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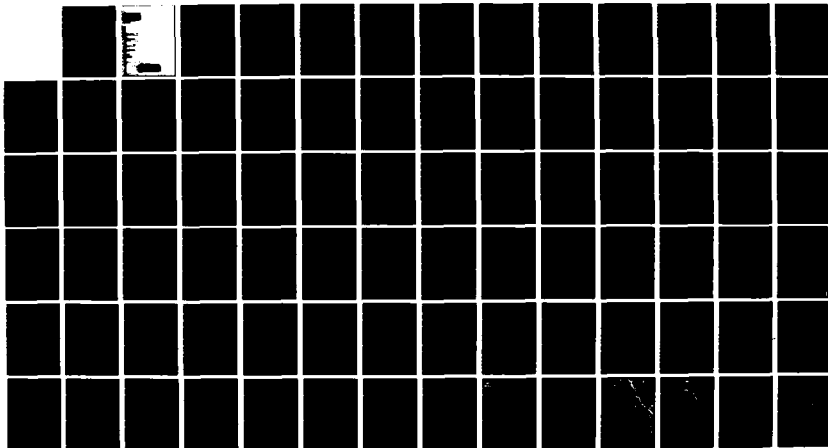
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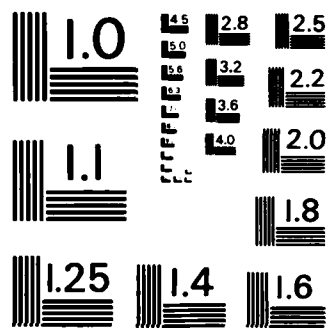
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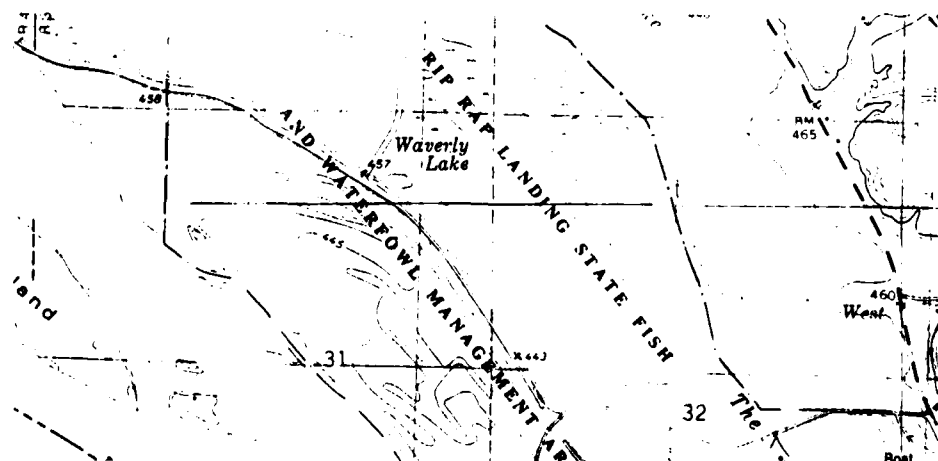
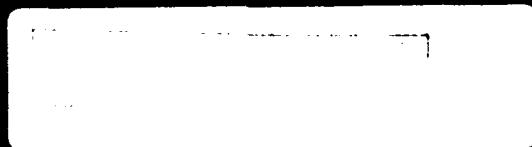
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. AD-A161427	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Cultural Resource Survey of Historical Kaskaskia and Selected Portions of the Upper Mississippi River Shoreline from Miles 115.9 to 272.9, Illinois and Missouri		5. TYPE OF REPORT & PERIOD COVERED Final 4-85
7. AUTHOR(s) Kurt R. Moore		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS American Resources Group, Ltd. 127 N. Washington Avenue Carbondale, Illinois 62901		8. CONTRACT OR GRANT NUMBER(s) DACW43-84-R-0023
11. CONTROLLING OFFICE NAME AND ADDRESS U.S. Army Engineer District, St. Louis 210 North Tucker Blvd. St. Louis, MO 63101		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) N.A.		12. REPORT DATE April 1985
		13. NUMBER OF PAGES 67
		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE N/A
16. DISTRIBUTION STATEMENT (of this Report) Distribution is unlimited. Approved for Public Release:		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Cultural resource survey, archaeology, eighteenth century, architecture, French colonial		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) To abate any negative impact on cultural resources by repair of stone dikes and bankline revetment at various locations along the Mississippi River. Investigations in the vicinity of the 18th century Kaskaskia townsites consisted of a report and literature (archival) search and on-site field reconnaissance. No excavations were conducted under the auspices of this contract.		

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ST. LOUIS DISTRICT CULTURAL RESOURCE
MANAGEMENT REPORT NUMBER 20

Cultural Resources Survey at Historic Kaskaskia and
Selected Portions of the Upper Mississippi River Shoreline
from Miles 115.9 to 272.9, Illinois and Missouri

by

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April 1985

ACKNOWLEDGEMENTS

A number of people provided various forms of assistance which led to the successful completion of this project. These people are acknowledged for their contributions to the project. Apologies are extended in advance to any individuals, institutions, or agencies where contributions are not noted below; their contributions also are greatly appreciated.

The 1984 field investigations along the various portions of the Mississippi River were supported by the U. S. Army, Corps of Engineers, St. Louis District. Mr. Terry Norris, District Archaeologist, provided invaluable assistance in project administration, liaison with the Corps of Engineers, and review of the report. The assistance of other Corps personnel, Mr. George Knight and Mr. Owen Dutt, also is appreciated.

Administrative and logistical support also was provided by the Midwest Regional Office of Environmental Science and Engineering (ESE), Inc., St. Louis, Missouri. Dr. Ronald G. Alderfer, Associate Vice President, and Mr. Keith Govro, Head, Ecology Department, provided assistance in the areas of project administration and field logistics. The field crew was especially thankful for the services of Mr. Greg Dawdy of ESE, who operated the boat that allowed access to many island survey tracts on the river.

Various State of Illinois and State of Missouri agencies also provided project assistance. Mr. Michael Ward of the Illinois Department of Conservation, Mr. Eric Van Hartesveldt of the Archaeological Survey of Missouri, and Mr. Michael S. Welchman and the staff of the Missouri Department of Natural Resources, provided assistance during the prefield background records and literature search. Mr. Charles J. Bareis and the staff of the Illinois Archaeological Survey provided the site number for 11-C-189.

Professional consultation about the history of Kaskaskia, Illinois, area was provided by Mr. Herb Meyer, University Photocommunications, Southern Illinois University. Mr. Meyer also contributed results of his independent research on this topic for inclusion into this report.

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ABSTRACT

A cultural resources survey of five linear miles of shoreline of the upper Mississippi River at selected locations in Illinois and Missouri was conducted in December, 1984. The survey area consisted of eight shoreline tracts in the Illinois counties of Calhoun and Randolph, and the Missouri counties of Pike, Lincoln, and St. Charles. The pedestrian survey produced one previously unrecorded prehistoric site (11-C-189) and two prehistoric isolated finds. Cultural/temporal affiliations could not be determined for the prehistoric site or the isolated finds. The prehistoric site was not within the proposed project area.

Details of cartographic research associated with the historic archaeology of Old Kaskaskia, Illinois (ca. 1703-1915), are presented in addition to a chronological outline of the history of Kaskaskia. Field survey at the Kaskaskia tract emphasized historic archaeological properties. A previously recorded historic site (11-R-480) near the southern end of the survey area was revisited. It was determined that this site was outside the project area but that it may date to the French Colonial period at Kaskaskia.

It was determined that proposed shoreline stabilization construction will not adversely impact cultural resources within the project area, as no significant or potentially significant cultural resources were found within the project area. Sites 11-C-189 and 11-R-480 will not be affected by proposed construction activities since they are well outside the project limits.

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3.	Kaskaskia and Vicinity, 1889	In pocket
4.	Kaskaskia and Vicinity, 1766	In pocket

INTRODUCTION

Project Description

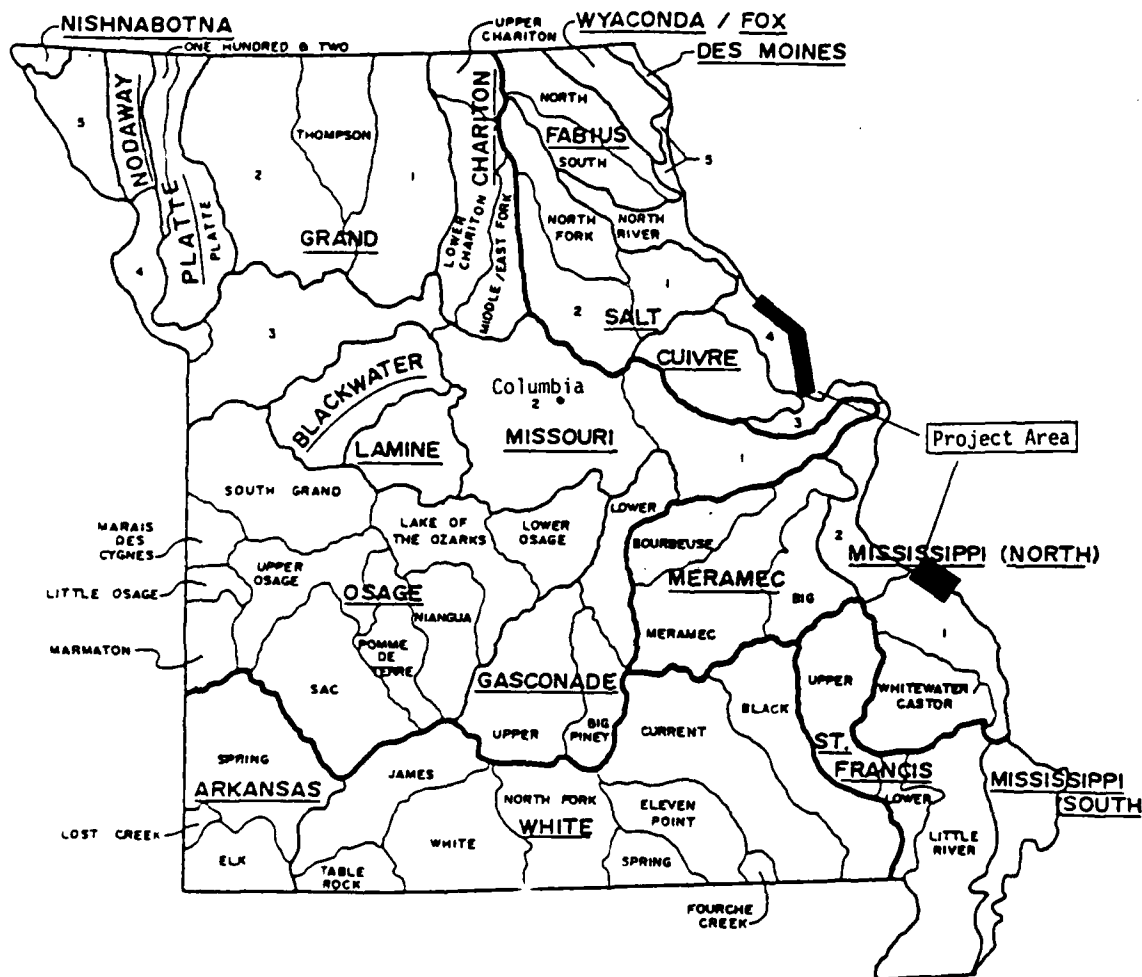
The following report presents results of a Phase I cultural resources survey of selected portions of the Mississippi River shoreline in both Illinois and Missouri. General project requirements consisted of "a literature review, intensive cultural resource survey, and National Register evaluation(s) and effect assessment(s) in cultural properties discovered thereby, at selected locations . . ." between river miles 115.9 and 272.9 of the Mississippi River shoreline (Scope of Work, p. 1 — Appendix A). These investigations were conducted for the U. S. Army, Corps of Engineers, St. Louis District, in conjunction with proposed shoreline stabilization activities. The survey area consists of five linear miles of shoreline distributed across eight parcels of land in Calhoun and Randolph counties, Illinois, and Pike, Lincoln, and St. Charles counties, Missouri. The survey areas are within the North Mississippi drainage basin of the Missouri Watershed Management Plan (Map 1) between river miles 272.9 at Clarksville, Missouri, and downstream to 115.9 at Kaskaskia Island, Illinois.

Justification

The location and assessment of cultural resources are now required for any undertakings which involve federal permits, licenses, or lands by authority of Public Law 93-291, sections 3 and 4, Archaeological and Historical Conservation Act of 1974. This recent expanded legislation is a continuation of earlier cultural resources statutes and regulations, including the National Historic Preservation Act of 1966 (Public Law 91-190) and Executive Order 11593: Protection and Enhancement of the Cultural Environment.

Personnel

Field work was conducted during the period December 3-5 and 11, 1984. Field crew consisted of Messrs. Jonathan Bloom, Brian Crawford, and Kurt R. Moore (Field Supervisor) of American Resources Group, Ltd., assisted by Mr. Greg Dawdy of Environmental Sciences and Engineering, Inc. The crew was augmented by Mr. Michael J. McNerney (American Resources Group, Ltd.), Mr. Terry Norris (St. Louis District Archaeologist), and Mr. Herb Meyer (Historical Consultant) for the survey of Item 8 at Kaskaskia Island. Messrs. McNerney and Moore served as Principal Investigators for the project.



MAP 1

Project Location within
Missouri Watershed Management Plan

(Missouri State Historic Preservation Office)

ENVIRONMENTAL SETTING AND SURVEY TRACT DESCRIPTIONS

General Environment

Physiography

Physiographically, the study area is situated in the broad, alluvial floodplain environment of the middle Mississippi River valley between Clarksville, Missouri and Kaskaskia, Illinois. The eight survey parcels are at the interface of the Central Lowlands and Ozark Plateaus physiographic provinces (Brown and Kerr 1979). Item 8 is contained within the Salem Plateau section of the Ozark Plateaus, while items 1-7 are at the interface of the Lincoln Hills section (ISGS 1970) with the Dissected Till Plains section of the Central Lowland Province (Chapman 1975:2).

Topographically, the survey parcels are located on the shorelines of flat expanses of floodplain. Although floodplains were inhabited prehistorically, such occupation often occurred on higher portions of the floodplain, such as terrace remnants and natural levees that usually were above minor flood stages. The survey parcels all are subject to annual flooding; late autumn high water in October and November, 1984, postponed survey efforts.

Geology & Soils

Just as the project area is scattered over a variety of geographic locations, the parcels are in and near a variety of geological formations. The bedrock geology at Item 8 (Kaskaskia Island) consists of the Mississippian age Lower Chesterian Series (Willman 1967), a series "of limestone-shale formations alternating with sandstone-shale formations" (Willman et al. 1975:145). This bedrock is overlain by the Pleistocene-Holocene Cahokia Alluvium, "mostly poorly sorted sand, silt, or clay containing local deposits of sandy gravel" (Lineback 1979), a formation which underlies most of the Mississippi River floodplain from Jo Daviess County, Illinois to Cairo, Illinois. In turn, the post-glacial alluvial deposits are overlain by Holocene soils that have developed in the ridge and swale topography of the island that "range from the heavy, impermeable Darwin silty clay to the lighter, more permeable Dupon and Midway silt loams" (Moffat and Anderson 1984:3).

Survey items 1-7 also sit upon Holocene soils that were developed in the Cahokia Alluvium or occupy river washed expanses of the Cahokia Alluvium itself. The Sarpy-Haynie-Onawa-Wabash soil association comprises the major soil series in this area (Chapman 1975:9). The underlying bedrock and valley bluffs consist of an assortment of

geological formations ranging in age from Ordovician formations to the younger Mississippian deposits on both sides of the river (Anderson 1979; Willman 1967). The most prominent formation on the Missouri side of the river is the Ordovician Gasconade Dolomite, a formation with both dolomite and sandstone members (Anderson 1979), while the Illinois bluffs reveal the presence of the chert bearing Burlington Limestone (Willman 1967).

The Burlington Limestone represented an important local resource for the prehistoric inhabitants of the Mississippi River valley. Archaeological studies in western Illinois (Moore 1981), the lower Illinois River valley (Meyers 1970; Struever 1973), and eastern Missouri (Ives 1975, 1981) have shown Burlington chert to be one of the most widely used chert types in the upper and middle Mississippi River drainage area of Illinois and Missouri. In the Calhoun County area, the Burlington formation forms "a nearly horizontal cap" (Meyers 1970:12) in the uplands, which is closest to the project area in the vicinity between Hamburg and Mosier Landing, Illinois (Meyers 1970:31).

Flora and Fauna

Flora and fauna in the project area are typical of floodplain riverine ecosystems. Regionally, the area is dominated by oak-hickory forests typical of the Ozarks and wooded areas of the Central Lowlands (Kuchler 1975). In upland areas, big bluestem prairie and oak-hickory forests co-dominate in distribution (cf. Chapman 1975:18), resulting in a prairie-forest mosaic pattern that remained relatively stable for the past 5,000 years (King and Allen 1977:320-321) until its conversion to agricultural land beginning in the early 1800s. In archaeological/physiographic terms, the portion of the project area containing items 1-7 has been termed the Northeast Prairie Region, while the area around item 8 lies in the Southeast Riverine Region (Chapman 1975:3). In the Southeast Riverine Region, other varieties of bottomland hardwoods also are found in significant quantities, including gum, tupelo, beech, and cypress.

The bottomland forest environment hosts various game and other faunal resources in addition to edible floral resources. Acorns (Quercus) and hickory nuts (Carya) would have constituted the primary plant food, while white-tailed deer (Odocoileus virginianus) would have provided a major portion of edible game. Other edible and potentially usable plant resources common to floodplain environments in the middle Mississippi drainage include varieties of grapes (Vitus), maple (Acer), persimmon (Diospyros virginiana), Chenopodium, and berries (Sambucus, Celtis occidentalis). Important faunal resources would have been squirrel (Sciurus), beaver (Castor canadensis), rabbit (Sylvilagus floridanus), and both migratory and local avian fauna (e.g., Anas, Meleagris gallopavo). In addition, aquatic resources from the river, stream, swamp, and backwater lake microenvironments in the region would have provided a diversity of other plants and animals for exploitation (cf. Steyermark 1963; Zawacki and Hausfater 1969).

Climate

The contemporary climate throughout the study area is continental and characterized by warm, humid summers and variable winter weather including both rain and snow. The climatic pattern is influenced by warm, moist tropical air masses from the Gulf of Mexico from late spring through summer and drier, cold continental arctic air during the winter. Temperatures throughout the project area range from January mean minimums of 20° - 26° F and mean maximums of 40° - 46° F to July minimums of 66° - 68° F and mean maximums of 90° - 92° F (Chapman 1975:10). During the December 1984 survey, the crew noted daytime temperatures in the range from 23° F to 35° F. Precipitation in the project area is fairly evenly distributed on a seasonal basis, with ranges of 11 in - 14 in (spring), 11 in - 12 in (summer), 11 in (autumn), and 5 in - 9 in (winter) (Chapman 1975:11).

Survey Item Descriptions

Item 1

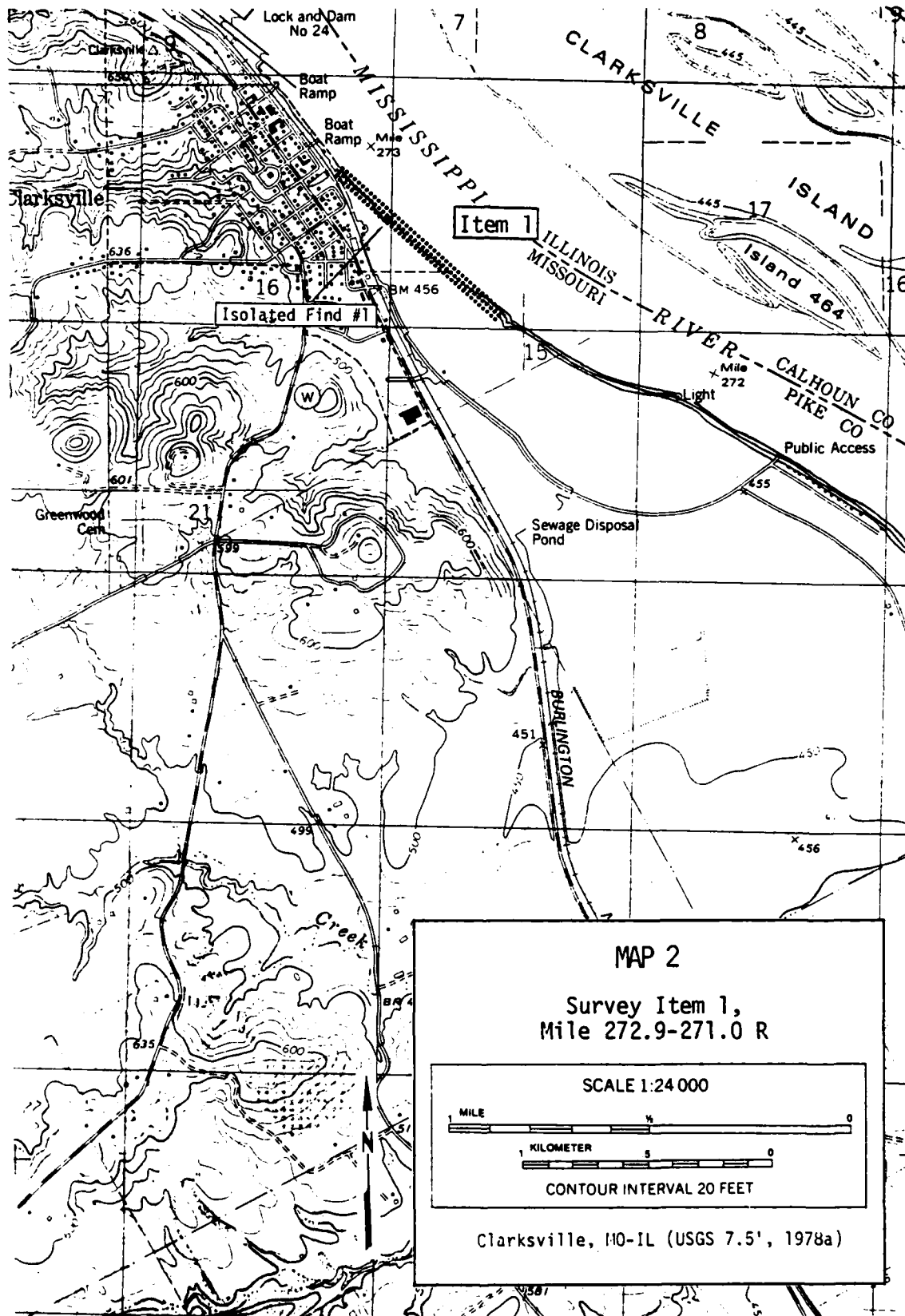
This survey tract lies on the Pike County, Missouri, side of the river extending between river miles 272.5 - 272.9R (Map 2). The north end begins just south of the Boat Club in Clarksville, Missouri, extending south out of the city limits to the mouth of Calumet Creek. The tract itself is mostly covered with old rip-rap which is eroding away from the bank in several places, leaving sandy gravel alluvium exposed on the beach areas and alluvial soils in the banks between river miles 272.65 - 272.9R. The remainder of the tract is covered with rip-rap. Above the bank, west of and adjacent to the tract, is a thin treeline of hardwoods. Several vacation residential structures occupy this area between miles 272.75 - 272.9R, while a fallow agricultural field lies west of the tract from mile 272.5 - 272.75R. The shoreline varies in width from 5 m to 25 m along the tract.

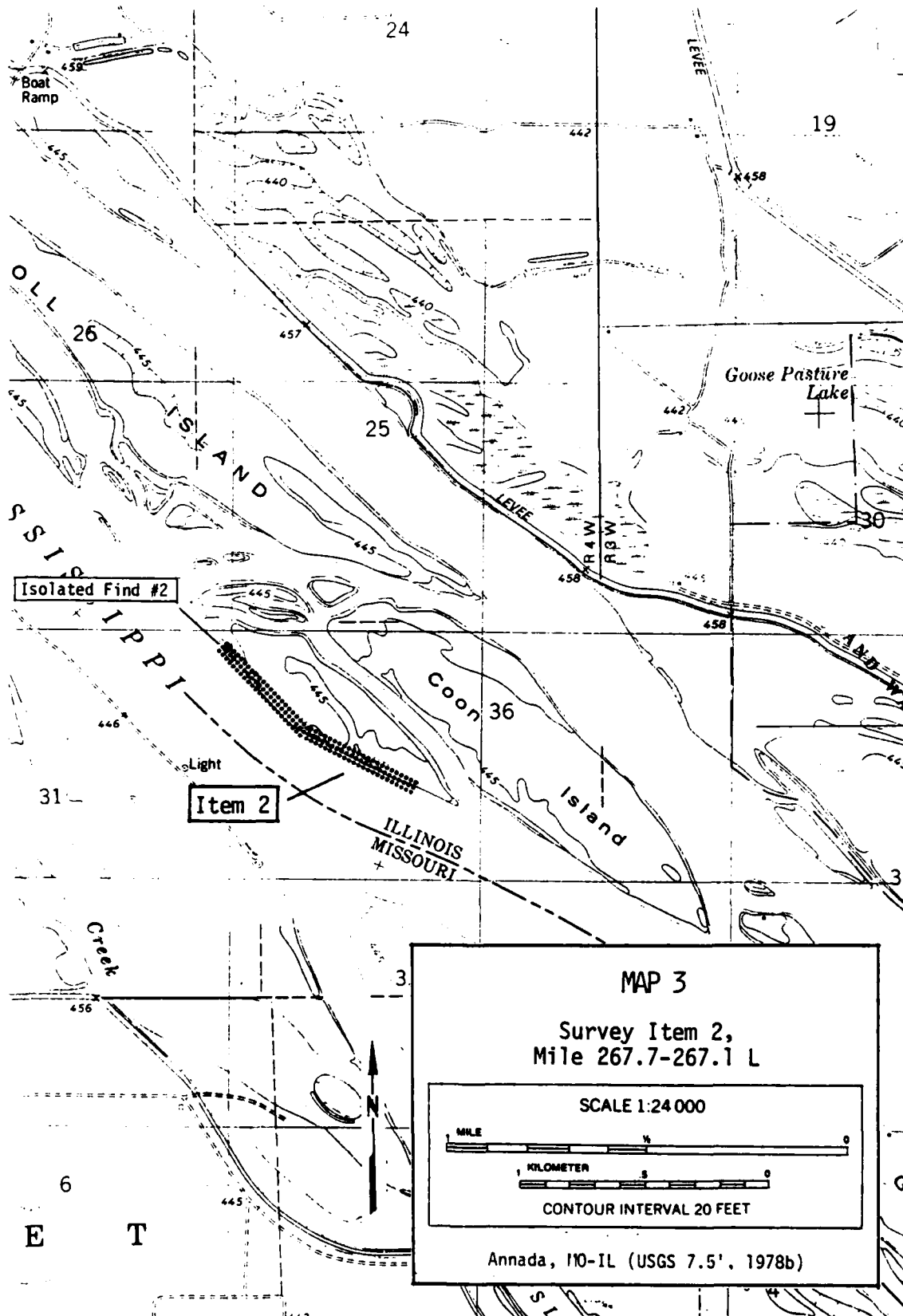
Item 2

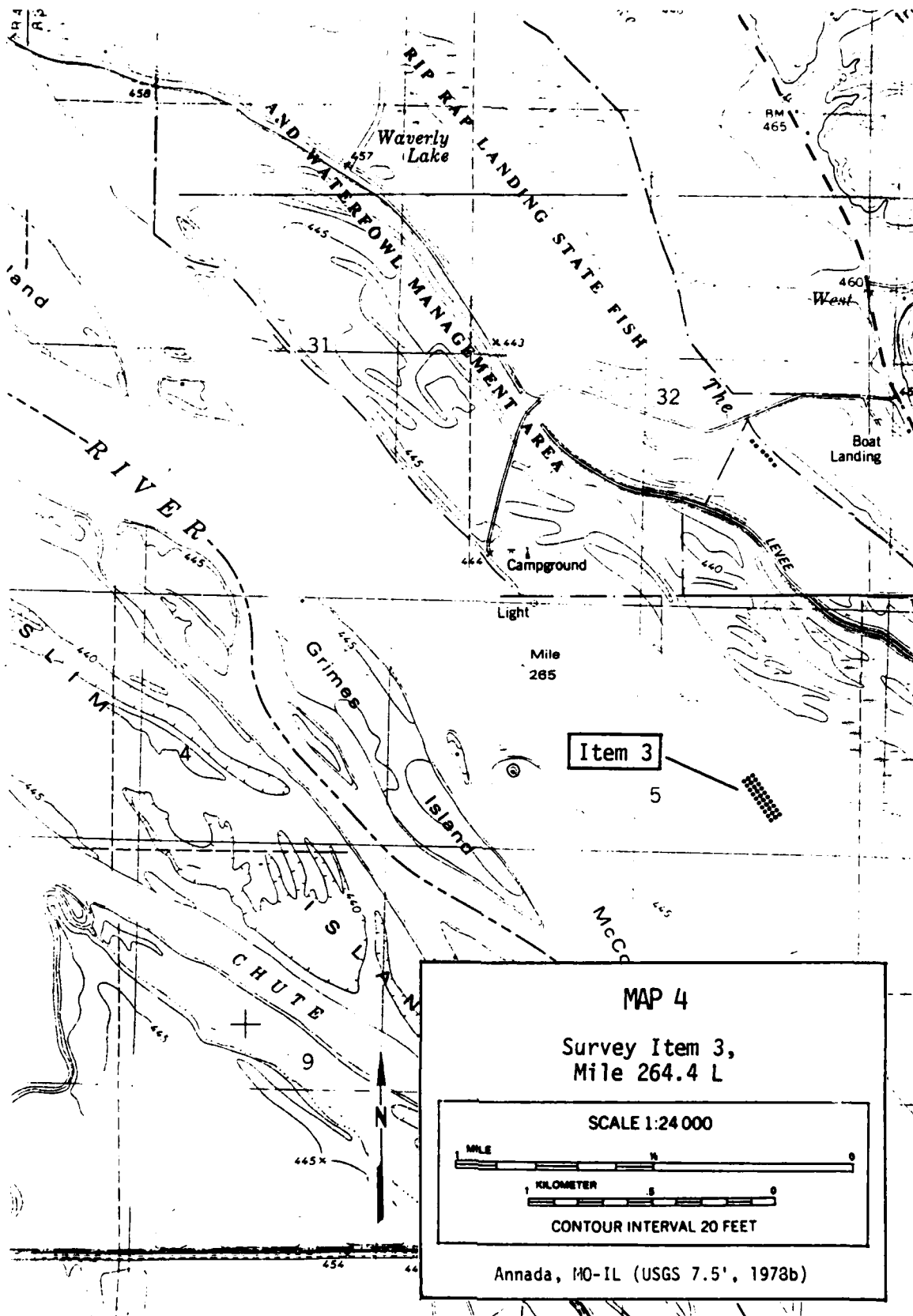
This survey item is located on the Calhoun County, Illinois, side of the river between river miles 267.0 - 267.7L (Map 3). The tract forms part of the west shore of a small unnamed and uninhabited island immediately west of the north end of Coon Island. The island is wooded, and sandy shoreline is exposed between miles 267.6 - 267.7L and 267.1 - 267.3L; the remainder consists of steep banks of fluvial soils and fallen hardwoods. The shoreline varies in width from less than 5 m at the steep banks to approximately 20 m along the sandy beaches. A small islet approximately 40 m x 75 m occupies the northern tip of the survey item.

Item 3

Survey Item 3 is located on the Calhoun County, Illinois, side of the river at river mile 265.4L; it is the shortest tract within the project area (Map 4). The tract is a steep bank that has been covered







with old rip-rap and runs adjacent to a sparse treeline on top of the bank east of the tract. An agricultural field lies east of the treeline. The bank is about 5 m wide.

Item 4

Survey Item 4 lies on the Pike County, Missouri, side of the river between miles 259.6 - 260.8L (Map 5). The tract forms the eastern shore of the wooded and uninhabited Mosler Island, which is west of the small hamlet of Mosler Landing, Illinois, and just upstream from the town of Hamburg, Illinois. The shoreline is steep and covered with new rip-rap between miles 259.7 - 260.8L. Shoreline stabilization activities were being conducted at the time of survey and were nearly complete. The area from mile 259.6 - 259.7L consisted of exposed steep bank 5 m to 10 m wide covered with fallen hardwoods.

Item 5

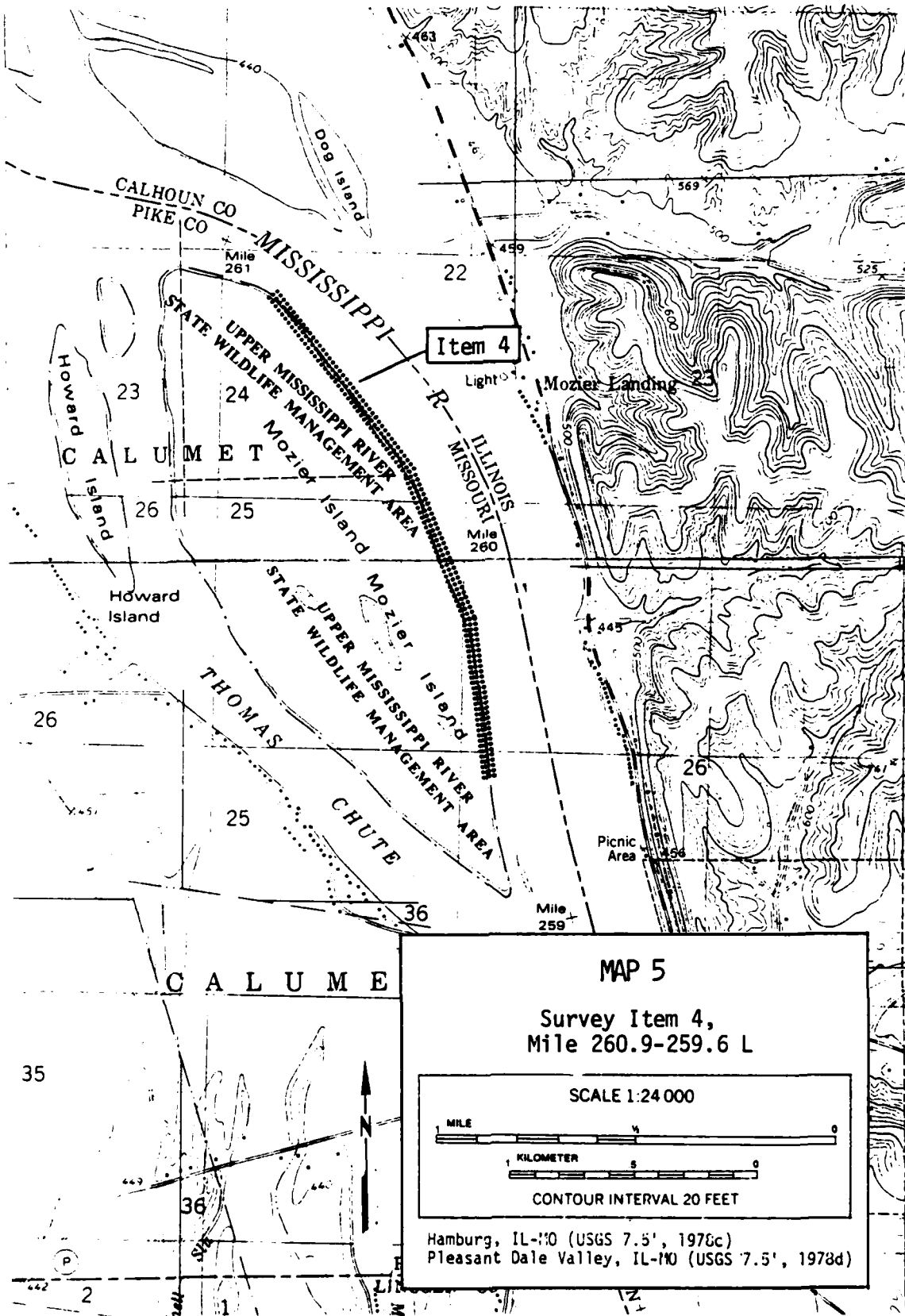
Survey Item 5 lies on the Lincoln County, Missouri, side of the river between miles 256.5 - 257.0L (Map 6). This parcel forms part of the eastern shore of uninhabited Westport Island. An exposed expanse of shoreline was found between miles 256.9 - 257.0L consisting of a gently sloping sandy bank up to 30 m wide; the area between miles 256.5 - 256.9L was covered with new rip-rap. The western edge of the survey tract was bounded by a treeline approximately 25 m wide separating the shoreline from an agricultural field. The field recently had been plowed, revealing dark, silty soils.

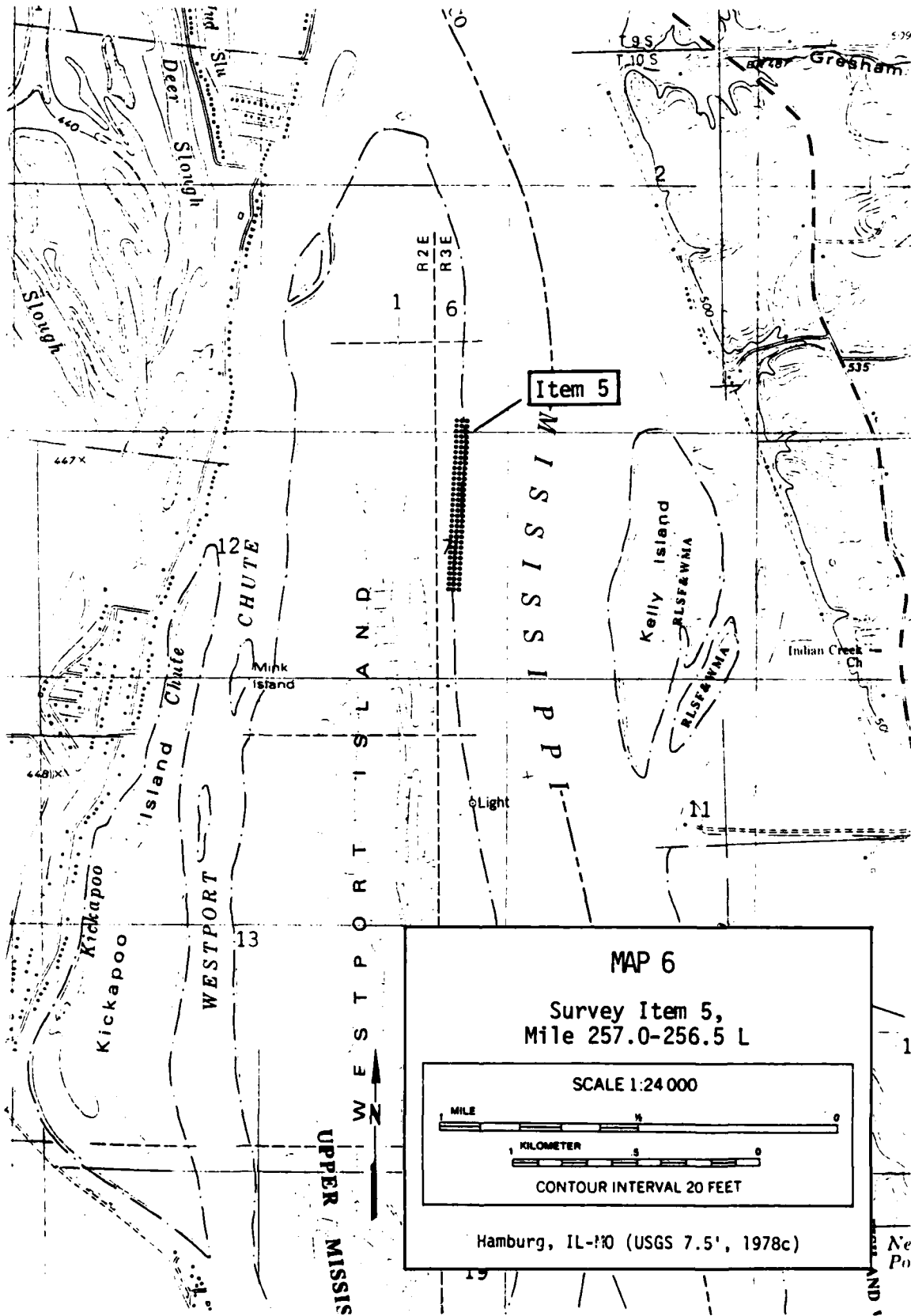
Item 6

This survey tract lies on the Lincoln County, Missouri, side of the river between miles 254.5 - 254.9R (Map 7). This parcel forms part of the eastern shoreline of the northern tip of uninhabited Schwanigan Island. The island is covered with a hardwood forest. The entire shoreline and steep bank have been covered with new rip-rap; however, this area has been surveyed previously (Udesen and Koski 1978).

Item 7

Survey Item 7 lies on the St. Charles County, Missouri, side of the river between miles 231.0 - 232.2R (Map 8). The small vacation settlement of Peruque, Missouri, is located at this survey tract. The shoreline area above the bank has been developed and consists of a scattering of summer vacation residences between miles 231.0 - 231.4R. Immediately upstream from this area are a couple of permanent homes, and the shoreline is interrupted by two small marinas between miles 231.4 - 231.9R; the remainder of the tract is wooded above the bank. Recent shoreline stabilization activities have taken place between miles 231.0 - 231.5R; older rip-rap covers the shore between miles 231.5 - 232.2R.





Item 8

This survey tract lies along the northeastern tip of Kaskaskia Island, Illinois, between miles 115.9 - 116.3R (Map 9). This tract forms part of the western bank of the Kaskaskia Chute, which separates Kaskaskia Island from Beaver Island. Historically, this area is known to have been part of the floodplain of the Illinois side of the river and the site of the original settlement of Kaskaskia prior to a shift in the courses of the Mississippi and Kaskaskia rivers in 1881. The present shoreline was formed ca. 1912 by westward erosion of the Mississippi River channel, which resulted in the abandonment of the town of Kaskaskia. Today, what is left of the Kaskaskia settlement tract is an agricultural field bounded by a hardwood treeline. The shoreline consists of sandy areas, while the steep bank exposes silty and sandy soils. The shoreline is approximately 30 m wide at the south end of the tract and narrows in width as the shoreline becomes steeper upstream.

ARCHAEOLOGICAL CONTEXT AND PREVIOUS RESEARCH

General

Midwestern archaeology has been the object of study by both amateur and professional archaeologists since the nineteenth century. Early accounts of the antiquities in the area begin with reports by travelers and historians of the early to mid-nineteenth century; like most early investigations, these focused on large, obvious sites such as villages and mound groups. In 1819, the scientific expedition of Major Stephen H. Long mapped mound sites in St. Louis and also investigated sites at Fenton, Missouri (James 1972, cited in Brandt and Sieb 1979:18). The Cahokia area and related mound complexes drew the attention of the first professional archaeological investigations in the valley by the Bureau of Ethnology (Thomas 1894) and by the Peabody Museum of American Archaeology (Bushnell 1904). Bushnell also coordinated investigations at Cahokia Mounds for the Smithsonian Institution (Bushnell 1922). Additional work has been conducted in the American Bottom area by numerous individuals and institutions since the 1920s and particularly since the 1960s as a result of extensive highway construction. This long tradition of research has shaped the present knowledge of upper and middle Mississippi River valley archaeology as well as that of the Midwest and Eastern Woodlands. In addition, archaeological work in the lower Illinois River valley and the lower drainage of the Kaskaskia River through archaeological salvage and cultural resources management studies have contributed significantly to knowledge of the prehistory of the middle Mississippi basin. As with the Cahokia area, the St. Genevieve County, Missouri, area also attracted the attention of early professional archaeologists such as Bushnell (1914), who recorded prehistoric stone box graves in the area. Recent studies conducted near the present survey area included studies along the Mississippi River shorelines by the Foundation for American Archaeology (Farnsworth 1978; Udeson and Koski 1978) and Fischer-Stein Associates (McNerney 1979) and recent investigations at Kaskaskia Island (e.g. Linder 1975; Moffat and Anderson 1984; Powell and Austin 1980). Other such studies include investigations in major drainages such as the Illinois (e.g. Farnsworth 1976) and minor drainages such as Dardenne Creek (King and Martin 1979; Lee 1984) and Calumet Creek (cf. Saunders and Donham 1983:19).

The result of extensive investigations in the middle Mississippi River valley and elsewhere has been the development of a broad cultural/historical classificatory scheme with which to organize and describe the prehistory of the midwestern and eastern United States. The cultural periods, beginning with man's arrival in the New World, are: Paleo-Indian, Dalton, Early Archaic, Middle Archaic, Late Archaic, Early Woodland, Middle Woodland, Late Woodland, and Mississippian

(Figure 1). These periods are established on the basis of cultural traits identified through archaeological research and are not to be confused with the historic tribal groups which were encountered by the first Europeans to arrive in the New World.

This long sequence of human interaction with the natural and social environment can be characterized by an increase in cultural complexity, beginning with small egalitarian hunting and hunting/foraging societies, culminating many years (and cultures) later with socially stratified, agriculturally based societies. Prehistoric subsistence practices in eastern North America traditionally have revolved around the collection of native plant foods as an adjunct to hunting and fishing for making a living. "The archaeological and ethnological data indicate that the Indians had developed rather close ecological interrelationships with many plant species before the time of European contact" (Yarnell 1976:265). Plant husbandry is believed to have been initiated in the second or third millennium B.C. Many of these commonly exploited plant species that are extant today are simply referred to as weeds. Of these, only sunflower, sumpweed, and Chenopodium were ever domesticated. With later additions of the highly nutritional triumvirate of first squash, then corn, and finally beans from Mexico, an increased reliance on horticultural produce ensued.

The sociological effects of adopting an agriculturally based economy heralded some important changes for groups who became proficient farmers. Such changes included increased population densities and, eventually, urbanization (Yarnell 1976). Cultural manifestations of these events occurred twice in the middle and upper Mississippi River valley (i.e., during the Middle Woodland period [400 B.C. - A.D. 400]) with the Hopewell culture and again 500 years later with the Mississippian culture. Except for a few remnants of the Mississippians, both cultures had vanished before European contact.

Survey Area

Items 1-7 (Miles 231.0 - 272.9)

Of the numerous cultural resource investigations conducted in the Mississippi River valley, several investigations have been conducted in the immediate vicinity of the project area survey tracts (Table 1). Of these projects, three were of a very similar nature, consisting of surveys of selected locales along the river shoreline.

The first of these Mississippi shoreline surveys was Farnsworth's (1978) survey of 28 small, linear tracts along the Illinois and Missouri shores (including islands) between Quincy, Illinois (mile 298.1) and Grafton, Illinois (mile 218.4). Many of these parcels were in very close proximity to present survey items 1-7. In all, 7.7 linear miles were surveyed, and no prehistoric or historic sites were identified. Similarly, a survey of 52 tracts distributed between Hannibal, Missouri (mile 298.2) and Grafton, Illinois (mile 219.1) yielded the same results; 15.1 linear miles were surveyed and no sites were recorded.

Figure 1

Cultural Sequence In the Middle Mississippi Valley
(after Chapman 1975, 1980)

Date	Period	Comments
1673	Historic	Kaskaskia Settled, 1703.
	Mississippian	Mississippian sites identified near Items 4, 7, and 8.
1000	Late Woodland	Woodland sites identified near Peruque Creek, Missouri; Late Woodland sites identified near Louisiana, Missouri.
A.D. 1 1 B.C.	Middle Woodland	Middle Woodland sites identified near Elsberry and Louisiana, Missouri.
	Early Woodland	
1000		
2000	Late Archaic	Archaic sites identified near Peruque Creek, Missouri, and Kaskaskia Island.
3000		
4000	Middle Archaic	Middle Archaic sites defined in uplands near Dardenne Creek, Missouri.
5000		
6000	Early Archaic	Early Archaic sites identified in uplands near Dardenne Creek, Missouri.
7000		
8000	Dalton	Dalton sites identified near Peruque Creek, Missouri.
9000		
10,000	Paleo-Indian	Not identified in floodplains near any of the survey parcels.
11,000		
12,000		

Table 1

Cultural Resource Management Investigations In the Immediate
Vicinity of the Project Area (*In survey area)

Item	Mile	CRM Investigations
1	272.5 - 272.9R	272.9 - 273.2L (Farnsworth 1978; Udesen & Koski 1978); Calumet Creek by Missouri Archaeological Society (cited in Saunders & Donham 1983); West Clarksville vicinity (Evans [1978] cited in Udesen & Koski 1978:3)
2	267.1 - 267.7L	267.R (Farnsworth 1978)
3	264.4L	264.8R, 264.2L (Farnsworth 1978); 264.8R - 263.9 (Udesen & Koski 1978)
4	259.0 - 260.9L	261.0R (Farnsworth 1978); Annada vicinity (McNerney 1978)
5	256.5 - 257.0L	255.5 - 256.0R (Farnsworth 1978)
6	254.5 - 254.9R	255.6R (Farnsworth 1978); *254.6 - 254.9R (Udesen & Koski 1978)
7	231.0 - 232.2R	234.R (Farnsworth 1978); 233.8R (Udesen & Koski 1978); 224.7R (Fetiz 1976); Dardenne Creek (King and Martin 1979; Lee 1984); Peruque Creek (Sturdevant 1980)
8	115.9 - 116.3R	115.6L (McNerney 1979); north end Kaskaskia Island (Linder 1975; Moffat and Anderson 1984); Ft. Kaskaskia (Orser and Karamanski 1977)

(Udesen and Koski 1978). McNerney (1979) conducted a similar survey of 41 shoreline locations between Cairo, Illinois (mile 0.0) and Venice, Illinois, across from St. Louis (mile 183.5); 18.9 linear miles were investigated, revealing no archaeological sites.

In addition, one very small spot survey (0.1 mi) was conducted along the shoreline at the Lake Center Marina near St. Charles, Missouri (mile 224.7). This survey also produced no sites.

The surveys discussed above covered a total of 41.8 linear miles, resulting in no identifiable cultural properties. Farnsworth (1978:9-10) offers an explanation for such results in terms of floodplain geomorphological processes. The combined processes of flood deposition and channel shifts have been attributed as factors accounting for the lack of sites encountered on the Mississippi shoreline. By contrast, a survey of the lower Illinois River (Farnsworth 1976) from (Illinois) river miles 0.0 to 80.0 produced 93 historic and prehistoric sites, 66 of which were located within 300 ft (91 m) of the shoreline. Although the Illinois River survey (Farnsworth 1976) extended to areas 91 m back from the shoreline, unlike the Mississippi River surveys (Farnsworth 1978; McNerney 1979; Udesen & Koski 1978), 35 of the 66 sites were located on the shoreline (cf. Farnsworth 1976:30-36). Since both areas were environmentally and culturally similar, Farnsworth hypothesized that this portion of the Mississippi River channel has been less stable for a longer period of time than the lower Illinois River. Farnsworth supported his interpretation by analysis of cartographic data for the past 30-50 years (Farnsworth 1978:9). As a result of the above studies, sites were not expected to be found during the present survey.

Archaeological sites found in this portion of the Mississippi River generally have been found in terrace, bluff, or upland contexts. King and Martin (1979) surveyed approximately 5,000 acres of uplands and floodplain in the Dardenne Creek and Femme Osage drainages in St. Charles County, Missouri, in the vicinity of Item 7. A total of 247 sites was defined, ranging from the Early Archaic through Historic periods. Of these sites, none are in the floodplain near the present survey area, with the closest sites comprising 7 prehistoric (Early Archaic through Late Woodland) and 2 historic (Euro-American) sites in the uplands approximately 7 km (4.4 mi) south of the study area. A later survey in the lower Dardenne Creek also recorded no sites (Lee 1984:43). The only floodplain sites recorded in the vicinity of Item 7 are three prehistoric sites (Dalton, Archaic, Woodland) along Peruque Creek approximately 6.5 km (4 mi) west of the study area (Nixon and Hamilton 1983:26).

A small reconnaissance survey conducted in the Clarence Cannon National Wildlife Refuge, Pike County, Missouri (McNerney 1978), near Item 4 identified five prehistoric sites in the floodplain. Four sites were within 1 km (0.6 mi) of the shoreline and produced evidence of Middle Woodland through Mississippian occupations. Another small survey near Elsberry, west of the refuge area (Evans and Ives 1975) recorded three prehistoric sites in the uplands near the Pike-Lincoln county line.

Early investigations in Pike County focused on mound groups, a reflection of regional trends in archaeological research elsewhere in the Midwest. Archaeological properties in Pike County attracted the attention of the Smithsonian Institution with the excavation of mortuary sites along the Salt River and Noix Creek (Broadhead 1880a, 1880b). The earliest attempt at systematic recording in Pike County was conducted by the Missouri Archaeological Survey, which recorded 48 sites, 38 of which are mounds or mound groups (Saunders and Donham 1983:19). Ten of these

sites are along Calumet Creek in the uplands; the mouth of Calumet Creek forms the southern boundary of survey item 1. Site 23-PI-7 is a prehistoric site located within a mile of the survey area.

Few archaeological sites have been recorded in the floodplain near the first seven project locations (Appendix A). Much of this relative lack of information can be attributed to an absence of cultural resources investigations near these areas. Most investigations in the vicinity have been restricted to the uplands at distances up to 8 km (5 mi) or more from the river shoreline. Many of these surveys have been conducted by the Missouri Highway Transportation Department (Crampton 1979a, 1979b, 1982, 1983; Donham and Saunders 1982) in Pike County. Other investigations in Pike County (Grantham 1980a, 1980b) have been conducted in the vicinity of Louisiana, Pike County, Missouri, 17.5 km (11 mi) north of item 1. These investigations included excavations of Middle and Late Woodland habitation sites.

Item 8: Kaskaskia Island

Four previous cultural resource studies have been conducted on Kaskaskia Island, sponsored by the U. S. Army, Corps of Engineers (Linder 1975; McNerney 1979; Moffat and Anderson 1984; Powell and Austin 1980). These projects involved two surveys and two test excavations. McNerney's (1979) survey was similar in scope to the present investigations, as it consisted of river shoreline segments between Mississippi River miles 0 and 183.5. Four segments of the survey were on Kaskaskia Island at river miles 113.1R, 113.4R, 113.6R, and 114.1R. Another survey segment was conducted across the river at mile 115.6L immediately east of the southern end of survey item 8. Cultural resources were not found at any of these segments.

An extensive survey of 2,200 acres of land was conducted by Loyola University of Chicago (Linder 1975) in conjunction with then proposed levee improvements and construction in Randolph County, Illinois, and St. Genevieve County, Missouri, including parts of Kaskaskia Island. A total of 42 previously unrecorded archaeological sites was recorded, spanning periods from the prehistoric Archaic period through the Historic period. Historic sites recorded included six French Colonial sites and one nineteenth century site associated with the American occupation at Kaskaskia Island. In addition, the previously recorded National Register of Historic Places (NRHP) site of French Kaskaskia (11-R-324) was revisited, resulting in the identification of six discrete "concentrations" of material (11-R-324 a-f), including a Colonial French presence at 11-R-324a.

Subsequent to the Loyola University survey, 10 sites were tested for NRHP eligibility by American Resources Group, Ltd. (Powell and Austin 1980), including a Late Woodland site (11-R-360) and 11-R-357, a multicomponent site (Late Woodland, Mississippian, and nineteenth century historic). All of the sites were found to have suffered previous impacts and were not recommended for nomination to the NRHP.

Two other sites found by the Loyola University survey (11-R-324a, 11-R-324c) were tested for NRHP eligibility by the Center for American Archaeology (Moffat and Anderson 1984). In addition, a site previously recorded by the St. Louis Corps of Engineers (Empty Sandbag Site) also was tested, and two additional historic sites were recorded. These sites, which lie 1.5 km west of the survey, were not recommended for NRHP eligibility.

Private research investigations conducted in the Kaskaskia Island area consist of ongoing historical documentation of the original site of Kaskaskia founded by the French in 1703 (Meyer:personal communication 1984). These investigations include detailed cartographic analyses of maps from 1766 to current USGS (1970) and Army Corps of Engineers maps (1976, 1982). This research indicates that the "Old Kaskaskia" location on the current USGS (1970) quadrangle maps is wrong and that the original town site cross-cuts the present survey area (Meyer:personal communication 1984). Synthesis of Meyer's current research and the site location information for 11-R-480 provided by Terry Norris (personal communication 1984) indicated that 11-R-480 may be the remnant of a French period house site and could extend into the project area. An overview of Meyer's research is presented in the following chapter (Historical Chronology of Old Kaskaskia and Vicinity) and in the discussion of site 11-R-480 (Results of Survey).

Interpretation of all previous background research indicated that survey item 8 had the highest probability of containing cultural resources and that they could date to the eighteenth century French occupation. These research questions were addressed during the present survey.

HISTORICAL CHRONOLOGY OF OLD KASKASKIA AND VICINITY
by Herb Meyer

Introduction

The extensive chronology presented in this chapter represents an outline of important dates, events, and people concerned with the historic settlement at what is now termed Old Kaskaskia. These data have been compiled from a variety of source materials and represent an interim product of a historical research project not connected with the present cultural resources survey. The project consultant, Mr. Herb Meyer, provided the chronology as part of the background records and literature review portion of this project in conjunction with an overview of cartographic research presented under Results of Survey. The two centuries of historic occupation at Kaskaskia can be characterized by the following table.

Table 2
Kaskaskia Eras

Dates		Years
1703 - 1720	The Jesuit, Indians, and Trader Settlement	17
1720 - 1766	The French Parrish Village	46
1765 - 1778	The British Regime	12
1778 - ca.1790	Anarchy on the American Frontier	12
1790 - 1821	Boom Days at the First Capital	31
1821 - 1881	Years of Decline and Disaster	60
1881 - ca.1915	Kaskaskia's Dying Days	± 40

Chronology

The French Period

- 1605 The beginning period of French colonization of the New World.
to By 1666, the population of New France (in what is now eastern
1670 Canada) was more than 3,400. The scene is set for the
 founding of Louisiana.
- 1630 The Illinois (Illini) tribes attempt to withstand the
to westward spreading tide of the Iroquois. The Iroquois
1667 Conquest (1655-67) forces the once dominant Illini to abandon
 their ancient seat on the Illinois River and seek safety on
 the west side of the Mississippi.

The Opening of the Historic Period of the Illinois Country

- 1673 From Quebec, the expedition of Jolliet and Marquette reaches
 the Mississippi; they visit the "Grand Village of the
 Kaskaskia" on the Illinois River (Zimmerman site: 11-LS^V-13).
- 1674 Two French traders are established by this time on the
 Illinois River. Small amounts of European trade goods may
 have filtered to the Illinois Country by about 1655.
- 1679 Hennepin and La Salle visit the Illini, who had begun to
 return to their original lands about 1670.
- 1680 In a series of increasingly savage maraudings, the Iroquois
 defeat the disunited Illinois tribes and drive them from their
 country. The scattered tribes reassemble after Ft. St. Louis
 is completed in 1683.
- 1682 Ft. St. Louis is built by La Salle and Tonti on Starved Rock.
to European trade goods by now are becoming plentiful in the
1683 region. French traders group about the mission among the
 Kaskaskias on the upper Illinois River; thus the first
 definite settlement of whites develops in the Illinois
 Country.

By 1689, the total population of the complex of villages surrounding the fort is about 18,000. But harassment by the Iroquois continues through 1691, and La Salle's dream of an Indian empire vanishes as the confederacy slowly falls apart. By 1691 the Ft. St. Louis site is abandoned by the Illini tribes because firewood sources are depleted in the surrounding area. The community is reestablished further down the Illinois River (Peoria) and here Father Gravier is appointed missionary to the Illini and establishes the first permanent mission in 1693.

The Establishment of Kaskaskia in Southern Illinois

- 1690 Internal dissention, tribal conflict and other changes cause
to increasing migration of several tribes southward from the old
1700 Illinois territories. The Tamaroa and Cahokia establish
neighboring villages in the vicinity of East St. Louis, where
Father de St. Cosme establishes a mission in 1698.
- 1697 The Tamaroa have two villages "close to the later site of Ft.
de Chartres" (Temple) west of the present Prairie du Rocher.
The Michigamea are settled on the west side of the Mississippi
River on what probably is Apple Creek.
- 1700 Father Marest leaves "Chicagaua" and travels south with the
peaceable Kaskaskia, who want to get away from offending
neighbors on the upper Illinois. They reach the village of
the Tamaroas on the River des Peres in the late fall. Here,
on the opposite side of the Mississippi from the Cahokia
mission, a place now part of south St. Louis, they remain
until 1703.
- 1701 Charles Juchereau de St. Denys receives a royal patent for a
tannery concession in the Illinois Country.
- 1702 The Juchereau party sets out for the site of Va Bache (on the
Ohio River just south of the present Grand Chain community)
and commences the tannery operation.
- 1703 In April, Father Marest and the Kaskaskia abandon their three-
year home on the Des Peres and come to establish a new village
on "the river called the Michigamea." This is the river later
called the Kaskaskia. The location of the new village is on
the west bank "two leagues upstream from the Mississippi;"
here the mission of the Kaskaskia is established. A few
French traders and their Indian wives settle with the Jesuits,
and the village of Kaskaskia is begun.
- 1704 Illinois, Kentucky and Missouri tribes, angered by the inroads
upon their game made by the Va Bache buffalo hunters, come
together to attack the outpost, which is completely destroyed.
The whites there are massacred.
- 1711 Penicaut, one of a dozen men sent from the south to restrain
some traders (coureurs du bois) causing trouble among the
Indians in the region, writes the first description of life in
the village of Kaskaskia.
- 1712 Domestic cattle are introduced into the region.
- 1714 Father Marest dies, a victim of a summer epidemic (Malaria?)
which ravages the area.

- 1717 Conflict between the Illini tribes and the Iroquois finally ceases.
- 1718 According to tradition, wheat is introduced into the region. Kaskaskia is to become the center of a large and vital wheat producing activity for New France.
- 1718 Civil government is established for the new province of Illinois. The Illinois Country previously had been considered a part of Canada; now it is formally annexed to Louisiana. New officials of the province come up the Mississippi in 1718 and live in Kaskaskia. Among them is Pierre Duque, Sieur de Boisbriant, new commandant. He and his soldiers lodge with villagers until a new fort can be built 16 miles to the northwest. Construction is begun in 1719 on a site (11-R-125) near the Mississippi. The Kaskaskia Indians move from Kaskaskia to their own village site one league northwest.
- 1722 to 1722
- 1720 The first Fort de Chartres is completed. It is small, made of posts or palisades in a square plan with two bastions. The center of provincial government moves to the fort, and soon after, the village of the Prairie of Fort de Chartres (St. Anne) originates to the southeast close by the fort.
- During this same time following the completion of the fort, an Indian village is established on a low ridge a half-league northwest. The Michigamea who live here are joined by Kaskaskia Indians from the village of Kaskaskia.
- Kaskaskia itself is described as having about 80 houses.
- 1722 Prairie du Rocher is established.
- 1723 D'Artagulette writes: "There is a church outside of the fort and some dwellings a half a league lower down, on the same side, as well as half a league above as far as the little village of the Illinois, where there are two Jesuit fathers, missionaries, who have a dwelling and a church. This little village which is called Mechiquamias numbers perhaps about 200 warriors."
- 1725 By 1725 the original Fort de Chartres is rotting and falling into ruin.
- 1726 A major flood covers the Mississippi valley.
- 1727 The original Fort de Chartres is badly damaged by Mississippi River floods. Repairs are attempted apparently in 1727 and 1728, at the insistence of the governor of Louisiana, and what is left of the fort is rebuilt and two bastions added. There is some probability that still another rebuilding took place some time later on a new site inward from the river, in about 1732.

- 1732 Kaskaskia is said to have a population of 388 whites, and two years later is described as "in its heyday."
- 1735 Traditionally accepted date for the establishment of Old St. Genevieve, a few miles west and across the Mississippi River from Kaskaskia. Recent research has suggested a range of dates for the town's founding from 1722 to 1752, with the period around 1750 being the most probable.
- 1736 The Michigamea are "living at their village just north of Ft. de Chartres" with 250 warriors. The mission at this village ceases to function in this year.
- 1738 Construction is begun on a palisade fort opposite Kaskaskia on a bluff rising above the Kaskaskia River. This work is halted in 1739.
- 1747 Badly deteriorating Ft. de Chartres is finally evacuated by its French garrison, which moves to Kaskaskia.
- 1751 The original Fort de Chartres is in advanced decay. However, it (or possibly its second, relocated version, if there was one) evidently was occupied during at least part of the time from 1747 to 1756, because Bossu, while lodging there, describes the Fox massacre at the Michigamea village on June 6, 1752.
- 1752 A thousand warriors of the Sioux, the Sauks (Sac) and the Kickapoo, under the banner of the Fox Indians, come down the Mississippi in 180 canoes to attack the Illinois as revenge for an incident. They massacre men, women and children in the Michigamea village near Ft. de Chartres while most of the men are absent, attending the ceremony of the feast of Corpus Christi at the fort.
- 1753 Foundations are laid for a new Ft. de Chartres, on a site near the Mississippi about one-half mile northwest of the original fort.
- A new church in Kaskaskia, under construction since 1739, is finally completed. In this same year, a new fort is ordered built and is completed on a knoll next to the Kaskaskia River just southeast of the village, near the Jesuit compound. This probably was a very small blockhouse or compound.
- 1754 The outbreak of the French and Indian War against the English causes the commander of the Ft. de Chartres garrison to recruit 300 Illinois to join the fight at Fort Necessity, where Washington is forced to surrender.
- 1756 The new Ft. de Chartres, built of stone at enormous expense to the French, is completed.

- 1757 Growing French fears of English advances prompt hurried construction of a new fort on the Ohio. Completed in 1757, it is later known as Ft. Massac.
- 1759 Quebec falls, and with it the power of France in America. Work on French Fort Kaskaskia was begun as early as June 1759 but apparently was never completed.
- 1763 The French and Indian War ends. The Treaty of Paris cedes all land east of the Mississippi to England; the Illinois Country becomes a British possession. Unknown to the French in the Mississippi valley, the lands west of the Mississippi had been ceded to Spain in 1762.

In September, a courier reaches Ft. de Chartres with news that the Jesuit order in Louisiana has been abolished. The Jesuits are forced to leave their missions and possessions abruptly, and their major role in the territory is ended before the end of the year. In November, Laclede arrives at Ft. de Chartres to spend the winter.

The Michigamea village near the fort is reoccupied by Illini after a period of diminished population.

- 1764 In the spring, Pontiac visits the French commandant at Ft. de Chartres and proposes joint war against the British. Rebuffed, he goes to the Michigamea village for a traditional ceremony or dance of war. In June the main force of the French evacuates all forts in the Illinois Country, and many French civilians also begin to seek safety on the west side of the Mississippi.

In July a disappointed Pontiac returns to Detroit. Floods threaten Ft. de Chartres and its nearby village. Laclede begins his trading post opposite Cahokia, and many Kaskaskia families (50 by 1765) move there.

- 1765 After numerous delays and false starts, partly resulting from Indian opposition, the British come into the Illinois Country to take command of Ft. de Chartres. On October 10 the fort is released to them by a small French garrison. No shot has ever been fired in anger by the fort, which the British rename Ft. Cavendish. By this time, the Mississippi River is 100 yards from the fort's west structures and nearby St. Anne, closer to the river, is depopulated and "half in the river."

The British Period

- 1766 Ft. de Chartres is in a deteriorating condition, increasingly threatened and damaged by the Mississippi at the southwest bastion.

In the spring of this year, 15 cabins are reported remaining at the village of the Kaskaskias, three miles northwest of French Kaskaskia.

By August, the Mississippi is 26 yards from the point of the southwest bastion of Ft. de Chartres. An island has formed opposite the fort.

Kaskaskia itself is at low ebb of population, many of its inhabitants having fled in apprehension of the British. Here ends a 45-year period during which its size and population was stable.

Pittman map of Kaskaskia.

In October, Ft. Kaskaskia opposite the village burns to the ground.

A period of six years of severe hardship and tribulation begins for those habitants remaining in Kaskaskia. The French period of its life has ended.

1768 Companies of the 18th Royal Irish Regiment arrive at Ft. Chartres in September from Ft. Pitt. A series of letters describing life in the fort and in the region is written by an Ensign Butricke, a soldier in the regiment.

Father Gibault comes to Kaskaskia.

1769 Pontiac is murdered at Cahokia. The resultant threats of Indian uprisings causes the British garrison great fear of an Indian war, but only minor maraudings are noted.

1771 The "approaching ruin of Ft. de Chartres" and the distress of its garrison is described in British military correspondence.

1772 Ft. de Chartres is ordered abandoned by the British. Most of the 18th Royal Irish garrison leaves the fort and sets out for Ft. Pitt, leaving a detachment of 50 men in Kaskaskia. An attempt is made to hasten the fort's destruction by opening its drains. Apparently during this year the two west bastions and the west wall are swept away by the river.

In Kaskaskia, the remaining British detachment builds a wood palisade wall around the old Jesuit compound, which becomes Ft. Gage.

1773 Both the Kaskaskia and the Michigamea Indian villages are reported to be "well-populated."

- 1776 In late May, the small British detachment at Ft. Gage in Kaskaskia departs and goes to Detroit, leaving British affairs in this region in the hands of a single agent who continues to reside in the fort.
- 1778 George Rogers Clark's expedition down the Ohio and across Southern Illinois succeeds and Clark occupies Kaskaskia without serious incident in July. Plans are laid for a march on Vincennes.
- 1779 In February, after a difficult march through the Southern Illinois wilderness in bitter winter, Clark's small army besieges and forces the surrender of Hamilton's garrison at Vincennes. With this victory comes the end of British domination in the Illinois Country.

The American Period

- 1777 to 1787 A period of hardship and anarchy, which had begun with the British occupation and continued with the breakdown of civil order during the years immediately after the defeat of the British, prevailed in Kaskaskia and the region.

In 1784 one John Dodge and his "band of toughs" seized the remains of the old fort on the bluff and terrorized the villagers for "several years." In 1785 a major flood damaged Kaskaskia and forced the removal of Old St. Genevieve to a higher site four miles upriver.

The population of Kaskaskia is said to have declined to 349 whites by 1787. However, "immigration from the country east of the Alleghenies had begun; enterprising merchants saw the advantages of the location as a trading point; English (American) blood became infused into the village; and the slow and sleepy life of an exclusively French settlement gradually gave way to greater activity."

- 1783 The Illinois population declines. The Kaskaskia range up the Kaskaskia River and Big Muddy River until about 1786, when access to the upper reaches is denied them by the Kickapoo. A struggle with the Shawnee over use of the southern portion of the territory commences. Until about 1795, Indians also constantly maraud white settlers in the region, including Monroe county.
- 1787 Illinois becomes part of the Northwest Territory under United States government.
- 1802 The Kaskaskias lose a decisive battle with the Shawnee, and in the following year cede to the government their claims to all lands in Illinois. They establish their last village in Illinois near the Big Muddy River south of Sand Ridge in Jackson County. Another reservation is provided by the

government at "Kaskaskia Village" (several miles northwest of the old French village). By this time buffalo have become extinct in Illinois.

1804 Most Kaskaskia Indians choose to move from the Kaskaskia Village reservation to that at Sand Ridge.

1809 Kaskaskia becomes the capital of the Territory of Illinois. During the winter of 1809-1810, the town is described as having "... more gaiety, carousal and amusement. . . than the town has ever since known."

Between 1810 and 1818 Kaskaskia's population apparently reaches its peak, somewhat less than 1,000 inhabitants although the number is unclear because of constantly transient visitors.

1812 The first territorial legislature meets at Kaskaskia.

1812 The War of 1812 coincides with a renewal of "Indian troubles" to
1814 in Illinois. A number of small forts or blockhouses are built by settlers in 1812; old Ft. Gage is used by settlers who move there until the war is over. The Lively family massacre in Washington occurs in 1813.

1816 The town of Brownsville is established on the Big Muddy River east of Sand Ridge in Jackson County. It becomes the county seat.

1818 Illinois becomes a state, and Kaskaskia is named its capital. Its size, population and importance are at their peak.

1820 The state capital is moved from Kaskaskia to Vandalia. The decline of the town begins.

1833 The remnant of the Illinois Indians in Illinois, less than a hundred men, women and children, are removed from the Sand Ridge reservation and westward from the state. This marks the end of the Indians' natural residence in Illinois.

1838-39 The Cherokee Trail of Tears brings a tragic migration through Southern Illinois.

1843 The Brownsville courthouse burns and the town begins to decline.

1844 A Mississippi River flood, the worst since 1785, destroys much of Kaskaskia and gives the finishing blow to the town's waning prosperity. The population at this time is approximately 700.

1844 Of this period of Kaskaskia's history there is meager
to description. Many occupants move after the 1844 flood,
1880 especially to Chester and St. Genevieve. The older buildings
and properties which survive the flood fall gradually into
ruin. The population by 1880 has declined to about 350.

Some time after about 1863, the Mississippi River begins
a shift eastward, just south of St. Genevieve. By 1879 this
shift has resulted in a large bend which, at its easternmost
curve, comes to within a half mile of the Kaskaskia River
about six linear miles above the point where the smaller river
empties into the larger.

For several years the Mississippi undermines and carries
away many acres of Kaskaskia farm land, including that on
which stood the Bond mansion, the house of the first governor
of Illinois, about one mile west of Kaskaskia. Unusually
heavy snows in the north during the 1880-81 winter result in
severe flood conditions by April of 1881.

1881 "The Narrows" between the rivers is reduced to about 500 feet
by April 18; that night the Mississippi breaks through; on the
19th a raging torrent is sweeping into the old Kaskaskia
channel; on the 20th the Mississippi has engulfed it and is
forming its own new and larger channel. Within a few days
steamboats are passing through the new cut, where soundings
show a depth of 66 feet.

The old town of Kaskaskia was not entirely flooded in
1881, but the swift, cutting current made it apparent that the
town was doomed. Year after year, mostly between 1886 and
1909, the bank was carried away and with it more and more of
the town, its buildings and streets.

1891 The old church dating from 1753 is threatened as the crumbling
bank approaches. Most of the cemetery is removed to a site
across the river on Garrison Hill, just north of the site of
old Ft. Kaskaskia; but some of the cemetery is lost to the
river. Some relics of the church, including the bell cast in
France in 1741 for the Kaskaskia congregation, are relocated
in a new church built at a new town site 2 1/2 miles south of
the old. This new town is laid out, and a few of the
buildings from Old Kaskaskia are moved there.

1899 A photograph made in this year shows the building which had
been the old State House still standing, but very close to the
river bank. It fell into the river within two years.

1900 The population of Kaskaskia is 177.

1904 The old church stood until this year and presumably was taken
by the river at this time.

- 1905 The old court house and the priest's house, although in a badly deteriorating condition, still survive on the encroaching river bank.
- 1913 In the latter part of this year "only four or five families" remain as residents of the old town of Kaskaskia. The four buildings shown in the town on the USGS Chester quadrangle map apparently relate to the 1912-13 survey and not the 1947 revision. The last residents probably left within a few years, but the dates are uncertain.
- ca. 1950 Some time before 1950 every trace of any building or major town feature is gone, although the southwest fringe of the village tract as it was laid out in 1766 is on land never disturbed by the river except for surface flooding. Today only the closest search of the surface of farm fields, once a part of the great village commons, reveals any trace of the vanished village and its two centuries of inhabitants.

METHODS

Background Records and Literature Search

The Scope of Work (Appendix A) called for a literature and background records search of the project area to identify and summarize known cultural resources that may be recorded within any of the eight survey tracts. This search was intended to aid the field survey by indicating the type and nature of cultural resources that might be found within the project area. Results of this prefield research indicated that the likelihood of encountering prehistoric cultural resources was extremely low and the prospects for discovering historic properties not much better. Survey Item 8 was the only area where cultural resources were expected to be found, since the survey tract cut through part of the original historic site of Kaskaskia.

Prior to initiating field work, the following sources were consulted: site files of (1) the Archaeological Survey of Missouri (ASM), Columbia, (2) Missouri Department of Natural Resources, Jefferson City, and (3) Illinois Department of Conservation, Historic Sites Division, Springfield; professional authorities including Mr. Terry Norris, St. Louis District Archaeologist, U.S. Army, Corps of Engineers, and Mr. Herb Meyer, Southern Illinois University, Carbondale; the National Register of Historic Places; and pertinent reports of previous investigations (e.g., Farnsworth 1978; Moffat and Anderson 1984; and Udesen and Koski 1978). Additional background materials on the topics of environment, archaeology, and history also were consulted, the results of which are incorporated into appropriate parts of this report. Documentation of records searches is provided in Appendix B (Correspondence).

The background records and literature search revealed no previously recorded cultural resources within any of the eight survey areas. Consultation of the National Register of Historic Places indicated that survey Item 8 was partially contained within the French Colonial Historic District, although no architectural or archaeological sites/features associated with the district were identified within the confines of the survey tract itself. However, previously recorded site 11-R-480 was recorded as being nearby, but probably outside of, Item 8. Further, another NRHP property, the Clifford-Wyrich House (105 S. Second Street, Clarksville, Missouri), is located near the northern end of Item 1, approximately 400 m to the northwest (Missouri Department of Natural Resources 1984; Chamber of Commerce n.d.).

Site Definition

In order to operationalize field methods and achieve project goals per the Scope of Work, cultural resources were defined (1) as sites, and (2) as isolated finds. Drawing upon Binford (1972), a site was defined as a clustering of cultural materials and/or features within the observable spatial context. Isolated finds are those items of cultural materials unassociated with other cultural materials or features and lacking a definable spatial context, generally less than three items.

Field Methods

Field methods used in the survey consisted of a pedestrian and visual survey of the eight survey items along the river shorelines in the area between the water's edge and the top of the bank. The width of these tracts varied from as little as 5 m in steep locales to approximately 25 m in wider, more gently sloping areas. As per methods outlined in the Scope of Work, the shorelines below the banks were walked by surveyors at 5 m intervals where conditions allowed. The completion of rip-rap operations at some items prohibited a walk-over survey, with ground surface visibility at 0%. Such items were visually inspected from a boat. Tops of banks, technically out of the survey area, were inspected only when cultural materials were found on the shoreline. Complete surface collections were made at all cultural properties identified during the survey. Survey boundaries were identified in the field through the use of USGS maps, Corps of Engineers hydrographic survey maps (1976), and river navigation maps (Corps of Engineers 1982). Photographs were taken at all survey items; a selection of 35 mm color slides of field conditions accompanies this report as a supplement.

Field inspection of the survey items indicated that planned improvements (shoreline stabilization) already had occurred on items 5, 6, and 7 and were nearly complete at item 4. Items 4, 6, and 7 were photographed and viewed from the boat, as shorelines were too steep to walk and visibility was 0% because of the new rip-rap. The top of the bank at item 5 was walked because it was accessible and was at the edge of a plowed field; surface visibility in the field was in excess of 75%. Also, the northern 30 m of item 5 remained exposed; it was surveyed at 5 m intervals. Although not accessible during this survey, item 6 previously had been surveyed, and cultural resources were not reported (Udesen and Koski 1978).

Items 1, 2, and 8 were surveyed at 5 m intervals by walk-over survey. All three tracts were relatively clear, affording excellent surface visibility, except parts of item 1 where old rip-rap obscured the surface visibility. Item 3 was surveyed from the boat because of steep banks and old rip-rap which covered the banks and shore. The above discussion is summarized in Table 3.

Table 3
Field Methods

Item # River Mile	Date of Survey	Access	Visibility	Rip-Rap Construction	# of Field Crew
1 272.9-272.5R	Dec. 3,5	Walk	Variable	Old	2
2 267.7-267.1L	Dec. 4	Walk	Excellent	None	3
3 264.4L	Dec. 4	Boat	None	Old	3
4 260.9-259.6L	Dec. 4	Boat	None	In Progress	3
5 257.0-256.5L	Dec. 4	Boat, Walk	Variable	Some New	3
6 254.9-254.5R	Dec. 4	Boat	None	New	3
7 232.2-231.R	Dec. 3,5	Walk	None	Old, Some New	2
8 116.3-115.9R	Dec. 11	Walk	Good	None	4

Laboratory Analysis

All materials recovered through either surface or subsurface investigations were washed, sorted, labeled, and cataloged. An artifact inventory employing the following classifications (adapted from Moore 1983) was compiled for all materials. Only a flaked stone lithic typology is presented for prehistoric materials since no aboriginal ceramic or groundstone tools were recovered. Explicit definitions are presented only for prehistoric artifact classes encountered, although other potential classificatory taxa are enumerated. These definitions represent modifications of those employed by Crabtree (1972) following interpretive concerns expressed by Wilmsen (1972) and Burton (1980). Extensive review of historic Euro-American artifact nomenclature is not presented since historic materials were recovered. Upon completion of the project, artifacts recovered during field work were curated at the American Archaeology Division, University of Missouri-Columbia.

Debitage:

Primary flakes: These are flakes that exhibit a substantial amount of cortex or patina and usually no negative flake scars on their dorsal surfaces and tend to be relatively large and thick. Such flakes are the result of initial reduction, i.e., decortication, of lithic raw material (parent mass) in tool production. Specimens which exhibit use-wear solely due to

utilization are placed in the utilized flake category, while those exhibiting purposeful edge retouch are assigned to a specific worked stone grouping.

Secondary flakes: These flakes often are relatively thick (though not necessarily large), lack a significant amount of cortex or patina, and exhibit negative flake scars which produce a dorsal ridge. Such flakes also may lack evidence of platform preparation and have diffuse bulbs of applied force. These specimens represent an intermediate stage of flaked stone tool production. Specimens exhibiting use-wear or retouch are placed in the appropriate categories.

Tertiary flakes: Flakes which often are relatively small and thin in comparison with primary and secondary flakes may be defined as tertiary flakes. They often exhibit evidence of platform preparation, minute cones, numerous negative flake scars on their dorsal surfaces, and reduced bulbs of force on their ventral surfaces. This category also includes flakes produced during bifacial thinning, retouching, or reshaping procedures.

Shatter: This category includes unidentifiable portions of primary, secondary, or tertiary flakes (often the medial fragments) and the subcategories of erallure flakes (Crabtree 1972:60-61), chunks or spalls (East and Alexandrowicz 1980:23), potlids (Crabtree 1972:84-85), and minute flakes resulting from the breakage or attrition of modified or unmodified siliceous lithic materials.

Blades

Utilized flakes: This category includes any flake without post-detachment modification/retouch, which exhibits evidence of utilization by the presence of edge-wear, e.g., attrition scars, sheen, along one or more margins. Flakes that exhibit intentional retouch are placed in the appropriate worked tool subcategory.

Utilized blade

Core

Projectile point

Drill

Graver

Spokeshave

Multifunctional tool

Uniface

Other biface: A flaked stone implement other than a projectile point, graver, spokeshave, or multifunctional tool exhibiting flake scars on both surfaces of any edge may be included in this subcategory. This group also includes preforms or blanks which constitute a stage in the production of bifacially flaked tools or weapons, scrapers, choppers, "knives," etc.

RESULTS OF SURVEY

The cultural resource survey conducted at the eight items along the middle Mississippi River shorelines yielded one previously unrecorded archaeological site (11-C-189), two isolated find spots (#1 and #2), and revisitation of one previously recorded site (11-R-480). The isolated finds were located within the proposed project boundaries, while the sites were outside of the designated project areas.

Isolated Find #1

Isolated Find #1 was encountered on the river shoreline in survey item 1 (Map 2) at approximately river mile 272.8. It consisted of one prehistoric biface fragment (22.1g) of heat-treated Burlington chert, found on the surface near the water's edge. The surface area within a 25 m radius was closely inspected at 2 m to 3 m intervals for additional cultural materials. The river banks also were closely scrutinized for the possibility of additional materials that could have been eroding out of the river bank, since this was an area where old rip-rap had eroded away, exposing colluvial soils. Results of the intensified survey efforts were negative, and it was concluded that this object represented an isolated find redeposited by river action.

The object is the top of a large, bifacially worked piece of Burlington chert. Evidence of thermal alteration is indicated by the pink and tan discoloration of the usually white chert and the lustre of the more vitreous portions of the artifact. Edgewear cannot be discerned or interpreted because water action has smoothed the edges of the piece, including the broken edge. Therefore, it cannot be interpreted whether the larger, original biface broke during manufacture, use, or subsequent to deposition.

The biface appears to have been redeposited from an unknown source upstream from the project area. The local populace at Clarksville, Missouri, indicated that a large prehistoric site exists on the high bluff approximately 1 km (0.6 mi) northwest of the find spot, near Lock and Dam 26. Also, the records and literature search revealed the presence of site 23-PI-7 (Appendix A) west of the survey tract on the west side of Clarksville approximately 600 m west of the find spot. It is probable, but undemonstrable, that Isolated Find #1 may be associated with site 23-PI-7.

Isolated Find #2

Isolated Find #2 was discovered on the river shoreline of a small islet at river mile 267.7 (Item 2) west of Coon and Carroll Island (Map 3). The find consisted of one heat-treated tertiary (bifacial thinning) flake (0.8 g) and one piece of shatter, a broken flake (1.5 g) within 5 m of each other. Both pieces were made of Burlington chert. The entire islet, which has dimensions of less than 40 m x 75 m, was closely inspected at 2 m to 3 m intervals in a search for additional cultural materials. Results of the intensified search proved negative, and additional cultural materials were not identified.

Since the materials were found on the shoreline within 5 m of the water's edge and at the upstream tip of the islet, these materials were interpreted as being redeposited by river action from an unknown source or site upstream.

The Hamburg Site (11-C-189)

The Hamburg site was discovered accidentally by the survey crew when the boat was put to shore for lunch. A small surface scatter of 11 prehistoric lithic artifacts was collected from an area approximately 10 m x 20 m in dimension (Map 10). The area is located on a portion of eroding shoreline immediately north of a concrete boat landing (river mile 258.5) at the river's edge in an urban environment. Vegetation cover was sparse, consisting of a few weeds, affording excellent surface visibility.

The area also has been the site of recent dumping activity denoted by the presence of broken glass, wood, metal, and historic ceramics. These historic materials were noted but left at the site. Some earth moving activity appears to have occurred, with dark soil, some gravel, and the historic materials pushed westward toward the water. Erosional slumps were inspected for subsurface materials or features, but none were found.

Since the Hamburg site was outside of the project area and not covered under the Scope of Work, data collection was restricted to that sufficient for filling a site survey form with the Illinois Archaeological Survey. Prehistoric artifacts collected from the site are enumerated in Table 4.

All artifacts were of Burlington chert, and none showed evidence of thermal alteration. The only recognizable tool consisted of the utilized flake exhibiting attrition scars on the distal and right lateral edges (viewed from the dorsal surface). The relatively large flake size and presence of cortex on 5 of the 11 flakes (45%) indicate that initial stages of lithic reduction may have occurred at the site, as well as some intermediate stage of lithic reduction resulting in large bifacial preforms as evidenced by the 3 large, but thin, secondary flakes.

Table 4
Material Collected from the Hamburg Site

Artifact	Amount	Weight (g)
Primary Flakes	3	40.9
Secondary Flakes	3	17.8
Shatter: with cortex	2	12.1
without cortex	2	22.6
Utilized Flake	1	1.8
TOTAL	11	95.8

These materials most likely derive from a nearby source area or prehistoric quarry. The Burlington Limestone is the predominant chert-bearing formation in Calhoun County (Rubey 1952), and earlier research (Meyers 1970:31) indicates that this bedrock formation extends almost to the Mississippi River near Hamburg. The most likely locale for a prehistoric chert source or quarry would be at the bluff line on the east edge of Hamburg; the Hamburg site is indicative of the procurement and utilization of such a local source.

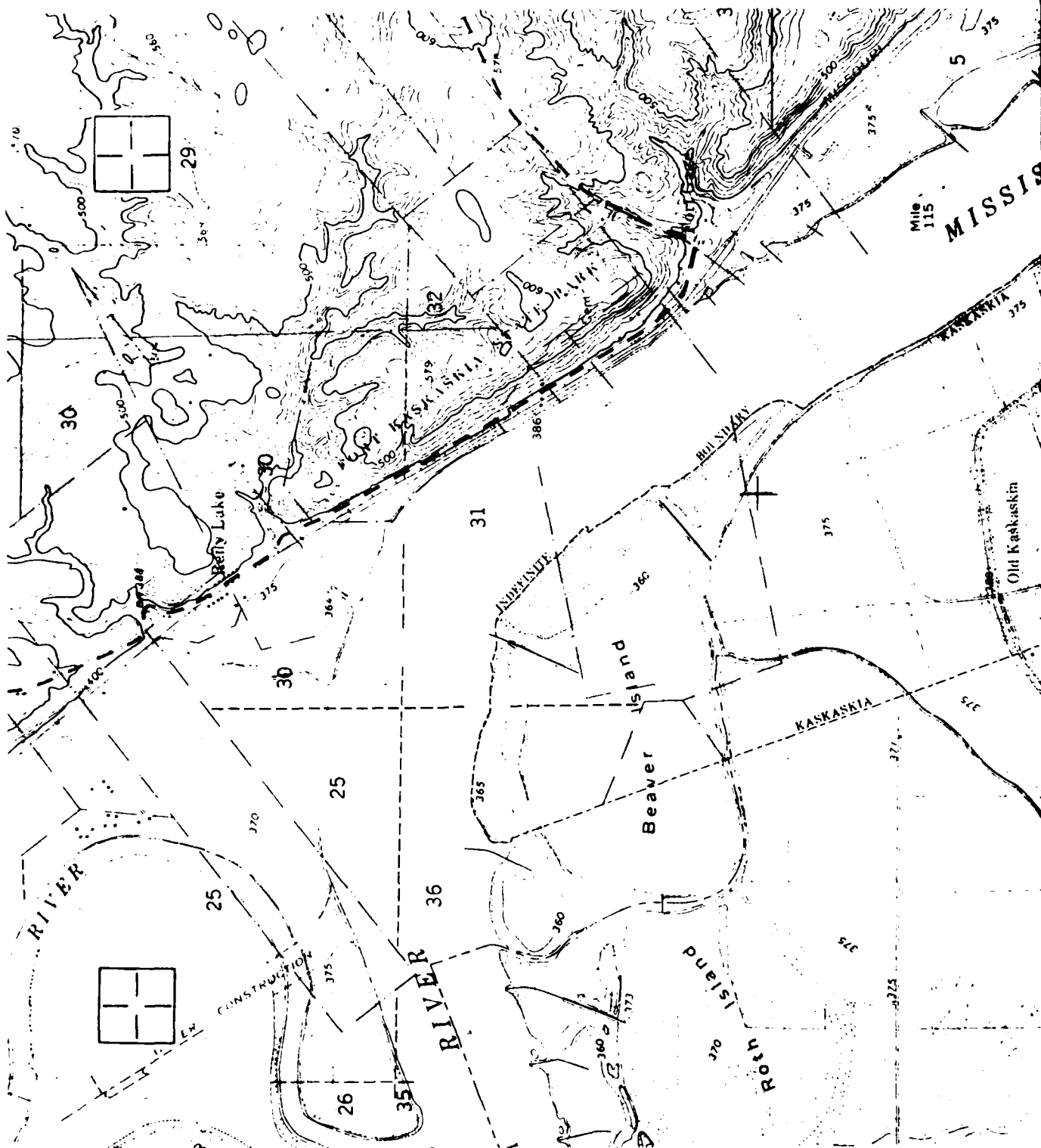
Site 11-R-480 (Pittman Site)

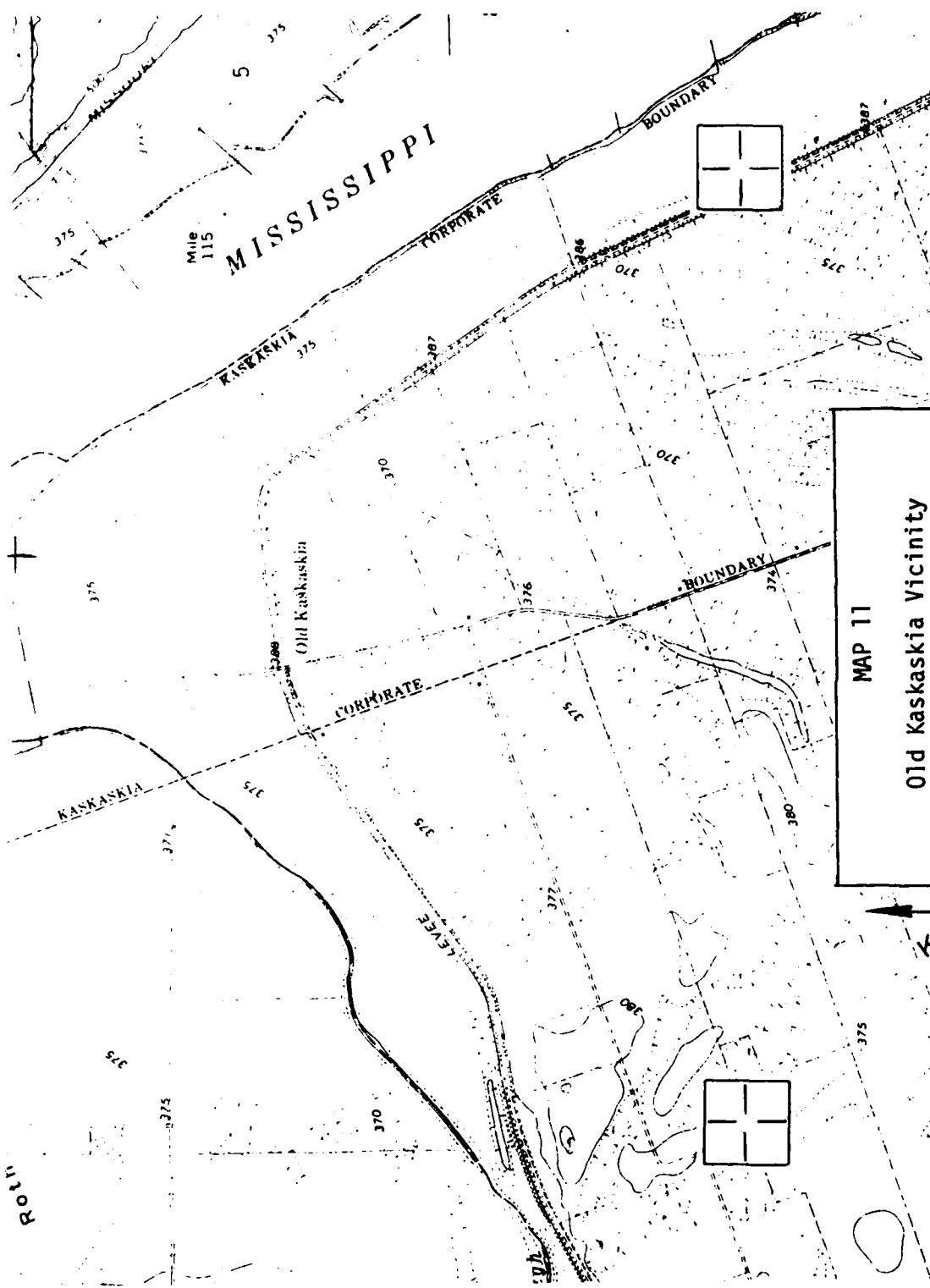
Site 11-R-480, a previously recorded historic site, was revisited in the course of the survey of Item 8 to determine if the site boundaries extended into the proposed project area. Presently, the site consists of northwest to southeast sporadic alignment of rock running parallel to and just within the treeline 50 m west of the bank. This alignment may represent the remains of an old wall, as it extends approximately 60 m in length. At the northwest end of the alignment, a small (1 m diameter) mound of rubble was found. It was determined that the site was 50 m west of the project area (Map 9) and would not be adversely impacted by proposed construction activities. Artifacts observed included wall rubble, a hand-hewn stone, and brick fragments. Collections were not made, but the general area was photographed and noted on maps. Prior to this survey, site 11-R-480 had been visited by Corps of Engineers personnel who collected a shutter pintel and two French falence earthenware sherds (Terry Norris, personal communication 1984).

In conjunction with the background and literature search for Item 8, various cartographic sources were consulted focusing on the town grid and plots of outlying structures associated with the original site of Kaskaskia (U. S. Army Corps of Engineers 1889, 1908; USGS 1947, 1970). These sources were checked again after the survey of Item 8 with particular attention to site 11-R-480 in an attempt to correlate the site with structures recorded on earlier maps (Supplement 4). Independent research being conducted by Mr. Herb Meyer indicated a colonial French house site as being in the immediate vicinity of 11-R-480; an overlay of Philip Pittman's 1766 map of Kaskaskia (Pittman 1906) superimposed over the current USGS Kaskaskia quadrangle map (USGS 1970) indicated that any extant remains of this structure might be found within the present survey area (Herb Meyer, personal communication 1984).

Although it was confirmed that site 11-R-480 was outside of the survey tract by 50 m, postfield research concentrated on relating the site to former structures and on site destruction processes at the town site of Old Kaskaskia. The present USGS map (Map 11) does not indicate any structures in the vicinity, although two nearby structures are shown on the 1947 (USGS) topographic map (Supplement 1). Overlays of an earlier map (Supplement 2) recording the 1908 hydrographic survey (U. S. Army Corps of Engineers 1908) depicts three nearby structures, one of which correlates with a structure on the 1947 map; the other two structures are closer to the wing dam (mile 116.3R) than the structure which appears on both maps. An earlier hydrographic survey map (U. S. Army Corps of Engineers 1889) portrays the town grid of Kaskaskia (Supplement 3) but does not indicate any then extant structures in the immediate vicinity of 11-R-480, which would have been in the southwest corner of town. Historical research indicates that this was the last portion of the town to be developed and that few buildings were erected in that sector.

A schematic reconstruction of the ground surface at this end of Kaskaskia Island for the years 1889 and 1908 (Figure 2) indicates a loss of up to 26 ft (7.92 m) of soil in the Old Kaskaskia town vicinity. The cross-section indicated on Map 11 represents a 4,800 m (3 mi) transect along longitude $89^{\circ} 55'10''$ beginning just north of the present-day village of Kaskaskia at latitude $87^{\circ} 56'N$ and running north across the river to the edge of the bluff line; data were gathered from Corps of Engineers (1889, 1908) and USGS (1970) maps. The highest elevation in Old Kaskaskia was recorded as 385.64 ft msl in 1889, with the river surface just below 375 ft; the 1889 map indicates that the north tip of the island was "rapidly caving." By 1908, fluvial processes associated with the river had cut a deeper and wider channel, with the highest point in the Old Kaskaskia vicinity still at about 385 ft msl but with the river surface lower at approximately 365 ft. Sustained shoreline erosion and intermittent severe flooding had washed away most of the area within the land grant boundary by 1968 (USGS 1970), leveling the land to a maximum elevation of 375 ft msl just south of town, with the river level at just under 360 ft msl. By this time, most of the old site of Kaskaskia had been washed away, and redeposition of silt and other deposits had created an island and two sand bars in the area with maximum elevations of approximately 365 ft to 370 ft msl.





MAP 11

Old Kaskaskia Vicinity
and Shoreline, 1968

SCALE 1:24 000

MILE
1 KILOMETER
CONTOUR INTERVAL 20 FEET

Kaskaskia, IL-MO (USGS 7.5', 1970)

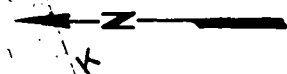


Figure 2.

Schematic Cross-section of Past Landsurfaces at the North End of Ka

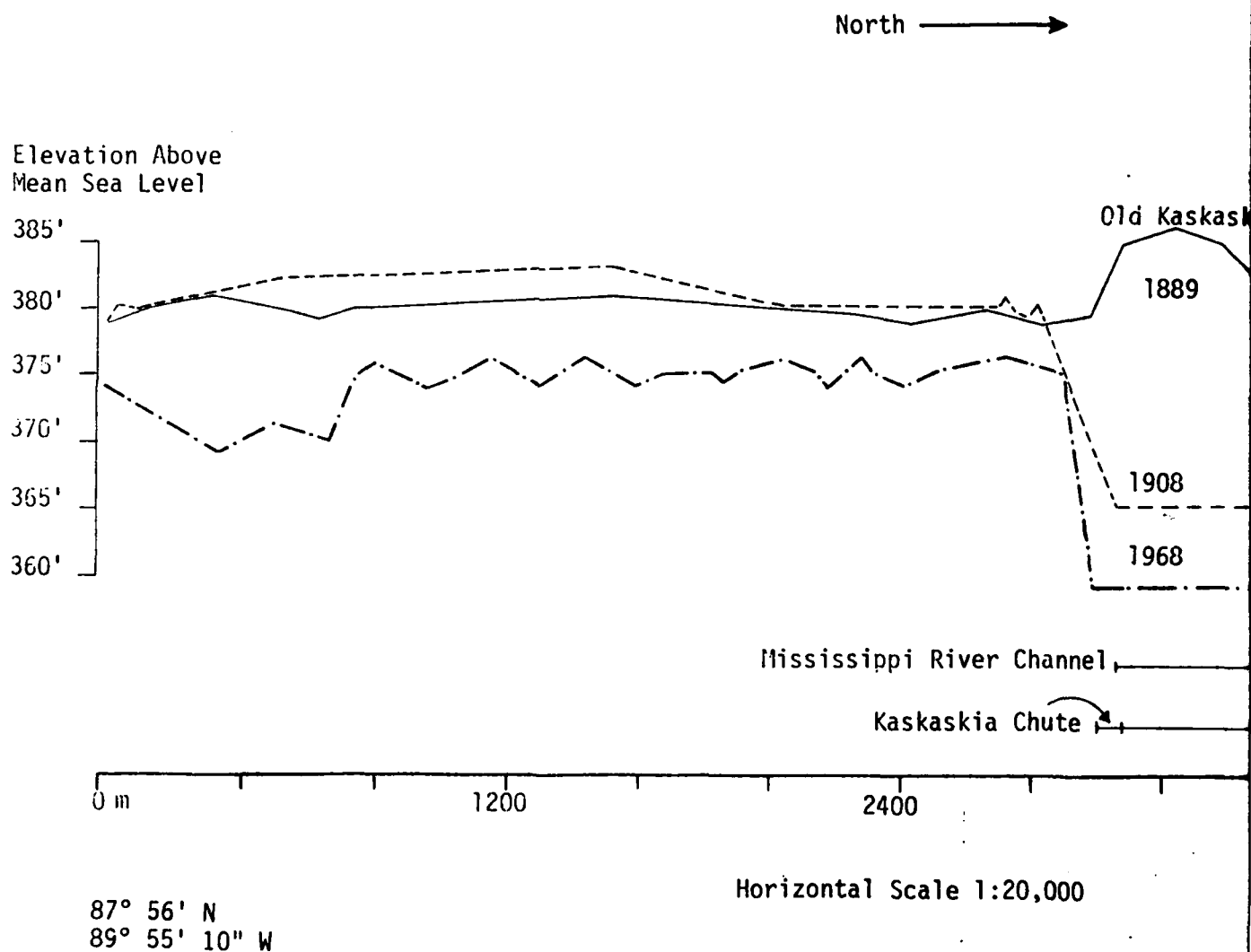
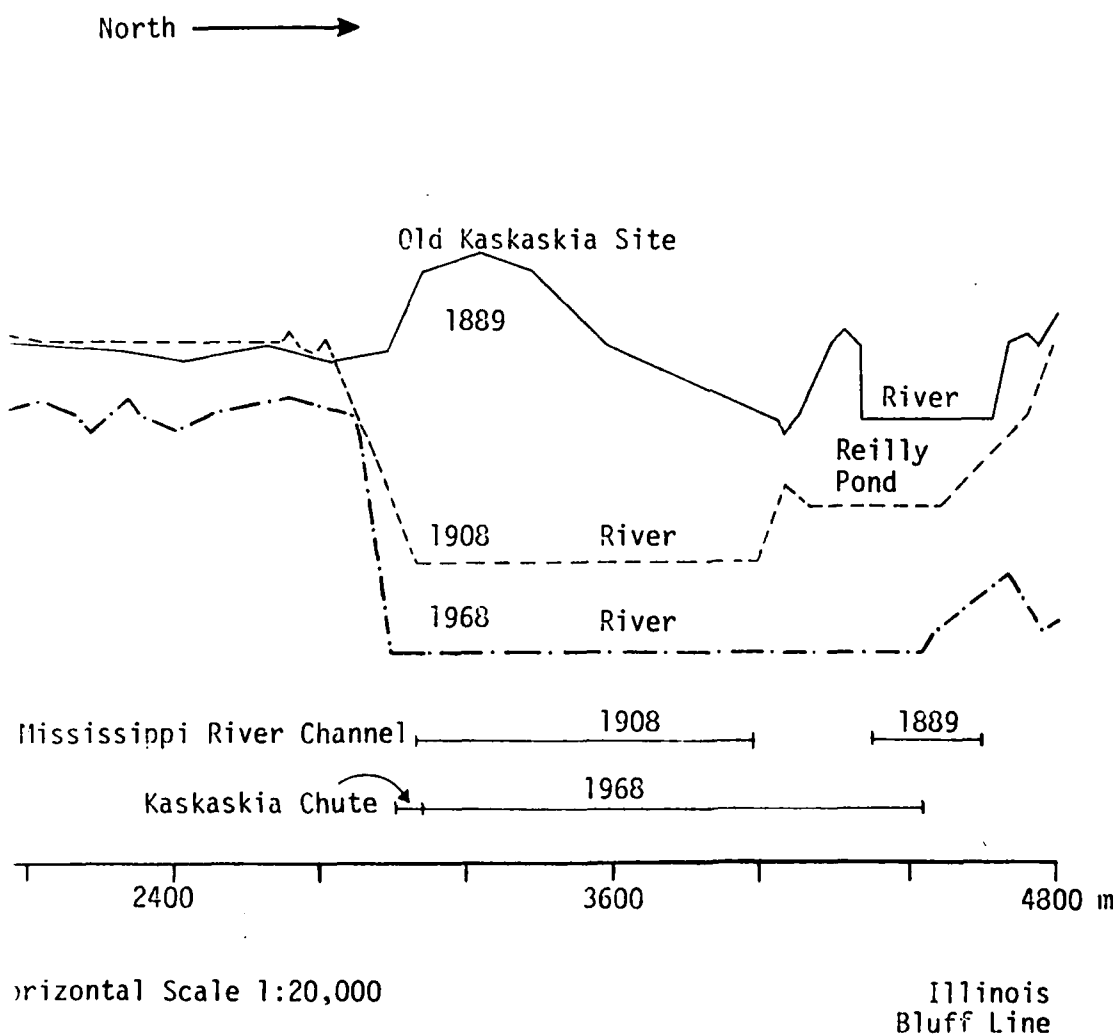


Figure 2.

Landsurfaces at the North End of Kaskaskia Island



The vicinity of site 11-R-480 lies at the edge of the 575 ft contour interval along Kaskaskia Chute. The land surface gradually drops eastward to the present level of the river. Field survey results indicated that this intervening tract of land has had an undetermined amount of sand and silt redeposited upon it over the years.

It is possible that the site may represent a French Colonial building site within the confines of the French Colonial Historic District, a National Register of Historic Places property. This possibility cannot be assessed without additional subsurface investigations at site 11-R-480; however, such investigations are outside the present Scope of Work (Appendix A) since the site does not lie within the confines of the present project area.

CONCLUSIONS

The following discussions of significance, project effect, and recommendations apply only to those cultural materials contained within the boundaries of the eight items identified as the project area. Sites 11-R-480 and 11-C-189 are not within the designated project areas and are not subject to any impacts resulting from proposed construction activities.

Statement of Significance

Cultural materials identified within the designated project area consist only of two isolated find spots. These locales were not defined as sites (see Site Definition, this volume), as the survey of their respective surrounding areas did not yield additional cultural materials associated with these finds. Further, both finds were interpreted as materials redeposited from an unknown origin and of indeterminate prehistoric cultural/temporal affiliation. Neither of these finds are locally unique nor archaeologically significant since they have no potential to contribute additional knowledge about prehistoric lifeways in the upper Mississippi River valley. As such, these find spots do not meet National Register of Historic Places criteria of significance as stated in 36CFR60.6 (Federal Register 1976:1595).

Statement of Project Effect

For the purposes of making recommendations, it is assumed that all areas delineated for the survey will be subjected to shoreline stabilization activities as presently proposed. Since no sites or significant cultural properties were identified within the project area, the proposed construction activities will not have any affect on cultural properties (see 36CFR800.3 - Criteria of Effect and Adverse Effect). Cultural properties 11-R-480 and 11-C-189 are not within the project area or sufficiently close to the area to suffer either direct or indirect effect from proposed shoreline stabilization activities.

Recommendations

The cultural resources survey indicated in the eight survey items between Mississippi River miles 115.9 and 272.9 did not record any significant resources within the project area. Based upon these facts and the foregoing discussions of proposed impact and significance, proposed shoreline stabilization activities may proceed as planned.

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APPENDIX A
Scope of Work

SCOPE OF WORK

Delivery Order No. 1

DACW43-84-D-0085

Mississippi River Shoreline Survey

Received/Reviewed
Ronald H. Aldridge

1. Statement of Work. The work to be accomplished by the Contractor consists of furnishing all labor, plant, and equipment necessary to conduct a literature review, intensive cultural resource survey, and National Register evaluation(s) and effect assessment(s) on cultural properties discovered thereby, at selected locations, and to furnish a written report thereon, all as set forth in this Scope of Work. The Project Manager and official Government contract for this work will be Mr. Terry Norris, who is the St. Louis District Archaeologist, and who may be contacted at the District Office, Rm 841, 210 N. Tucker Blvd. St. Louis 63101, telephone (314) 263-5317.

2. Location and Description of the Study Area. The study areas are located on the Mississippi River bank line, between Mississippi River miles 273 and 115 above the mouth of the Ohio River.

3. Government-Furnished Information. The Government will furnish, to the Contractor, the following items: Hydrographic survey sheets needed to identify the areas to be intensively surveyed; St. Louis District Report Format Guidelines; St. Louis District Title Page Format; Guidelines for Requesting Determinations of Eligibility; National Register nomination forms; the Advisory Council Criteria of Effect; and the Advisory Council Criteria of Adverse Effect.

4. Rights of Entry. The Contractor is responsible for securing rights-of-entry onto all non-federally owned lands included in this study, for the purposes of carrying out the activities called for in this Scope of Work.

5. Work to be Performed by the Contractor. The tasks described in this Scope of Work will be conducted at each of the 8 locations, which together comprise roughly 14.4 acres. The tracts are shown on the government-furnished maps and aerial photos. Prior to commencing this work, the Contractor shall consult the National Register of Historic Places and its supplements, the Illinois State Historic Preservation Office, The Missouri State Historic Preservation Office, The Missouri Archaeological Survey, and the Illinois Archaeological Survey, for the purpose of determining whether any previously-known cultural properties exist in the project areas. These consultations shall be documented in the Interim Report, the Draft Report, and the Final Report (Paragraphs 5.3, 8, and 9, below).

5.1 Intensive Survey. This shall consist of a 100% pedestrian survey of the tracts referenced above (Paragraph 5). For the purposes of this Scope of Work, a 100% pedestrian survey is defined as one in which surveyor(s) walk

parallel transects spaced 5 meters apart. The survey shall be sufficient to determine the number and extent of prehistoric and/or historic cultural properties visible at the shoreline and /or on the surface of each tract. This procedure shall include recordation of each identified property using either Illinois or Missouri Archaeological Survey forms, and one complete surface collection at each identified site.

5.2 Interim Report. The remainder of this Scope of Work refers just to those cultural properties that are previously reported or are discovered to exist in the 8 tracts, through records search, or intensive survey. The Contractor will be required to conduct complete surface collection (Paragraph 5.1) and laboratory analyses of such collection(s) (Paragraph 5.6, below) at all cultural properties; however, the Contractor will be required, under this Scope of Work, to conduct evaluative test excavations (Paragraph 5.4, below) only at those on which the Contractor and the Project Manager agree such work is necessary and feasible. Prior to undertaking evaluative test excavations, the Contractor shall report the results of the literature review survey to the Project Manager (District Archaeologist.) This Interim Report shall be in the form of a brief letter, including locational data, sketch map(s) of each cultural property, and U.S.G.S. topographic map(s) showing location and extent of each cultural property. The choice of those cultural properties on which evaluative test excavations are to be conducted, and the amount of excavation to be done, will be made in consultation with the Project Manager (District Archaeologist,) at the time of submission of the Interim Report.

5.3 Evaluative Test Excavations. Test excavations shall provide data sufficient to enable a determination of any tested site's eligibility for listing on the National Register of Historic Places. Test units shall be centered in areas where features have been detected. These units shall be located at the Contractor's discretion. The standard test excavation unit shall be 2 by 2 meters, and at least one test excavation unit per site shall be cleared to a depth of 2 meters below the last evidence of cultural deposition. Where such excavation results in finding no cultural deposition, "last evidence" will be defined as the base of the plow zone. Vertical excavation levels shall coincide with distinctly natural or cultural strata, or where these are absent, shall be arbitrary levels not more than 10 centimeters thick. All artifacts and features encountered shall be mapped, plotted, and photographed in situ. Planview and profile maps of soil strata, features, and artifact distributions shall be completed at the base of each successive excavation level. After they are mapped and photographed, all features shall be completely excavated. Feature fill shall be retained, and a sample of fill from each feature shall be taken for floatation. All artifacts shall be recovered.

5.4 Preliminary Report. After completing evaluative tests excavations, the Contractor shall report their results to the District Archaeologist. This report shall be in the form of a brief letter, and shall include a discussion of each site's apparent eligibility for listing on the National Register.

5.5 Lab Procedures. Artifacts collected during survey, and evaluative test excavation activities shall be cleaned, permanently labeled and catalogued

according to standard lab procedures. These collections shall be analyzed in an attempt to determine each site's temporal affiliation and horizontal surface distribution. All artifacts shall be separated into various material categories, then subdivided into smaller, functional and stylistic categories. These distributions shall be quantitatively assessed in a professional, concise manner. Feature fill samples shall be floated. For some collections, special studies shall be required, for example:

a. Lithic analysis - the descriptive analysis shall include a discussion of morphological, functional, and stylistic attributes and, where possible, the identification of raw material. Analysis shall focus on determining intrasite and local relationships;

b. Ceramic analysis - the descriptive analysis shall include study of morphological and stylistic attributes, and shall be intended to identify intrasite and local relationships;

c. Floral analysis - a paleobotanist shall be consulted to analyze any floral remains collected or recovered through floatation;

d. Faunal analysis - a paleo-zoologist, or zooarchaeologist, shall be consulted to analyze any faunal remains collected or recovered by floatation;

e. Analysis of human skeletal remains - a physical anthropologist shall be consulted for the analysis of all human remains. The analysis shall include, at the minimum and to the extent possible, identification of age, sex, and observable pathologies. If burials are encountered, their temporal and spatial relationships shall be described and explained.

5.6 Curation of Material. The final report shall contain a statement indicating the exact location of all materials and records resulting from this contract work. This statement shall include at a minimum, the name and address of the curatorial building, the storage room number, and if possible, the rack, shelf, or cabinet number where this material is stored. Containers in which feature fill and/or artifacts are stored shall be clearly labeled "Property of U.S. Government, St. Louis District, Corps of Engineers." These containers shall be provided by the Government.

5.7 Documentation of National Register Evaluation. For all cultural properties, regardless of whether or not they are tested, an assessment shall be made of their eligibility for listing on the National Register of Historic Places. The assessment shall be made by the Contractor according to the Criteria for Evaluation (Paragraph 3) relative to the information obtained during survey, shovel testing, and evaluative test excavation. Statements of eligibility or ineligibility shall be as complete and explicit as possible. They shall relate each property to a broad historical, architectural, archaeological, or cultural context, and shall utilize cultural resource data previously collected at and near each tract surveyed to the maximum extent necessary. Where it is the Contractor's opinion that a particular property is eligible for listing on the National Register, the Contractor shall structure

the description of such property according to the Guidelines for Requesting Determinations of Eligibility (see Paragraph 3), and shall address all subparts of those Guidelines in complete detail. Where it is the Contractor's opinion that a particular property is not eligible for listing on the National Register, it shall nevertheless be the Contractor's responsibility to document completely the results of survey and evaluative test excavation, to analyze and report the collected materials, and to provide a

complete and detailed explanation of the finding that such property is ineligible. All statements of eligibility shall be reviewed by the St. Louis District (see Paragraph 15.7), by the appropriate State Historic Preservation Office, and, if appropriate, by the Keeper of the National Register. The Contractor shall be required to provide any revisions, expansions, or clarifications that any of these agencies may deem necessary.

5.8 Project Effect. Besides applying the National Register Criteria to each cultural property, the Contractor shall provide an assessment of project effect upon all cultural properties identified during intensive survey (Paragraph 5.1, above). For this requirement, "project" means either the emplacement of revetment or other bank stabilizing facility at the shoreline, to the limits shown on the orthophotos included among government-furnished information. The Contractor's assessment of project effect shall refer specifically to the Criteria of Effect (36CFR800.8) and Criteria of Adverse Effect (36CFR800.9) established by the Advisory Council on Historic Preservation.

5.9 Recommendations for Effect Mitigation. For all cultural properties which, according to the effect assessment (Paragraph 5.9), shall be affected by the project, the Contractor shall recommend whether or not further work should be undertaken with respect to a particular threatened resource, and an estimate shall be made as to how much time would be required to complete mitigation. Where no further work is recommended, that shall be stated, along with the reasons for arriving at this conclusion. Similarly, where further work is recommended, it shall not be adequate to write simply that mitigation is necessary. Rather, these recommendations shall be supported with statements about what information would be expected to result from further investigation and why this information would be significant in expanding the knowledge of the area's history or prehistory. In other words, mitigation recommendations shall be justified, and these justifications shall be applied to both positive and negative evaluations. These recommendations, along with the resource descriptions and evaluations, and the effect assessments, may form the basis of a Case Report to the Advisory Council on Historic Preservation.

5.10 Documentation. The Contractor's duties, responsibilities, and performance, as required under this Scope of Work, shall be documented by means of conferences, progress reports, a draft report, and a final report, all as set forth below (Paragraphs 6 through 9).

6. Conferences. Conferences shall be held 3 times during the period of this delivery order. The initial conference shall be a post-award meeting at which the Contractor's principal investigator and field supervisor, and the Project Manager (District Archaeologist), shall coordinate plans for the field operation and performance of the Scope of Work. The second conference shall be attended by the same personnel, shall be held during the fieldwork period, and shall address the Contractor's progress and shall permit any necessary discussion regarding revisions in schedule and/or methodology. The third conference shall take place during the period of report preparation. Its topic shall be the same as the previous two.

7. Monthly Progress Reports. The Contractor shall be required to submit monthly progress reports containing accurate accounts showing the percentage of funds expended, and the percentage of completion of all the tasks identified in Section 5. The progress reports shall be submitted not later than the fifth working day of each month, and shall report progress of the preceeding calendar month.

8. Draft Report. The Contractor shall submit a draft report which shall be an accurate representation of the final report. The draft (and therefore the final report) shall report the results of intensive survey, and any evaluative test excavation(s) undertaken, and shall also report the results of laboratory analysis. The draft (and the final) report shall include photographs and/or graphics which shall accurately show the locations of all areas surveyed, and the locations of any cultural properties discovered by either method; which shall show details of features, profiles, artifacts, or any other cultural evidence. The draft report shall be typed and double spaced. All pages shall be numbered. Photographs, plates, drawings, and other graphics shall appear in the same quality, size, format, and location in the draft report as they shall in the final report.

9. Final Report. The final report shall incorporate review comments made on the draft report and submitted to the Contractor by the Project Manager. The final report shall be compiled and reproduced to the following specifications:

a. Completed site forms including official state site no's shall be submitted for each site identified during survey, records search, and/or shovel testing activities. U.T.M. coordinates and legal locations of each site shall be reported on the site forms, but not elsewhere in the report. The completed site forms shall be included as an appendix to the original copy of the final report, but shall not be included in the reproduced copies. The appendix shall also include U.S.G.S. topographic maps (1:24,000 scale) and government-furnished project maps (see Paragraph 3), all of which shall show the exact location and extent of each identified cultural property. These maps shall not appear elsewhere in the report.

b. An abstract suitable for publication in an abstract journal shall be prepared, and shall be included at the front of each copy of the final report. The abstract shall consist of a brief (not to exceed one typewritten, single-spaced page) summary useful for informing the technically oriented

professional public of what the author considers to be the results and contributions of the investigation.

c. The final report shall be typed and single-spaced.

d. The title page shall be organized in a manner consistent with the St. Louis District Title Page Format (see Paragraph 3).

e. While the St. Louis District is reviewing the Contractor's draft report, the St. Louis District will prepare report covers for the final report and will forward these to the Contractor with draft comments. The Contractor shall be responsible for binding the final report in these covers, using Plastic Spiral Binding.

f. High quality photographs shall be provided which show details of field conditions, features, profiles, artifacts (especially diagnostic or functionally significant artifacts), or other evidence of past cultural activity. For the purposes of reproduction, these shall be black and white half tone prints.

g. A photographic log of annotated 35mm slides, showing each phase of lab and fieldwork in progress, shall be included with Final Report original.

h. A full set of reproducible drawings and maps (but note the exception stipulated in Paragraph 9a) shall be included with the final report original and reproduced in its copies.

i. All drafting shall be accomplished in ink on stable-base drafting film. Drafting ink shall be compatible with stable-base film.

j. Either mechanical or freehand lettering may be used but shall be in accordance with good drafting practice. In no case shall lettering height be less than 1/8 inch. Freehand lettering will only be acceptable for recording data on base maps.

k. Pencil shading on finished drawings will not be accepted. Shading shall be accomplished with hatching or preprinted "stick-on" screens. Lettering shall not be obscured with hatching or screening. Hatching on the reverse side of the drawing is preferred.

10. Protection of Natural and Historic Features. The Contractor shall be responsible for all damages to persons and property which occur in connection with the work and services under this contract, without recourse against the Government. The Contractor shall provide maximum protection, take every reasonable means, and exercise care to prevent damage to existing historic structures, roads, utilities, and other public or private facilities. Special attention shall be given the historic structures and natural and landscape features of the area, and special care shall be taken to protect these elements in their surroundings. The Contractor shall provide suitable protection for vegetation and facilities adjacent to work areas.

11. Property Damage. The Contractor shall restore to the satisfaction of the Contracting Officer at no additional cost to the Government any damage to any Government or private property.

12. Publicity. The Contractor shall not release any material for publicity without the prior written approval of the Contracting Officer. This provision shall not be construed so as to restrict in any way the Contractor's right to publish in scholarly or academic journals. Students and other archaeologists are likewise free to use information developed under this contract in theses and dissertations or in publications in scholarly or academic journals.

13. Inspection and Coordination. The Contracting Officer, or his authorized representative, may at all reasonable times inspect or otherwise evaluate the work being performed hereunder and the premises on which it is being performed. If any inspection or evaluation is made by the Government on the premises of the Contractor or any subcontractor, the Contractor shall provide and shall require his subcontractors to provide all reasonable facilities and assistance for the safety and convenience of the Government representatives. All inspections and evaluations shall be performed in such a manner as will not unduly delay the work. Close coordination shall be maintained between the Contractor's principal investigator and the Contracting Officer's representative to insure that the Government's best interest is served.

14. Investigation of Field Conditions. Representatives of the Contractor are urged to visit the areas where work is to be performed and by their own investigation satisfy themselves as to the existing conditions affecting the work to be done. Any prospective Contractors (including subcontractors) who choose not to visit the area will nevertheless be charged with knowledge of conditions which a reasonable inspection would have disclosed. The Contractor shall assume all responsibility for deductions and conclusions as to the difficulties in performing the work under this contract.

15. Schedule of Work.

15.1 Post-Award Conference. After a final budget has been agreed upon, the Contractor (including subcontractors) shall meet with the Project Manager and other Government representative(s) as appropriate. This conference will take place within 7 calendar days after the final budget has been agreed upon and the delivery order issued.

15.2 Intensive Survey. This phase of the fieldwork shall commence not later than 7 calendar days after the post-award conference. All field work related to this item shall be completed within 10 calendar days after commencement.

In all, 8 distinct segments of the shoreline will be inspected. Survey of these areas shall be prioritized as specified below:

River Mile	location above mouth of Ohio River	linear miles
1	272.9 R to 272.5 R	.4
2	267.7 L to 267.1 L	.6
3	264.4 L to 264.3 L	.1
4	260.9 L to 259.6 L	.3
5	257.0 L to 256.5 L	.5
6	254.9 R to 254.5 R	3.4
7	232.2 R to 231.0 R	1.2
8	~~115.7~~ R to ~~115.3~~ R	.4
	116.3 R 115.9 R	

15.3 Interim Report. This item shall be submitted within 5 calendar days after completion of the intensive survey. Within 5 calendar days after the Project Manager receives the interim report, an agreement will be made between the Contractor and the Project Manager regarding what further work, if any, is to be conducted at this point. If no further work is considered necessary, then fieldwork will be considered concluded at this point.

15.4 Evaluative Test Excavations. If any work under this item is determined necessary, then a schedule will be established that will be consistent with the level of work required.

15.5 Preliminary Report. If any evaluative test excavations are determined necessary, the Contractor shall submit the preliminary report (Paragraph 5.5) within 5 calendar days after the completion of evaluative test excavations. Otherwise, the requirements for a preliminary report will be exempted.

15.6 Laboratory Analysis and Preparation of Draft Report. A schedule for these two items will be established consistent with any and all required evaluative test excavations. However, if fieldwork is concluded as per Paragraph 15.3, the Contractor shall submit the draft report within 20 calendar days after the conclusion of fieldwork.

15.7 Final Report. If field work is concluded as per Paragraph 15.3, the Final Report shall be submitted to the Project Manager 92 calendar days after receipt of the Delivery Order. The Project Manager and (if necessary) the SHPO will review the draft report and submit comments to the Contractor within 35 calendar days. In such a case, the Contractor shall submit the final report within 20 calendar days after receiving these comments. However, if any evaluative test excavations are determined necessary, a schedule for the Project Manager's review of the draft, and for completion of the final report, will be established and the agreed-upon schedule will be consistent with the level of evaluative test excavations required, and with the extent to which the Project Manager feels it necessary to consult the SHPO, the Keeper of the National Register of Historic Places, and the Advisory Council on Historic Preservation.

16. Extensions. At times, adverse weather, high water, or other conditions may make continuation of work undesirable in the opinion of the Project Manager. When all work is suspended during such times and because of such conditions, the Contracting Officer will extend the time fixed for completion of delivery by a period of time equal to one calendar day for each calendar day of delivery.

APPENDIX B
Correspondence

Illinois



Department of Conservation

life and land together

LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62701-1787

CHICAGO OFFICE - ROOM 100, 160 NORTH LASALLE 60601-3184

~~David Kenney, Director~~ - James C. Helfrich, Assistant Director

Michael B. Witte, Director

December 6, 1984

Mr. Kurt Moore
Staff Archaeologist
American Resources Group
127 North Washington
Carbondale, IL 62901

RE: DAC43-84-D-0085, St. Louis
District, Corps of Engineers,
Mississippi River Shoreline
Survey, Illinois-Missouri

Dear Mr. Moore:

In regards to the above referenced project, I am enclosing copies of the Illinois Historic Structures and Landmarks surveys for Calhoun and Randolph Counties. A list of properties within these areas that are listed on the National Register of Historic Places is also enclosed.

Please feel free to contact me if I can be of further assistance.

Sincerely,

Michael Ward
National Register Assistant

MW:nr
Enclosures

RANDOLPH COUNTY

1. Modoc - Modoc Rockshelter - 2 miles north of Modoc - 1958
2. Prairie du Rocher - Fort de Chartres - 1958
3. Ellis Grove - Pierre Menard House - Fort Kaskaskis State Park - 5/70
4. Prairie du Rocher - Creole House - Market Street - 4/6/73
5. Chester - Mary's River Covered Bridge - 4 miles N. E. of Chester - 12/31/74
6. Prairie du Rocher - Historic French Colonial District - 4/3/74
7. Prairie du Rocher - Kolmer Site - 5/1/74
8. Schuline vicinity - Charter Oak School - 10/11/78
9. Red Bud - Red Bud Historic District - 12/29/78
10. Sparta - Sparta Historic District - 6/3/82

CALHOUN COUNTY

1. Kampsville vic. - Kamp Mound Site - 8/24/78
2. Brussels vicinity - Golden Eagle-Toppmeyer Site - 6/14/79
3. Hamburg vicinity - Schudel No. 2 Site - 6/15/79
4. Michael vicinity - Klunk, Michael, Farmstead - 6/23/82



UNIVERSITY OF MISSOURI-COLUMBIA

College of Arts and Science

Department of Anthropology
American Archaeology
Archaeological Survey of Missouri

15 Switzler Hall
Columbia, Missouri 65211
Telephone (314) 882-3544

25 October 1984

Mr. Kurt R. Moore,
Staff Archaeologist
American Resources Group, Ltd.
127 North Washington
Carbondale, IL 62901

Dear Kurt:

This will acknowledge receipt of your recent request for information from the Archaeological Survey of Missouri files. We have noted the specific areas for which you wish to know about resources recorded in the ASM data center, have searched the computer files to determine if any resources are recorded for the coordinates you submitted (see attached), and have examined the site records processed as of the date of this letter. The information related to your request is attached.

In areas where sites have been reported, as well as where sites have not been reported, it is obvious that other resources may be present. There is no evidence that the available information is either complete or exhaustive of what may be available through an in-the-field search.

If you find sites, please send us the information for numbering and inclusion in the Survey files. Also, please consider that site locations are sensitive and you should take every precaution to protect the integrity of the locations to help avoid site destruction and vandalism.

Further information on reported sites is available at the Archaeological Survey office and may be examined following the specific guidelines of the Archaeological Survey or obtained by contacting this office. If we can be of any further help to you, please don't hesitate to call on us.

Sincerely,

Eric N. van Hartesveldt
Coordinator
Archaeological Survey of Missouri

Pike County: Sec. 16 T53N R 1E (NOTE: T 8S applies to the IL side only)

23PI 7: NW $\frac{1}{4}$ (Probably not within your survey area, as it is located on a hilltop, behind a house, within the city limits)
1 mound; Unspecified cultural affiliation.

No other sites reported in the vicinity of your search area within these coordinates.

Pike County: Sec. 25 (or Land Grant) T52N R 2E

No sites reported in the vicinity of your search area within these coordinates.

Lincoln County: Secs., 7, 19 (or Land Grant) T51N R 3E

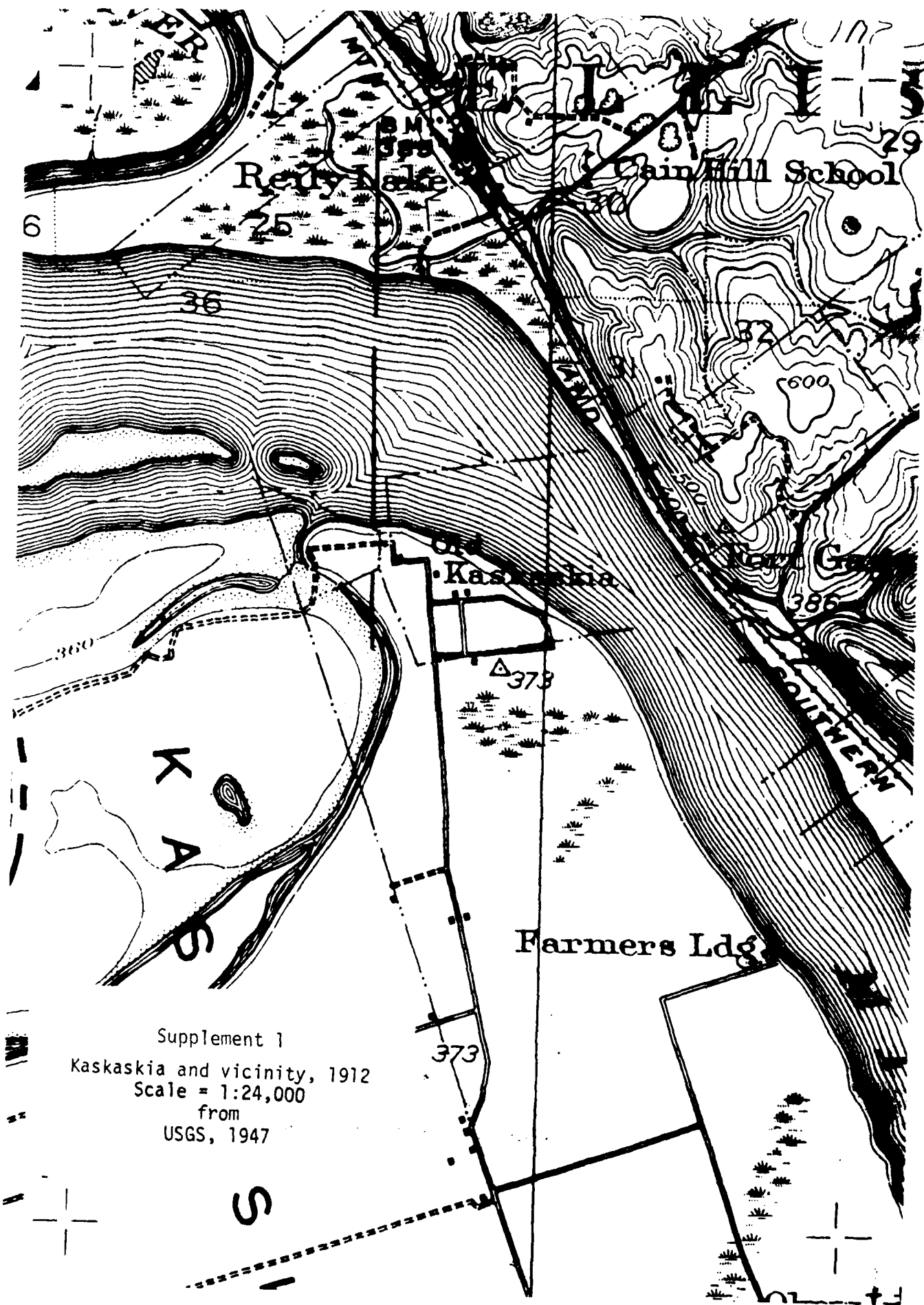
No sites reported for this Township and Range.

St. Charles County: Sec. 36 T48N R3E

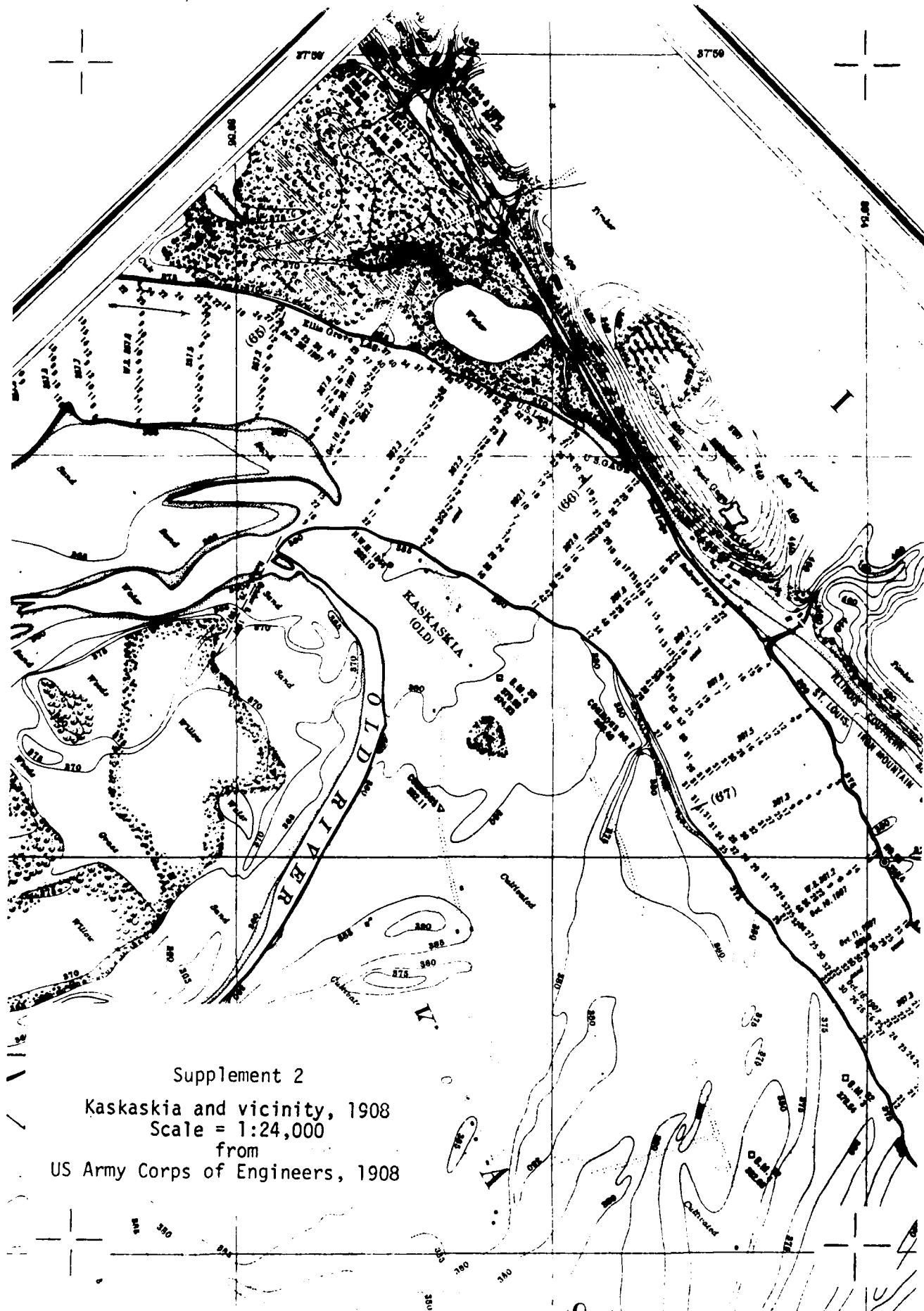
No sites reported for this Township and Range.

St. Charles County: Sec. 31 T48N R 4E (NOTE: Sec. 31 is the only sec. in this Township and Range)

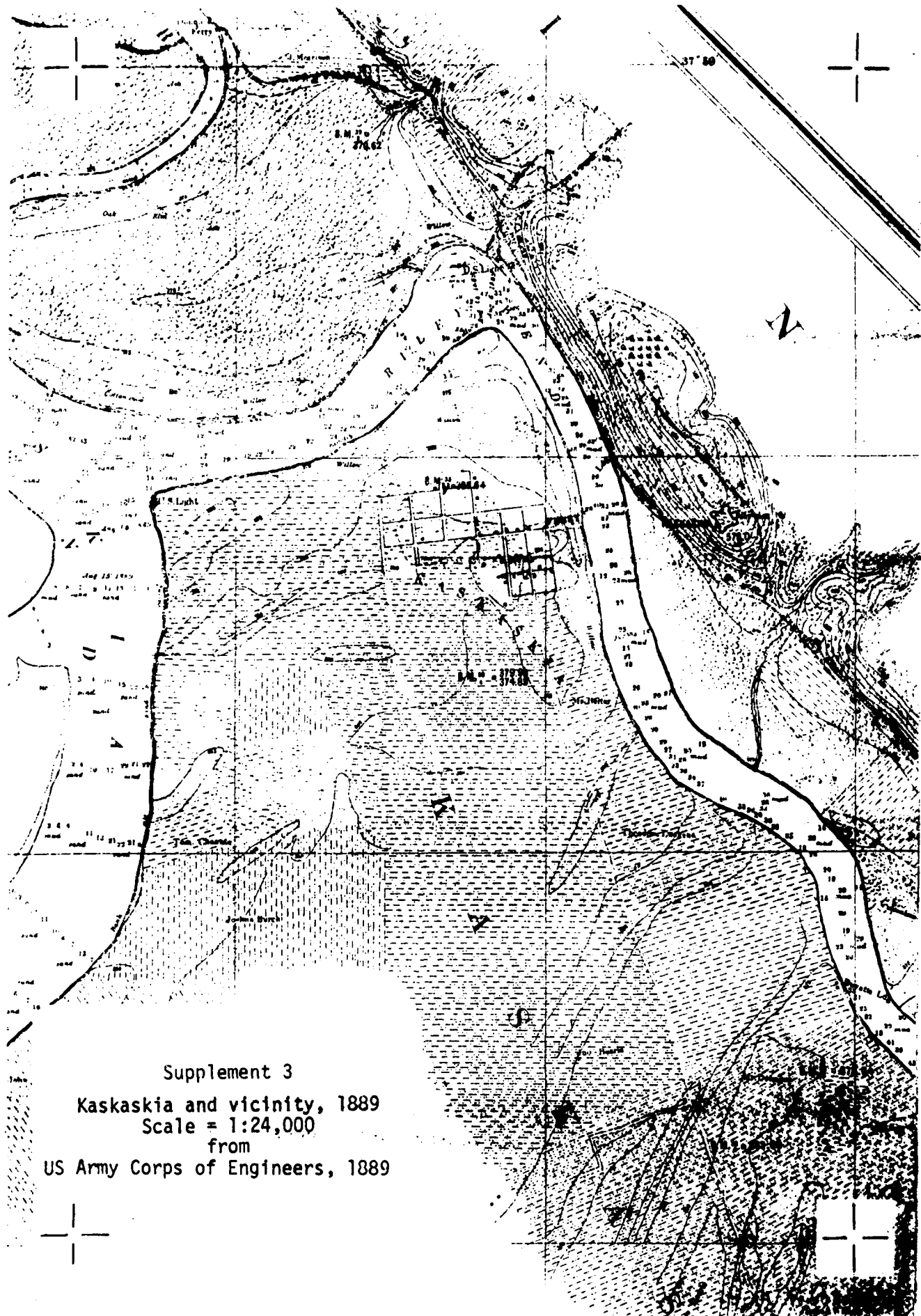
No sites reported for this Township and Range.



Supplement 1
Kaskaskia and vicinity, 1912
Scale = 1:24,000
from
USGS, 1947



Supplement 2
Kaskaskia and vicinity, 1908
Scale = 1:24,000
from
US Army Corps of Engineers, 1908





COMMON

- 1 EDGAR HOUSE
- 2 OLD STATE HOUSE
- 3 CHURCH
- 4 OLD COURT HOUSE
- 5 JESUIT COMPOUND
- 6 WELL
- 7 SETTLEMENT BOUNDARY

Supplement 4

Kaskaskia and vicinity, 1766

Scale = 1:24,000

from

Pittman map, 1766

END

FILMED

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DTIC