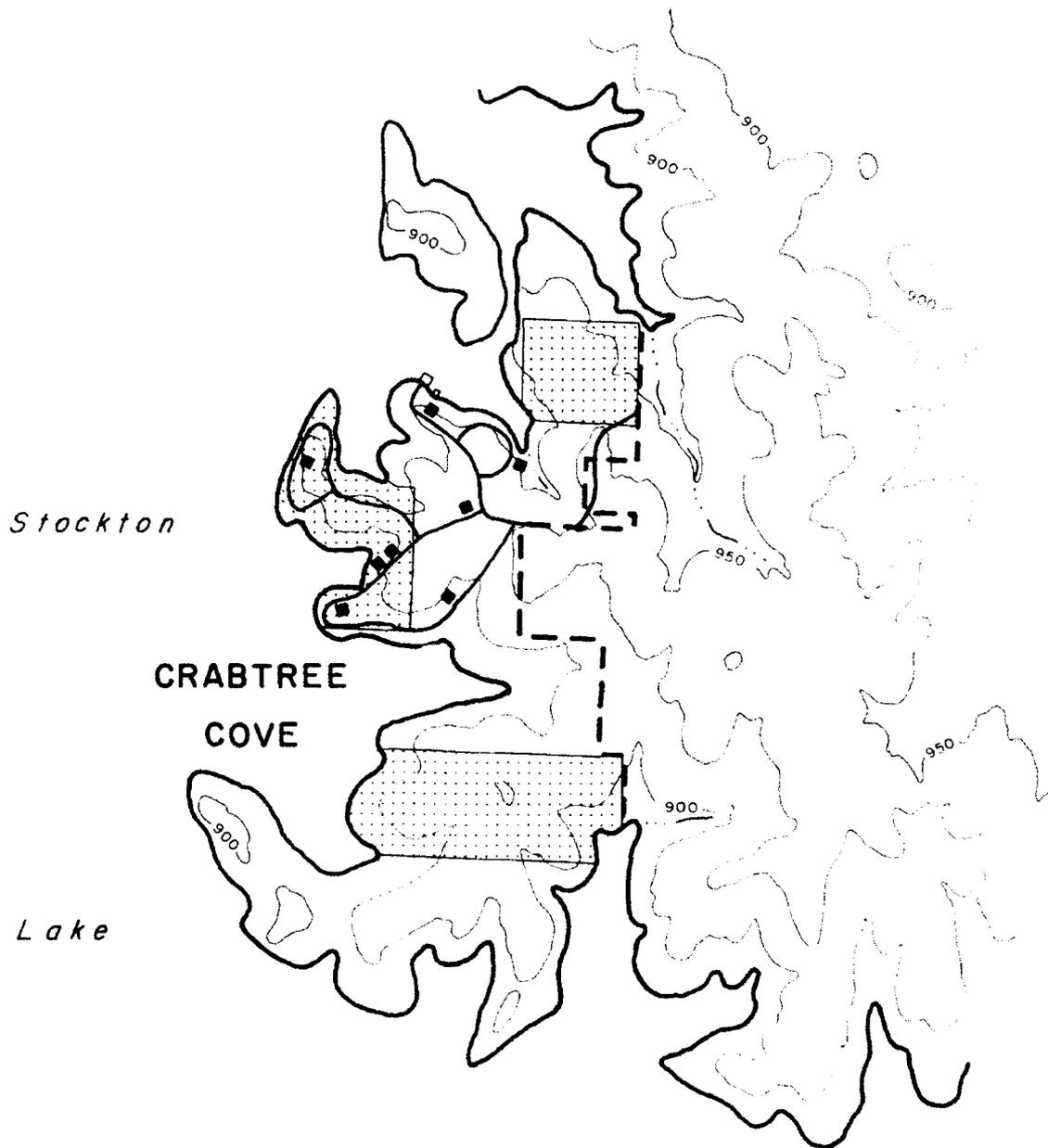
No sites were recorded during previous surveys of the area. In 1982 three tracts totaling 180 acres were surveyed; six prehistoric sites (23CE335 through 23CE340), three historic sites (23CE361, 23CE362, and 23CE363), and one site (23CE341) with evidence of both historic and prehistoric occupation were encountered.

23CE335

Site 23CE335, a scatter of chipped stone tools and debitage, covers an area of about 200 by 50 m on a ridgetop adjacent to a steep bluff approximately 150 m east of the former channel of the Sac River. The surrounding area is in oak-hickory forest, but a park road and campground are present on the site.

Three 2-m-diameter surface collection units were employed, and all recognizable tools were plotted and collected. Recovered from the surface were 96 flakes and angular fragments (1 with edge modification), 1 biface fragment, and 2 projectile points. Two shovel tests indicated that soils consist of about 25 cm of clay loam overlying clay. The upper

STOCKTON LAKE CRABTREE COVE AREAS SURVEYED

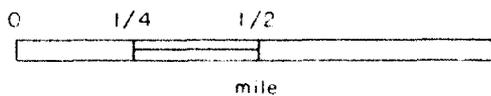
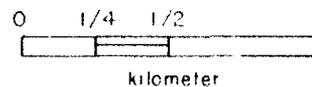


LEGEND

-  Public Use Area
-  Survey Area
-  Park Facility Structure
-  Boat Ramp or Dock



Contour interval = 50'



horizon contained 94 flakes and angular fragments (3 with edge modification) and 4 cores. The form of the single complete projectile point suggests that the site was occupied during the Early/Middle Archaic.

Despite the dense and extensive nature of the site deposits, most of the cultural materials are exposed on the surface and have been disturbed by park development. Similar, more-intact sites are present in the Crabtree Cove area. It is recommended that 23CE335 be considered not eligible for nomination to the National Register of Historic Places.

23CE336

This site consists of lithic tools and debitage scattered across an area of approximately 220 by 100 m on a narrow ridge located approximately 400 m southeast of the former channel of the Sac River. The site lies adjacent to a park road just south of a picnic area. The surface has been cleared and was in pasture at the time of investigation. Oak-hickory forest surrounds the site.

In 1982 five shovel tests were excavated, four of which contained cultural materials. Dense grasses obscured the surface and the site boundaries were not well defined, so five additional shovel tests and one 1-by-1-m test pit were excavated in 1983. Recovered from the shovel tests were 62 flakes and angular fragments (2 with edge modification), 1 core, and 1 projectile point fragment. The test pit was excavated in four 10-cm levels, all of which yielded lithic debitage although a zone of clay and large gravels was encountered in the deepest level. Recovered were 277 flakes and angular fragments (3 with edge modification), 2 biface fragments, 1 uniface fragment, and 2 projectile point fragments.

The projectile point fragments are very small and although they cannot be identified confidently as to type, they appear to represent large barbs often present on a Late Archaic period form. In any event, this site contains extensive, relatively undisturbed deposits. The possibility for isolating and dating components appears to be good. The site has the potential for yielding significant information concerning prehistoric activities in an upland setting. It is recommended that 23CE336 be considered eligible for nomination to the National Register of Historic Places.

23CE337

This site consists of a scatter of lithic debitage and tools covering an area of about 120 by 110 m on a ridge located approximately 450 m southeast of the former channel of the Sac River. The site is in a cleared park area which has been planted in domestic grass but which has not been developed for picnicking or camping. The surrounding area is in oak-hickory forest.

Because of the grass cover, cultural materials were not exposed on the surface. Four shovel tests were excavated in 1982 but the depth and horizontal extent of the deposits were not adequately delimited. In 1983 seven additional shovel tests and two 1-by-1-m test pits were excavated. The excavations showed that artifacts are limited to the upper 25-30 cm of clay loam. Recovered from the shovel tests were 45 flakes and angular fragments (2 with edge modification). The test pits yielded 238 flakes and angular fragments (4 with edge modification) and 2 biface fragments.

Like 23CE336, this site is relatively undisturbed and contains a substantial number of artifacts. There is no evidence of spatial clustering or features at either site, although both may be present. This site has the potential to yield a body of data comparable to that at 23CE336. Most identified sites of a similar nature and in a similar topographic setting are very shallow and have been disturbed by modern developments. It is recommended that 23CE337 be considered eligible for nomination to the National Register of Historic Places.

23CE338

Site 23CE338, a scatter of lithic tools and debitage, covers an area of about 95 by 85 m on a low ridge along the present lake shoreline approximately 550 m southeast of the former channel of the Sac River. The area has been partially cleared for construction of a park road and picnic area, but scattered oak, hickory, walnut, and juniper trees remain. The understory has been cleared and much of the surface is exposed. Soils are shallow, and bedrock and gravels outcrop in several areas.

Three 2-m-diameter surface collection units were employed, and all recognizable tools were plotted and collected. Recovered were 69 flakes and angular fragments (5 with edge modification) and 3 bifaces. One shovel test was excavated; 24 flakes and angular fragments were recovered in the upper 10 cm of soil.

The shallow and disturbed nature of the deposits indicate that the potential of this site for yielding significant research information is low. It is recommended that 23CE338 be considered not eligible for nomination to the National Register of Historic Places.

23CE339

This site is an extensive scatter of lithic tools and debitage which covers an area of about 320 by 170 m on a gentle ridgetop overlooking an ephemeral tributary of the Little Sac River. The former river channel is located approximately 700 m to the south. The site area formerly was cleared but is now overgrown in thickets, scattered trees, and tall grasses. A plowed field is located in the southeastern portion of the site, and an unimproved road runs along the western boundary.

In 1982 all recognizable tools were plotted and collected from the surface. Recovered were eight bifaces, three projectile point fragments, and one edge modified flake. One shovel test was excavated, but only two chert angular fragments were recovered. Because the nature and depth of subsurface deposits were not clear, testing was carried out in 1983. Two 1-by-1-m test pits were excavated, one in the northwestern portion of the site near the area where flakes were exposed in the road and one to the southeast where cultural materials were collected from the plowed field. Three 10-cm levels were excavated from the first test pit, but only 28 flakes and angular fragments and 1 piece of windowglass were recovered, all from the upper 25 cm. A total of 71 flakes and angular fragments (1 with edge modification) were recovered from the upper 40 cm of the second test pit. Eight additional flakes and a biface fragment were recovered from a 10-cm level 40 to 50 cm below the surface, but these artifacts appear to be associated with a rodent disturbance.

Three projectile points were recovered from the surface and suggest occupation during the Late Archaic and Late Woodland/Mississippian periods. The research potential of this site is limited because a significant portion of the artifacts are exposed on the surface and probably have been displaced. Although the remaining deposits do not contain high densities of artifacts, they are relatively deep and appear to be undisturbed. The potential of this site for yielding significant research information is low relative to sites such as 23CE336 and 23CE337 where activities should be more readily definable. It is recommended that 23CE339 be considered not eligible for nomination to the National Register of Historic Places.

23CE340

Site 23CE340, a scatter of lithic tools and debitage, is located on a ridge approximately 900 m north of the former channel of the Little Sac River. The site covers an area of about 80 by 20 m. The area is in oak-hickory forest with a moderate understory. Cultural materials are exposed in a dirt road which crosses the site, but no other park developments are present.

Three 2-m-diameter surface collection units were placed in the road, and all recognizable tools were plotted and collected. Recovered were 33 flakes (2 with edge modification), 4 bifaces, and 1 projectile point fragment. One shovel test excavated north of the road contained two flakes in the upper few centimeters.

The projectile point is too fragmented for classification. Research potential at this site is limited due to the apparently shallow nature of the deposits and disturbance from the road. Other lithic scatters in similar topographic settings in the area have greater potential for yielding significant information regarding the research problems presented in Chapter 2. It is recommended that 23CE340 be considered not eligible for nomination to the National Register of Historic Places.

23CE341

Site 23CE341 consists of a scatter of lithic tools and debitage as well as historic debris on a moderate ridgetop along the present shoreline of Stockton Lake. The site covers an area of about 165 by 60 m adjacent to an ephemeral drainage. The former channel of the Sac River is located approximately 750 m to the west. Most of the site is periodically inundated, and portions may be continually inundated.

Cultural materials were exposed in a scoured area along the shoreline in 1982 when the site was first investigated. Three 2-m-diameter collection units were employed, and recognizable lithic tools were plotted and collected. Thirty-four flakes and angular fragments (5 with edge modification), 2 bifaces, and 1 core were collected, along with 1 stoneware sherd. A single shovel test was excavated which yielded two flakes (one with edge modification). The site was revisited in 1983 to obtain better information regarding the depth and degree of disturbance to the site deposits. The scoured former shoreline was completely inundated at this time, and only a small number of possible flakes were observed on the surface. A second shovel test revealed that soils consist of about 15 cm of cherty loam overlying limestone bedrock. No artifacts were recovered.

Historic materials observed on the surface consist of crockery (stoneware), purple and clear bottle glass fragments, and metal wire. The location of the site, equidistant from two homesites depicted on a 1908 Cedar County map, suggests that the historic artifacts may be associated with those sites.

Because of the extensive disturbances to this site from shoreline erosion, the potential for addressing the research problems presented in Chapter 2 is low. It is recommended that 23CE341 be considered not eligible for nomination to the National Register of Historic Places.

23CE361

This site is located on a ridge approximately 600 m east of the former channel of the Sac River. The site covers about 42 by 24 m in a wooded area immediately west of the intersection of two park roads.

Site 23CE361 is an historic housesite represented by a scatter of bricks, a piece of corroding sheet metal, a 6-inch-diameter metal pipe, irises, and, in the northwestern section of the site, a mound of concrete rubble. The site appears on 1908 and 1909 Cedar County maps as well as on the 1956 USGS 7.5' Stockton quadrangle; it does not appear on the 1879 Cedar County map. Observed artifacts do not predate 1900. No surface collections or shovel tests were carried out.

Because all structures have been removed and their foundations displaced and because all artifacts appear to be of relatively recent origin, this site does not appear to contain significant research information. It is recommended that 23CE361 be considered not eligible for nomination to the National Register of Historic Places.

23CE362

Site 23CE362 is the former location of an historic structure on a gentle ridgeslope overlooking an ephemeral tributary drainage of the Sac River. The site covers an area of about 65 by 25 m and lies approximately 1 km east of the former river channel. The site consists of a concrete footing approximately 5 m (16.4 ft) long, a sewer pipe, a piece of barbed wire, and domestic vegetation. The site appears on 1908 and 1909 Cedar County maps as well as on the 1956 USGS 7.5' Stockton quadrangle; it does not appear on an 1879 Cedar County map. Artifacts observed do not predate 1900. No surface collections or shovel tests were conducted.

Research potential at this site is low because all structures were removed prior to reservoir construction and the remaining artifacts are of relatively recent origin. It is recommended that 23CE362 be considered not eligible for nomination to the National Register of Historic Places.

23CE363

Site 23CE363 is the former location of structures depicted on the 1956 USGS 7.5' Stockton quadrangle. The site covers an area of about 50 by 50 m on a ridge approximately

700 m northeast of the former juncture of the Sac and Little Sac rivers. Scattered trees and tall grasses cover the area which apparently was cleared by heavy machinery prior to construction of the reservoir. A dirt road extends along the eastern border of the site.

The site consists of a large mound of bricks and concrete which measured approximately 40 by 38 m (131 by 125 ft). Historic artifacts present include scattered large slabs of concrete, gas plumbing, bricks, lumber, a machinery gearbox, and assorted mangled metal. The site appears on 1908 and 1909 Cedar County maps as well as on the 1956 USGS 7.5' Stockton quadrangle; it does not appear on an 1879 Cedar County map. Artifacts observed do not predate 1900. No surface collections or shovel tests were carried out.

Because the site is extensively disturbed and appears to date to the twentieth century, the potential for yielding significant information relating to the research problems presented in Chapter 2 is low. It is recommended that 23CE363 be considered not eligible for nomination to the National Register of Historic Places.

Masters Public Use Area

The Masters area is located on a highly dissected series of ridges which surround an unnamed perennial tributary and two ephemeral tributaries of the Little Sac River (Fig. 32). Some of the slopes bordering the Little Sac Valley are steep, but bedrock bluffs are not present. Most ridgetops have been cleared and presently are covered with grasses and scattered second-growth trees. Slopes tend to contain more extensive areas of upland oak-hickory forest. Public use facilities include areas for picnicking, camping, and boating as well as a number of paved roads. The area is large, however, and extensive portions are relatively undisturbed.

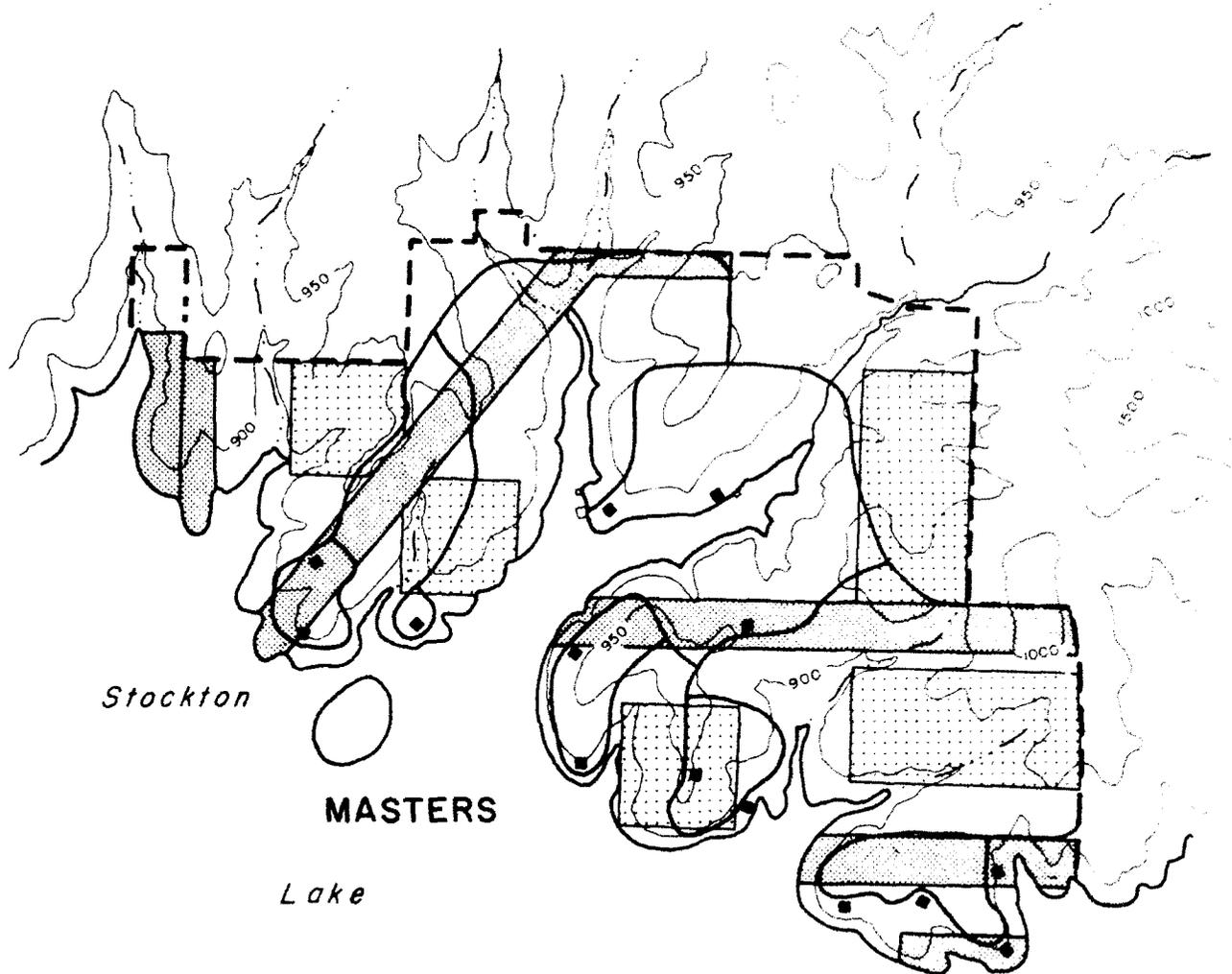
Five tracts covering approximately 280 acres were surveyed in 1982. Four prehistoric sites, 23CE342 through 23CE345, and four historic sites, 23CE364 through 23CE367, were encountered. In 1979 Espey, Huston and Associates, Inc. surveyed additional portions of the Masters area and recorded nine sites.

23CE342

This site covers a relatively large area (ca. 150 by 130 m) on a ridgetop approximately 200 m northwest of a perennial tributary of the Little Sac River. The entire area is in oak-hickory forest with little understory. Immediately west of the site, the surface has been significantly disturbed by construction and use of a picnic area; however, a few flakes are visible on the surface of this area indicating that the site might once have covered a larger area. A large sinkhole and cave entrance are located within the site boundaries but were filled with water at the time of investigation.

In 1982 three 2-m-diameter surface collection units were employed, and all recognizable tools were plotted and collected. Recovered were 39 flakes and angular fragments (2 with edge modification), 2 biface fragments, and 1 core. In addition, six shovel tests were excavated, but the horizontal and vertical extent of the site remained unclear. In 1983, 13 additional shovel tests and 3 1-by-1-m test pits were excavated. Combined artifacts from all of the shovel tests consist of 48 flakes and angular fragments (2 with edge

STOCKTON LAKE MASTERS AREAS SURVEYED

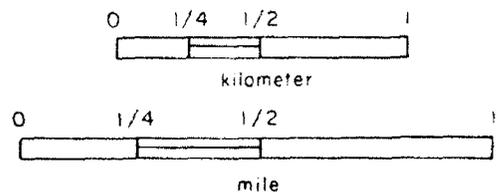


LEGEND

-  Public Use Area
-  Survey Area
-  Espey Huston Survey Tract
-  Park Facility Structure
-  Boat Ramp or Dock



Contour Interval = 50'



modification). The test pits showed that artifacts are confined to the upper soil horizon which consists of about 20 cm of sandy loam. Recovered artifacts consist of 111 flakes and angular fragments (5 with edge modification) and 1 biface fragment.

The site covers a relatively large portion of the slope, and, although deposits are not deep, there appears to be variation in artifact densities across the site. It is possible that a series of repeated, limited activity occupations are represented. The spatial integrity of the site suggests that there is good potential for delimiting components horizontally and for reconstructing site activities. It is recommended that 23CE342 be considered eligible for nomination to the National Register of Historic Places.

23CE343

This site is a small (ca. 35 by 35 m), dense scatter of lithic tools and debitage located on a ridge near the head of a small ephemeral tributary of the Little Sac River. The nearest perennial water source is a tributary of the Little Sac located approximately 700 m to the west. The site area is heavily wooded, and no significant disturbances are evident.

No cultural materials are exposed on the site surface. Three shovel tests indicated that soils consist of 30 to 50 cm of sandy loam overlying sandstone cobbles and residual clay. Artifacts were scattered throughout this upper soil zone, and those recovered consist of 99 flakes and angular fragments, 1 biface fragment, and 1 projectile point fragment.

The dart point form suggests that occupation took place during the Late Archaic period. The site deposits are deep relative to other upland sites and are not disturbed significantly. This site has the potential for providing significant information concerning activities carried out at a small upland Archaic period camp. It is recommended that 23CE343 be considered eligible for nomination to the National Register of Historic Places.

23CE344

Site 23CE344 is a small (ca. 10 by 10 m) scatter of lithic debitage located near the head of a small ephemeral drainage which feeds a perennial tributary of the Little Sac River approximately 250 m to the west. A small waterfall is adjacent to the site and the surrounding soil is continually saturated suggesting that a spring may feed the tributary. The site is in a small natural clearing surrounded by oak-hickory forest. The area appears undisturbed by modern developments.

In 1982 four shovel tests were excavated, one of which contained flakes. Since the vertical and horizontal extent of the site were not well defined, four additional shovel tests and one 1-by-1-m test pit were excavated in 1983. Combined, the shovel tests yielded 23 flakes and angular fragments (1 with edge modification). The test pit showed that the site deposits consist of a water-saturated, gummy black clay which contains numerous angular chert gravels. A total of 251 angular pieces of chert (2 with edge modification) were collected from two 10-cm levels, but only 25 showed definite flake characteristics.

The small amount of cultural materials suggests that occupation of the site was very limited. Although boggy deposits such as these often result in the preservation of perishables, there is no indication that such materials are present. The potential for obtaining significant information from this site appears to be low. It is recommended that 23CE344 be considered not eligible for nomination to the National Register of Historic Places.

23CE345

Site 23CE345 is a small rockshelter that shows only minimal evidence of prehistoric and historic occupation. The shelter is well protected in a limestone outcrop on a moderately steep ridgetslope. A spring is present in front of the shelter opening. The resulting ephemeral tributary flows into a perennial tributary of the Little Sac River approximately 100 m to the west.

The shelter is approximately 2.5 m in diameter, and there is a pool of standing water at the rear. Shallow, isolated patches of soil overlie limestone bedrock on the shelter interior. One shovel test was excavated, but no cultural materials were recovered. Two shovel tests were excavated outside the shelter; four flakes and two fragments of bottle glass were recovered immediately beneath the surface. The historic materials probably relate to an historic site located upslope beyond the limits of the survey area.

Due to the nature of the deposits and paucity of cultural materials, it is not likely that significant information could be obtained from additional investigation of this site. It is recommended that 23CE345 be considered not eligible for nomination to the National Register of Historic Places.

23CE364

Site 23CE364 covers an area of about 75 by 50 m on a gentle ridgetslope overlooking an ephemeral tributary which drains into an unnamed perennial tributary of the Little Sac River. The former channel of the perennial tributary is located approximately 400 m to the east. Scattered oak and hickory trees as well as domestic vegetation are in the site area. Two modern park roads cut through the site.

The site, which appears to have been heavily disturbed by road-building activities, is very near the early twentieth-century Clemons Housesite to the southwest. While no historic artifacts were observed, domestic vegetation such as irises and flame leaf sumacs are present. In 1908 the property in the vicinity of the site belonged to Ed Hartley and the parents of a local informant (Clemons 1979). The Clemonses constructed a four-room frame house, barn, and chicken coop. Two shovel tests were excavated in 1983, but neither yielded cultural materials.

It is likely that the domestic vegetation observed at this site is associated with the twentieth-century Clemons Housesite located beyond the limits of the survey area. It is recommended that 23CE364 be considered not eligible for nomination to the National Register of Historic Places.

23CE365

This is an historic housesite located on a ridge bordered by two ephemeral tributary drainages of the Little Sac River, the channel of which formerly ran 1.5 km to the southwest. The site covers an area of about 60 by 30 m. The area has scattered oak-hickory forest vegetation with thick grasses covering the surface.

The site consists of a burned house and various twentieth-century artifacts, including a bed frame, automobile parts, and domestic rubble. In 1908 the 40 acres surrounding 23CE365 were owned by W. H. "Bill" Lynch; in 1979 an informant described the Lynch House as having been a two-story frame residence with two rooms on each floor. Lynch was related by marriage to the Clemons family, and his mother was a member of the Hartley family (Clemons 1979). No surface collections or shovel tests were carried out at the site.

This site was occupied relatively recently and lacks association with significant Cedar County historical figures. It is recommended that 23CE365 be considered not eligible for nomination to the National Register of Historic Places.

23CE366

This historic housesite is located on a ridge overlooking a perennial tributary of the Little Sac River. The site, which covers an area of about 70 by 70 m, lies approximately 250 m east of the former channel of the tributary. Scattered deciduous trees and domestic vegetation are present in the area.

The site consists of a bulldozed area (probable former housesite) which measures approximately 35 by 24 m (115 by 79 ft) with a depression at the southwestern corner containing concrete, and a grass-covered dirt mound approximately 20 m to the southwest which contains a plate rim sherd. No shovel tests or surface collections were carried out at the site.

According to a local informant (Clemons 1979), 23CE366 was constructed in about 1900 by Lee Greer who married Minnie Davis whose parents lived at 23CE367, located across the road to the northeast.

Because of the relatively recent date of construction and occupation and the severity of disturbances, this site has little potential to address research problems presented in Chapter 2. It is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23CE367

This site is located on a ridgetop, about 60 m northeast of 23CE366, overlooking an unnamed perennial tributary of the Little Sac River. The site covers an area of about 60 by 30 m and lies approximately 200 m east of the former tributary channel. The site area has been cleared and is grown in grass.

The site appears on 1879 and 1908 Cedar County maps and the 1956 USGS 7.5' Bona quadrangle map and consists of a series of mounded earth piles apparently bulldozed downslope

from the former locations of two structures. An informant (Clemons 1979) identified 23CE367 as the former location of the Brant N. Davis House. Davis married Monk Hartley, sister of Ellen Hartley Lynch (see site 23CE365); his daughter, Minnie, married Lee Greer whose home was located at 23CE366.

The site lacks association with significant Cedar County historical figures and was in large part removed by the Corps of Engineers prior to reservoir construction. It is recommended that 23CE367 be considered not eligible for nomination to the National Register of Historic Places.

Cedar Ridge Public Use Area

Like the other public use areas, Cedar Ridge is situated on a dissected upland ridge (Fig. 33). The area is separated from the former floodplain of the Little Sac River by relatively steep bluffs. The eastern border is formed by a perennial tributary known as Big Branch. Slopes are relatively gentle to this shoreline. Most of the area supports upland oak-hickory forest vegetation with dispersed stands of cedar. A few former pastures or cultivated fields are present, most of which are now grown in thickets. Burlington-Keokuk limestone underlies most of the area except along the shorelines where the Northview and Pierson formations are exposed. Soils have developed on the limestone and are relatively shallow. Park facilities similar to those at other public use areas are present at Cedar Ridge. These include roads, a boat ramp and dock, a swimming beach, and picnicking and camping facilities.

In 1979 Espey, Huston and Associates, Inc. (1980:2-19) recorded two sites (23CE134 and 23CE321) during their survey of two linear transects in the area. One tract, covering 80 acres, was surveyed in 1982, and a single site (23DA325) was encountered.

23DA325

Site 23DA325 is an historic housesite located on a ridge approximately 550 m to the west of the former channel of Big Branch. The site covers an area of about 55 by 55 m which has been partially cleared. Scattered native and domestic trees, shrubs, and grasses cover the area. A park road borders the site on the west.

The site consists of structural remains and abundant domestic vegetation. Structural elements include a concrete slab, which measures approximately 7 by 10 m (23 by 32 ft), and a depressed area in which a shovel test revealed more concrete. A total of four shovel tests were excavated, but, other than the concrete, no cultural materials were recovered.

Documentary and oral history sources indicate that this general area was the location of a series of homes owned by members of the prominent Lindley family. The Goodspeed Publishing Co. (1889:445) notes that John Lindley was, in 1845, one of the first individuals to make a land entry in T33N, R25W, an observation confirmed on early Dade County survey maps which show that Lindley had a home and cultivated fields in the vicinity of 23DA325 by 1843-1844. The 1917 History of Dade County and Her People (Young 1917:II, 135) notes that Lindley's son, John Cyrus Lindley, was born on the family homestead 2 miles north of Bona on September 11, 1852, and that after his father's death at the hands of

bushwackers on October 7, 1864 (The Goodspeed Publishing Co. 1889:824), John Cyrus and his wife, Florence Hailey, eventually acquired the extensive Lindley family holdings. Before his death John Lindley, Sr. was the largest taxpayer in Dade County.

In 1979 informants (Hailey and Hailey 1979) stated that they had seen one of the older Lindley homes before it was destroyed, but at the time the property was acquired by the Government, two newer houses were located at 23DA325. One house, built shortly after World War II, was moved about 0.5 miles to the south by R. A. Lindley; the other house, constructed around the time of World War I, was moved about 1 mile to the west of Dadeville by Joe Lindley. Left unmoved by the grandsons of John Lindley were two graves in a field east of Highway RA which Hailey believed were in the vicinity of the Lindley House.*

It is recommended that the site be considered eligible for nomination to the National Register under Criteria A and B because of its associations with the prominent Lindley family and because its occupation dates from the period of earliest settlement in Dade County.

High Point Public Use Area

This is a relatively small public use area located on a low ridgecrest adjacent to the Little Sac River (Fig. 34). The area is bordered on the east and west by ephemeral tributaries. Steep bluffs separate the uplands from the floodplain on the eastern and southeastern sides. The entire area, which has been cleared and cultivated in the past, presently is covered by thick grasses. Soils have not been mapped or described for the area, but most are developed on Burlington-Keokuk limestone. There has been little development of the High Point area. A single paved park road leads to a boat ramp and dock.

Three sites (23PO261, 23PO262, and 23PO263) were recorded in 1979 by Espey, Huston and Associates, Inc. (1980) in this area to the south of the single 40-acre tract surveyed in 1982. Two additional sites (23PO321 and 23PO322) were recorded in this latter tract and are described below. Site 23PO312 is recorded in the data bank of the Archaeological Survey of Missouri as being on the floodplain at the extreme eastern edge of the 1982 survey tract, but the site was not relocated and apparently is inundated. The site reportedly consisted of a single mound (Espey, Huston and Associates, Inc. 1980:Table 3-1E).

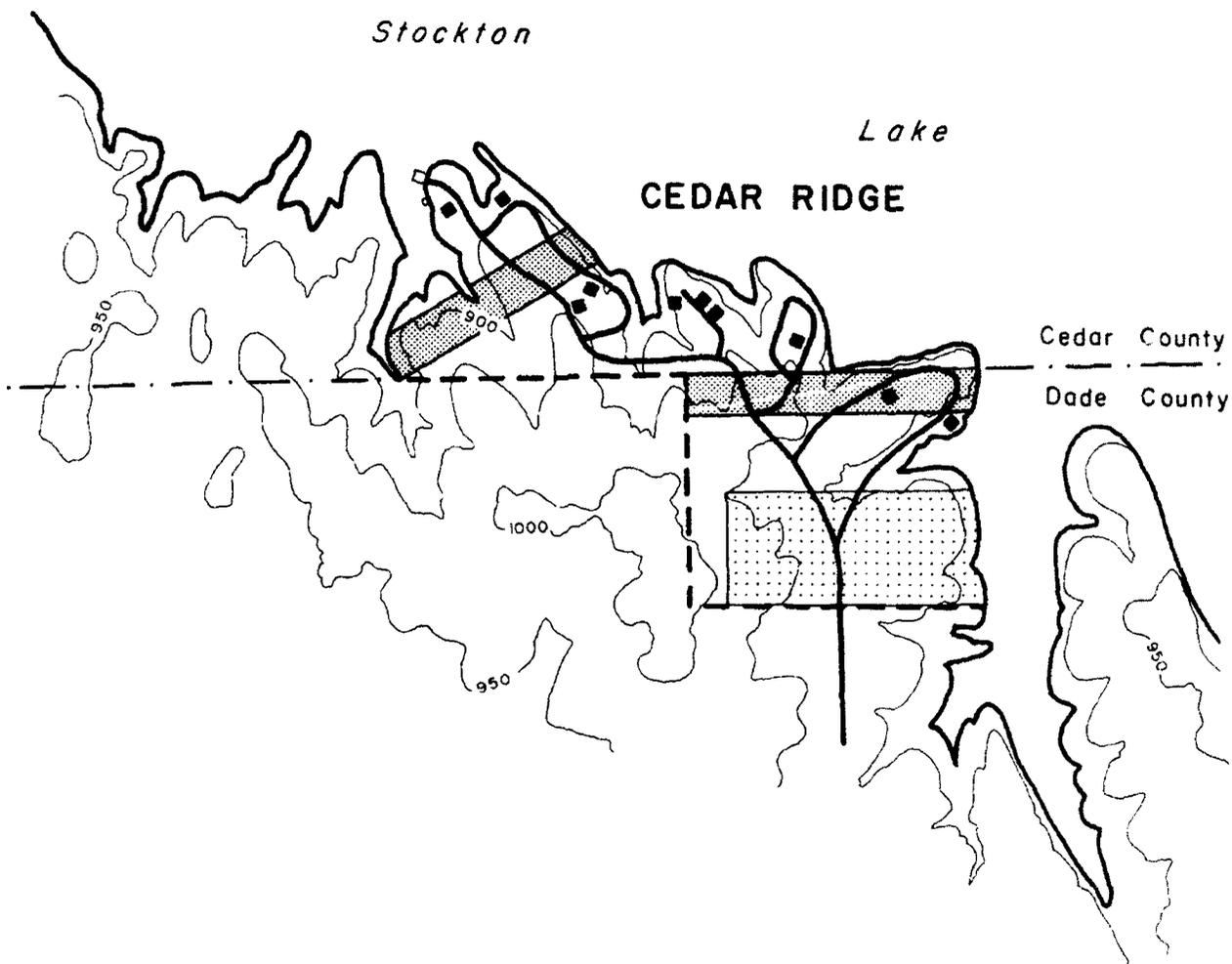
23PO321

This site consists of a scatter of lithic tools and debitage located on a ridge approximately 700 m northwest of the former channel of the Little Sac River. The site covers an area of about 200 by 120 m on Government land but may be larger. A well-maintained dirt road crosses the site, most of which is grown in dense grasses.

In 1982 no surface collection units were employed, but two bifaces were collected from the roadcut. Five shovel tests were excavated, all of which contained cultural materials.

*Subsequent to the fieldwork, Corps of Engineers personnel located the graves and monitored construction activities in their vicinity.

STOCKTON LAKE CEDAR RIDGE AREAS SURVEYED

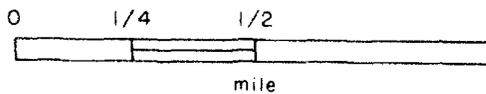
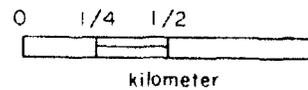


LEGEND

-  Public Use Area
-  Survey Area
-  Espey Huston Survey Tract
-  Park Facility Structure
-  Boat Ramp or Dock
-  County Line



Contour Interval = 50'



Since it appeared that the site had been plowed and artifacts were shallow, testing was carried out in 1983 to obtain better information concerning the integrity of the deposits. Seven additional shovel tests and one 1-by-1-m test pit were excavated. An edge modified flake and a projectile point fragment were plotted and collected from the surface. Combined artifacts from the shovel tests consist of 39 flakes and angular fragments and 1 projectile point fragment. The test pit was excavated in four 10-cm levels. Cultural materials were collected from the upper 35 cm, although very little was recovered below the upper soil horizon which is about 23 cm deep. Recovered were 123 flakes and angular fragments (2 with edge modification) and 1 core.

The two projectile point fragments cannot be classified. This site is relatively shallow, and artifacts probably have been displaced laterally by plowing. Additional disturbance is present from construction and use of the road. Site boundaries cannot be defined completely because part of the site may be on private property. Research potential at 23PO321 is low relative to other similar sites. It is recommended that the site be considered not eligible for nomination to the National Register of Historic Places.

23PO322

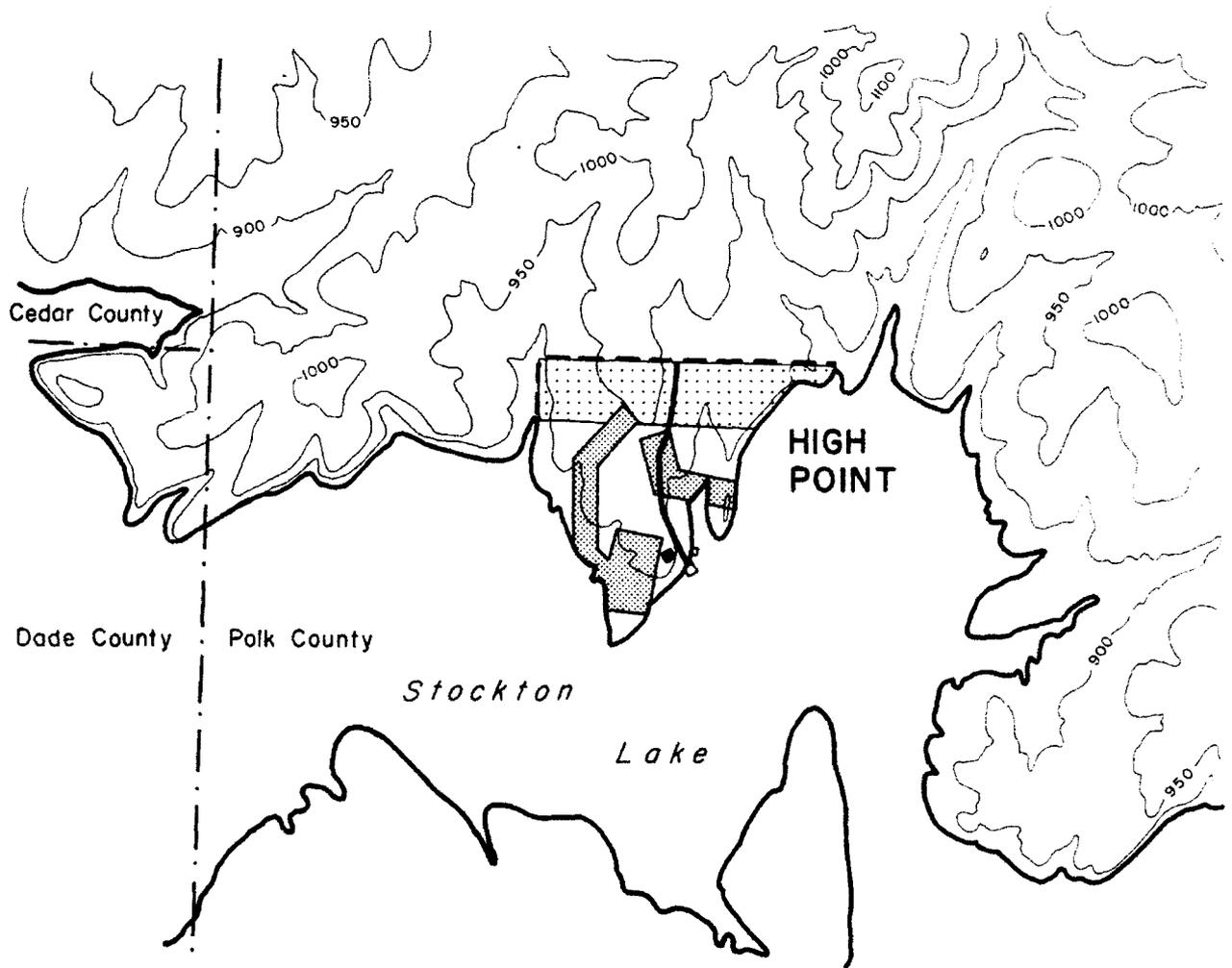
Site 23PO322 contains evidence of both prehistoric and historic occupations. The site covers an area of about 250 by 110 m on a ridge adjacent to a bluff approximately 400 m to the north of the former channel of the Little Sac River. The site is covered in tall grasses with scattered deciduous trees. A dirt road crosses the middle of the site.

The historic component was once the location of the Jesse Morgan Home, and physical remains consist of clear, blue, brown, and green glass; nails; porcelain; earthenware ceramics; a portion of a boot; and various pieces of deteriorated metal, most of which are scattered in a roadbed.

According to Wright (1979) and Goelitzer (1972:1, 38), 23PO322 was the location of a two-story, L-shaped, frame house on rock footings which was constructed by Jesse Morgan. Morgan, a prosperous farmer who was born in 1858, married Roberta "Bertie" Slagle, purchased land from her father, Thomas Benton Slagle, and joined Slagle in the 1880s when they built a general store and engaged in trade in Shady Grove. Morgan retained ownership of the house and farm until the 1920s when he sold them to Charley Edge and moved to Fair Play. He died in 1939.

Prehistoric occupation is represented by a dense scatter of chipped stone tools and debitage, most of which is located in the central portion of the site. Because surface visibility was poor across the rest of the site, three 2-m-diameter collection units were placed in the dirt road. In addition, all recognizable tools were plotted and collected. Recovered surface artifacts consist of 172 flakes and angular fragments (3 with edge modification), 9 biface fragments, 2 projectile point fragments, and 1 core, in addition to 17 whiteware/ironstone sherds, 1 stoneware sherd, 1 porcelain sherd, 30 fragments of bottle glass, 3 fragments of jar lid glass, 2 wire nails, and 9 miscellaneous scraps of metal. Eleven shovel tests were excavated to determine the horizontal and vertical limits of the site. Cultural materials are confined to the upper soil horizon which is about 25 cm deep. Recovered were 95 flakes and angular fragments (1 with edge modification), 2 core fragments, and 1 fragment of bottle glass.

STOCKTON LAKE HIGH POINT AREAS SURVEYED

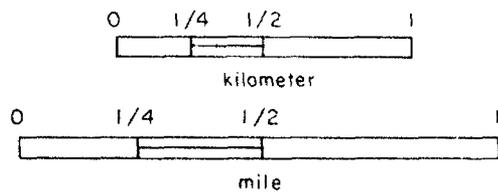


LEGEND

-  Public Use Area
-  Survey Area
-  Espy Huston Survey Tract
-  Park Facility Structure
-  Boat Ramp or Dock
-  County Line



Contour Interval = 50'



The single classifiable projectile point appears to relate to the Late Archaic period, but it is possible that other prehistoric occupations are represented as well. Although the artifact scatter at this site is quite dense, the cultural deposits are shallow and very likely mixed. Reconstruction of site activities would thus be difficult at 23PO322. The historic component, which appears to be badly disturbed, is too recent to be of high research value. It is recommended that 23PO322 be considered not eligible for nomination to the National Register of Historic Places.

Aldrich Fish and Wildlife Management Area

The only Fish and Wildlife Management Area surveyed in the Stockton Lake project area is located southwest of the town of Aldrich on a portion of an upper terrace of the Little Sac River (Fig. 35). The area has been completely cleared and cultivated except for small portions along the shoreline and near the former location of a cemetery. Artificial terracing carried out to prevent erosion has resulted in significant alteration of portions of the landscape. Moderate to fine-textured alfisols (Britwater, Parson series) dominate on the terraces except near tributary drainages where mollisols (Lanton, Verdigris, and Cedargap series) occur (Castillon 1982:376).

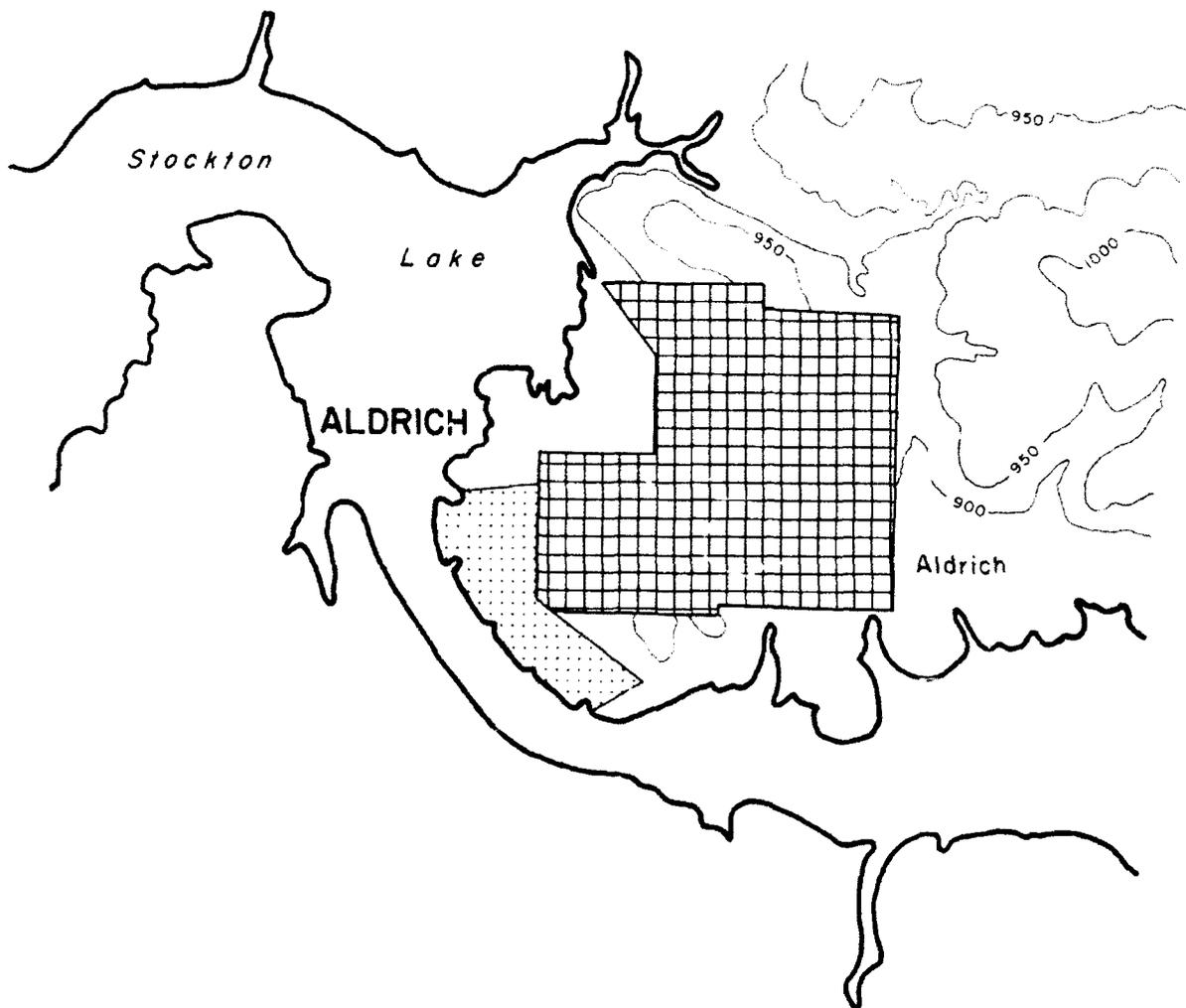
A single tract covering 60 acres was surveyed in the Aldrich area. One extensive site, 23PO320, was encountered which covers most of the survey area.

23PO320

Site 23PO320 covers an area of about 900 by 100 m along the present lake shoreline. Extensive evidence of both prehistoric and historic use is present. Most of the area has been cultivated and the eastern half has been artificially terraced. Lower lying portions of the site are planted in clover and short grasses. Several ephemeral drainages cross the site.

The historic component is comprised of the former location of Hubbard Cemetery and a housesite. The cemetery, located on the line between Sections 3 and 4, T32N, R24W, was moved by the Corps of Engineers and is recorded in the Cemetery Directory of Polk County, Missouri (The Historical Society of Polk County, Missouri, Inc. 1979:3). The housesite, located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 33, T33N, R24W, appears to have been noted on an early plat of Union Township, at which time it was situated on a 50-acre tract belonging to A. A. Hanby. In 1982 material evidence of historic occupation included early decorated ceramics and an area approximately 10 m (32.8 ft) square where the grass had grown unusually tall. Ground surface visibility is excellent at 23PO320 and an extensive continuous scatter of lithic tools and debitage is evident with at least five areas having heavy concentrations. Nine 2-m-diameter collection units were employed as well as collection of recognizable tools. One shovel test was excavated adjacent to each collection area. Recovered from the surface were 179 flakes and angular fragments (15 with edge modification), 31 bifaces, 20 projectile points, 4 unifaces, 2 cores, 1 ground stone fragment, and 5 earthenware sherds. The shovel tests yielded 68 flakes and angular fragments (6 with edge modification) and 1 biface fragment. All nine of the shovel tests were excavated to a depth of 40 cm and yielded artifacts from the 25-cm-thick soil zone overlying basal gravels.

STOCKTON LAKE ALDRICH AREAS SURVEYED

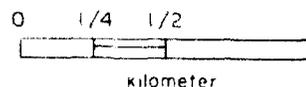


LEGEND

 Survey Area



Contour Interval = 50'



POMME DE TERRE AND STOCKTON LAKES PROJECT

Projectile point forms range from the Early/Middle Archaic period through the Late Woodland/Mississippian period. Although the deposits have been adversely affected by modern cultivation practices, the extent of the site and the large amount of artifacts indicate an excellent potential for recovery of data pertaining to lithic manufacturing technology, tool function, and studies of nonlocally manufactured items. The fact that clustering of surface artifacts is evident suggests that spatial integrity has not been destroyed and that questions regarding the length of, the intensity of, and the activities associated with individual occupations may be addressed. The historic component appears to date to the period of early settlement in the Aldrich area and may yield important information about mid nineteenth-century occupations. It is recommended that 23P0320 be considered eligible for nomination to the National Register of Historic Places.

CHAPTER 4

SIGNIFICANCE OF THE CULTURAL RESOURCES

This chapter presents a summary discussion of the cultural and scientific importance of the cultural resources encountered during the survey. This importance is assessed in terms of criteria of eligibility for nomination to the National Register of Historic Places. These criteria are discussed in detail in Chapter 2, and brief assessments are provided along with the site descriptions in Chapter 3.

Normally, only Criterion D is applied to the evaluation of archeological sites. However, in the case of the Pomme de Terre and Stockton surveys, a number of the historic sites date from the period of earliest settlement in the western Ozark Highlands and thus are associated with significant events in the history of nineteenth-century migration to the area (Criterion A), or they are sites which are identified by the surrounding communities as having been associated with the lives of persons significant in the past history of the region (Criterion B). In some cases, sites are felt to be eligible for the National Register because they have the potential for answering significant questions concerning the Historic Period in the western Ozark Highlands as outlined in Chapters 1 and 2 (Criterion D; see pgs. 33-44, 46). Finally, a number of sites are considered to be eligible for the National Register because they fulfill more than one criterion: a site which could be demonstrated to date from the period of initial settlement (Criterion A) and was occupied by a significant historic figure (Criterion B) could, if it was in relatively intact condition and contained archeological deposits from the early to mid nineteenth century, reasonably be assumed to have the potential for providing information about local material culture for a specific period of occupation, the impact of historic settlement on natural resources, and the sources of material goods in the community (Criterion D). Sites which are recommended as eligible for nomination to the National Register are discussed below according to the criterion by which their eligibility is assessed.

Significant Sites, Criterion A

Five historic sites are recommended as eligible because historic research and/or archeological testing has indicated that they are associated with events that have made significant contributions to the broad pattern of the history of the Pomme de Terre and Stockton areas. In general, all of the sites date from the period of initial historic settlement, with 23DA313 and 23DA314 having been settled in about 1837, 23DA325 having been settled by 1843-44, 23CE372 and the surrounding area having been settled by 1837, and 23CE380 having been settled by the 1860s. All of these dates are associated with the period of initial Anglo-American exploration and development in the western Ozark Highlands. In all cases, the strongest evidence for early settlement is contained within archival records. However, sufficient archeological evidence has been located at the sites to suggest a corroboration of the archival record.

Significant Sites, Criterion B

Two historic sites are recommended as eligible because historic research has demonstrated that they are associated with the lives of persons who played significant roles in the history of the Pomme de Terre and Sac river areas. Site 23CE372 is associated with Thomas J. Hartley, a member of a prominent Cedar County family, who was born in Dickson County, Tennessee, on May 1, 1830, came to present-day Cedar County in 1837, and carried on a mercantile business in Stockton in the 1850s. His second wife was a member of the early Montgomery family who remained his neighbors a short distance to the southwest of 23CE372 (The Goodspeed Publishing Co. 1889:739-741). Site 23DA325 is the former location of the home of John Lindley who was one of the earliest and most prominent settlers in Dade County. Specifically, Lindley may have been in the area by 1833. By the early 1860s, he was the most prosperous farmer in Dade County. The family lived continuously at 23DA325, which was the location of several different homes over a span of more than 125 years (Espey, Houston and Associates, Inc. 1980:1-21 through 1-23).

Significant Sites, Criterion D

Assessments of site significance under Criterion D are made in terms of the research framework presented in Chapter 2. This framework concerns understanding changes in human adaptive systems as such changes are represented in shifting patterns of settlement. Sites which are considered significant are those which contain data relevant to the investigation of various aspects of adaptive systems (i.e., natural resources, technology, social behavior and demography, and chronology) and which represent a variety of spatial and temporal contexts.

Prehistoric site components are defined primarily by the presence of projectile point forms which relate to certain temporal periods. For purposes of the following discussion, the presence of forms which can be related to temporal periods is inferred to represent occupation of a site during those periods. Potential pitfalls involved in making such inferences are obvious, but at the present level of site investigation a more refined chronological base is not available. Classification of the projectile points is presented in Appendix I.

Table 8 shows the variation between temporal periods in terms of locational data and size for those sites encountered during the 1982-83 surveys. This table and the following discussion serve to indicate the temporal and spatial contexts within which assessments of site significance are made under Criterion D.

Early/Middle Archaic Period

Four types of archeological sites appear to relate to this period: (1) extensive terrace sites, (2) small terrace sites, (3) small upland sites, and (4) rockshelters. Extensive occupations relating to the Early/Middle Archaic period appear to be represented on a terrace of the Little Sac River at 23PC320, on a terrace of the Pomme de Terre River at 23PO21, and possibly near the juncture of Lindley and Ingalls creeks at 23HI164. The

TABLE 8
FREQUENCIES OF COMPONENTS BY CULTURAL PERIOD AND SITE LOCATION*

	Early/Middle Archaic Period		Late Archaic and Early/Middle Woodland Period		Late Woodland/ Mississippian Period		Historic Period	
	#	%	#	%	#	%	#	%
LANDFORM								
Ridges	6	(40.0)	6	(24.0)	7	(35.0)	41	(58.6)
Ridgeslopes	2	(13.3)	4	(16.0)	2	(10.0)	28	(40.0)
Upper terraces	4	(26.7)	6	(24.0)	7	(35.0)	1	(1.4)
Lower terraces	3	(20.0)	9	(36.0)	4	(20.0)	0	
DRAINAGE								
Pomme de Terre	6	(40.0)	11	(44.0)	8	(40.0)	8	(11.4)
Lindley	2	(13.3)	3	(12.0)	4	(20.0)	6	(8.6)
Pomme de Terre tributaries	2	(13.3)	5	(20.0)	1	(5.0)	6	(8.6)
Sac	2	(13.3)	1	(4.0)	2	(10.0)	20	(28.6)
Little Sac	1	(6.7)	4	(16.0)	2	(10.0)	9	(12.9)
Sac and Little Sac tributaries	2	(13.3)	1	(4.0)	3	(15.0)	21	(30.0)
DISTANCE TO PERENNIAL WATER SOURCE								
< 100 m	7	(46.7)	10	(40.0)	9	(45.0)	5	(7.1)
≥ 100 m < 350 m	6	(40.0)	10	(40.0)	9	(45.0)	22	(31.4)
≥ 350 m < 600 m	2	(13.3)	2	(8.0)	1	(5.0)	14	(20.0)
≥ 600 m < 850 m	0		2	(8.0)	1	(5.0)	14	(20.0)
≥ 850 m < 1.25 km	0		1	(4.0)	0		8	(11.4)
≥ 1.25 km	0		0		0		7	(10.0)
SIZE								
≤ 1 ha	11	(73.3)	12	(48.0)	8	(40.0)	61	(87.1)
> 1 ha ≤ 3 ha	0		5	(20.0)	3	(15.0)	7	(10.0)
> 3 ha ≤ 7 ha	1	(6.7)	3	(12.0)	2	(10.0)	0	
> 7 ha	3	(20.0)	5	(20.0)	7	(35.0)	2	(2.9)

*54 of the 153 sites investigated have prehistoric components which cannot be assigned to a specific time period.

Montgomery Site (23CE261), located on a terrace of the Sac River, appears to contain a similar component (Collins et al. 1983). A basic research problem concerns whether these extensive components represent repeated occupations, continuous occupations over long periods of time, or occupations by large social aggregates. Sites 23PO320 and 23HI164 appear to retain sufficient material remains and spatial integrity to address this problem. The deposits at 23PO21 appear to be too shallow and mixed to address this problem effectively.

Early/Middle Archaic components at small terrace sites (23HI75, 23PO33, 23PO89, and 23PO338) are less extensive, but it is not known if activities carried out at these sites are functionally distinct from those at the more extensive terrace components. It is possible that the apparent differences between large and small terrace sites relate to the nature of the archeological record. For example, the component at 23HI75 has been subject to disturbances from several subsequent occupations, extensive collections have been made from 23PO33 in the past, the boundaries of 23PO89 are not known because portions of the site are on private property, and the Early/Middle Archaic component at 23PO338 is deeply buried and not well defined. However, the latter two sites, 23PO89 and 23PO338, appear to have high potential for yielding significant information concerning occupations during this time period. Although the horizontal extent of 23PO89 is not known, cultural materials are not as dense or varied as those at 23PO320, and a different set of activities may be represented. Site 23PO338 is one of the few sites in either project area where an Early/Middle Archaic component may be separated vertically from later, and perhaps earlier, components. All of these less extensive terrace sites are located along the Pomme de Terre River and its tributaries, but data reported by Chapman et al. (1962) suggest that similar components may have been present in the Sac River Basin.

Upland components relating to the Early/Middle Archaic period are present along both drainages. Six sites (23HI533, 23HI535, 23PO51, 23CE335, 23DA211, and 23DA313) are located on ridgetops. Disturbances at 23HI535, 23PO51, 23CE335, and 23DA211 are too severe to permit constructive research. Site 23HI533, however, shows very little disturbance and may represent a single or very limited number of occupations. The Early/Middle Archaic occupation at 23DA313 overlooking the Sac River may be more difficult to define because of apparent mixture of material remains with those of subsequent occupations. The density and extent of artifacts indicate intensive occupation, and separation of components may be possible.

Two sites with Early/Middle Archaic components are located on ridgetops. Deposits at 23CE330 are too mixed and disturbed to allow isolation and investigation of individual components. Disturbances are relatively few at 23PO345 (and 23PO344), however, and although occupations also might have occurred in the Late Archaic period, the possibility of isolating components appears to be good. The site is located on a lower ridgetop relatively close to the former river channel. Cultural materials are not dense, and a limited number of occupations may be represented.

Rockshelters with Early/Middle Archaic period occupations have been identified in both the Pomme de Terre and Sac drainages, although more-intensive occupations have been defined in the Pomme de Terre Valley (e.g., Rodgers Shelter, Blackwell Cave). No additional rockshelters were encountered during the 1982-83 surveys.

In summary, Early/Middle Archaic period components appear to be present on all defined landforms and along a wide variety of drainages. There is a general tendency for sites to

be located near perennial drainages, but this pattern may not differ significantly from that of other prehistoric periods. Four distinct kinds of sites appear to be represented in this time period, but information is lacking concerning the activities associated with each. The largest components with the greatest variety of tool forms appear to be located on terraces (i.e., 23PO320 and 23HI164) although there is the possibility that a large upland component at 23DA313 also relates to this period. Relatively undisturbed smaller components apparently with narrow ranges of tool forms are present on terraces (23PO89), lower ridgeslopes (23PC344 and 23PO345), and ridgetops (23HI533). One site, 23PO338, has a high probability of containing a deeply buried Early/Middle Archaic component which could complement data from the Montgomery Site and Rodgers Shelter concerning regional chronology during the Archaic period.

Late Archaic and Early/Middle Woodland Periods

Late Archaic and/or Early/Middle Woodland period components appear to be characterized by relatively extensive, dense lithic scatters located on both terraces and ridges. Relatively few Late Archaic period components were encountered in the Stockton Lake area although this may be due to the more extensive investigation of terraces at Pomme de Terre Lake. Distance to perennial streams appears to be more variable than in the Early/Middle Archaic period, possibly indicating that upland springs were of greater utility in the more mesic posthypothermal.

Extensive occupation is evident over large portions of terraces resulting in problems with defining site boundaries. Size statistics in Table 8 may be somewhat misleading as divisions of many terrace areas into distinct sites may not be meaningful. In the Pomme de Terre area, 13 sites on terraces have Late Archaic projectile points. Sites 23HI164, 23PO33, and 23PO89, discussed under the Early/Middle Archaic period, also yielded Late Archaic projectile points. Separation of components at 23HI164 and 23PO89 appears possible, but material remains are too sparse at 23PO33. Late Archaic occupations at 23HI75, 23PO21, and 23PO24 appear to have been extensive, but these sites are shallow and artifacts are mixed with earlier and later materials. Sites 23PO22 and 23HI52, both small terrace sites, are also too shallow and too disturbed to yield important information. Site 23HI76 along Lindley Creek contains artifacts beneath the plowzone, and horizontal clustering is apparent although a Late Woodland/Mississippian period component also is evident. The potential for obtaining significant information concerning individual occupations is good relative to other terrace sites. Extensive Late Archaic occupations are evident on terraces along Stinking Creek (23PO338, 23PC339, 23PO340, and 23PO341), but deposits are shallow and plowed in most areas. The opportunity for investigating individual occupations appears to be best at 23PO338 where cultural materials are present beneath the plowzone. The significance of this site for addressing chronological problems has been discussed earlier. Another site discussed earlier, 23PO320, also has evidence of extensive Late Archaic period occupation. This site and 23DA215 are the only terrace sites in the Sac River area encountered during the survey where Late Archaic period occupations can be identified. Site 23DA215 is too disturbed to yield important information, but 23PO320 promises to yield a great deal of information.

Three sites on ridges in the Pomme de Terre area (23HI5, 23HI50, and 23HI534) have Late Archaic projectile points. Campground construction and plowing have disturbed deposits at 23HI5 and 23HI534, but both sites are of moderate size and contain a wide range and

high density of tools. Site 23HI50 has the greatest potential for yielding significant data as an extensive and dense scatter of lithic tools and debitage is present including substantial relatively undisturbed deposits.

Sites 23CE336, 23CE339, and 23PO322 at Stockton also appear to represent extensive Late Archaic upland sites, but individual occupations would be difficult to isolate and define because of disturbances. Site 23CE343 is very small and might represent a limited number of occupations although lithic materials are dense. This site offers the best opportunity for defining upland occupations in the Stockton Lake area.

Three sites located on ridgetops overlooking the Pomme de Terre River (23HI512, 23PO90, and 23PO345) contain Late Archaic period projectile points. Site 23HI512 is extensively disturbed and partially inundated. Site 23PO90 is similar to the large terrace sites in that multiple occupations across a very extensive area appear to be represented. Some of these occupations probably relate to the Late Woodland/Mississippian period, but clustering of cultural materials suggests that separation of components is feasible. One of two projectile points at 23PO345 appears to relate to the Late Archaic period. As discussed earlier, this relatively undisturbed site is not extensive and cultural materials are not dense.

Kay (1982c:736-737) has classified Late Archaic settlements in the lower Pomme de Terre area into annual base camps, small villages, and seasonal encampments, but more-intensive investigations at individual sites are necessary before such a classification is meaningful in the project areas. Most Late Archaic projectile points in the project areas were recovered from relatively extensive sites with dense cultural material remains located on both terraces and ridges. Apparent clustering of artifacts suggests repeated occupations, but it is also possible that spatial patterning within single occupations is represented. Smaller components such as 23PO69, 23CE343, and 23PO345 may represent functionally distinct occupations. All three have high potential for yielding significant information. Investigation of extensive terrace sites appears to be most promising at 23HI76 and 23HI164 along Lindley Creek, 23PO338 along Stinking Creek, and 23PO320 along the Little Sac River (most terraces of the Sac and Pomme de Terre rivers are inundated in the project area). Extensive ridge and ridgetop components with high research potential are 23HI50 and 23PO90, both located along the Pomme de Terre River.

Late Woodland/Mississippian Period

Late Woodland/Mississippian components do not appear to differ substantially from those of the Late Archaic period (both components often appear at the same sites) in that extensive lithic scatters on terraces and lower ridgetops are common (e.g., 23HI75, 23HI76, 23PO21, 23PO24, 23PO90, 23PO337, and 23PO320). These components may represent occupations similar to those at Flycatcher and Dryocopus villages which Pertulla and Purrington (1981) have classified as multiseasonal base camps. The significance of sites 23HI76, 23PO90, and 23PO320 is that they appear to have the greatest potential for allowing isolation of components and definition of associated activities. Similar components appear to be represented at 23PO69, 23CE339, and 23DA315, but these sites are partially inundated or otherwise significantly disturbed. Sites 23HI165, 23PO108, and 23DA215 are much smaller and appear to contain relatively few cultural materials, but it appears that the cultural deposits are shallow and/or badly disturbed and definition of site activities would be

difficult. The location of 23HI165 at the back of an upper terrace appears to fit Perttula and Purrington's (1981) class of seasonal hunting and gathering stations situated for access to both upland and lowland resources.

In the Pomme de Terre project area, four sites on ridges have Late Woodland/Mississippian projectile points (23HI5, 23HI30, 23HI143, and 23HI516) although it is likely that all also contain other components. Sites 23HI5 and 23HI143 are disturbed by campground facilities and 23HI516 by extensive historic occupation and modern roads. Portions of 23HI30 have been disturbed by indiscriminate excavation, but some parts of the site may be little-disturbed and may yield important information about the range of activities represented at mound/cairn sites. Late Woodland/Mississippian period components also appear to be present at three sites on ridges in the Stockton Lake area (23CE334, 23DA211, and 23DA313). Site 23CE334 is a relatively small site but contains a dense scatter of lithic debitage. The site is relatively undisturbed. Site 23DA211 may represent a similar occupation, but the presence of another component and extensive disturbance by park use and development severely limit research potential. A single projectile point from 23DA313 relates to this period. Prehistoric materials are extensive and dense but probably relate in part to the Early/Middle Archaic period. However, the potential for isolating components at this site appears to be good.

In summary, most components identified during the survey which relate to the Late Woodland/Mississippian period are associated with extensive terrace sites. Three of these (23HI76, 23PO90, and 23PO320) appear to have high potential for allowing reconstruction of site activities associated with specific occupations. A single ridge site in the Pomme de Terre area, 23HI30, may yield significant data, and two sites on ridges overlooking the Sac River (23CE334 and 23DA313) have good potential for defining site activities.

Historic Period

Differences between components of the Historic Period and those of the prehistoric periods as shown in Table 8 are distinct. Most notably, historic sites are nearly absent on terraces, are quite frequent along the Sac River and its tributaries relative to the Pomme de Terre, are relatively distant from perennial streams, and are relatively small.

Some perceived differences between the historic and prehistoric components are directly attributable to methods of archeological survey, i.e., early surveys which had access to low terraces and bottomlands recorded only prehistoric sites in areas which now cannot be examined for historic features. However, land maps from the 1830s suggest that the earliest settlers, while they claimed land bordering the rivers, actually tended to cultivate the uplands and build their houses above the first terrace and, in some cases, adjacent to the upland fields. By 1879 the general pattern had changed, and many improvements were located along the lower terraces in areas which are now inundated and where sites again cannot be recorded.

The higher incidence of historic sites at Stockton Lake compared to Pomme de Terre is probably more apparent than real. Nineteenth-century maps show a pattern at Pomme de Terre which suggests most intensive settlement of the upland prairies. The density of settlement markedly increases to the west of the project area in the vicinity of the Wheatland Prairie where the topography is more suited to farming.

Sites 23CE359 and 23HI542, although they date from the turn of the century, are the two most intact historic sites in the project areas. Their intactness and potential for relatively exact dating make them significant because of the unusual opportunities they offer to reconstruct the appearance and material culture of a late nineteenth/early twentieth-century farmstead and the potential for the specific isolation and dating of various elements of the sites. Sites 23DA313, 23DA314, 23DA325, 23PO320, 23CE372, and 23CE380, while not in as pristine condition, all present opportunities for isolating specific occupations -- some of them dating to the 1830s -- and for retrieving information about the material culture of the western Ozark Highlands in the mid nineteenth century and about the types and origins of material goods in the survey area.

Undated Significant Sites

Ten sites which cannot be dated appear to contain significant research information despite the fact that present data do not allow them to be related to a temporal period. Four of these sites are located on ridges overlooking the Pomme de Terre River or Lindley Creek. Sites 23HI151, 23HI532, 23HI538, and 23PO324 are moderate-sized lithic scatters which contain a large amount of lithic tools and debitage. Although portions of 23HI151 are disturbed from development of public use facilities, extensive intact deposits remain at this site. Regardless of the period to which these sites relate, significant information concerning upland activities appears to be present.

Two apparently similar sites (23DA224 and 23CE337) are present on ridges overlooking the Sac River. Both contain high densities of lithic debitage and shaped tools suggesting that, with additional investigation, there is good potential for recovery of time-diagnostic tool forms.

Four sites on ridgetops also appear to contain significant research potential. Site 23CE332 is the only prehistoric site encountered during the survey at which cultural features have been identified. Although investigation of one of the two stone mounds did not encounter evidence of human burials, the feature was neither natural nor the result of recent field clearing. Site 23PO335 overlooking Stinking Creek and site 23CE385 overlooking the Sac River are both significant because they appear to represent very limited, specific activities -- procurement and initial reduction of raw chert nodules (Jefferson City chert at 23PO335 and Burlington chert at 23CE385). Information concerning prehistoric lithic technology -- information which is available at only a few sites in the project area -- appears to be present at these sites. Site 23CE342 overlooking a tributary of the Little Sac River is significant because it appears that a series of repeated, limited activity occupations are represented, possibly associated with the use of a cave and sinkhole.

CHAPTER 5

MANAGEMENT RECOMMENDATIONS AND PROJECT SUMMARY

Recommendations for the management of cultural resources encountered in all areas surveyed during 1982 and 1983 are presented in this chapter following a discussion of current and potential adverse impacts to these resources. The chapter concludes with a summary of the overall scope and results of the project.

Current and Potential Adverse Impacts

Current and potential adverse impacts to cultural resources in the project areas are discussed below under five major headings. These impacts are discussed in order of decreasing relative severity as observed during the field investigations.

Construction of Public Use Facilities and Roads

Because public use areas are primarily situated in upland zones where site deposits are shallow (rarely exceeding 25 cm in depth below surface), sites are severely impacted by construction of roads, camp pads, parking areas, and structures (Fig. 36a). Of secondary impact are construction of utility lines and landscaping activities. These activities result in destruction of archeological features and spatial displacement or complete removal of artifacts.

Intensive Public Use

Because of the shallow nature of most deposits and the common occurrence of extensive surface exposures of artifacts in public use areas, archeological sites are subject to artifact collection, vandalism, and damage from pedestrian and vehicular traffic. Areas where grass has not been planted and maintained appear to be especially vulnerable.

Shoreline and Stream Erosion

Lake level fluctuations have resulted in scouring of many shoreline areas (Fig. 36b). Often these areas are along moderate to steep slopes which contain very shallow soils. The scouring causes deflation of site deposits and mixing of components. Lateral displacement of artifacts and destruction of features also may result. A similar problem is associated with the lateral shifting of creek channels. Cultural materials have been observed eroding from cutbanks and washing into drainages.

Figure 36



a



b

Cultivation

Portions of Fish and Wildlife management lands are leased for cultivation. Farming practices, particularly plowing, discing, and other use of heavy machinery, result in lateral displacement, breakage, and exposure of artifacts as well as destruction of archeological features (Fig. 37a). This impact is particularly severe because most cultivated lands are on terraces where site density is high.

Gully and Rill Erosion

Numerous areas surrounding both lakes have been cleared in the past but not developed or cultivated in recent years. Gully and/or rill erosion were observed in several such locations (Fig. 37b). This erosion can result in deflation of deposits and displacement or total removal of artifacts.

Management Recommendations

It is felt that management of significant cultural resources identified in the project areas should be concerned primarily with preservation of those resources. Alterations to sites meeting National Register Criteria A and B should be carried out so as not to affect the integrity of those sites; it is recommended that attempts be made to inform the public about the important events or significant individuals and families which were associated with these sites. A data recovery program should be implemented at sites considered significant under Criterion D only if recommendations concerning preservation are not possible. Specific recommendations for each of the areas surveyed are presented below.

Pomme de Terre Lake

OUTLET PUBLIC USE AREA

No significant archeological sites were encountered in this area.

QUARRY POINT PUBLIC USE AREA

One significant site, 23HI151, was encountered in this area. Planned development of Camp Area 3 appears to be beyond the site limits, but monitoring by a professional archeologist of any subsurface disturbance to this area is recommended, especially in the southern portions near the site boundaries. If possible, no additional development or landscaping should be carried out at 23HI151, but the thick grass cover should be maintained. It is recommended that the site be inspected regularly by a qualified Park Ranger and that a data recovery program be initiated if public use or erosion cause significant surface exposures of artifacts or features.

WHEATLAND PUBLIC USE AREA

One significant site, 23HI542, was encountered in this area. It is recommended that the planned nature trail be routed so as to avoid the site. The site should be inspected regularly by a qualified Park Ranger and a data recovery program initiated if disturbances cannot be prevented.

FISH AND WILDLIFE MANAGEMENT SEGMENT B

Two significant sites, 23HI532 and 23HI533, were encountered in the surveyed portions of Segment B. Both sites are adjacent to an unimproved road, but neither is highly visible. It is recommended that present conditions be maintained; any future development plans should avoid these areas.

LIGHTFOOT LANDING PUBLIC USE AREA

One significant site, 23HI50, was encountered in this area. This site is in a developed portion of the area, but the present grass cover limits visibility of cultural materials. It is likely that additional development of Camp Area 4 would adversely impact the site. If such developments cannot be avoided, implementation of a data recovery program is recommended. If additional developments are not planned, inspection of the area on a regular basis by a qualified Park Ranger is recommended; if lithic materials are exposed by erosion and/or public use, a data recovery program also should be initiated.

FISH AND WILDLIFE MANAGEMENT SEGMENT D

No significant archeological sites were encountered in the surveyed portions of Segment D.

BOLIVAR PUBLIC USE AREA

One significant archeological site, 23PO324, was encountered in this area. Site 23PO324 is situated in an area which coincides with proposed Picnic Area 1. Since it is likely that construction activities would adversely impact the site, it is recommended that the picnic area plans be altered. If such changes are not possible, initiation of a data recovery program is recommended.

FISH AND WILDLIFE MANAGEMENT SEGMENT E

Four significant sites (23PO89, 23PO90, 23PO335, and 23PO338) were encountered in surveyed portions of Segment E. It is likely that continued plowing and cultivation of sites 23PO89 and 23PO90 will result in additional spatial displacement of artifacts and destruction of any features which may remain. It is recommended that vegetation such as grasses be planted and maintained in these areas so as to limit site visibility and erosion and that no additional plowing or discing be carried out. Cultivation practices at 23PO338 have a less severe effect because of the depth of the deposits. However, the same

Figure 37. Impacts to Cultural Resources.

a. Archeological site in plowed field at Fish and Wildlife Management Segment B, Pomme de Terre Lake (23HI534, June 1982).

b. Archeological site in a formerly plowed field at Fish and Wildlife Management Segment B, Pomme de Terre Lake; note rill erosion (23HI535, April 1983).

Figure 37



a



b

recommendations apply. Also, some adverse impact to 23P0338 is apparent from lateral cutting of Stinking Creek. This stream erosion does not appear to be severe, but it is recommended that the cutbank adjacent to the site be inspected regularly by a qualified Park Ranger. A data recovery program should be initiated at each of these sites should adverse impacts prove to be unavoidable or uncontrollable. Site 23P0335 does not appear to be subject to significant adverse impacts at this time, and it is recommended that present conditions be maintained.

FISH AND WILDLIFE MANAGEMENT SEGMENT F

Two significant sites (23P0344 and 23P0345) were encountered in the surveyed portions of Segment F. Due to an apparent discontinuity in surface artifacts, these sites are recorded separately, but for management purposes they are probably best considered as a single unit. The sites are subject to some adverse effects from gully erosion; periodic inspection of the area is necessary in order to evaluate the severity of this impact. If cultural materials continue to be exposed, it is recommended that vegetation (grasses) be planted to stabilize the area or that a data recovery program be initiated.

POMME DE TERRE STATE PARK

One significant site, 23HI30, was encountered in this area. As recommended in the Pomme de Terre Lake cultural resources management plan (McNerney 1978), an interpretive display would greatly enhance public appreciation of this site. It is also recommended that a warning against unlawful digging and artifact collection be posted. If any subsurface disturbances are likely to occur from construction of the proposed nature trail rest area, it is recommended that a data recovery program be carried out. Most of the remaining significant deposits are not highly visible, but maintenance of a layer of gravel over the nature trail would help to ensure that cultural materials are not disturbed by foot traffic.

HERMITAGE STATE PARK

None of the sites encountered in this area appear to meet National Register eligibility criteria.

NEMO LANDING AND PITTSBURG LANDING PUBLIC USE AREAS

None of the four sites encountered in these areas appear to meet National Register eligibility criteria as all have been significantly disturbed by past developments and current public use.

FISH AND WILDLIFE MANAGEMENT SEGMENT J

Three significant sites (23HI76, 23HI164, and 23HI538) were encountered in this area. Sites 23HI76 and 23HI164 are subject to spatial displacement and breakage of artifacts and destruction of possible features because of current plowing and cultivation practices. It

is recommended that a grass cover be planted in these areas and plowing stopped or that a data recovery program be initiated.

Site 23HI538 is not highly visible, and no ongoing adverse impacts were observed. Maintenance of present conditions is recommended.

Extensive prehistoric occupations are evident at 23HI75, 23HI165, 23HI537, and 23HI541. Periodic inspection of these areas by a qualified Park Ranger to check for exposure of features or significant artifacts is recommended.

Stockton Lake

STOCKTON PUBLIC USE AREA

No significant archeological sites were encountered in the surveyed portions of this area.

ORLEANS TRAIL PUBLIC USE AREA

One significant archeological site, 23CE332, was encountered in this area. The site area is neither developed nor highly visible and is not subject to heavy public use. It is recommended that present conditions be maintained. The planned equestrian trail through the area should be routed so as to avoid the site.

HAWKER POINT PUBLIC USE AREA

Two significant archeological sites, 23CE334 and 23CE359, were encountered in this area. Both sites are located on a ridge to the south of the developed portions of the public use area and neither appears to be subject to significant disturbances. Because 23CE359 is readily visible, it is recommended that access to this area be limited. If developments are planned at either site, a data recovery program should be initiated.

RUARK BLUFF AND GREENFIELD PUBLIC USE AREAS

No significant archeological sites were encountered in the surveyed portions of these areas.

MUTTON CREEK PUBLIC USE AREA

Three significant sites (23DA224, 23DA313, and 23DA314) were encountered in this area. None are highly visible or located in areas of high public use. Site 23DA314 may be subject to some erosion from lake level fluctuations as it is periodically inundated. However, the site was covered with dense vegetation when investigated in 1982, and no shoreline scouring was noted. It is recommended that the site be inspected periodically by a qualified Park Ranger and that a data recovery program be initiated if significant

POMME DE TERRE AND STOCKTON LAKES PROJECT

erosion is evident. Present conditions should be maintained at 23DA224 and 23DA313. If future developments are planned, a data recovery program should be initiated.

STOCKTON STATE PARK

Three significant archeological sites, 23CE372, 23CE380 and 23CE385, were encountered in this area. None of these sites are located in a developed portion of the park, and no significant adverse impacts were noted during the site investigations. Site 23CE385 is in an area of difficult access and is not highly visible. It is recommended that present conditions be maintained. Although site 23CE380 is not currently subject to notable adverse impacts, there is easy access to the area and cultural remains are visible. It is recommended that the site be inspected regularly by a qualified Park Ranger. If disturbances to the site cannot be controlled, a data recovery program should be initiated. It is recommended that a marker be erected in the vicinity of 23CE372 indicating the significance of Thomas Hartley and his family to the development of Cedar County.

CRABTREE COVE PUBLIC USE AREA

Two significant archeological sites, 23CE336 and 23CE337, were encountered in this area. Both of these sites are in developed portions of the public use area, but both presently are concealed and stabilized by thick grass covers. Further development of the camping area at Crabtree Cove would have significant adverse impacts on both sites. It is recommended that the plans for additional development be altered or that a data recovery program be implemented. If no additional developments occur, it is recommended that the current grass cover be maintained and that the sites be inspected regularly by a qualified Park Ranger to check for exposure of artifacts or features from erosion or public use activities.

MASTERS PUBLIC USE AREA

Two significant archeological sites, 23CE342 and 23CE343, were encountered in this area. Site 23CE342 is adjacent to a group camp area and is subject to some public use. However, the site is in a wooded area with substantial leaf litter, and very little cultural materials are exposed on the surface. It is recommended that present conditions be maintained and that the site be inspected regularly by a qualified Park Ranger to check for exposure of artifacts or features from erosion or public use activities. If the site is adversely impacted, a data recovery program should be initiated.

Site 23CE343 is in an area of relatively difficult access and is not highly visible. It is recommended that present conditions be maintained.

CEDAR RIDGE PUBLIC USE AREA

The single site (23DA325) recorded in this area is assessed as significant in terms of National Register Criteria A and B. It is recommended that a marker be erected in the vicinity of 23DA325 indicating the significance of the Lindley family to the history of the development of Dade County. It is recommended that any future construction activities be carefully monitored by qualified personnel.

HIGH POINT PUBLIC USE AREA

Neither of the two sites recorded in this area is assessed as significant in terms of National Register eligibility criteria.

ALDRICH FISH AND WILDLIFE MANAGEMENT AREA

Most of this area is encompassed by a single significant archeological site, 23PO320. Currently the site is being adversely affected by cultivation and gully erosion. It is recommended that the site be planted with stabilizing vegetation (such as grass) and that no additional plowing or discing take place. The site should be inspected periodically by a qualified Park Ranger, and if disturbances cannot be controlled, a data recovery program should be initiated.

Project Summary

During 1982 and 1983 an archeological survey was carried out at approximately 3400 acres of public land surrounding Pomme de Terre Lake and approximately 3500 acres surrounding Stockton Lake on the western portion of the Ozark uplift area in southwestern Missouri. The survey was carried out by Prewitt and Associates, Inc. of Austin, Texas for the U.S. Army Corps of Engineers, Kansas City District, as part of a continuing survey of public use and Fish and Wildlife management areas initiated in order to inventory and evaluate the conditions of archeological sites contained therein in compliance with the national Historic Preservation Act of 1966, as amended (Public Law 89-665). The project involves identification and recording of sites and evaluations of their significance in terms of criteria of eligibility for nomination to the National Register of Historic Places as listed in 36 CFR 60, Section 60.6.

The survey was carried out on foot by a crew of four persons walking linear transects at approximately 25-m intervals. Shallow shovel tests were employed in areas where the ground surface was obscured by vegetation. At Pomme de Terre Lake a 100% survey of nine public use areas was conducted along with a survey of 1743 acres of Fish and Wildlife management lands. At Stockton Lake a 40% survey was conducted at nine public use areas, and a 22% survey was conducted at three other public use areas. In addition, 60 acres of Fish and Wildlife management lands were surveyed. A total of 153 archeological sites were recorded during the survey.

Insufficient data for assessments were obtained from 17 sites so test excavations were carried out in the spring of 1983. The testing generally consisted of excavation of one or more 1-by-1-m test pits and a series of shovel tests. In conjunction with the survey and testing, archival research and oral interviews were conducted to obtain information concerning historic resources.

Five sites (23DA313, 23DA314, 23DA325, 23CE372, and 23CE380) are assessed as significant in terms of National Register Criterion A because documentary evidence indicates that they are associated with the initial period of Anglo-American exploration and development in the western Ozark Highlands.

Two of these sites are assessed as significant also in terms of National Register Criterion B because archival research has demonstrated that they are associated with Thomas Hartley (23CE372) and John Lindley (23DA325), two persons who played significant roles in the history of the Pomme de Terre and Sac river areas.

In addition to these 5 historic sites, 25 sites are assessed as significant in terms of National Register Criterion D because they contain information of importance for understanding the prehistory or history of the project areas. The research framework within which these assessments are made is designed to reflect the ecological orientation of recent archeological research in southwestern Missouri. The goal is to understand changes in human adaptive systems through time. Following ideas presented by Butzer (1982), adaptive systems are viewed in terms of the interaction of natural resources, technology, and social systems as these are reflected by settlement patterning. Assessments are based on the projected ability of each site to meet data requirements necessary for investigation of the individual aspects of adaptive systems as well as on the spatial, functional, and temporal context of each site in order to ensure an adequate data base for investigation of complete settlement systems.

No evidence was encountered of occupation during the earliest recognized temporal period, the Dalton period, but Early/Middle Archaic period projectile points were recovered from 15 sites, 7 of which appear to have significant research potential. These sites are located on both ridges and terraces and are scattered throughout the project areas. Late Archaic or Early/Middle Woodland period projectile points were recovered from 25 sites, most of which are extensive lithic scatters located both on terraces and ridges. Nine of these sites appear to have high potential for isolating occupations and defining site activities. Twenty sites have projectile points relating to the Late Woodland/Mississippian period. Most of these are extensive lithic scatters located on terraces and lower ridge-slopes, and many are the same sites on which Late Archaic projectile points were recovered. Six sites with Late Woodland/Mississippian period components appear to have high research potential. None of the Woodland or Mississippian sites investigated during this project yielded ceramic artifacts. The reason for this lack of pottery remains to be demonstrated, but two possible explanations seem most likely: (1) ceramic technology came late to the project region and never developed to the extent seen in surrounding regions; and (2) the Woodland and Mississippian sites recorded during this survey represent relatively short-term, nonpermanent campsites where ceramic vessels were not used with great frequency. Of the 70 sites with Historic Period components, only eight are sufficiently intact to contribute sufficient data concerning the nature and material culture of nineteenth-century occupations in the project areas.

Potential adverse effects to the cultural resources result from construction of public use facilities and roads, intensive public use activities, shoreline and stream erosion, cultivation activities, and gully and rill erosion. It is recommended that plans for future development of the public use areas and Fish and Wildlife management lands be designed so as to avoid all identified significant archeological sites and that data recovery programs be initiated at significant sites if such developments cannot be avoided. It also is recommended that plowing and cultivation of significant sites be discontinued and that significant sites subject to erosion and/or intensive public use be monitored by qualified personnel on a regular basis.

APPENDIX I: Classification of Lithic Artifacts

Introduction

All of the recovered artifacts attributable to prehistoric occupations are made of stone. Aspects of manufacturing technology, function, and style as well as basic morphology are considered in the following classification. Seven general classes are recognized: stemmed bifaces; unstemmed bifaces; unifaces; perforators/gravers; ground and pecked stones; cores; and flakes, chips, and angular fragments.

Stemmed Bifaces

This class consists of all bifacially chipped specimens which have modifications of the proximal portions to enhance hafting (Table 9). All of these specimens are presumed to have had pointed distal ends although many are broken. Manufacture was carried out by both direct reduction of pebble or small cobble cores and by retouch of flakes struck from cores. All specimens appear to represent a complete or nearly complete stage of manufacture. Functionally, these specimens usually are considered to represent projectile points, although many also may have been used as hafted cutting tools. Separation of specimens within this class is based on formal attributes which previous studies have indicated are temporally diagnostic.

LANCEOLATE (1 specimen; Fig. 38a)

One broken specimen appears to represent the proximal portion of a large lanceolate projectile point or cutting tool. The lateral margins are straight and converge toward a straight base which has been partially broken. These margins are heavily step-scarred, but no grinding is evident. The specimen appears to have been burned. It is likely that this form relates to the Early/Middle Archaic period (Rice Lanceolate?), although this interpretation is tenuous.

FLARED BASE (6 specimens; Fig. 38b-g)

Distal portions (blades) of these specimens are alternately or bifacially beveled. Lateral margins are straight to slightly convex. Shoulders are small to moderate in size and squared to slightly rounded but not barbed. Stems expand to a shallow or deeply concave base with flared corners. Light grinding is evident on the lateral stem margins.

Five of the specimens are similar to Johnson points (Kay 1982b:475), whereas one closely resembles the type Jackie Stemmed (Chapman 1975:250; Kay 1982b:477). All probably relate to the Early/Middle Archaic period.

LOBED BASE (4 specimens; Fig. 38h-k)

Blades of all of these specimens have a strong alternate bevel. Blade margins are slightly convex. Shoulders are small to moderate in size and squared or slightly rounded. Expanding margins, large rounded corners, and slightly concave bases give stems a lobed appearance. No grinding is evident.

TABLE 9
DISTRIBUTION OF PROJECTILE POINTS

Site	Lanceolate	Flared Base	Lobed Base	Side Notched Form 1	Contracting Stem Form 1	Contracting Stem Form 2	Square Stemmed	Corner Notched Form 1	Expanding Stem Form 1	Bulbous Stem	Contracting Stem Form 3	Corner Notched Form 2	Corner Notched Form 3	Expanding Stem Form 2	Contracting Stem Form 4	Side Notched Form 2	Expanding Stem Form 3	Fragments
23HI5	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-
23HI30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
23HI50	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
23HI75	1	-	-	2	-	-	2	2	-	-	1	-	-	1	-	2	1	-
23HI76	-	-	-	1	-	-	-	1	-	-	-	1	-	1	-	-	1	2
23HI143	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
23HI151	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
23HI164	-	-	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	3
23HI165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
23HI512	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
23HI516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
23HI533	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23HI534	-	-	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	2
23HI535	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23PO21	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-
23PO33	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-
23PO69	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
23PO89	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23PO90	-	-	-	-	-	-	2	-	-	-	-	-	-	2	-	-	-	1
23PO323	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
23PO324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
23PO337	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
23PO338	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-

POMME DE TERRE LAKE

Table 9, continued

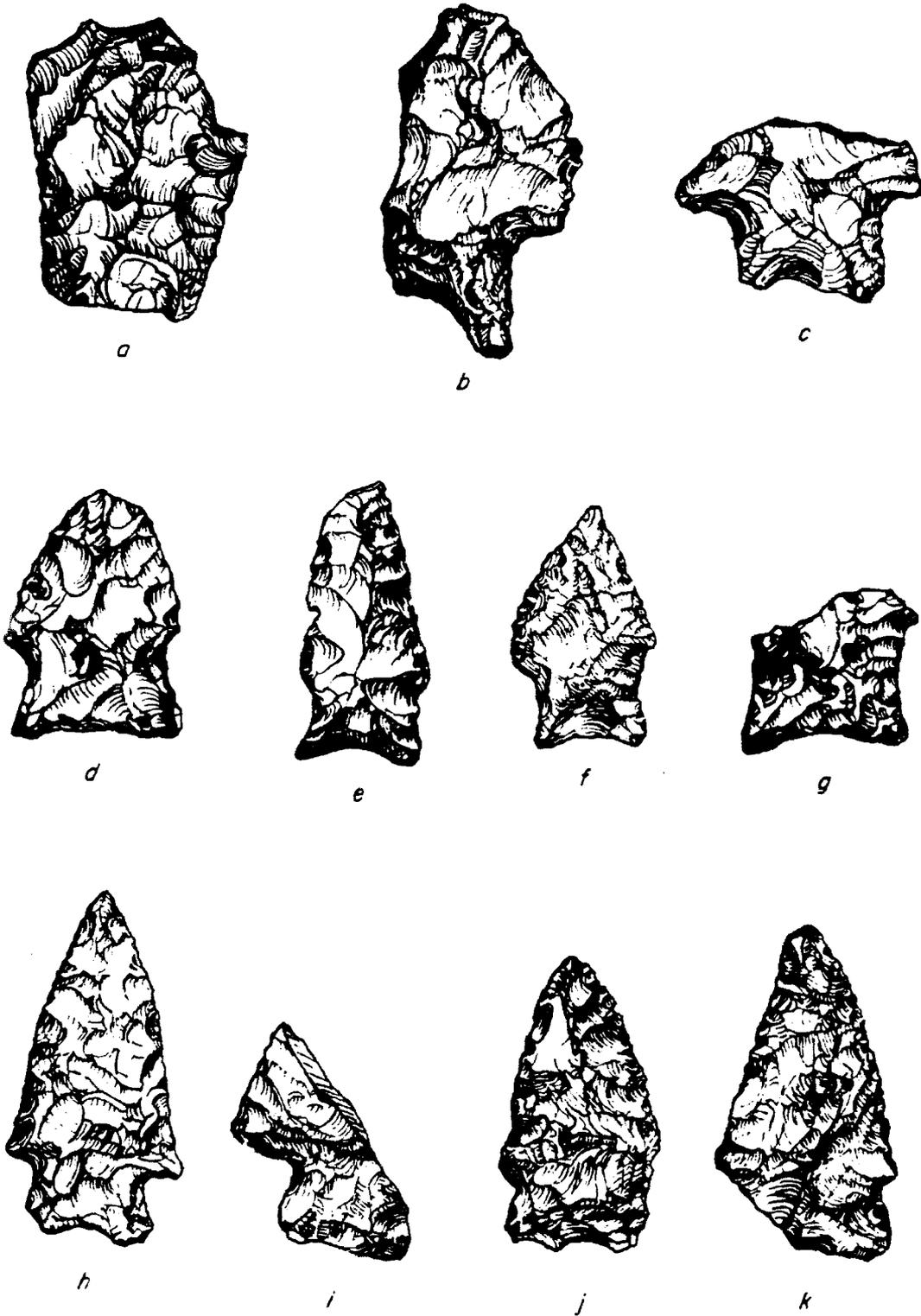
Site	Lanceolate	Flared Base	Lobed Base	Side Notched Form 1	Contracting Stem Form 1	Contracting Stem Form 2	Square Stemmed Form 2	Corner Notched Form 3	Corner Notched Form 2	Corner Notched Form 3	Expanding Stem Form 2	Contracting Stem Form 4	Side Notched Form 2	Expanding Stem Form 3	Fragments
23PO339	-	-	-	-	1	-	1	-	1	-	-	-	-	-	1
23PO340	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
23PO341	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
23PO345	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-
STOCKTON LAKE															
23CE326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
23CE330	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
23CE332	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
23CE334	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
23CE335	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
23CE336	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
23CE338	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
23CE339	-	-	-	-	1	-	-	-	-	-	-	-	1	-	1
23CE340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
23CE343	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
23DA211	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
23DA313	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1
23DA315	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
23PO320	3	2	-	1	2	-	1	-	-	1	1	1	-	1	3
23PO321	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
23PO322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTALS:	1	6	4	1	6	2	16	6	5	6	7	2	5	6	28

Figure 38. Stemmed Bifaces.

- a. Lanceolate projectile point, 23HI75
- b. Flared base projectile point, 23PO320
- c. Flared base projectile point, 23PO320
- d. Flared base projectile point, 23HI535
- e. Flared base projectile point, 23PO89
- f. Flared base projectile point, 23PO320
- g. Flared base projectile point, 23HI533
- h. Lobed base projectile point, 23HI164
- i. Lobed base projectile point, 23PO320
- j. Lobed base projectile point, 23PO320
- k. Lobed base projectile point, 23CE330

All artifacts are drawn to actual size.

Figure 38



The specimens resemble the type Rice Lobed (Chapman 1975:254; Kay 1982b:444) but lack barbed shoulders. There are also some similarities with the types Jakie Stemmed and Big Sandy Notched. All of these types relate to the Early/Middle Archaic period.

SIDE NOTCHED, FORM 1 (1 specimen; Fig. 39a)

This specimen, which is broken just above the shoulders, appears to have had a relatively small blade which was lenticular in cross section. The specimen has distinct, U-shaped side notches and a slightly concave base. The margins of the base and stem are heavily ground.

The stem resembles the type Big Sandy Notched (Chapman 1975:242) and probably relates to the Early/Middle Archaic period.

CONTRACTING STEM, FORM 1 (6 specimens; Fig. 39b-g)

Most of the distal portions of these specimens are broken, but blades generally are large, thin, and lenticular in cross section with straight lateral margins. Shoulders are of moderate size and squared. Stems contract to small, concave bases. Lateral stem margins are lightly ground.

These specimens appear to represent the type Hidden Valley Stemmed (Fowler 1959:36; Chapman 1975:250; Kay 1982b:439) and to relate to the Early/Middle Archaic period.

CONTRACTING STEM, FORM 2 (2 specimens; Fig. 39h-i)

These two specimens have long, narrow blades with convex margins. Cross sections are thin and lenticular. One broken specimen has been partially reworked. Shoulders are rounded and indistinct. The stems are relatively long and contract slightly to a rounded base. No grinding is evident on the stem margins.

These two specimens exhibit some similarities to lanceolate and ovate forms recovered from Rodgers Shelter but also appear to resemble the Wells type (Newell and Krieger 1949:167; Bell 1958:100) often found in Texas and Oklahoma. This form probably relates to the Early/Middle Archaic period.

SQUARE STEMMED (16 specimens; Figs. 40 and 41)

This form is characterized by large triangular blades with convex to slightly recurved margins. On most specimens, the blades have a slight alternate bevel. When not broken and reworked, shoulders are pronounced and barbed; on some specimens the shoulders may have extended as far as the base of the stem. Stem size is small relative to the blades. Stem margins are straight and usually roughly parallel. Bases are straight to slightly convex. No grinding is evident. The overall large size of these specimens suggests that they represent cutting tools rather than projectile points.

The types Smith Basal Notched (Chapman 1975:256; Kay 1982b:457) and Stone Square Stemmed (Chapman 1975:257; Kay 1982b:454) appear to be represented in this group. The specimens probably relate to the Late Archaic period.

CORNER NOTCHED, FORM 1 (6 specimens; Fig. 42a-f)

These specimens have thin blades with lenticular cross sections. Blade outlines cannot be ascertained on four specimens, but the remaining two are asymmetrical with strongly convex margins. Shoulders are barbed and stems are formed by narrow, U-shaped corner notches. Bases are straight to slightly convex. Light grinding is evident on the base of one specimen.

These specimens may relate to the type Afton Corner Notched (Chapman 1975:240; Kay 1982b:462), but the distinctive blade shape cannot be discerned because of breakage. The excurvate margins on two specimens differ, but the notching and thin blades are very similar to those of the other specimens.

EXPANDING STEM, FORM 1 (2 specimens; Fig. 42g-h)

The blades of these specimens are broken just above the shoulders but appear to have been relatively small with lenticular cross sections. Shoulders are distinct but not barbed. Stem margins are slightly concave and expand to relatively wide bases which are straight to slightly convex. The edges of the base and stem are heavily ground.

These specimens relate well to the type Table Rock Stemmed (Chapman 1975:257; Kay 1982b:431) which is associated with the Late Archaic period.

BULBOUS STEM (2 specimens; Fig. 42i-j)

The distal portions of the blades of both of these specimens are broken but margins appear to have been excurvate and cross sections lenticular. Shoulders are rounded and indistinct. Stems are bulbous and irregular in outline.

Workmanship is generally poor on these specimens, and it is possible that a group of preforms is represented. The specimens appear similar to those of Category 44 at Rodgers Shelter (Kay 1982b:451) which relate to the Late Archaic period.

CONTRACTING STEM, FORM 3 (4 specimens; Fig. 43a-d)

Blades are relatively large on these specimens with convex margins and lenticular cross sections. Shoulders are small and squared to slightly rounded. Stems contract moderately to a straight base on one specimen and a rounded base on two specimens (the base is broken on the fourth specimen). No grinding is evident.

These specimens are within the range of variability of the widespread Gary type (Newell and Krieger 1949:64; Bell 1958:28; Chapman 1980:308) and probably relate to the Late Archaic or Early/Middle Woodland periods.

Figure 39. Stemmed Bifaces.

- a. Side notched (Form 1) projectile point, 23PO320
- b. Contracting stem (Form 1) projectile point, 23PO320
- c. Contracting stem (Form 1) projectile point, 23PO320
- d. Contracting stem (Form 1) projectile point, 23PO345
- e. Contracting stem (Form 1) projectile point, 23PO33
- f. Contracting stem (Form 1) projectile point, 23DA313
- g. Contracting stem (Form 1) projectile point, 23PO338
- h. Contracting stem (Form 2) projectile point, 23HI164
- i. Contracting stem (Form 2) projectile point, 23CE335

All artifacts are drawn to actual size.

Figure 39



a



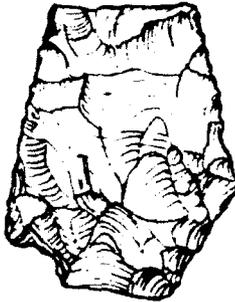
b



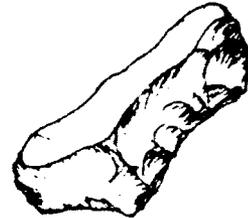
c



d



e



f



g



h



i

Figure 40. Stemmed Bifaces.

- a. Square stemmed projectile point, 23P0339
- b. Square stemmed projectile point, 23CE339
- c. Square stemmed projectile point, 23P0341
- d. Square stemmed projectile point, 23HI164
- e. Square stemmed projectile point, 23P0340
- f. Square stemmed projectile point, 23HI75

All artifacts are drawn to actual size.

Figure 40



a



b



c



d



e



f

Figure 41. Stemmed Bifaces.

- a. Square stemmed projectile points, 23HI75
- b. Square stemmed projectile points, 23P0345
- c. Square stemmed projectile points, 23HI50
- d. Square stemmed projectile points, 23HI534
- e. Square stemmed projectile points, 23HI534
- f. Square stemmed projectile points, 23P090
- g. Square stemmed projectile points, 23P0320
- h. Square stemmed projectile points, 23P090
- i. Square stemmed projectile points, 23HI512
- j. Square stemmed projectile points, 23P0340

All artifacts are drawn to actual size.

Figure 41

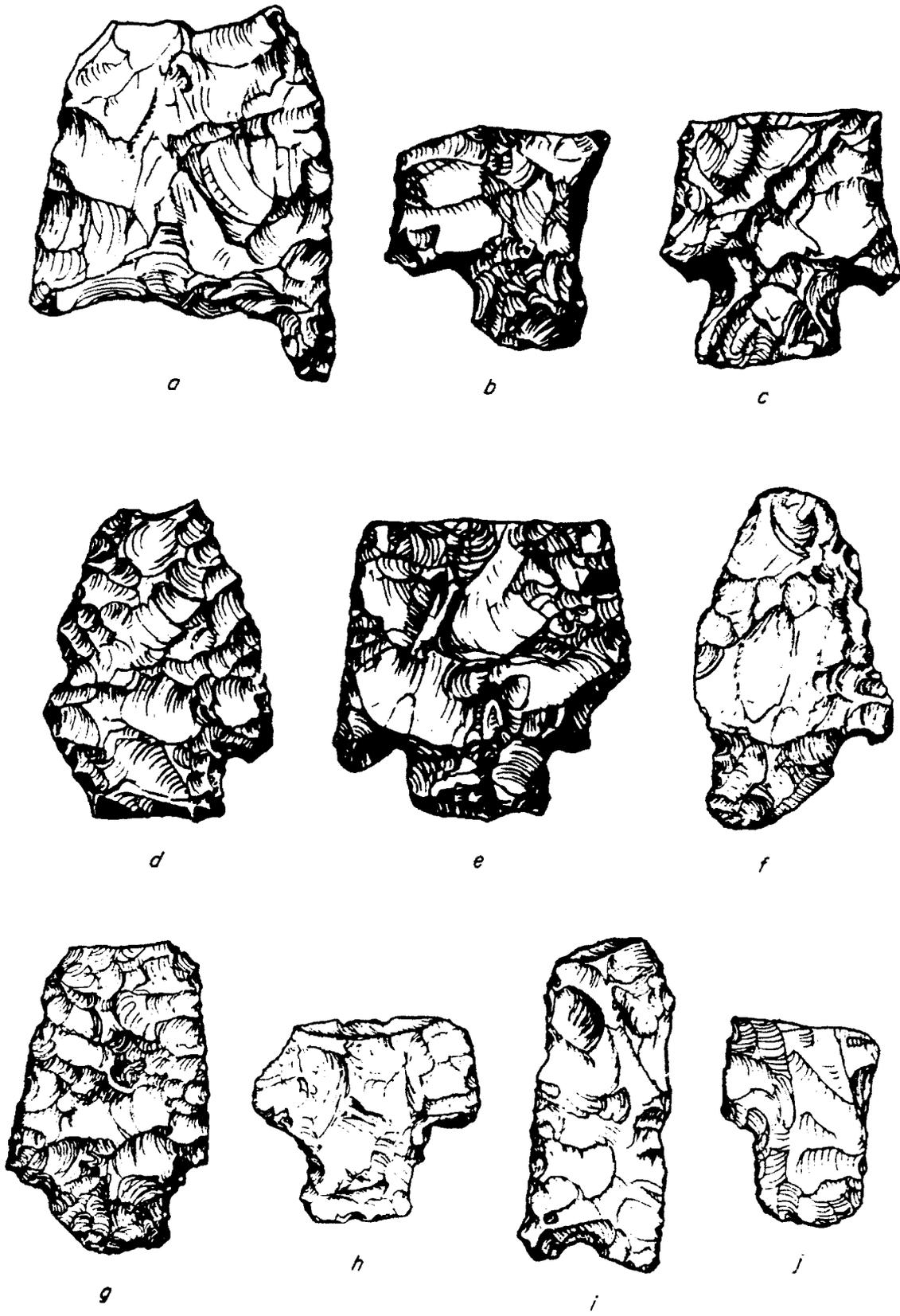


Figure 42. Stemmed Bifaces.

- a. Corner notched (Form 1) projectile point, 23HI511
- b. Corner notched (Form 1) projectile point, 23HI75
- c. Corner notched (Form 1) projectile point, 23HI75
- d. Corner notched (Form 1) projectile point, 23P0323
- e. Corner notched (Form 1) projectile point, 23HI76
- f. Corner notched (Form 1) projectile point, 23CE343
- g. Expanding stem (Form 1) projectile point, 23P0320
- h. Expanding stem (Form 1) projectile point, 23P0320
- i. Bulbous stem projectile point, 23P0320
- j. Bulbous stem projectile point, 23HI534

All artifacts are drawn to actual size.

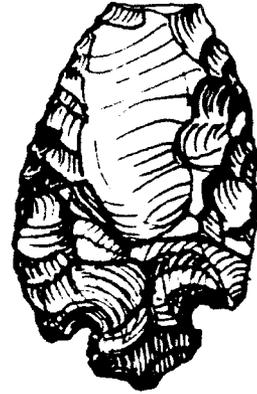
Figure 42



a



b



c



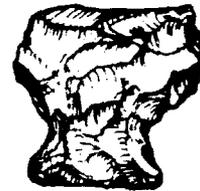
d



e



f



g



h



i



j

Figure 43. Stemmed Bifaces.

- a. Contracting stem (Form 3) projectile point, 23HI75
- b. Contracting stem (Form 3) projectile point, 23P021
- c. Contracting stem (Form 3) projectile point, 23P0322
- d. Contracting stem (Form 3) projectile point, 23P0320
- e. Corner notched (Form 2) projectile point, 23P0338
- f. Corner notched (Form 2) projectile point, 23P0339
- g. Corner notched (Form 2) projectile point, 23P033
- h. Corner notched (Form 2) projectile point, 23HI534
- i. Corner notched (Form 2) projectile point, 23HI76

All artifacts are drawn to actual size.

Figure 43



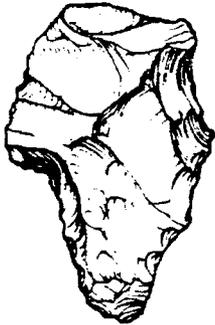
a



b



c



d



e



f



g



h



i

CORNER NOTCHED, FORM 2 (5 specimens; Fig. 43e-i)

These specimens are characterized by large, broad blades with strongly convex margins and thin lenticular cross sections. Large barbed shoulders are formed by deep, U-shaped corner notches. Stems are short and broad and expand to slightly convex or irregular bases. No grinding is evident. The large broad blade suggests that these forms served as cutting tools rather than projectile points.

These specimens appear to be similar to the type Snyders Notched (Chapman 1980:312) and probably relate to the Early/Middle Woodland period.

CORNER NOTCHED, FORM 3 (6 specimens; Fig. 44a-f)

These specimens have moderate to large blades with convex margins. Cross sections are lenticular on four specimens and two have a slight alternate bevel. Shoulders are well defined and usually slightly barbed. Stems are formed by a U-shaped corner notch. Bases are very broad and slightly convex. No grinding is evident on any of the specimens.

Most of the specimens appear to represent the type Steuben Expanded Stem (Chapman 1980:313) and to relate to the Late Woodland period although it is possible that Archaic corner notched forms also are included.

EXPANDING STEM, FORM 2 (7 specimens; Figs. 44g-i and 45a-d)

These specimens have thin, triangular blades which are relatively small on four specimens and long and slender on three specimens. Margins are straight to slightly convex and finely serrated on two specimens. Cross sections are lenticular. Shoulders are well defined and squared to slightly barbed. Stem margins expand to straight or slightly convex bases. No grinding is evident.

These specimens appear to be similar to the type Chapman (1980:312) terms Kings Corner Notched, and they probably relate to the Early/Middle or Late Woodland periods.

CONTRACTING STEM, FORM 4 (2 specimens; Fig. 45e-f)

These two specimens have long, narrow blades with straight margins and lenticular cross sections. Shoulders are rounded but distinct due to the narrow nature of the stems. Stem margins contract only slightly and the base is relatively straight on one specimen. The second specimen has a smaller stem which contracts to a rounded base.

These specimens are similar to the type Table Rock Pointed Stem (Chapman 1980:313) and probably relate to the Late Woodland/Mississippian period.

SIDE NOTCHED, FORM 2 (5 specimens; Fig. 45g-k)

These specimens have moderate to broad blades with lenticular cross sections. Two broken specimens appear to have been reworked. Shoulders are rounded and indistinct.

Stems are formed by shallow, broad side notches; bases are straight. There is no evidence of grinding.

The specimens appear to represent the type Rice Side Notched (Chapman 1980:311; Kay 1982b:500), a form commonly found in Late Woodland/Mississippian period contexts.

EXPANDING STEM, FORM 3 (6 specimens; Fig. 46a-f)

These specimens were made on small, thin flake blanks and probably represent arrow points. Blades are triangular with convex margins. Shoulders are distinct and barbed on some specimens. Stems expand to a broad, slightly convex base. One specimen is distinct in that it has a relatively long narrow blade and a bulbous stem.

All of these specimens are in the morphological range of the Scallorn type (Chapman 1980:312) which is found over a widespread area during the Late Woodland/Mississippian period.

FRAGMENTS (28 specimens)

The complete form of 28 specimens cannot be discerned because of their fragmented condition. All have some remnant of a stem or shoulder to enable identification as a stemmed biface, but classification into any specific group is not possible. Five specimens appear to represent stems of corner notched or expanding stem forms. Fifteen specimens are blade fragments with some portion of a shoulder retained. The final eight specimens are barbed shoulder fragments.

Unstemmed Bifaces

This group consists of all bifacially chipped specimens which lack an apparent hafting element (Table 10). Most specimens appear to have been reduced from relatively large, thick flake blanks, but some may have been reduced directly from angular chert cobbles or large pebbles. Most specimens appear to represent forms discarded during manufacture, but several probably are completed functional tools used for a variety of cutting, chopping, and digging purposes. Specimens are classified according to outline form. Three groups are of specimens sufficiently complete to enable identification of their original outline form. The remaining seven groups are of fragments.

OVOID BIFACES, GROUP 1 (18 specimens; Fig. 46g)

Bifaces in this group have roughly ovoid outlines. Five are distinct in being relatively well thinned and circular, and these appear to represent completed tools. The remaining 13 specimens have generally thick cross sections and irregular margins which lack extensive secondary retouch. Cortex remains on the surfaces of eight of these specimens. Although it is likely that most represent manufacturing failures, it is possible that some of these specimens were utilized.

Figure 44. Stemmed Bifaces.

- a. Corner notched (Form 3) projectile point, 23P0338
- b. Corner notched (Form 3) projectile point, 23P069
- c. Corner notched (Form 3) projectile point, 23CE334
- d. Corner notched (Form 3) projectile point, 23DA211
- e. Corner notched (Form 3) projectile point, 23DA315
- f. Corner notched (Form 3) projectile point, 23P0320
- g. Expanding stem (Form 2) projectile point, 23HI143
- h. Expanding stem (Form 2) projectile point, 23HI75
- i. Expanding stem (Form 2) projectile point, 23P090

All artifacts are drawn to actual size.

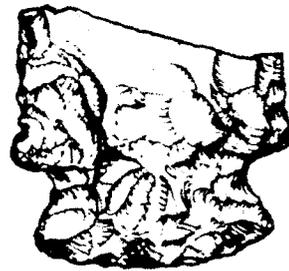
Figure 44



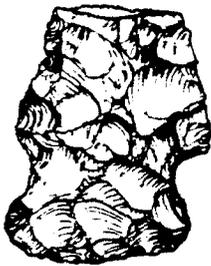
a



b



c



d



e



f



g



h



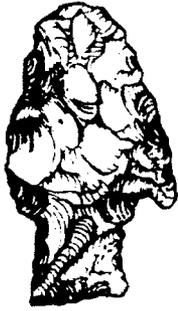
i

Figure 45. Stemmed Bifaces.

- a. Expanding stem (Form 2) projectile point, 23PO320
- b. Expanding stem (Form 2) projectile point, 23PO340
- c. Expanding stem (Form 2) projectile point, 23HI76
- d. Expanding stem (Form 2) projectile point, 23PO90
- e. Contracting stem (Form 4) projectile point, 23PO337
- f. Contracting stem (Form 4) projectile point, 23PO320
- g. Side notched (Form 2) projectile point, 23HI51
- h. Side notched (Form 2) projectile point, 23HI75
- i. Side notched (Form 2) projectile point, 23HI75
- j. Side notched (Form 2) projectile point, 23PO21
- k. Side notched (Form 2) projectile point, 23CE339

All artifacts are drawn to actual size.

Figure 45



a



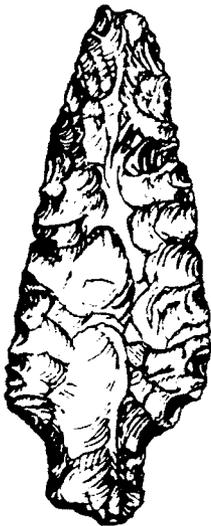
b



c



d



e



f



g



h



i



j



k

Figure 46. Stemmed and Unstemmed Bifaces.

- a. Expanding stem (Form 3) projectile point, 23HI76
- b. Expanding stem (Form 3) projectile point, 23DA313
- c. Expanding stem (Form 3) projectile point, 23HI516
- d. Expanding stem (Form 3) projectile point, 23HI75
- e. Expanding stem (Form 3) projectile point, 23HI165
- f. Expanding stem (Form 3) projectile point, 23PO320
- g. Ovoid biface (Group 1), 23HI76
- h. Ovoid biface (Group 2), 23PO320

All artifacts are drawn to actual size.

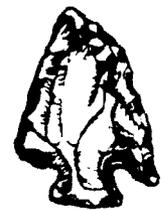
Figure 46



a



b



c



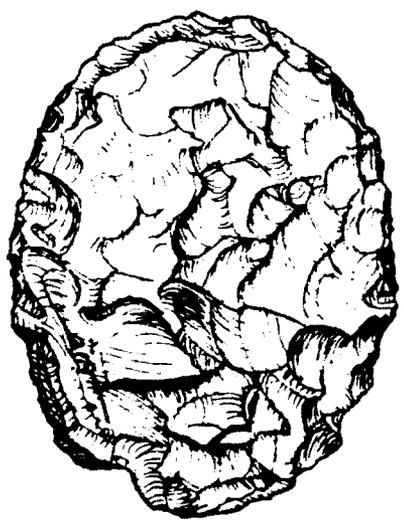
d



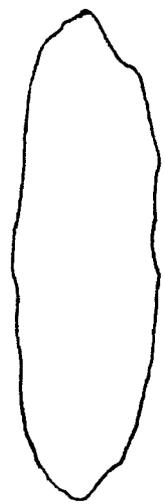
e



f



g



h

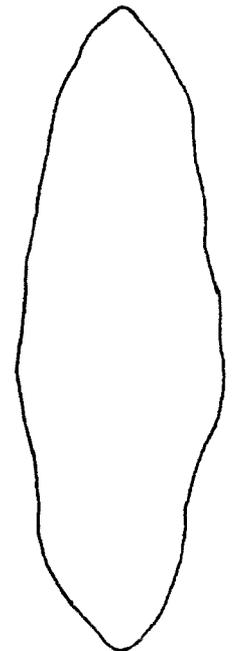


TABLE 10
DISTRIBUTION OF UNSTEMMED BIFACES, UNIFACES, AND GROUND/PECKED STONE

Site	Ovoid Bifaces, Group 1	Ovoid Bifaces, Group 2	Triangular Bifaces	Distal Fragments	Medial Fragments, Group 1	Medial Fragments, Group 2	Medial Fragments, Group 3	Medial Fragments, Group 4	Proximal Fragments, Group 1	Proximal Fragments, Group 2	Unifaces, Group 1	Unifaces, Group 2	Uniface Fragments	Perforators/Gravers	Ground and Pecked Stones	Pitted Cobbles
23HI5	-	-	-	1	-	1	-	-	-	1	-	-	-	-	-	-
23HI30	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-
23HI75	4	1	-	4	2	2	1	-	3	1	-	-	-	-	-	-
23HI76	2	-	-	2	1	-	1	-	-	3	-	-	-	1	-	-
23HI143	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-
23HI151	-	-	-	-	1	2	-	-	3	-	-	-	-	-	-	-
23HI164	1	-	-	1	-	1	-	-	3	2	-	-	-	-	-	-
23HI512	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-
23HI513	-	-	-	-	5	2	1	-	2	4	-	-	-	-	-	-
23HI516	-	-	-	1	2	1	-	1	2	1	-	-	-	-	-	-
23HI518	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
23HI519	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
23HI521	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
23HI526	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-
23HI532	-	-	-	1	-	1	-	-	-	-	-	-	-	1	-	-
23HI534	-	-	-	1	3	1	-	-	4	1	-	-	-	-	-	1
23HI535	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
23HI537	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
23HI541	-	-	-	1	1	1	-	-	1	-	-	-	1	-	-	-

POMME DE TERRE LAKE

Table 10, continued

Site	Ovoid Bifaces, Group 1	Ovoid Bifaces, Group 2	Triangular Bifaces	Distal Fragments	Medial Fragments, Group 1	Medial Fragments, Group 2	Medial Fragments, Group 3	Medial Fragments, Group 4	Proximal Fragments, Group 1	Proximal Fragments, Group 2	Unifaces, Group 1	Unifaces, Group 2	Uniface Fragments	Perforators/Gravers	Ground and Pecked Stones	Pitted Cobbles
23P021	-	-	-	1	-	-	1	-	2	4	-	-	-	-	-	-
23P022	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
23P023	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
23P024	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
23P051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
23P069	-	-	-	1	1	-	-	-	-	3	-	-	-	-	-	-
23P090	-	-	-	1	1	1	-	-	1	2	-	-	-	-	-	-
23P0108	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
23P0176	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
23P0324	1	-	-	1	2	-	1	-	-	1	-	-	-	-	-	-
23P0335	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23P0337	-	-	-	2	1	-	-	-	2	-	-	-	-	1	-	-
23P0338	1	1	-	-	-	1	-	-	2	2	1	-	-	-	-	-
23P0339	1	-	-	-	3	-	-	-	-	-	1	1	-	-	-	1
23P0340	-	-	-	2	6	1	-	-	1	-	1	-	-	-	-	-
23P0343	-	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-
STOCKTON LAKE																
23CE325	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-
23CE327	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
23CE329	-	-	2	-	-	1	-	-	-	-	-	-	1	-	-	-
23CE330	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-
23CE332	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23CE335	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
23CE336	-	-	-	-	1	-	1	-	-	-	-	-	1	-	-	-
23CE337	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
23CE338	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-
23CE339	-	-	-	4	1	1	1	-	-	2	-	-	-	1	-	-

Table 10, continued

Site	Ovoid Bifaces, Group 1	Ovoid Bifaces, Group 2	Triangular Bifaces	Distal Fragments	Medial Fragments, Group 1	Medial Fragments, Group 2	Medial Fragments, Group 3	Medial Fragments, Group 4	Proximal Fragments, Group 1	Proximal Fragments, Group 2	Unifaces, Group 1	Unifaces, Group 2	Uniface Fragments	Perforators/Gravers	Ground and Pecked Stones	Pitted Cobbles
23CE340	-	-	-	1	-	1	-	-	2	-	-	-	-	-	-	-
23CE341	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-
23CE342	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-
23CE343	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
23CE346	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
23CE347	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
23DA211	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-
23DA215	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
23DA224	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
23DA312	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-
23DA313	1	-	-	2	3	2	-	-	3	1	-	-	-	1	-	-
23DA315	1	-	1	1	-	-	-	-	1	1	-	-	-	-	-	-
23DA326	-	-	1	2	-	-	-	-	2	-	-	-	-	-	-	-
23PO320	1	1	1	8	5	4	-	4	2	2	1	3	-	1	-	-
23PO321	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-
23PO322	-	-	-	2	2	3	-	-	1	-	-	-	-	-	-	-
TOTALS:	18	4	7	41	55	37	21	3	41	42	4	2	6	8	5	2

OVoid BIFACES, GROUP 2 (4 specimens; Fig. 46h)

Four bifaces have elongated ovoid outlines with roughly parallel sides on the long axis and rounded margins on their short axis. Two specimens appear to represent unfinished tools, but the remaining two are similar to "Sedalia Diggers" (Chapman 1975:205).

TRIANGULAR BIFACES (7 specimens; Fig. 47a)

Seven specimens have a roughly triangular outline. Four of these are relatively small and thin with extensive secondary retouch along the margins. The remaining three are larger and thicker with two retaining cortex on at least one surface.

DISTAL FRAGMENTS (41 specimens)

This group consists of fragments having two lateral margins which converge sharply to form a pointed tip. Of the 41 specimens, 20 are within the size and thinness range shown by the specimens in the stemmed biface category. The remaining specimens are relatively large and thick and may represent manufacturing failures. One specimen is unique in having denticulate blade margins.

MEDIAL FRAGMENTS, GROUP 1 (55 specimens)

This group consists of fragments having two opposing chipped blade margins with break facets present both distally and proximally. There is no evidence of shoulders, but fragments of both stemmed and unstemmed bifaces appear to be represented.

MEDIAL FRAGMENTS, GROUP 2 (37 specimens)

This group consists of fragments having a single convex chipped edge. Breakage apparently has resulted both from use and errors in manufacture.

MEDIAL FRAGMENTS, GROUP 3 (21 specimens)

These fragments are similar to those of the preceding group, but the single remaining chipped margin is straight rather than convex.

MEDIAL FRAGMENTS, GROUP 4 (3 specimens)

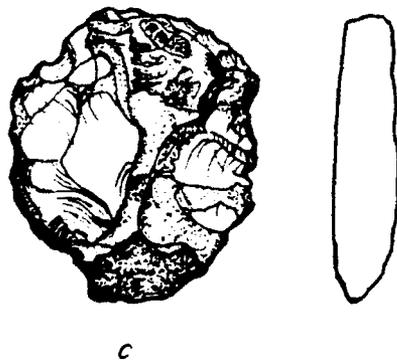
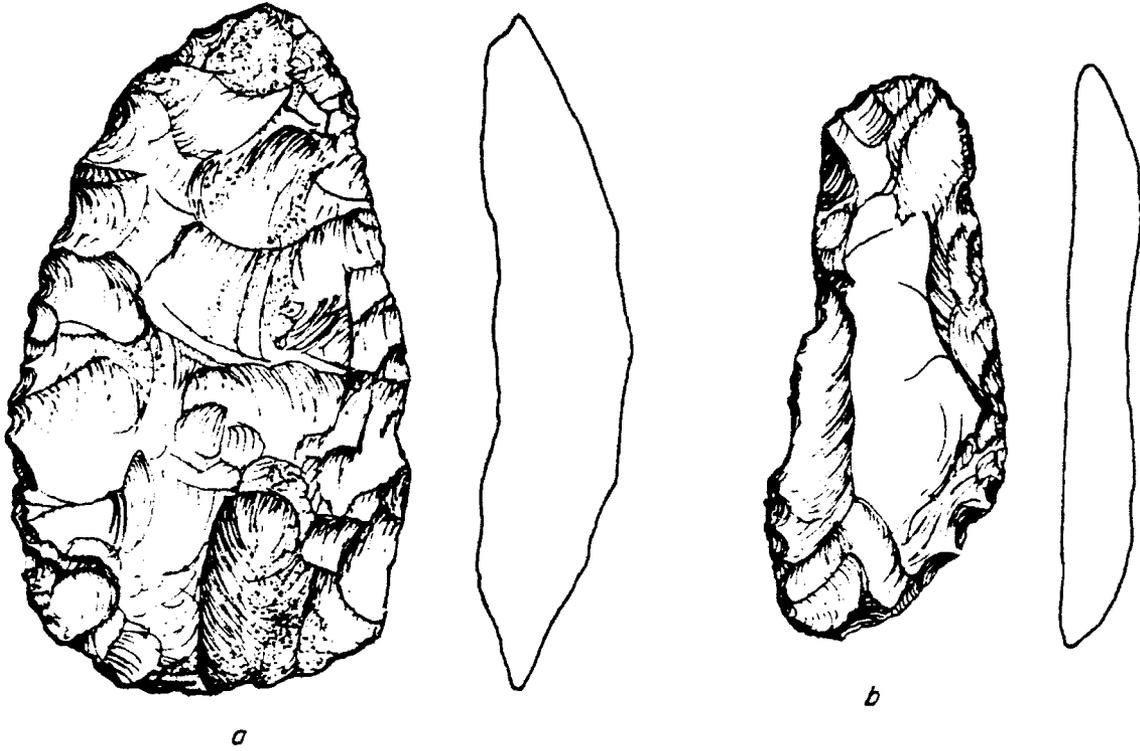
These specimens are fragments having a single concave chipped margin. Although it is probable that these specimens represent medial fragments, basal fragments also may be represented.

Figure 47. Unstemmed Biface and Unifaces

- a. Triangular biface, 23P0343
- b. Uniface (Group 1), 23P0339
- c. Uniface (Group 2), 23P0339

All artifacts are drawn to actual size.

Figure 47



PROXIMAL FRAGMENTS, GROUP 1 (41 specimens)

These biface fragments have two contiguous chipped edges that do not form pointed distal tips. Approximately half of the specimens are well thinned and appear to represent fragments of finished tools or an advanced stage of reduction.

PROXIMAL FRAGMENTS, GROUP 2 (42 specimens)

Three adjacent sides are present on these fragments which appear to represent proximal portions of unstemmed bifaces. Eight specimens are well thinned and have lateral margins which expand toward convex bases. Twelve specimens have parallel lateral edges and slightly convex bases. Two of these specimens may actually represent distal portions of "Sedalia Diggers." The remaining 22 specimens have strongly contracting lateral margins and convex to straight bases.

Unifaces

Specimens with flake scars present only on a single face and whose outlines have been significantly reshaped are classified as unifaces (see Table 10). On most specimens the chipped margins are moderately to steeply beveled. All of the unifaces appear to have been made on relatively large, thick flakes and all appear to represent completed, functional tools. The unifaces are classified into three groups.

UNIFACES, GROUP 1 (4 specimens, Fig. 47b)

These specimens are roughly ovoid to almost rectangular in outline. One specimen is chipped from a very large thick flake blank and has only localized areas of secondary marginal scarring; the remaining three are retouched around their entire perimeters.

UNIFACES, GROUP 2 (2 specimens; Fig. 47c)

These unifaces are relatively small and roughly circular in outline. One specimen has cortex covering almost half of the chipped surface and has steeply beveled margins. The second specimen has a series of small concavities along a portion of its margin.

UNIFACE FRAGMENTS (6 specimens)

These specimens consist of single convex unifaceally chipped margins bounded by transverse break facets. It is likely that portions of shaped unifaces are represented rather than unshaped, edge modified flakes.

Perforators/Gravers

This group consists of eight bifacially chipped tools which have long narrow projections and, when not broken, pointed tips (see Table 10). These tools may have been used as drills, awls, and/or gravers. Two of the four relatively complete specimens have ovoid flake bodies; the other two have bodies with parallel sides and may represent reworked stemmed bifaces. The remaining four specimens are fragments of projections.

Ground and/or Pecked Stone

GROUND AND PECKED STONES (5 specimens)

Four small cobbles of indurated fine-grained sandstone have one or more relatively flat surfaces which have been ground smooth (see Table 10). Three of the specimens have been shaped by pecking of the lateral margins to form roughly rectangular outlines with rounded corners. The smoothed surfaces of two of these specimens also contain lightly pecked areas. The fifth specimen is a small, tabular piece of sandstone (1.2 cm thick) which has been lightly pecked and ground on one surface.

PITTED COBBLES (2 specimens)

Two indurated sandstone cobbles have been pecked to form a semiovoid outline (one specimen may have been fully ovoid originally) (see Table 10). The center of a single surface on each has been pecked or battered to form shallow pits.

Cores

Chert cobbles or pebbles from which a series of flakes have been removed in a haphazard manner so that no deliberate shaping is discernible are classified as cores (Table 11). Although most specimens appear to represent by-products in the production of flake blanks, some specimens may represent rejects from early stages of direct core reduction strategies and some have evidence of utilization. The specimens are separated into five groups.

TESTED CORES (5 specimens)

These specimens have less than five flake scars struck from several platforms. The presence of inclusions and irregular fractures suggests that these cores were rejected due to poor material quality following minimal attempts at reduction.

TABLE 11
DISTRIBUTION OF CORES AND FLAKES, CHIPS, AND ANGULAR FRAGMENTS

Site	Tested Cores	Partially Reduced Cores	Extensively Reduced Cores	Edge Modified Cores	Battered Cores	Unmodified Flakes and Chips	Unmodified Angular Fragments	Edge Modified Flakes, Chips and Angular Fragments
POMME DE TERRE LAKE								
23HI5	-	-	-	-	-	25	8	-
23HI30	-	-	1	-	-	85	17	1
23HI50	-	-	-	1	-	48	9	3
23HI75	-	1	-	-	-	67	17	12
23HI76	-	1	-	-	-	195	18	3
23HI143	-	-	-	-	-	106	29	9
23HI144	-	1	-	-	-	19	1	2
23HI151	-	-	-	-	-	559	73	16
23HI159	-	-	1	-	1	28	21	12
23HI164	-	-	-	-	-	27	20	5
23HI165	-	-	-	-	-	159	99	6
23HI510	-	-	-	-	-	4	-	2
23HI512	-	-	-	-	-	5	-	2
23HI513	-	-	-	-	-	121	47	18
23HI515	-	-	2	-	-	16	6	1
23HI516	-	1	-	-	-	100	33	16
23HI517	-	-	-	-	-	15	4	2
23HI518	-	-	1	-	-	18	8	11
23HI519	-	-	-	-	-	-	-	5
23HI520	-	-	-	-	-	11	2	2
23HI521	-	-	1	-	-	93	24	4
23HI524	-	-	-	-	-	14	12	1
23HI526	-	-	-	-	-	65	33	12
23HI527	-	1	-	-	-	14	19	2
23HI529	-	-	-	-	-	29	8	7
23HI532	-	1	2	-	-	759	155	41
23HI533	-	-	-	-	-	10	-	-
23HI534	-	1	-	-	-	41	11	9
23HI537	-	1	1	-	-	72	17	8
23HI538	-	-	-	-	-	8	2	9
23HI541	-	-	-	-	-	5	-	4
23PO21	-	-	-	1	-	7	-	1
23PO22	-	-	-	-	-	7	4	-
23PO24	-	-	1	-	-	40	2	3

Table 11, continued

Site	Tested Cores	Partially Reduced Cores	Extensively Reduced Cores	Edge Modified Cores	Battered Cores	Unmodified Flakes and Chips	Unmodified Angular Fragments	Edge Modified Flakes, Chips and Angular Fragments
23PO51	-	-	1	-	-	4	4	-
23PO69	-	1	-	-	-	9	-	-
23PO89	-	-	-	-	-	12	3	-
23PO90	-	-	-	1	-	13	-	6
23PO108	-	-	1	-	-	18	2	-
23PO176	-	-	2	-	-	34	7	9
23PO198	-	-	-	-	-	3	-	-
23PO324	1	1	-	1	-	521	39	8
23PO335	-	2	3	-	-	-	33	6
23PO336	1	-	-	-	-	47	12	-
23PO337	-	-	-	-	-	6	3	-
23PO338	-	1	-	1	-	53	7	3
23PO339	-	-	-	-	1	2	-	1
23PO340	-	-	-	-	-	7	1	1
23PO341	-	-	-	-	-	-	3	-
23PO342	-	-	1	-	-	6	6	-
23PO343	-	-	-	-	-	3	1	-
23PO344	-	-	1	-	-	7	6	-
23PO345	-	-	-	-	-	15	10	-
23PO346	-	-	-	-	-	-	5	-
STOCKTON LAKE								
23CE326	1	-	-	1	-	8	2	-
23CE327	-	-	-	-	-	8	1	2
23CE329	-	1	1	-	-	34	209	40
23CE330	-	-	-	-	-	33	146	35
23CE332	-	-	-	-	-	20	7	10
23CE333	-	-	-	-	-	4	-	7
23CE334	-	-	-	-	-	76	21	8
23CE335	-	1	2	1	-	75	111	3
23CE336	-	-	1	-	-	190	144	5
23CE337	-	-	-	-	-	226	51	6
23CE338	-	-	-	-	-	49	39	5
23CE339	-	-	-	-	-	88	20	2
23CE340	-	-	-	-	-	21	12	2
23CE341	1	-	-	-	-	15	15	6
23CE342	-	-	1	-	-	142	47	9
23CE343	-	-	-	-	-	91	8	-
23CE344	-	-	-	-	-	33	238	3
23CE345	-	-	-	-	-	2	2	-

Table 11, continued

Site	Tested Cores	Partially Reduced Cores	Extensively Reduced Cores	Edge Modified Cores	Battered Cores	Unmodified Flakes and Chips	Unmodified Angular Fragments	Edge Modified Flakes, Chips and Angular Fragments
23CE346	-	-	-	-	-	15	5	-
23CE347	-	-	-	-	-	8	4	1
23CE385	-	-	-	-	-	6	34	7
23DA211	-	-	-	-	-	24	39	1
23DA215	-	-	-	-	-	44	10	5
23DA224	-	-	-	-	-	98	25	8
23DA311	-	-	-	-	-	36	9	1
23DA312	-	-	-	-	-	11	-	1
23DA313	-	-	-	-	-	1106	269	38
23DA315	-	1	-	-	-	89	28	37
23DA320	-	-	-	-	-	-	-	1
23DA326	-	-	-	-	-	10	-	3
23DA327	-	-	-	-	-	14	3	-
23PO320	1	1	-	-	-	183	49	15
23PO321	-	-	1	-	-	128	32	3
23PO322	-	-	3	-	-	193	70	4
TOTALS:	5	17	28	7	2	6614	2491	531

PARTIALLY REDUCED CORES (17 specimens)

These cores have multiple flake removals but generally are relatively large in size and retain at least small areas of cortex. On most specimens, two opposing platforms were used. However, use of multiple platforms is evident on a few specimens resulting in a very blocky appearance.

EXTENSIVELY REDUCED CORES (28 specimens)

These cores are relatively small in size and retain only small areas of cortex. They may have been reduced to the point where flakes of sufficient size for use or retouch could no longer be removed. Some specimens may represent fragments of larger cores.

EDGE MODIFIED CORES (7 specimens)

These are partially reduced cores with crude bifacial margins which have evidence (small feather scars, step scars, crushing) of having been utilized. Most of the specimens are relatively large and heavy and appear to represent chopping or coarse cutting implements.

BATTERED CORES (2 specimens)

These two specimens are partially reduced cores which are extensively battered and strip scarred suggesting that they were used as hammerstones.

Flakes, Chips, and Angular Fragments

UNMODIFIED FLAKES AND CHIPS (6614 specimens)

This group consists of pieces of chert and quartzite which have been removed from cores and which retain a bulb of percussion and a striking platform or a crushed area where a former striking platform is evident (see Table 11). None of these specimens appear to have been subject to retouch.

UNMODIFIED ANGULAR FRAGMENTS (2491 specimens)

This group consists of angular pieces of chert and quartzite which may have been deliberately removed from cores through chipping activities but which lack distinctive flake characteristics (i.e., striking platforms and bulbs of percussion) (see Table 11).

EDGE MODIFIED FLAKES, CHIPS, AND ANGULAR FRAGMENTS (531 specimens)

This category consists of all flakes, chips, and angular fragments which have a series of secondary flake scars confined to their margins (see Table 11). The flake scars may be the result of direct utilization or of retouch, but there is no apparent attempt to reshape the specimen outlines. It is probable that natural forces, modern construction activities, or vehicular traffic produced the scarring on many specimens.

APPENDIX II: Inventory of Historic Artifacts

Historic artifacts recovered during the investigations are inventoried in the following table. The artifacts are arranged by material type (ceramic, glass, metal, other), and the number of recovered specimens is provided for each site. These materials have been subjected only to a cursory analysis because most are recent and nondistinctive and because, for most historic sites, the archival information proved to be a much more accurate indicator of the time of occupation than did the artifacts collected.

TABLE 12
DISTRIBUTION OF CERAMIC, GLASS, METAL, AND SLATE ARTIFACTS

Site	Whiteware/ Ironstone	Decorated Earthenware	Glazed Stoneware	Unglazed Stoneware	Porcelain	Bricks	Bottle Glass	Windowglass	Milk Glass	Misc. Glass	Wire Nails	Cut Nails	Misc. Metal	Slate Fragments
POMME DE TERRE LAKE														
23HI5	4	-	1	-	-	-	-	-	-	-	-	1	-	-
23HI516	51	5	6	6	2	7	72	36	1	8	83	1	95	1
23HI517	-	-	-	-	-	-	3	2	-	-	1	-	-	-
23HI520	2	-	-	-	-	-	-	-	-	-	-	-	-	-
23HI521	-	-	-	-	-	-	1	-	-	-	-	-	-	-
23HI523	2	-	-	-	-	-	-	-	-	6	-	-	1	-
23HI524	-	-	-	-	-	-	-	-	1	-	-	-	-	-
23HI527	-	-	-	-	-	-	1	1	-	-	-	-	1	-
23PO324	-	2	-	-	-	-	-	-	-	-	-	-	-	-
23PO339	1	-	1	-	-	-	-	-	-	-	-	-	-	-
23PO342	6	-	-	2	-	-	5	8	-	-	11	-	3	1
23PO345	-	-	-	-	-	-	-	-	-	-	-	1	-	-
23PO346	-	-	-	-	-	-	-	1	-	-	9	13	1	-
STOCKTON LAKE														
23CE339	-	-	-	-	-	-	-	1	-	-	-	-	-	-
23CE341	-	-	1	-	-	-	-	-	-	-	-	-	-	-
23CE345	-	-	-	-	-	-	2	-	-	-	-	-	-	-
23CE348	15	4	10	-	-	-	15	1	5	1	-	-	3	-
23CE353	-	-	-	-	-	-	-	-	-	-	2	-	-	-
23CE357	-	-	-	-	-	-	2	-	-	-	-	-	-	-
23CE386	-	1	-	-	-	-	3	-	-	1	-	-	-	-
23CE388	-	-	-	-	-	1	-	-	-	-	-	-	-	-
23CE389	-	-	-	-	-	6	1	1	-	-	1	-	-	-
23CE390	-	-	-	-	-	-	1	1	-	-	10	-	-	-
23DA224	-	-	-	-	-	-	2	2	-	-	-	-	-	-
23DA313	26	2	8	-	3	-	69	191	2	8	76	15	56	13
23DA315	-	-	-	-	-	-	1	-	-	-	-	-	-	-
23DA320	2	1	1	-	-	-	-	-	-	-	1	-	8	-
23DA321	-	40	-	-	-	-	-	-	-	-	-	-	-	-
23DA323	-	-	-	-	-	-	2	-	1	-	-	-	-	-
23PO320	2	3	-	-	-	-	-	-	-	-	-	-	-	-
23PO322	17	-	1	-	1	-	30	-	3	-	2	-	9	-
TOTALS:	128	58	29	8	6	14	210	245	13	24	196	31	177	15

APPENDIX III: Glossary

angular fragment: piece of debitage apparently resulting from intentional flaking but lacking flake characteristics (i.e., striking platform, bulb of percussion).

alfisols: soils which have formed mostly under forest or savannah vegetation in climates with slight to pronounced seasonal moisture deficit.

archeological site: a specific place which exhibits evidence of human occupation or use.

base camp: a site type, commonly used in referring to hunter-gatherer cultures, where it is inferred that a variety of maintenance activities, such as tool manufacture and repair, food storage, and food preparation, were carried out; base camps are usually thought to have been occupied by whole social groups for relatively long periods of time.

biface: lithic artifact bearing flake scars on both faces.

bulb of percussion: the bulbar part on the ventral side of the proximal end of a flake; the remnant of a cone of force resulting from percussion or pressure.

bundle burial: human interment where disarticulated bones are gathered and bundled together after the flesh has been removed intentionally by exposure or by bacterial decay.

cairn: a mound of stones, often containing human burials at prehistoric sites in southwestern Missouri.

Cenozoic: geologic era encompassing the last 63 million years.

chip: a distal fragment of a flake which lacks a striking platform.

climax forest: a forest which has evolved into a vegetatively stable community.

component: the manifestation of a given cultural entity at an archeological site.

core: a pebble or cobble from which one or more flakes have been intentionally removed.

cortex: natural surface, or rind, on materials used for chipped stone manufacture.

Cretaceous: geologic period within the Mesozoic Era lasting from 135 million to 63 million years ago.

crinoidal: containing the fossils of any of various marine invertebrates of the class Crinoidea, characterized by feathery arms radiating from a stalk.

cucurbit: any of various vines of the family Cucurbitaceae, including squash and pumpkin.

cultigen: cultivated plant, such as maize.

data recovery program: a plan of work which is implemented when a significant cultural resource is to be adversely affected by a proposed activity and which is designed to recover sufficient information such that the loss of that cultural resource is ameliorated.

POMME DE TERRE AND STOCKTON LAKES PROJECT

debitage: the residual lithic materials which result from the manufacture of tools or other chipped stone items.

Devonian: geologic period within the Paleozoic Era lasting from 400 million to 340 million years ago.

dissected: refers to a landscape which has been eroded into numerous narrow segments or lobes.

distal: the end or portion of a tool or object which, when in normal use position, is farthest from the user; the end or portion of a flake which is opposite the striking platform or point of percussion.

ecotonal: relating to a mixed ecological community formed by the overlapping of adjoining communities.

edge modified flake, chip, or angular fragment: a lithic specimen which exhibits a series of secondary flake scars confined to its margin; may be the result of intentional retouch, use, or noncultural factors.

entisols: soils that are of recent origin and which lack developed natural horization.

flake: any piece of stone removed from a larger mass by the application of force; to be classified as a flake, the piece must retain all or part of the platform used for removal.

forb: any herbaceous plant other than a grass, especially one growing in a field or meadow.

historic: refers to the period of human history which has elapsed since European exploration and settlement began in a given era.

Holocene: the most recent geologic epoch, encompassing about the last 10,000 years.

hypsihermal: a major climatic episode, lasting from about 8300 to 5200 years ago in southwestern Missouri, characterized by reduced annual precipitation and resulting in dramatic changes in floral and faunal communities as well as in geomorphic processes.

igneous: rocks formed by solidification from a molten or partially molten state.

indurated: hardened.

lamellar: very thin.

lenticular: shaped like a lens, with two convex opposing surfaces.

loess: a fine-grained wind-blown soil deposit composed primarily of silt-sized particles.

mano: lithic tool which usually has been manufactured by pecking and grinding and which is thought to have been used primarily to crush and pulverize vegetal foods (e.g., seeds and nuts).

medial: toward the center, or the central part, of a body or object.

mesic: pertaining to moderate (neither very dry nor very wet) climatic conditions.

Mesozoic: geologic era lasting from 230 million to 63 million years ago.

Mississippian: geologic period within the Paleozoic Era lasting from 340 million to 310 million years ago.

mitigate: to lessen the negative effects of the loss of an archeological site through the implementation of a data recovery program.

mollisols: soils which have formed mostly under grass cover in subhumid and semiarid earth and/or stone.

National Register of Historic Places: official listing, maintained by the National Park Service under the auspices of the Secretary of the Interior, of properties judged to be significant in American history, architecture, archeology, engineering, and culture.

oolitic: referring to lithic materials containing spheroidal and elliptical structures (up to 2 mm in diameter) formed by the precipitation and accretion of carbonate around quartz grains and shell fragments in a marine environment.

Ordovician: geologic period within the Paleozoic Era lasting from 500 million to 430 million years ago.

ossuary: a container or receptacle for holding the bones of the dead.

outlier: a portion of anything that exists or lies apart from the main body or system to which it belongs.

paleoenvironmental studies: interdisciplinary research which endeavors to reconstruct past environments (e.g., climate, flora, fauna, geomorphic processes).

Paleozoic: geologic era lasting from 570 million to 230 million years ago.

Pennsylvanian: geologic period within the Paleozoic Era lasting from 310 million to 280 million years ago.

Precambrian: geologic era predating 570 million years ago.

primary burial: human burial where the bones lie in the same anatomical relationship that they occupied when the individual was alive; the body is in a contracted or flexed position, extended position, or sitting posture, and may lie on the face, side, or back.

preform: unfinished, unused form of a proposed artifact.

prehistoric: refers to that portion of human history which elapsed prior to the development of written records.

projectile point: a sharpened piece of stone, wood, bone, or other materials which is intended for piercing and which is attached to the distal end of an arrow, a dart, or a spear.

proximal: the end or portion of a tool or object which, when in normal use position, is nearest to the user; the end or portion of a flake which includes the striking platform or point of percussion.

retouch: the process of removing small flakes, usually by pressure, to thin, straighten, sharpen, and smooth a chipped stone tool.

seasonal encampment: a site type, commonly used in referring to hunter-gatherer cultures, where it is inferred that a limited range of activities, usually involving the procurement or processing of seasonally available food resources, was carried out.

secondary burial: human interment where the bones are not in natural anatomical relationship; often takes the form of bundle burials where disarticulated bones are gathered after the flesh has been removed.

serrated: flaked to produce prominences resembling teeth such as those on a saw.

Silurian: geologic period within the Paleozoic Era lasting from 430 million to 400 million years ago.

site catchment: the area around an archeological site that could have been exploited in terms of economic resources in a given unit of time, usually within a day's foraging distance.

step-scarring: scarring on a chipped stone artifact that occurs when a flake terminates abruptly in a right angle at the point of truncation.

striking platform: on a piece of lithic material, the surface area receiving the force necessary to detach a flake.

ultisols: soils which have formed mostly in humid subtropical regions and have been intensively weathered and leached.

uniface: lithic artifact which has been flaked on one surface only.

xeric: extremely dry.

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