ILLINOIS RIVER BASIN RESTORATION
COMPREHENSIVE PLAN
WITH INTEGRATED ENVIRONMENTAL ASSESSMENT

APPENDIX I

CULTURAL HISTORY

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I. INTRODUCTION

This cultural history was primarily obtained from Hajic et al (1999). A general overview of the prehistoric inhabitants of the Illinois Waterway and the surrounding region can be assimilated with reference to four major cultural traditions: Paleo-Indian, Archaic, Woodland and Mississippian. These traditions, defined on the basis of chronology, material culture, and lifeways, are commonly recognized and referred to throughout the mid-continent and the northeastern United States and Canada (e.g., Willey 1966; Jennings 1974). These traditions are further subdivided into more specific cultural complexes as warranted by differences in chronologies, artifacts (i.e., different artifact types and stylistic variations), and living patterns within a given region. The historic period begins with the introduction of writing and other forms of documentation and includes the Native American, European and American settlement. The following discussion includes broad definitions of the major cultural traditions.

II. Major Cultural/Temporal Periods

A. Paleo-Indian Tradition (12,500-9,500 B.P.). The earliest period during which strong evidence exists for prehistoric occupations in the American Midwest is the Paleo-Indian period. The Paleo-Indian Tradition has been divided into two stages: Early Paleo-Indian (Fluted Projectile Point Pattern; ca. 12,500-10,500 B.P.) and Late Paleo-Indian (Plano/Lanceolate Projectile Point Pattern; 10,500-9,500 B.P.). Early Paleo-Indian artifact assemblages include fluted Clovis and Folsom style projectile points as well as small endscrapers, gravers or "spurred" flakes, hammerstones, pitted stones, bifacial knives, and other flake tools. The Late Paleo-Indian Lanceolate Point Pattern represents a continuation and elaboration of the technological tradition of the Fluted Point Pattern of the Early Paleo-Indian period. The period is characterized by an increasing regionalization of tool styles and adaptive strategies. Late Paleo-Indian artifact assemblages include unfluted lanceolate points, typically with collateral flaking and basal/shoulder grinding. The latter assemblage also includes adzes and specialized tools made from resharpening projectile point blades. These materials are often found in association with extinct Pleistocene megafauna or bison remains (Frison 1974, 1978; Frison and Stanford 1982).

Paleo-Indian people are commonly characterized as small groups of highly mobile hunters and foragers who specialized in stalking the megafauna of the Late Wisconsinan glacial age (Frison 1978), but evidence from Kimmswick, Missouri (Graham, et al. 1981) reveals a more varied subsistence base for its Clovis inhabitants, one which utilized mammals ranging from squirrels to mastodons. Similar subsistence strategies have been noted for Paleo-Indian inhabitants of the upper Midwest. Harrison (1985:15) has suggested that the Paleo-Indian inhabitants of the western Great Lakes region adapted to forested environments and subsisted on less specialized hunting as well as fishing.

Due to the low population density and nomadic lifestyle of Paleo-Indian groups, archaeological evidence for the tradition is extremely rare. Within the Illinois Waterway, evidence of Paleo-Indian

occupations is represented primarily by surface finds of diagnostic fluted spear points on high river terraces. Nonetheless, based primarily on the Lincoln Hills site in the central Mississippi River Valley, Winters (Wiant and Winters 1991:11) has defined a *Lincoln Hills Tradition* for the Early Paleo-Indian period in the lower Illinois River Valley and surrounding region. Artifact assemblages of this tradition include Lincoln Hills bifaces, steeply retouched, spurred end scrapers, side scrapers and disk cores.

Lincoln Hills bifaces are fluted from a nipple striking platform, beveled along basal edges, frequently unifacially fluted and of unusually large size. These points are found as far north as Pike County, Illinois, about 31 miles north of the confluence of the Illinois and Mississippi Rivers. Winters has suggested an age range of 11,000-10,000 B.P. for this tradition.

B. Archaic Tradition (9,500-2,750 B.P.). The Archaic Tradition is commonly characterized as Early (ca. 9,500-8,000 B.P); Middle (8,000-4,500 B.P.); or Late Archaic (4,500-2,400 B.P.), based at least in part on changes in socio-economic, technological, and religious trends. The Early Archaic population, though small, appears to have been on the increase. Interacting social groups remained small and relatively mobile and may have been linked by familial bonds, such as patrilineages (Griffin 1952; Brose 1975; Warren and O'Brien 1982a). Most Early Archaic sites seem to represent low density, temporary encampments occurring in a variety of ecological settings. This pattern reflects a subsistence strategy of seasonal hunting and gathering of resources dispersed throughout a number of different ecological zones (Brose 1975).

Based on research at the Koster site (J. Brown and Vierra 1983:175,181-183), two Early Archaic phases have been proposed for the lower Illinois River Valley, including *Early Archaic 1* (est. 9,000 B.P.) and *Early Archaic 2* (8,450-8,700 B.P.). Various projectile point styles were recovered from the Early Archaic component of the Koster site, including Graham Cave Side-Notched, Kirk Notched, Rice Stemmed, and LeCroy. Other patterned chipped stone tools included end scrapers, gravers and burins on various artifacts, drill tips and chert hammers. Ground stone tools included hammerstones/manos, cylindrical pestles, adzes, axes, choppers and grinding slabs. Bone and antler tools included socketed antler points, socketed bone tool-hafts, split-bone awls and bird-bone awls (J. Brown and Vierra 1983:181-183). Well-defined Early Archaic phases have not been developed for the middle and upper Illinois Waterway.

During the Middle Archaic, a noticeable shift occurred in the economic orientation toward circumscribed forest and riverine resources. During the Hypsithermal, a time of generally warming temperatures and drier climates, mesic river valleys provided human inhabitants with forested enclaves that were sheltered from the encroaching prairies (Cook 1976:118-119; D. Anderson, et al. 1980:266; Joyer and Roper 1980:19; Warren and O'Brien 1982,:392). Occupation of upland areas would have been limited to temporary resource procurement sites. The *Helton* phase has been well-defined for the Middle Archaic in the lower Illinois River Valley (Houart 1971; Cook 1976:69-108; J. Brown and Vierra 1983:185). This phase dates between 5,800-4,900 B.P. and is characterized by small- to medium-sized side notched projectile points in the Matanzas cluster with lesser numbers of Helton, Brannon and Apple Blossom Stemmed points (cf. Conrad 1981:125). Winged T-drills, grooved axes, large scrapers and other bifaces, and ground stone plummets and other ornaments are also found in Helton phase artifact assemblages. Two additional Middle Archaic phases, *Middle Archaic 1* (8,300-7,600 B.P.) and *Middle Archaic 2* (7,300-6,850 B.P.), are not as well defined as the Helton phase, but have been reported for sites in the lower Illinois River Valley (J. Brown and Vierra 1983:175). A wide range of projectile points characterize these phases, including unnamed corner-notched forms,

Table Rock, Jakie Stemmed, Godar, Karnak and Mantanzas points (Stafford, ed. 1985:10). Although not considered a phase, a Middle Archaic *Napoleon* component was identified at the Napoleon Hollow site in the lower Illinois River Valley. This component dates from 6,000-6,800 B.P. (Wiant, et al. 1983:160). Well-defined Middle Archaic phases have not been developed for the middle and upper Illinois Waterway.

By the Late Archaic, ecological conditions in the Midwest appear to have become stabilized to conditions similar to the historic era. Culturally, a trend toward sedentism begins to appear across much of the Midwest in the form of semi-permanent settlements and seasonal return to specific resource procurement locations (Warren and O'Brien 1982a). In the Illinois River Valley, Late Archaic inhabitants were beginning to mix intensive exploitation of floodplain resources with cultivation of plants. Bender (1985) has suggested that this was a time of "social closure," a time when corporate groups (i.e., bands or tribes) were becoming socially bonded so that family groups had fewer choices about moving or changing allegiance. Despite this social closure, extensive interregional trade networks developed in which copper from the Great Lakes, marine shells from the Gulf Coast, and high quality lithic materials from a number of areas were traded.

Cole and Deuel (1937) defined a *Red Ochre* mortuary complex for the Late Archaic period in much of Illinois (including the central and upper segments of the Illinois Waterway) and adjacent states. As summarized by Hall (1974:68), the Red Ochre Culture dates to about 3,200-2,800 B.P. and can be recognized by distinctive "Turkey Tail" points of bluish chert from southern Illinois and Indiana. Large quantities of oval preforms and occasional copper tools are often associated with these points. Powdered hematite is sprinkled over burials and grave furnishings.

Two different Late Archaic mortuary complexes have been defined for the lower Illinois River Valley. The Titterington mortuary complex, which dates between ca. 4,200-3,800 B.P. (Cook 1976), is characterized by Wadlow, Karnak, Sedalia, Nebo Hill and Etley/Atalissa projectile point types. The lithic assemblages of these sites are further comprised of gouges, drills, heavy scrapers, axes and various ground stone implements, including hammerstones/manos, three-quarter-grooved axes, hematite beads, hematite rubstones and sandstone abraders (J. Brown and Vierra 1983:186). The Kampsville mortuary complex has been described by Farnsworth and D. Asch (1986:348) as the regional counterpart of the Red Ochre mortuary complex to the north. Kampsville style projectile points (Farnsworth and D. Asch 1986:347) are diagnostic of the Kampsville mortuary complex.

In general, the stone assemblages of the previous Paleo-Indian Tradition evolved to more varied styles and forms during the Archaic period. Other artifacts associated with Archaic occupations include a variety of polished and ground stone woodworking tools, including axes, adzes and wedges; plant processing equipment such as manos and metates; masses of fire-cracked rock used in pit-roasting and stone boiling; and other types of specialized artifacts such as drills, awls, needles and gouges (Frankforter 1961; Jennings 1974; Cook 1976). Grooved stone axes are somewhat diagnostic for the Middle and Late Archaic periods, shifting from a full-grooved form in the Middle Archaic to a three-quarter grooved form in the Late Archaic.

C. Woodland Tradition (2,750-1,000 B.P.). The Woodland Tradition is an archaeological complex of the eastern woodlands that is marked by the consistent manufacture of pottery, use of some cultigens, and the regular use of earthen mounds for burial of the dead. The tradition, which is divided into the Early, Middle and Late Woodland periods, developed within a climatic and vegetational

setting relatively similar to recent times.

During the Early Woodland period, the Illinois River Valley was hydrologically similar to that encountered by early 19th century Euro-American settlers (Farnsworth and D. Asch 1986:327). Broad similarities exist between Late Archaic and Early Woodland occupations in the Illinois River Valley. Faunal remains indicate exploitation of a wide variety of aquatic and terrestrial species, while floral remains indicate the use of upland and bottomland plant species as well as domesticated squash, barley, and goosefoot. Nut collecting was also an important contributor to the Early Woodland diet.

Marion Thick pottery is the first pottery to appear within the Illinois River Valley. The thick, coarse, flat-based pottery was first identified at the Oliver Farm site in Marion County, Indiana (Helman 1951). This pottery is often associated with Kramer projectile points and hearths which contain an abundance of fire-cracked rock. Munson (1966) has termed these associations the "Marion Culture." The Marion Culture is particularly well known from sites in Fulton and La Salle counties in Illinois (Hall 1974:70; A. Harn 1986:244-279; Santure, et al. 1990:15), but Marion Thick pottery has also been reported in the northern part of the lower Illinois River Valley (Farnsworth and D. Asch 1986:406; Wiant and McGimsey, eds. 1986:372-374), Starved Rock (Ferguson, ed. 1995:357), Bowmanville (Markman 1991:62) and elsewhere in the state. Farnsworth and D. Asch (1986:356) have defined three geographically segregated phases for the Marion Culture, including the *Marion* phase in the central Illinois River Valley and the northern part of the lower Illinois valley, the *Carr Creek* phase in the American Bottom, and the *Seehorn* phase in the Mississippi River Valley near Quincy, Illinois. Munson (1986:291-292) has proposed the addition of a *Late Marion/Early Morton* phase (2,400-2,250 B.P.) to the central Illinois River Valley. Munson has also suggested that the Marion phase continues into the early Middle Woodland period in the central valley (Munson 1986:291).

Another Early Woodland culture, the Black Sand Culture, is distinguished by Florence or Liverpool series pottery (Griffin 1952:98; Fowler 1955; Farnsworth and D. Asch 1986:356-370). Although this culture is perhaps better known in the lower reaches of the Illinois River Valley (Farnsworth and D. Asch 1986:406), Black Sand material also occurs in northern Illinois and well into Wisconsin (Hall 1974:71). Farnsworth and D. Asch (1986:364-419) have defined a *Cypress* phase, *Liverpool* phase and *Schultze* phase for the Black Sand Culture in the lower Illinois River Valley. Munson suggests a *Late Morton/Caldwell* phase (2,250-2,150 B.P.) for the central Illinois valley.

The Middle Woodland period in Illinois is probably best known from village sites in the Illinois River Valley, including the Havana, Pool and Dickison sites, the mounds at Ogden-Fettie and Liverpool, Illinois (McGregor 1952, 1958; Deuel, ed. 1952) and others. These sites occur in a variety of physical settings, including natural levees, alluvial and colluvial fans, adjacent to backwater lakes, in tributary valleys, along the bluff base and in the floodplain (Titus, et al. 1995:17). Middle Woodland floodplain settlements include extractive camps located adjacent to backwater lakes and possible mortuary sites (Farnsworth 1976; McGimsey and Wiant 1986; Stafford and Sant 1985). Subsistence data indicate intensive utilization of backwater fauna, collection of hickory and hazel nuts, and cultivation of starchy seed annuals including maygrass, little barley, and goosefoot (Stafford and Sant 1985:453).

Distant Middle Woodland groups were connected by a highly developed socioreligious organization referred to as the Hopewellian Interaction Sphere (Struever 1964). Large Middle Woodland sites with groups of conical shaped burial mounds served as ceremonial centers. The inhumation of individuals with status probably included a great deal of ceremony. Various grave offerings, including carved

stone pipes, copper axe blades, necklaces of river pearls, pottery vessels, spear points, ear ornaments of sheet copper and other objects often accompany these burials. Dentate stamped pottery and Snyders Corner-Notched projectile points are diagnostic of Middle Woodland sites within the Illinois River Valley (Hall 1974:72-73).
The *Havana-Hopewell* or *Ogden* phase of the Middle Woodland period in the central Illinois River Valley spans a period of about 2,000 B.P. to 1,800 B.P. (Hall 1974:74; Munson 1986:293-294). Within the central Illinois valley, the Havana-Hopewell phase is preceded by the *Late Morton/Caldwell* (2,250-2,150 B.P.) and *Fulton* (2,150-2,000) phases. It is succeeded in the central Illinois valley by the *Frazier phase* which dates from 1,900 B.P. to 1,650 B.P. The Frazier Phase marks the beginning of the breakdown of Hopewell and is characterized by the appearance of Baehr and Weaver series pottery. The Middle Woodland period in the lower Illinois River is defined by the *Marion* (2,600-2,400 B. P.), *Cypress* (2,600-2,200 B.P.) and *Mound House* (2,050-1,750 B.P.) phases. No phase chronology for the Middle Woodland period has been established for the upper Illinois River Valley.

A reduction in interregional trade, a decrease in the complexity of ceremonial/mortuary practices, and a reduction in the elaborateness of pottery decoration mark the end of the Middle Woodland period. The Late Woodland period was a time of markedly uneven sociocultural development. There was considerable variation in social relations, ideology, subsistence, technology and other realms (Nassaney and Cobb 1991:1,6). Late Woodland culture persisted in northern Illinois after the appearance of Mississippian culture to the south. The *Weaver phase* (1,650-1,500 B.P.) is the earliest defined Late Woodland phase in the middle and upper Illinois River Valley. During this time, the first arrowpoints make their appearance in this part of the valley. The Weaver Phase is succeeded in the central Illinois valley by the *Myer-Dickson* (1,400-1,200 B.P.), *Sepo* (1,300-900 B.P.), *Bauer Branch* (1,300-1,000 B.P.) and *Maples Mills* phases (1,200-900 B.P.) and the *Mossville* complex (ca. 1,000 B.P.) (D. Esarey 1997). These phases survived into the early Mississippian period and probably helped form the Spoon River Mississippian complex (Hall 1974:76).

The *White Hall* phase (1550 - 1350 B.P.) is the earliest Late Woodland phase in the lower Illinois River Valley (Styles 1981). This phase represents a continuation of the Middle Woodland period, as reflected in a subsistence strategy that involved the utilization of terrestrial and riverine species, nuts and cultivated plants. Settlements tended to be small and located in a variety of ecological zones (Connor 1985:2). The following *Early Bluff* phase (1,400 - 1,200 B.P.) in the lower Illinois valley is typified by an apparent population increase as indicated by an increase in the number, size and complexity of sites. The appearance of arrowpoints during this time indicates the adoption of the bow and arrow in the lower Illinois valley. The addition of maize to the Late Woodland diet marks the beginning of the *Late Bluff* phase (1,200-1,000 B.P.). The subsistence strategies and pottery styles associated with the Late Bluff phase gradually changed to those of the following Mississippian Tradition (Connor 1985:3). The term *Jersey Bluff* phase has been used by some researchers to refer to the final Bluff-culture occupants in the southernmost portion of the lower Illinois River Valley (Maxwell 1959:27; Perino 1971:65, 1972:310, 335-347). Again, a phase chronology for the Late Woodland period in the upper Illinois Waterway has not been established.

D. Mississippian Tradition (1,000-500 B.P.). The Mississippian Tradition represents a culmination of social, economic, political, and technological trends which began in the Late Woodland period (Titus, et al. 1995:18). Although this period is generally characterized as a time of increased reliance on agriculture as a subsistence base and increased social stratification and complexity, there were

major differences which distinguished the Mississippians of present-day southern Illinois (Middle Mississippian) and those which inhabited the northern part of the state (Upper Mississippian).

The Mississippian cultures of the Central Mississippi River Valley and its major tributary valleys are characterized by numerous elements that reflect the achievement of new levels of social complexity. Large villages and towns with flat-topped temple mounds, such as the Cahokia site in the American Bottom, served as economic, political and ceremonial centers for surrounding homesteads and hamlets. Status differences within the society are indicated by variations in the treatment of burials. A diverse subsistence economy with increased reliance on the cultivation of maize sustained large sedentary communities (Markman 1991:73).

In the lower Illinois River Valley, *Stirling* phase pottery is restricted to the southern half of the lower valley and is found primarily in a grouped cluster along twelve miles of eastern bluffline bracketed by Apple and Macoupin creeks. *Sand Prairie* phase pottery occurs only in approximately the northern half of the lower Illinois River Valley. Within the central Illinois River Valley, the Spoon River Mississippian complex is divided into *Eveland* (950 - 850 B.P.), *Orendorf* (850 - 750 B.P.), and *Larson* (750 - 700 B.P.) phases (Smith 1951; A. Harn 1970, 1971; Conrad and A. Harn 1972; Conrad 1973, 1991:119-156).

As discussed by Markman (1991:73-74), those cultural markers which show an affinity between Upper and Middle Mississippian cultures consist primarily of small, portable artifacts that were used daily in most households. The elaborate ceremonial objects that often accompanied the Middle Mississippian elite to the grave are rare at Upper Mississippian sites and large temple mounds are absent. In addition, Upper Mississippian hunter-farmers relied less on cultivated plants than Middle Mississippians. Upper Mississippians were more mobile and were prone to moving whole villages to take advantage of seasonally available wild food resources. While Hall (1974:78) has suggested that Upper Mississippians were probably Late Woodland peoples who were changing in the direction of the Mississippian Tradition, others refer to Upper Mississippian sites as part of the *Oneota* tradition or the *Huber* phase of the Oneota tradition (Michalik 1982; J. Brown, ed. 1985, 1990). Gibbon (1972) defines the Oneota tradition as an Upper Mississippian development that was concentrated on the Prairie Peninsula. Markman (1991:77) suggests that Upper Mississippian actually encompassed a number of ethnically distinct tribal groups.

The Langford (Upper Mississippian; Jeske 1989, 1990) and Fisher-Huber (Oneota) (Emerson and Brown 1992:86-89) pottery series are diagnostic of late prehistoric sites in northern Illinois (Markman 1991:87-93). Oneota manifestations further south include the *Bold Counselor* phase (700-650 B.P.) in the central Illinois River Valley and the *Vulcan* phase (including the *Groves* complex) in the lower valley (Milner, et al. 1984:182; Jackson 1992:389-391). Milner, et al. (1984:182) have suggested a date of 600-400 B.P. for the Vulcan phase.

Artifacts diagnostic of both the Middle and Upper Mississippian cultures include distinctive short-necked jars and other pottery forms tempered with shell. These vessels have plain or smoothed surfaces with trailed designs. Small triangular projectile points with side-notches, known as Cahokia points, are present in both Middle and Upper Mississippian artifact assemblages (Markman 1991: 74-75).

E. Historic Native American Occupation (1673 - 1830). In any discussion of the historic Native American occupation of Illinois, two caveats are necessary. First, the territories or ranges of early historic peoples are not precise. Unlike their European contemporaries, 17th and 18th century Native Americans did not draw lines on maps indicating distinct territories for specific groups of people. Furthermore, while most of the Great Lakes people were not nomadic, they did move seasonally. Most maintained large, relatively permanent, farming villages in the summer, and broke up into smaller hunting villages in the winter. The region over which these villages and camps were established varied over the years. With increasing pressures of European colonization, the territory occupied by any given tribe shifted more and more rapidly. To say that the Illinois River Valley was within the range of the Potawatomi in the 1790s, is to say that one might well have found Potawatomi villages or camps along the Illinois in those years. It is not to say that the Potawatomi could be found there every year, or that villages of other tribes might not have been present.

The second caveat regards tribal attribution. Europeans made most of the familiar tribal designations, but tribal identity was far more fluid for Native Americans than it was in the minds of Europeans. Although the Iroquois, Sioux, Miami and Illini are referred to as if they were tribes, they were actually confederations of tribes. Bands are sometimes mistaken for separate tribes. Also, a village in which a third of the inhabitants are Mascouten might BE described as Miami. This tendency for portions of two or more tribes to live together seems to have increased through the 18th and early 19th centuries as the pressures of war, trade, and colonization grew. Also, as Tanner points out, a village might have any number of people with various ethnic backgrounds: African traders, servants, and runaway slaves; Scottish, Irish and French traders and blacksmiths; French missionaries; European travelers or dignitaries; and spouses, relatives, captives, couriers, and traders from other tribes (Tanner 1987:4).

All of the tribes living in the Illinois Country in historic times had similar cultures. They spoke languages of the Algonquian family and they relied on diverse subsistence practices. The Illini, Miami, Kickapoo, Mascouten, and Potawatomi all lived in large, relatively permanent villages in the summer. The Illini, like the Iroquois, favored large multiple family lodges. The houses consisted of a pole structure covered with rush mats. Late in the 18th century, prominent leaders and métis would adopt the log cabin.

The summer villages were agricultural towns. Situated on streams or near springs, the villages often faced extensive fields on the opposite bank (Tanner 1987:5). The French reported that the Indians grew corn, beans, squash, pumpkin, gourds, and melons (Kinietz 1972:172). After the fall harvest, with seeds and surplus food cached, most of the people left for the winter hunt. A few of the elderly might stay behind to watch over the village. Antoine Raudot described the hunt in 1710:

> These Ilinois [*sic*] savages leave their village in winter; there remain only a few women and some old men who absolutely cannot march. They go to hunt buffalo, deer, wapiti, beaver, and bear. They camp always in the prairies far from the woods, . . . and use mats of rushes tied together to cover their cabins (Kinietz 1972:407).

Winter hunting camps were smaller and usually confined to family groups. Where maples grew, the people came together in sugar camps in the early spring. Spring and fall might also mean extensive fishing. Later in the spring, the people returned to the summer village and planted their crops. Once the crops were started, some might leave on a summer hunt.
Europeans, as well as modern American historians and archaeologists, tended to view the winter hunting villages as relatively insignificant camps. However, as Esarey (M. Esarey, 1997:182-183) has

pointed out, the contact-era Native Americans of the Illinois country spent about equal amounts of the year in their winter and summer villages.

The presence of the Europeans changed the nature of both hunting and agriculture. As the French and English moved westward, hunting became important for the fur trade as well as for food. Native Americans in the Illinois Country now needed to produce enough food to sustain more extensive hunting and to feed the French. The Illini began to grow wheat as early as 1700, and in 1711 or 1712 the French introduced draft animals and built windmills for the use of the Kaskaskia on the Mississippi (Zitomersky 1994:9, 40-41). Much of the wheat flour produced was shipped south to French military installations on the coast of the Gulf of Mexico. Nevertheless, corn remained the staple crop throughout the French colonial period.

Natural resources of game, soil and fuel wore out more rapidly. This contributed to the accelerating mobility of both the French and the Indians throughout the colonial period. The move from Le Rocher to Peoria in 1691, for example, is thought to have been largely due to the depletion of resources around the Rock. As a result of the fur trade, small, fur-bearing animals, particularly beaver and the mustelids, all but disappeared from the Illinois country. By the late 18th century the focus of the fur trade shifted to raccoons and deer. At the turn of the 19th century, the demands of the fur trade, the introduction of the horse, and the wholesale slaughter of large game animals by American settlers seriously depleted the deer, bear, elk and bison in the Illinois Country (White1991:489-490).

When the French explorer Louis Jolliet and Jesuit missionary Jacques Marquette came to the Illinois Country in 1673, they found villages of the Illini tribes along the Illinois River. The Illini spoke an Algonquian language similar to that of the Miami (Temple 1977:11). Although not so highly organized as the Iroquois, they are usually referred to as a confederacy. The Illini are thought to have included the Cahokia, Kaskaskia, Michigamea, Moingwena, Peoria, Tamaroa, Korakoenitanon, Chinko, Tapouro, Omouahoas, and Chepoussa. Virtually nothing is known about the last five of these. Other groups presumably absorbed them early in the Contact Period.

Shortly before the French began to push into the Illinois Country from the north, the Iroquois had begun raiding Illini villages from the east. For a time the Illini retreated west of the Mississippi, but by the arrival of Marquette and Jolliet in 1673, they had returned to Illinois and established as their central town the Kaskaskia village near Le Rocher, now known as Starved Rock.

Most scholars have assumed that the permanent town of the Peoria was probably already at Lake Peoria by 1673, although the earliest sources on the Marquette and Jolliet expedition are vague. Marquette and Jolliet visited an “Ilinois” town on their descent down the Mississippi River in June. Marquette refers to these people as being “divided into many villages, some of which are quite distant from that of which we speak, which is called peouarea.” This village was located in Iowa or Missouri (M. Esarey 1997:166; Franke 1995:10). Temple (1977:17) believes it was a summer hunt in Iowa, and that the permanent village was already located on Lake Peoria.

The Mississippi expedition turned around on July 17, and began to “reascend” the Mississippi:

> It is true that we leave it [the Mississippi], at about the 38th degree, to enter another river, which greatly shortens our road, and takes us with but little effort to the lake of the Ilinois [Lake Michigan].We have seen nothing like this river that we enter, as regards its fertility of soil, its prairies and woods; its cattle, elk, deer, wildcats, bustards, swans, ducks, parroquets, and even beaver. There

> are many small lakes and rivers. That on which we sailed is wide, deep, and still, for 65 leagues. In the spring and during part of The summer there is only one portage of half a league. We found on it a village of Ilinois [*sic*] called Kaskasia [*sic*], consisting of 74 Cabins (Thwaites 1900:161).

Marquette concludes his narrative with the report that he had saved a single soul, that of a dying infant, on this voyage. Here he makes an incidental reference that has confused scholars ever since: "For, when I was returning, we passed through the Ilinois of Peouarea, and during three days I preached the faith in all their Cabins...."

It will never be clear whether this was the same Peoria village visited on the descent of the Mississippi, whether "of Peouarea" refers to the people or the place, or whether this was the same village (in population or location) as the Kaskaskia. Nor will it ever be known whether Marquette and Jolliet saw more villages on the Illinois River than the single Kaskaskia village and the possible Peoria village mentioned. In fact, Marquette does not even state that he found the Kaskaskia at Le Rocher, as scholars have always assumed (Howard 1972:28; Franke 1995:11; Temple 1977:18)

Marquette returned to the Kaskaskia in 1675 to establish his Mission of the Immaculate Conception. By 1679 the village had grown to 460 lodges, each housing five or six families (Temple 1977:14-21). Tanner (1987:5) estimates the Grand Village of the Kaskaskia had 7,000 to 8,000 inhabitants in 1680.

The La Salle expedition of 1679 found the Peoria living thirty leagues down river from the Kaskaskia, in a village on the southern end of Lake Peoria. Esarey (M. Esarey 1997:187) maintains that, in fact, this was the winter village, of about 80 cabins, of the same group which maintained the large summer village at Le Rocher. Indeed, La Salle and his men, passing through the village at Le Rocher in December, had found it deserted and raided its corn caches. Esarey points out that the Lake Peoria inhabitants moved to Le Rocher in April of 1680, and that some of the people from the Grand Village are known to have wintered at Lake Peoria in 1681-82 and 1686-87 (1997:87). However, historians have generally considered the April, 1680 removal to Le Rocher to have been prompted by a pending Iroquois attack (Temple 1977:22-23).

La Salle and Tonti built the ill-fated Fort Crèvecoeur across the river from the Peoria, in April Tonti moved with the Illini to Le Rocher, and the Iroquois attacked in September. Following ill-fated negotiations with the Iroquois, Tonti returned to Green Bay. The Kaskaskia and Cahokia fled up the Mississippi, the Peoria across it, and the Moingwena down it. The Tamaroa remained in Illinois and lost 1,200 of their people to the Iroquois (Temple 1977:23-24).

La Salle and Tonti found both the Le Rocher and Peoria villages deserted when they returned in 1682 (Temple 1977:26). On Le Rocher, they proceeded to construct Fort St. Louis. In the absence of the Illini, La Salle gathered Miami, Mascouten and Shawnee around the fort for trade and protection, and by 1684 the Kaskaskia, Peoria, Moingwena, Tamaroa, and Cahokia had returned (Temple 1977:27). The population around Le Rocher rose to an estimated 18,000 (Tanner 1987:29). Tonti held the alliance together throughout the 1680s, but in 1691 the French and Indians abandoned Le Rocher and re-established Fort St. Louis at Peoria. Six villages of Illini settled on the west bank of southern Lake Peoria (Temple 1977:21-31; Tanner 1987:30-31).

The Illini settlements at Lake Peoria continued through the end of the 17th century, but in 1700 the Kaskaskia moved down river to the present site of St. Louis, and the Illini presence in the Illinois

Country began to lessen. When one faction of the Peoria drove their Jesuit missionary away in 1706, the Christian faction moved south to join the Kaskaskia. By 1712 the Peoria had apparently split again, for another group had started a new village at Le Rocher. Because of the absence of a missionary in these years, there is no extant documentation of the location of the Illini between 1706 and 1711 (M. Esarey 1997:189, 191).

By the early 1700s the Kickapoo and Mascouten had extended their hunting ranges into the northern reaches of the Illinois River watershed, and the Potawatomi were rounding the tip of Lake Michigan. The Le Rocher Peoria allied with the Potawatomi in an attempt to push back the Kickapoo and Mascouten.

The Peoria and Potawatomi also assisted the French in their wars against the Mesquakie (Fox). Throughout the 1710s and early 1720s the Le Rocher Peoria engaged in almost constant warfare with the Kickapoo, Mascouten and Mesquakie. In the fall of 1721, the Mesquakie besieged both the Le Rocher and Peoria Illini, and the following year the two groups combined at Le Rocher. After surrendering 80 women and children to the Mesquakie, the Peoria left Le Rocher for the down river settlements. Although internal disagreements and attacks by the Iroquois and Mesquakie weakened the Illini, the French continued to rely on them as allies.

As late as 1728 the Peoria raided the Kickapoo upriver. In 1730 they were still at Le Rocher when the Mesquakie, pursued by the French-allied Kickapoo, Mascouten and Potawatomi, attacked. The Peoria appealed for reinforcements from Kaskaskia, and the Mesquakie retreated to the south, where they were all but annihilated by the French allies. By 1733 the Peoria had returned to both Le Rocher and Lake Peoria. However, the Illini continued to fight with the Mesquakie, and by the end of the decade they had also become embroiled in a feud with the Sioux. By the 1750s the Illini had incurred the wrath of most of their northern neighbors, and when the French and Indian War reached the Illinois Country, the Illini chose the losing side. Along the Illinois River their numbers dwindled throughout the 1760s and 1770s. They ceded their Illinois lands to the United States in 1818 (Temple 1977:40-56; Tanner 1987:40, 93).

As the La Salle confederacy deteriorated, hostility grew between the Miami and Illini, and the Miami eventually moved to the region around the Wabash River. The Miami (including the Wea, Piankashaw, Atchatchakangouen, Kilatika, Pepicokia, and Menagakonkia) were similar in language and culture to the Illini. When the French first heard of them, the Miami were beginning to move eastward from Sioux territory into what is now Wisconsin. Subject to Iroquois attacks throughout the 1670s, the Miami agreed to join the confederacy at Le Rocher in 1683. According to Charlevoix (cited in Temple 1977:59), some of the Miami built their own fort on Buffalo Rock. They left Le Rocher in 1688 and eventually settled in the regions around Chicago and the Wabash River.

About 1700 the Miami villages ranged from the St. Joseph to the Mississippi, with Chicago as their central town. A village of about 100 families was situated at the junction of the Des Plaines and Kankakee Rivers. Temple (1977:60) mentions that this village, which would be in the vicinity of the Dresden Island Lock and Dam, was known to exist in 1700, 1702 and 1705. By 1710 the Miami became friendly with the British and began to move eastward and down the Wabash. For the most part, the Miami had left Illinois, although during the War of 1812 a group including 120 to 150 warriors settled near the Kickapoo about one half mile from Peoria (Temple 1977:63). The Wea and Piankashaw established council fires separate from the Miami in 1818, and were eventually absorbed by the Peoria (Valley and Lembke 1991:3, 8, 11).

The Mascouten have proved elusive to historians and ethnographers due to their tendency to live with other tribes. During the time they lived in the Illinois Country, they often dwelt with the Miami, the Mesquakie, or the Kickapoo. Their language, about which little is known, was apparently mutually intelligible with Kickapoo, which is similar to the language of the Sauk and Mesquakie.

The Kickapoo and Mascouten lived in what is now Wisconsin when the French first encountered them in the 1630s. Warfare and hunting lured them into the Illinois Country by 1680. In the fall of that year Jesuit priest Father Gabriel was killed by Kickapoo below the confluence of the Kankakee and Des Plaines, and La Salle found that about 200 Kickapoo had rebuilt the Illini village at Le Rocher. Iroquois had destroyed this village in September and by December the Kickapoo had built houses of their own style on the site. Also in 1680, the Mascouten were reported to be living along the Chicago River. Throughout the 1680s the Kickapoo and Mascouten continued to migrate into the Illinois Country, possibly in order to elude the Iroquois (Temple 1977:158-159). As the Illini moved southward in the early 1700s, the Kickapoo and Mascouten moved into the Illinois River Valley. Temple (1977:159) suggests that Wisconsin remained their permanent residence in these years and that their villages in the Illinois Country were hunting encampments.

In 1720 the Kickapoo and Mascouten lands lay between the Fox and Illinois Rivers, although by that time some Kickapoo and Mascouten lived near the Potawatomi on the St. Joseph River, saying they could no longer live in peace with the Mesquakie. By 1730 the Kickapoo and Mascouten lived between the Rock and Illinois Rivers, but by mid-decade another split sent some to the Wabash River. These Wabash Kickapoo and Mascouten began to come back into the Illinois Country in the years following the American Revolution. By the 1790s the Kickapoo were on the Des Plaines, Sangamon and Vermilion Rivers (Temple 1977:160, 163-164).

About half of the Kickapoo supported Tecumseh and the Shawnee Prophet. After the Battle of Tippecanoe in 1811, the Sangamon Kickapoo moved to a village 24 miles north of Peoria, and the remainder stayed with the Prophet. Trouble erupted between the Lake Peoria Kickapoo and the American settlers in the area, and in the fall of 1812, the Americans attacked and burned the Kickapoo towns on Lake Peoria. The survivors fled to the Rock River (Temple 1977:165; Tanner 1987:105-110).

By the end of the War of 1812, the Mascoutens had apparently been absorbed by the Kickapoo and they do not appear again in the literature as a distinct tribe. Throughout the mid-1810s, the Kickapoo drifted back into the Illinois Country, settling by themselves or with the Potawatomi along the Sangamon, Illinois, and Vermilion Rivers. They ceded these lands in 1819, but some Kickapoo remained in Illinois into the 1830s.

Like the other Native American groups who occupied Illinois in historic times, the Potawatomi were an Algonquian-speaking people. Closely related to the Ottawa and Chippewa (Ojibwa), they had lived east of Lake Michigan until the Iroquois pushed them westward in the 17th century. The Potawatomi, with a few Ottawa and Chippewa, appeared in the Chicago area in the early 1740s. By the 1760s their hunting lands encompassed the Illinois, Kankakee and Des Plaines Rivers. As they encroached on Illini lands, hostilities increased, escalating after the murder of the Ottawa leader Pontiac by a Peoria in 1769. By the 1790s, the Potawatomi had villages at the confluence of the Des Plaines and Kankakee and along Lake Peoria.

In the 1810s, Potawatomis under the leadership of Gomo, Shequenebec, Black Partridge, Pepper, and

Main Poche, had numerous villages at the north end of Lake Peoria, about 20-25 miles north of Peoria, and along the Kankakee. Their population was substantial enough to muster several hundred warriors (Temple 1977:137-139; Tanner 1987:119). A series of conflicts arose between the Americans and Potawatomi up and down the Illinois River, with charges of theft and murder on both sides. These hostilities culminated in the Potawatomi attack on Fort Dearborn (Chicago) in August of 1812. The Americans burned three Potawatomi, Kickapoo and Piankeshaw villages at Peoria in 1812 and burned Gomo's deserted village in 1813. In October of 1813, the Americans built Fort Clark at Peoria to curtail Potawatomi raids (Tanner 1987:110-119).

At the close of the War of 1812, the Potawatomi began bringing their families back into the Illinois Country. Between 600 and 700 hunters passed Fort Clark (Peoria) on the way to their winter hunt in the fall of 1815. The Potawatomi continued to live around Chicago and along the Illinois River throughout the 1820s. Over 1,000 lived near Chicago. Another large village was located on the Illinois just west of the confluence of the Des Plaines and Kankakee, and a Potawatomi and Chippewa village was situated at the confluence of the Little Calumet and Grand Calumet Rivers south of Chicago. The villages around Lake Peoria continued until the end of the 1820s (Temple 1977:145-7).

For the most part, the Potawatomi sided against the Sauks in the Black Hawk War, but the Americans were suspicious of all Indians, and the Illinois and Kankakee Potawatomi were forced to cede their lands in 1832. The Prairie Band, those living on the Illinois, left immediately for Indiana to await removal further west. The Lake Michigan, Des Plaines and Kankakee Potawatomi remained until they were forced to leave in the late 1830s.

The Miami were in the region around the T. J. O'Brien Lock in the 1670s and the Iroquois attacked a Miami village in the area in 1687. The Potawatomi may have been in the area as early as 1700. They had a village at the confluence of the Little Calumet and Grand Calumet in 1793 (Tanner 1987:32, 93). The Joliet/Lockport area was home to the Miami by the mid-1680s and the Potawatomi by the mid-1700s. Tanner (1987:93) indicates a Potawatomi village at the approximate location of Joliet in 1790.

Dresden Island was probably in the eastern part of the Kaskaskia range at the time of first European contact in the 1670s. The confluence of the Des Plaines and Kankakee Rivers created a desirable area. The Miami settled there in 1683 and were known to still be there in 1705. The Potawatomi had built a village by 1768 (Tanner 1987:32, 58). The Potawatomi remained, sometimes with Ottawa, Chippewa, Kickapoo and Mascouten, until the 1830s.

Kaskaskia occupied the bank of the Illinois River opposite Starved Rock in 1673, at first European contact. The Kaskaskia fled the Iroquois in 1680 and their town was briefly inhabited by the Kickapoo (Temple 1977:158). The Kaskaskia returned to join the La Salle confederacy based at Starved Rock. La Salle also attracted the Miami and Shawnee to the area in the 1680s.

The French and Indians abandoned the area for Peoria in 1691, but by 1712 a faction of Peoria had taken up residence at Starved Rock. These Peoria engaged in warfare with the Kickapoo, Mascouten and Mesquakie throughout the 1710s and 1720s. These people would have been represented at Starved Rock by invaders and captives. The Illini had left Starved Rock by 1780 (Tanner 1987:63). The Potawatomi reached the area by 1763 and remained until forced out by American settlement.

The archaeological remains of the Grand Village of the Kaskaskia are known as the Zimmerman Site (11Ls13) and are located east of the Starved Rock Lock and Dam. The Peoria Illini inhabited Peoria

from early European contact through the 1760s or 1770s (Temple 1977:58; Tanner 1987:51). The Kaskaskia moved their central village there from Starved Rock in 1691 and remained until 1700. The French had a licensed fur trade post at Fort Pimitoui in 1720 (Tanner 1987:39).

The Kickapoo came briefly in 1812, and were probably present in Potawatomi towns after that date. Peoria was included in the Potawatomi hunting range by the late 1740s and several Potawatomi towns could be found around Lake Peoria through the end of the 1820s. The peak of Potawatomi occupation was probably the 1810s, when the southernmost Potawatomi summer villages were located at Peoria (Tanner 1987:100).

The location of the La Grange Lock and Dam would have been in the heart of Illini territory at the time of European contact, and probably remained within their hunting range at least through the 1760s. By the 1790s, La Grange was within the southernmost reaches of the Potawatomi hunting lands and on the western edge of the Kickapoo territory. Tanner (1987:93) indicates a Kickapoo and Mascouten village nearby from 1776 to 1781. The first American settlers in Brown County encountered numerous Kickapoo in the 1820s:

> This Indian camp was down on the river at the old mouth of Camp Creek where they would stay through the summer and when cold weather came or the river commenced to rise they would move back to the ravines along the bluff (Bond 1959).

On the Cass County side of the river, J. F. Snyder's 1906 map shows an " 'Old Indian Trail' that ran along the foot of the Sangamon bluffs" leading to the site of Beardstown, where he indicates a Mascouten village could be found in 1698 and a Kickapoo village from 1794-1812.

Native American tribes living in the Illinois Country in historic times, including the Illini, Miami, Kickapoo, Mascouten and Potawatomi, had similar cultures and made use of the land in similar ways. In the summer, band members lived in large, relatively permanent villages and grew a variety of crops, including maize, beans, squash, pumpkins, gourds and melons (Kinietz 1972:172). After the fall harvest, seeds and surplus food were cached and most of the inhabitants left for the winter hunt. Winter hunting camps were small and usually confined to family groups. In the spring, when food resources were again plentiful, bands reunited. Fishing and maple sugar processing were important spring activities. In late spring, groups returned to their summer villages, planted crops, and participated in summer hunts. As the French and English moved westward, hunting became important for the fur trade as well as for food (Hajic, et al. 1996:12).

Europeans arrived in the region in 1673, when Frenchmen Louis de Joliet and Father Pere Jacques Marquette explored the Illinois River Valley. The character of the landscape along the Illinois River Valley quickly changed. The French immediately began to establish several forts and missions in the valley (Hajic, et al. 1996:9). Small settlements began to spring up. By 1723, the French were extensively clearing timber and cultivating lands, particularly along the Illinois and its tributaries (M. Walker 1992:2).

As American settlers moved westward, European dominance in the Illinois River Valley began to wane. By 1778, the French and British relinquished all claim to the region (M. Walker 1992:2). Forty years later Illinois had a sufficient number of residents to apply for statehood (Larson 1979:6). Businessmen and politicians soon realized the commercial and transportation value of a canal linking

Lake Michigan with the Illinois River. In the spring of 1848, the first canal linking the two bodies of water was opened (Larson 1979:6-7,185). Over the years, the waterway has been modified and improved to create the Illinois Waterway System. Today, large cargo-bearing barges, as well as fishing boats and other recreational craft, are a common site along the Illinois Waterway.

As in the past, farming continues to be an important activity across much of the floodplain adjacent to the Illinois Waterway (M. Walker 1992:2). Sand, gravel, clay and shale quarries are common along portions of the waterway. Some areas of timber are logged. Urban development, highway and railroad construction, dredging and levee construction have changed the natural landscape along much of the Illinois Waterway.

French explorers produced the earliest written documentation of the plants, animals and environment which they encountered along the Illinois River Valley (Franke 1995:56). These early accounts note the abundance of resources in the valley. As indicated by Marquette (Marquette Journal 1673) and Joutel (Joutel Journal 1684), the region had a plentitude of all things necessary to support human life:

> We have seen nothing like this river [the Illinois] ... for the fertility of the land, its prairies, woods, wild cattle, elk, deer, wildcats, bustards, swans, ducks, parrots, and even beaver; its many small lakes and rivers (Marquette Journal 1673).

> The country of the Illinois enjoys all advantages - not only beauty, but also a plentitude of all things needed to support human life.... The plain, which is watered by the river, is beautified by... small hills... covered with groves of oaks and walnut trees.... The fields are full of grass, growing very tall. That country is one of the most temperate in the world, so that whatever is grown there - whether herbs, roots, Indian corn or even wheat - thrives very well (Joutel Journal 1684).

The areas around Starved Rock and Lake Peoria have long been of interest to historians and archaeologists concerned with the study of the early Contact period in the Illinois Country. The Newell and Zimmerman sites in particular have produced substantial data. The Peoria region has been less yielding. The location of Fort Crèvecour has been puckishly elusive; at least seven possible sites have disappointed scholars to date (Franke 1995:76-citing unpublished report of Jelks and Unsicker, 1981). Detection of contact period sites on Lake Peoria has been hampered by the almost continuous occupation of the region since the earliest European contact.

Until recently, these two locations have been the focus of nearly all scholarly interest in the historic Illini. Attention has begun to turn now toward the lower Illinois River Valley, and, specifically toward the winter hunting villages. Walthall, Norris, and Stafford (1992:149) report that the Naples site in Scott County, long known for its Middle Woodland component, includes an historic component dating to the late 17th century. They further suggest that this was the village of "the woman chief" visited by French priest Jean-Francois Buisson de St. Cosme and his companions in late November of 1698 (Walthall, et al. 1992:146-147). St. Cosme estimated the village as having about 20 cabins and reported that a woman chief led it with many sons and sons-in-law. Also living in the village was a French soldier and his "savage" wife (148).

Esarey (M. 1997:188) points out that "Woman Chief's Village" is not specifically identified as Kaskaskia by St. Cosme, and generally finds the association of the Naples site to Woman Chief's Village to be tenuous. Nevertheless, he presents a compelling case for further investigation of the

lower Illinois River Valley and of winter hunting villages. Esarey provides an extensive list of early references to Illini villages along the Illinois River and its tributaries. Most of these are typically elusive when an exact location is attempted. Four villages appear to have enough information to merit further investigation, and certainly to merit closer scrutiny by archaeologists. They are Pierre a' la Fleche, the Peorias' winter hunting grounds, Mauvaise Terre, and Grand Pass. Esarey suggests that these villages were probably located, respectively, near Flint Creek, La Moine River, Mauvaise Terre or McKee Creek, and Apple Creek (M. Esarey 1997:180-181).

The first American settlers along the Illinois River frequently encountered villages of Kickapoo and Potawatomi. Occasionally, the immigrants used recently vacated Native American houses for their first dwellings. Several river towns are located on the sites of prehistoric and historic villages. Reference is made to these simultaneous habitations in the following portions of this report which discuss early American settlement of the Illinois River Valley.

F. Early European Presence (1673-1826). The French occupation of the Illinois River Valley has been outlined previously in the context of the Historic Native American occupation. It is difficult to distinguish the history of the French in Illinois from that of the Native Americans of the period. The same may often be said of the culture and life ways of the two. Once the French came, the lives of the Indians and the course of their history changed. Conversely, the presence of Native Americans along the Illinois drew the French to the region. The French came to trade for furs and to convert “savages” to Christianity. Both endeavors required close association with the indigenous people.

French trader Louis Jolliet and Jesuit priest Jacques Marquette left St. Ignace in the spring of 1673 to explore the Mississippi. They ventured far enough down the river to know that it led, not to the Pacific and the riches of the East, but to the Gulf of Mexico and the regions claimed by Spain. On their return trip, they paddled up the Illinois and Des Plaines Rivers to Lake Michigan. This was the first recorded European exploration of the Illinois Country.

Marquette returned briefly to Le Rocher in 1675. He established the Jesuit mission of the Immaculate Conception, but left almost immediately and died before he reached Mackinac. Father Claude Jean Allouez took Marquette's place at the Kaskaskia village in the spring of 1677 (Temple 1977:19-20). For the next thirty years the focus of European and aboriginal interaction in the Illinois Country would shift between Le Rocher and the shores of Lake Peoria.

René Robert Cavalier, Sieur de La Salle, came down the Illinois River late in 1679. When he reached the Grand Village at Starved Rock, he found its inhabitants away on their winter hunt. La Salle and his party raided the Kaskaskia's corn caches and proceeded down the river. Early in January of 1680, thirty leagues below the Kaskaskia village, La Salle and his party came to a Peoria village on the southern end of Lake Peoria.

La Salle and his men stayed briefly with the Peoria and then moved across the river where they built Fort Crèvecoeur. In March La Salle left Henri Tonti in charge of the unfinished fort and returned to Canada. In La Salle's absence, the men destroyed and deserted the fort. Avery (1988:89-101) summarizes the various locations believed to be the possible site of Fort Crèvecour. None of these have produced archaeological evidence of a French occupation.

La Salle continued his explorations to their tragic end and Tonti remained at the Rock until the winter

of 1691-92. By that time the French and Indian village had exhausted the game and timber surrounding the Rock. Tonti built a larger Fort St. Louis, also called Fort Pimitoui, on the west bank of the river, a mile and a half above the outlet of Lake Peoria. This was said to be the site of the Kaskaskia's favorite winter camp. The Jesuit mission to the Kaskaskia also moved to Peoria. French, métis, Shawnee, Wea, Piankashaw, Miami, Ouabona, Kilatika, Pepikokia, Kickapoo, and Mascouten gathered around Tonti's forts for trade, conversion, and protection (Burns 1968:3; Howard 1972:34; Hall 1991:14-15). The precise location of Fort Pimitoui has also eluded historians and archaeologists (Barr et al. 1988).

In the early 18th century, the population around Lake Peoria began to decline. Howard (1972:36) attributes this to the increasing strength of the Mesquakie, the instability of the Illini, and the weakening of the French. The Kaskaskia moved down river in 1700, where they were followed by the traders and missionaries. Tonti left for New Orleans, the traders settled at Cahokia, and the Kaskaskia and Jesuits founded the town of Kaskaskia (Howard 1972:36).

For most of the 18th century, Peoria was a distant outpost of the French, then British, then American frontier. It may have been completely deserted in 1722 and 1723 during the Fox (Mesquakie) Wars. By 1730 there was a French village along the lake, and in 1756 the French built a stockade to protect the settlement from the Mesquakie. The Peoria had left by 1763 and were replaced by the Potawatomi, Miami and Kickapoo. The French stockade was burned by Indians in 1773, but there were one hundred French fur traders still living at Peoria in 1800.

Trader Jean Baptiste Maillet may have instigated the removal downstream of the French village in the late 1700s. Maillet's stockaded fort burned in 1788, but it was in his village that Thomas Forsythe built an American Fur Company post in 1806 (Barr et al. 1988:97; Emerson and Mansberger 1991:152; Gray 1940:78; Howard 1972:91). Secondary sources vary wildly on the dates of all of these events. For example, Gray (1940:78) says Maillet and his followers settled at Peoria in 1761, Howard (1972:70, 91) says 1778, and Emerson and Mansberger (1991:152) give a date of 1788.

In 1812, an expedition led by Governor Edwards killed twenty or thirty fleeing Miami and Kickapoo and burned several villages at Lake Peoria. This was followed by another attack by Captain Thomas E. Craig. Craig's men looted and burned the town and captured forty of its inhabitants. Craig led his captives downstream until ordered to release them. He abandoned the prisoners at Alton. The descendants of these captives would later try to re-establish their “French claims” in Peoria. Charles Ballance, an American settler and attorney in Peoria, whose life’s work was a crusade to overturn the French claims, originally wrote much of the history of the French in Peoria. Consequently, the written histories of Peoria have tended to belittle the French and métis presence in early Peoria (Ballance 1870).

The Americans replaced the French village at Peoria with Fort Clark, which they abandoned at the end of the War of 1812. Within five years the first American settlers arrived and the town of Peoria was platted in 1826. Under the French regime, the Illinois Country was a frontier within a frontier. It lay at the farthest reaches of both New France and Louisiana. Here the French and the Native Americans established their “middle ground,” a place were the representatives of indigenous and European cultures adjusted their values, their practices, and their understanding of one another (White 1991:ix-xi).

G. American Settlement. Due to the limits of this project, the discussion of the American occupation of the Illinois Waterway has been confined to the 19th century. It should not be forgotten, however, that another century of habitation has occurred since, and that the events and human behaviors of the 20th century are as much a part of the history of the valley and the waterway as those of any previous century.

For the purpose of this study, "American" settlers are defined as those people who came from the United States, or by way of the United States, to make their homes in Illinois in the 19th century. They were not the first "white" settlers, for the French had been here since the late 17th century. They were not necessarily Caucasian, for they included slaves, indentured servants and freedmen of African descent. They were by no means all "Anglo-American," and, strictly speaking, they were not all Americans, as many had emigrated from Europe.

American settlement of the Illinois River Valley began in the late 1810s, with the close of the War of 1812, the opening of the Military Tract to veterans, and achievement of Illinois statehood. When Illinois entered the Union in 1818, nearly all of its American settlers resided in the southern quarter of the state. Most of these people had come from Kentucky and Tennessee, and were "of the hunter type, desirous of finding a home in the woods, from which they could carve out little farming plots sufficient for their household needs" (Conger 1932:129). Recognized by scholars today as backwoodsmen of the Upland South culture, they subsisted on free-ranging hogs, corn grown in fields hewn from the forest, and wild game, fruit and honey. Prior to the invention of the self-scouring plow in the 1830s, farmers found it impossible to till the prairie soil, with its deep, gummy snarl of grass roots. They established their farms along the edge of the prairies, where they could clear and till the forest, using the wood for building and fuel. The Ohio, Mississippi and Illinois Rivers, and their tributaries, provided the easiest, quickest, and safest means of transportation until the advent of the railroads.

The first generation of American settlers came into Illinois by way of the Ohio River, and congregated around Kaskaskia and Shawneetown. The second generation began to move northward along the Illinois River and its tributaries. Along the Sangamon River in the central part of the state, the Upland Southerners began to meet New Englanders. As one scholar expressed this cultural intersection, "These two human streams of settlers . . . proved very irritating to each other in many respects" (Conger 1932:130).

With the completion of the Erie Canal in 1825, immigrants from New England and the North Atlantic states found their way into Illinois by way of the Great Lakes. In 1833 only four boats dropped anchor in Chicago harbor. The following year, there were 180, and by 1836 the number had reached 450. Some of the New Englanders came in colonies, occasionally using one large common dwelling in the first years of settlement. The Connecticut colony at Rockwell, east of La Salle, was one of these (Conger 1932:144; Baldwin 1877:375).

Not all of the Eastern immigrants were farmers. The financial depressions of 1819 and 1837 brought wage-earners westward, seeking personal and financial independence from the more rigid society of the Northeast. The construction of the Illinois and Michigan Canal provided work for untold numbers of laborers.

The agricultural and labor opportunities also attracted large numbers of Irish, English and German immigrants beginning in the 1830s and 1840s. By 1850, foreign immigrants comprised one third of

the population of Chicago. Most of these people dispersed throughout the state, finding work on canals and railroads, eventually buying land and taking up farming.

The earliest settlers along the Illinois River used canoes and pirogues. Even some of the first ferries consisted of a canoe, or two canoes lashed together. The first boats of European design were flatboats. Farmers, millers, and entrepreneurs built their flatboats of native timber, loaded them with products for trade, floated them down the Illinois to St. Louis, or on down the Mississippi to New Orleans. Most carried about fifteen tons and cost about $100.00 to build. Because flatboats could not reascend the river, their owners sold them for lumber or fire wood. The dismantled boats brought from $30.00 to $200.00 in New Orleans. The boatmen who desired to return home to Illinois either walked or, in later years, booked passage on a keelboat or steamboat. Flatboating continued on the Mississippi until the Civil War (Conger 1932:147).

Keelboats had the advantage of being able, with considerable effort, to return up the river. A trip up river from New Orleans to St. Louis took four backbreaking months of poling. Only one trip a year could be made by those wishing to sell goods in the Illinois Country. Keelboats gave rise to the legendary "half-horse, half-alligator" boatmen like Mike Fink.

Steamboats appeared on the Ohio River as early as 1811, and by the late 1810s, they were common on the Mississippi. The first steamboats ascended the Illinois in 1828. That year saw nine arrivals and departures at Naples. Three steamboats ran from St. Louis to Peoria in 1833. By 1852, the number of boats passing the Peoria Bridge reached 1,800. The average tonnage of Illinois River steamboats in 1851 was 275. The early boats required one cord of wood every twenty-four hours for each twelve tons (Conger 1932:156, 160, 163).

The steamboating season lasted from eight to 10 months of the year. For at least two months each winter, the boats could not move through the ice.

Two men from St. Louis and three from Springfield organized the Naples Packet Company in 1848. Until this time, the steamboats had been individually owned. The Naples Packet boats ran weekly from St. Louis to Naples, where they connected with the Sangamon and Morgan Railroad.

The Five Day Line, organized in 1852, accelerated the competition to provide speedy service. However, the railroads eventually spelled the demise of the Five Day Line, while the Naples packets survived because of their connection with the railroad. The strongest of the steamboat companies was the Illinois River Packet Company. Organized in 1858, it "largely controlled the commerce of the Illinois until it sold out in 1867" (Conger 1932:159). The railroad and "increasing hazards of navigation" (locks and dams) also spelled the end of this company (Conger 1932:159).

Traveling by steamboat could be dangerous. Snags, fires, collisions, and explosions are responsible for most of the 48 submerged boat sites on the Illinois Waterway. Although in later years the steamboats might be luxurious, the earlier boats were often very uncomfortable. As many as 500 or 600 passengers might be crowded on to the lower deck. A steamboat plying the river in 1838 provided one candle and one towel for the use of all of the women in its four ladies' staterooms (Conger 1932:163-164).

The 19th century keelboats and steamboats brought new residents to the country, delivered goods for sale or trade, and hauled produce to market. The inhabitants of the Illinois River Valley sent down

stream corn, hogs, wheat and other grains, honey and beeswax, wool, hides, cattle, whiskey, and coal. By mid-century towns like Peoria also shipped manufactured goods, especially agricultural implements and woven woolens.

Each successive mode of transportation affected the settlements along the Illinois River. Grain dealers built warehouses at the landings. Country taverns became hotels. Pork-packing became an important industry.

The construction of the Illinois and Michigan Canal opened the upper river to trade all the way to Chicago. It also caused a frenzy of land speculation and an influx of new settlers from the East and Europe.

The appearance of the railroads brought doom for some river towns and greater prosperity for those lucky enough to provide the junction between the rail and the river. River traffic continued throughout the 20th century in the form of barges pushed by tugboats. The simple necessity of getting people, goods, and livestock across the river caused ferries to be established with the earliest settlement of the river valley. Some of the first ferries were merely canoes in which people and goods could be paddled across, while the livestock swam alongside. The more daring ferryman sometimes lashed two or more canoes together in order to get larger loads across. Something more like a flatboat soon replaced the canoe, and later in the century the better ferries would be steam-powered.

The owner of the ferry was not necessarily the operator. Often the owners purchased the land, obtained the license from the county, and proceeded to found a village around the ferry landing. A series of interesting people would serve as ferry men, while the owner kept the store, the warehouse, or the tavern.

A ferry connected the people on two sides of the river. Sometimes this meant that a town grew up on both sides. In other cases, one side grew a town, while the other had no more than a wagon track leading down to the bank. Because ferries were often the only settlement along the bank of the river, and located at good natural landings, the ferry landing nearly always became a steamboat landing as well. It was not uncommon, as the century wore on, for a bridge to be built at the site of the ferry crossing. At the close of the 20th century, a few ferries still crossed the Illinois River.

Not every cargo brought by the steamboats was beneficial to the people who lived along the Illinois Waterway. Epidemic diseases traveled up and down the river on a regular basis. The most frightening of these was Asiatic Cholera, which had only appeared in the United States in the late 1700s. Cholera was most alarming because of the speed with which it could strike, killing healthy people in less than twenty-four hours, and whole families in a few days. Other forms of dysentery, as well as smallpox, measles, and scarlet fever stepped off the steamboats from time to time.

Most of the 19th century industry along the Illinois River was related to agriculture. The first essential industry were grist, saw, and flouring mills, usually built on tributary streams. As farm production increased, millers often expanded their operations. Grist mills became breweries, saw mills added carding and fulling mills, and flouring mills expanded to include distilleries. When farmers brought their grain and livestock to the steamboat landings, they often had to wait days or weeks before the boat arrived to take their cargo to market. Grain dealers and meat-packers soon discovered a profitable business opportunity.

Many of the first American settlers in Illinois were of the Upland South culture. They based their subsistence and their economy on corn, hogs, and wild game. Hogs were "cheap to raise, easy to produce, looked after themselves, and provided the household with meat for most of the year" (Walsh 1982:18-19). In the early years of settlement, the preferred breed was the razorback, a half wild hog that could been turned loose in the woods to forage for itself on nuts and fruit. Local legends said that these hogs had been left by the French, or escaped from early settlers during the winter of the Deep Snow. As the weather grew cold, owners would either hunt their stock as any other wild game, or round them up and fatten them on corn for a few weeks before slaughter. With increased settlement and markets, farmers began to bring in pure-bred stock.

River towns like La Grange, Beardstown, Pekin and Peoria became crucial centers for packing and shipping meat from the late 1820s until the prevalence of the railroads. At first, farmers drove their hogs to the landing, loaded them on flatboats and shipped them down river to St. Louis. Merchants at the landings began to butcher and salt the meat for shipping. The market, the supply, and the means of transportation grew almost simultaneously on the Illinois River. As the St. Louis market expanded, the numbers of settlers and their livestock burgeoned, and the steamboat made its appearance on the Illinois.

The Illinois towns had an advantage over the large pork-packing towns of the Ohio River, in that their packing season was longer. There were more cool, but not bitterly cold, days suitable for slaughtering and packing. Even on the Illinois River, the business could be risky:

> A mild spell was the most frequent hazard. . . Then hogs accumulated at the pens with delay and loss to the owner, or carcasses were spoiled. Rains and floods were another seasonal hazard; occasionally the rivers would rise high enough to flood the pork houses otherwise conveniently located on the bank. A bitterly cold spell or snowstorms could also retard slaughtering by making working conditions impossible (Walsh 1982:25).

Most of the mid-19th century packers along the Illinois were merchants who engaged in the meat packing business as a sideline:

> In the early fall they advertised their willingness to put up hogs or dressed pork or to supply packing materials. Once the weather turned cold enough, they started slaughtering and packing and continued to work at high speed for about six weeks. They stored the salted and cured meat ready for shipment down river in the spring. During the rest of the year they conducted a western produce and dry goods trade (Walsh 1982:41).

By the 1840s, Chicago nearly matched the river towns as a meat-packing center. The opening of the Illinois and Michigan Canal in 1848 made it easier for farmers to ship their hogs directly to Chicago, by-passing the merchants along the river. However, it was only with the advent of the railroads, with Chicago as the hub, that meat processing shifted dramatically to the "Hog Butcher to the World." In the last quarter of the 19th century, packers continued to operate along the river, but usually only for local or specialized markets. While meat-packing became a year-round industry in the large centers like Chicago, it remained largely seasonal along the river (Walsh 1982:51, 67).

From the beginning of the American occupation of the Illinois Country, settlement has not always

been what it seemed. Veterans who claimed their warrants in the Military Tract between the Illinois and Mississippi Rivers often never set foot in Illinois. They sold their rights to speculators, or allowed their claims to lapse.

In wave after wave of speculative frenzies, ambitious entrepreneurs bought vast acres of farmland that would never sell at the high prices asked for them. They laid off towns that never saw a building erected or, in some cases, never even saw a lot sold. Some of the ventures, such as the proposed canal in Calhoun County, may not have been unreasonable investments, except for the succession of panics and depressions which periodically brought all economic growth to a standstill.

People bought lots and built houses in some of the towns, only to have the ferry or steamboat landing move, the railroad reach a rival town, or the founders not live up to their bargains. When they abandoned their town, the residents occasionally took their houses with them. More often, the buildings rotted into the soil, and within a generation the town site was part of a farmer's field, and the existence of the town all but forgotten.

The heart of 19th century settlement along the Illinois River is the river landing. Here farmers brought their produce to be sold and shipped to market, and they bought their supplies, necessary and frivolous, for the coming weeks, months or year. The settlers' port of entry to Illinois was the landing, and it was their way out, whether to trade, visit, or leave. Food, tools, news, wealth, disease, entertainment, rascals, and heroes came off the boats at the landings. At the landings could be found ferryboats and bridges, warehouses, stockyards, packing houses, hotels, stores, homes, offices, smithies, mills, and factories. At the site of a former river landing, extant buildings, foundations, substantial deposits of animal bone, and assemblages of 19th century artifacts related to boating, butchering, milling, brewing, distilling, milling, blacksmiths and the manufacture of plows and other farm implements, and tavern-keeping might be found.

Back from the river, on the bottoms there may be indications of the less affluent residents of the century, those who made their way into history books only as colorful characters of the valley. Their activities as farmers, boatmen, shellers, fishermen, and hunters would be reflected in the remains of their homes.

In some parts of the valley, farmers built their farmsteads at the base of the bluffs, even at a relatively early date (the text of this section of the report was taken wholly or in part from the *Illinois River Ecosystem Restoration Feasibility Study Restoration Needs Assessment Native Ecotype and Historic Change Assessment*. (Post and Wiant 2004:55-88). These structures range from log cabins to frame houses to substantial limestone buildings, some of which are still standing. A sharp rise in population in the early part of the 19th century signaled a change in human ecology and a transformation of the Illinois River Basin landscape. The wave of human migration moved from the south to the north along the Mississippi and Illinois Rivers, inland along Illinois River tributaries, and overland across the rolling prairie landscape.

People settled in areas where there were few traces of civilization, setting off a synergism measured by increases in cultivated land, the construction and maintenance of roads and trails, farms and communities that dotted the landscape, and the development of marketplaces. Farm and community-based landscape development and management soon gave way to public works projects, the first of which perhaps was the design and construction of the Illinois and Michigan Canal. At the same time, the invention of the steel plow enabled farms to expand land under cultivation with unprecedented

efficiency. The demand for timber needed for construction and fuel increased accordingly, and prairie groves shrunk at a rate far greater than their ability to regenerate. By 1840 the insatiable appetite for energy shifted to coal, which was transported by wagon and barge to communities near and far alike.

By the middle of the 19th century, farmers began to secure more land for production by draining wetlands. Using horse drawn slips, they cut ditches, but soon turned to the use of drainage tile. By 1880, 1,140 factories in the Midwest, such as White and Company's Pottery and Tile Works located on the Illinois River floodplain south of Morris, manufactured drainage tile. In the Kankakee Marsh alone, more than 500,000 acres were drained, and between 1884 and 1886, steam excavators drained approximately 50,000 acres of the North Quiver Swamp near Forest City and Delavan. By the end of the century, in a period of 50 short years, most of Illinois' prairie and much of its wetlands disappeared. Meanwhile, sediment eroded from the uplands made its way into streams and rivers. In 1852, dredging began to keep certain parts of the river open for navigation. Shortly thereafter, several low dams were constructed to manage river level ii selected locations such as Henry, Illinois (1872); Copperas Creek (1877); LaGrange (1889); and Kampsville (1893) (Thompson 2002:63).

Despite changes in the river, it remained an extraordinary fishery. In 1894, there were 1,653 active fishermen on the river, and in 1899 they harvested 241,000 pounds of catfish. In 1908, 2,500 commercial fishermen took nearly 24 million pounds of fish from the Illinois (Forbes and Richardson 1908), and in 1910, over 2,600 mussel-fishing boats plied the river. Abundant waterfowl in the fall made the valley a mecca for commercial and sport hunters. Facing over-exploitation of its resources, the river soon faced a new challenge; one which would change the fundamental character of its ecosystem.

On January 1, 1900, the Chicago Sanitary and Ship Canal opened. This canal connected the Des Plaines and Illinois Rivers to Lake Michigan and as a result gave the City of Chicago a means of flushing untreated domestic sewage and industrial wastes away from Lake Michigan into the Illinois River system. At first the diverted water enhanced the aquatic habitats of the Illinois River Valley-habitats available to fishes increased as the diverted water doubled the surface area and extended and deepened the bottomland lakes and marshes. As a result of all the water, thousands of hectares of bottomland timber were inundated and eventually died as many small lakes, sloughs and marshes were united into larger bodies of water. As late as 1940, "dead snags from this 'drowned forest' were still in evidence".

The opening of the Chicago Sanitary and Ship Canal increased the sewage load in the Illinois River, and by 1923 the oxygen content of the river from below Chicago to Peoria was negligible. Stephen Forbes (1911) noted that "Immediately below the mouth of the canal we have in the Des Plaines a mingling of these waters, and the Illinois River itself, below the junction of the Des Plaines and the Kankakee, the septic contributions of the former stream are largely diluted by the comparatively clean waters of the latter. Nevertheless, we had in July and August what may be called septic conditions for twenty-six miles of the course of the Illinois from its origin to the Marseilles dam. At Morris, which is on the middle part of this section, the water, July 15, was grayish and sloppy, with foul, privy odors distinguishable in hot weather."

Although levee construction had begun in the late 1890s, between 1902 and 1923, drainage districts greatly modified the landscape, removing for agricultural purposes floodplain terrestrial and aquatic habitats. By 1929, 38 organized drainage and levee districts and three private levees enclosed roughly 200,000 acres of the Illinois River Valley. Spring and Thompson Lakes, long known for their

fisheries and their concentrations of waterfowl, were eliminated as were a host of smaller lakes and sloughs. These districts transformed 39 percent of the total floodplain by allowing conversion of wet and mesic floodplain prairies to crops. The levees affected the hydrology and sediment transport processes of the river. They increased floodstages by reducing the space available for water flow, storage, and sediment deposition. The levees effectively constricted the floodplain right to the edge of the river.

In 1920, construction began on the Illinois Waterway (Sackett 1921). Prior to the construction of the Waterway, river traffic between Lockport and Utica was periodically interrupted due to low water. By the end of the 1930s, a series of dams and locks at Lockport (1933); Brandon Road (1933); Dresden (1933); Marseilles (1933); Starved Rock (1933); Peoria (1939); and LaGrange (1939) ensured navigation on the Illinois River (Hajic et al. 1996).

III. SUMMARY AND CONCLUSIONS

Natural processes alone shaped the character of the Illinois River Basin from its from its formation during the waning stages of the Pleistocene until the arrival of settlers in the early 19th century. Native Americans occupied the basin throughout this period, but neither their number nor technology substantially affected the long-term character of the basin, with the possible exception of using fire to maintain prairie habitat, though the scale of this enterprise is not well known. At first they depended on hunting and gathering, a procurement economy that is subject to the vagaries of seasonal and geographic variability in resources. With the cultivation first of native plants then exotic species, Native American economy coupled procurement strategies with those of production, which naturally changed their relationship with the landscape.

First the French, then American settlers brought new means of production. Though they also relied on traditional practices such as hunting and fishing, settlers had access to distant marketplaces for goods and relied in part on livestock for food. They soon developed new means of cultivation that harnessed draft animals to steel plows that substantially increased settlers' productivity, their numbers, and their influence on the landscape.

Within little more than a century, beginning in the 1830s, forest groves had been cleared, vast expanses of prairie drained and cultivated, the rural population reached its zenith, towns were established along streams and railroads, waterways had been dammed to energize mills and ensure navigation, and the Illinois River was engineered to transport resources to Chicago and waste water away.

The heart of 19th century settlement along the Illinois River is the river landing. Here farmers brought their produce to be sold and shipped to market, and they bought their supplies, necessary and frivolous, for the coming weeks, months or year. The settlers' port of entry to Illinois was the landing, and it was their way out, whether to trade, visit, or leave. Food, tools, news, wealth, disease, entertainment, rascals, and heroes came off the boats at the landings. At the landings could be found ferryboats and bridges, warehouses, stockyards, packinghouses, hotels, stores, homes, offices, smithies, mills, and factories. At the site of a former river landing, extant buildings, foundations, substantial deposits of animal bone, and assemblages of 19th century artifacts related to boating, butchering, milling, brewing, distilling, milling, blacksmiths and the manufacture of plows and other farm implements, and tavern-keeping might be found.

Back from the river, on the bottoms there may be indications of the less affluent residents of the century, those who made their way into history books only as colorful characters of the valley. Their activities as farmers, boatmen, shellers, fishermen, and hunters would be reflected in the remains of their homes. In some parts of the valley, farmers built their farmsteads at the base of the bluffs, even at a relatively early date. These structures range from log cabins to frame houses to substantial limestone buildings, some of which are still standing.

BIBLIOGRAPHY

Anderson, D. C., R. Shutler, Jr., and W. M. Wendland
1980 The Cherokee Sewer Site. In *The Cherokee Excavations*, edited by D. C. Anderson and H. A. Semken, Jr., pp. 257- 274. Academic Press, New York.

Avery, K. W.
1988 Early French Sites in Peoria. In *Intensive Archaeological Explorations for Peoria's 18th Century Village,* edited by Keith L. Barr, Jerry Moore, and Charles L. Rohrbaugh, pp.87-113. Illinois State University, Midwestern Archaeological Research Center, Research Report No. 7.

Baldwin, E. T.
1877 *History of La Salle County, Illinois.* Rand, McNally, Chicago. Reprinted 1988.

Ballance, C.
1870 *A History of Peoria, Illinois.* N. C. Nason, Peoria, Illinois.

Barr, K. L., J. J. Moore, and C. L. Rohrbaugh
1988 *Intensive Archaeological Explorations for Peoria's 18th Century French Village.* Illinois State University, Midwestern Archaeological Research Center, Research Report 7.

Bond, B. F.
1959 The History of the First White Settlers in Versailles Township. Mt. Sterling *Democrat-Message* August 15, 1959 [Reprinted from Versailles *Sentinel,* 1922].

Brose, D. S.
1975 *The Early Archaic Occupations of the Squaw Rockshelter Site,* 33CO34, Cuyahoga County, Ohio. Paper presented at the 42nd Annual Meeting of the Eastern States Archaeological Federation, Columbus, Ohio.

Brown, J. A. (editor)
1961 *The Zimmerman Site: A Report on Excavations at the Grand Village of Kaskaskia, La Salle County, Illinois.* Illinois State Museum, Reports of Investigations No. 9.

1985 *Preliminary Report of Archaeological Investigations at the Oak Forest Site (11Ck53) Cook County Illinois.* Northwestern University Archaeological Center Contributions No. 3. Evanston, Illinois.

Brown, J. A., and R. K. Vierra
1983 What Happened in the Middle Archaic? Introduction to an Ecological Approach to Koster Site Archaeology. In *Archaic Hunters and Gatherers in the American Midwest,* edited by J. L. Phillips, and J. A. Brown, pp. 165-195. Academic Press, New York.

Burns, R. T.
1968 *A Link to the Past: The Saga of La Salle County.* La Salle County Board of Supervisors, Mendota, Illinois.

Cole, F. C. amd T. Duel
1937 Rediscovering Illinois: Archaeological Explorations In and Around Fulton County. Archaeological Series, University of Chicago Press, Chicago, Illinois.

Conger, J. L., and W. E. Hull
1932 *History of the Illinois River Valley*. 3 vols. Clarke, Chicago.

Connor, M. D.
1985 Site Structure and Function. In *The Hill Creek Homestead and the Late Mississippian Settlement in the Lower Illinois Valley*, edited by M. Connor, pp. 198-221. Center for American Archeology, Kampsville, Illinois.

Conrad, L. A.
1973 T*he Nature of the Relationships Between Cahokia and the Central Illinois River Valley.* Paper presented at the 52nd Annual Meeting of the Central States Anthropological Society, St. Louis, Missouri.

1981 *An Introduction to the Archaeology of Upland West Central Illinois: A Preliminary Archaeological Survey of the Canton to Quincy Corridor for the Proposed FAP-407 Highway Project.* Western Illinois University, Archaeological Research Laboratory, Reports of Investigations No. 2. Macomb.

1991 The Middle Mississippian Cultures of the Central Illinois River Valley. In *Cahokia and the Hinterlands: Middle Mississippian Cultures of the Midwest,* edited by T. E. Emerson, and R. B. Lewis, pp. 119-156. University of Illinois Press, Urbana.

Conrad, L. A., and A. D. Harn
1972 *The Spoon River Culture in the Central Illinois River Valley.* Ms. on file, Dickson Mounds Museum, Lewistown, Illinois.

Cook, T. G.
1976 *Koster: An Artifact Analysis of Two Archaic Phases in West-Central Illinois.* Northwestern University Archaeological Program, Prehistoric Records No. 1. Evanston, Illinois.

Deuel, T. (editor)
1952 *Hopewellian Communities in Illinois.* Illinois State Museum, Scientific Papers No. 5.

Emerson, T. E., and J. A. Brown
1992 The Late Prehistory and Protohistory of Illinois. In *Calumet & Fleur-de-Lys*, edited by J. A. Walthall, and T. E. Emerson, pp. 77-128. Smithsonian Institution Press, Washington, D.C.

Emerson, T. E., and F. Mansberger
1991 The Search for French Peoria. In *French Colonial Archaeology: The Illinois Country and the Western Great Lakes*, edited by J. A. Walthall, pp. 149-164. University of Illinois Press, Urbana.

Esarey, D.
1997b *The Late Woodland Maples Mills and Mossville Phase Sequences in the Central Illinois River Valley.* Paper presented at the Urbana Late Woodland Conference, Urbana, Illinois.

Esarey, M.
1997 August 20, 1997 letter from Illinois Historic Preservation Agency, Springfield, to Dr. Erich Schroeder, Illinois State Museum Society, Springfield, regarding draft eligibility criteria for non-reviewed archaeological sites. On file, Illinois State Museum Society, Springfield.

Farnsworth, K. B.
1976 *An Archaeological Survey of the Lower Illinois River Shoreline (Miles 1-80).* Northwestern University Archaeological Program. Submitted to U.S. Army Corps of Engineers, St. Louis District.

Farnsworth, K. B., and D. L. Asch
1986 Early Woodland Chronology, Artifact Styles, and Settlement Distribution in the Lower Illinois Valley Region. In *Early Woodland Archeology,* edited by K. B. Farnsworth, and T. E. Emerson, pp. 326-457. Center for American Archeology Press, Kampsville, Illinois.

Ferguson, J. A. (editor)
1995 *Upper Illinois Valley Archaeology: The Cultural Resources of Starved Rock State Park.* Illinois State Museum Society, Quaternary Studies Program, Technical Report No. 94-866-14. Submitted to Illinois Department of Conservation.

Fowler, M. L.
1955 Ware Groupings and Decorations of Woodland Ceramics in Illinois. *American Antiquity* 20(3):213-225.

Franke, J. A.
1995 *French Peoria and the Illinois Country 1673-1746*. Illinois State Museum Popular Science Series No. 12. Illinois State Museum Society, Springfield.

Frankforter, W. D.
1961 Meaning of the Archaic and Possible Relationships. *Journal of the Iowa Archaeological Society* 10(4):26-31.

Frison, G. C.
1974 *The Casper Site*. Academic Press, New York.

1978 *Prehistoric Hunters of the High Plains.* Academic Press, New York.

Frison, G. C., and D. J. Stanford
1982 *The Agate Basin Site.* Academic Press, New York.

Gibbon, G. E.
1972 Cultural Dynamics in the Development of the Oneota Lifeway in Wisconsin. *American Antiquity* 37:166-185.

Graham, R., C. V. Haynes, D. L. Johnson, and M. Kay
1981 Kimmswick: A Clovis-Mastodon Association in Eastern Missouri. *Science* 2113:1115-1117.

Gray, J.
1940 *The Illinois.* Rinehart, New York.

Griffin, J. B.
1952 Culture Periods in Eastern United States Archaeology. In *Archaeology of the Eastern United States*, edited by J. B. Griffin, pp. 352-364. University of Chicago Press, Chicago.

Hajic, E. R., C. F. Martin, J.S. Oliver, C.S. Rickers, T.E. Roberts, E.K. Schroeder and M. D. Wiant
1999 *The Historic Properties Management Plan for the Illinois Waterway System*, Volumes I and II. Illinois State Museum Quaternary Studies Program Technical Report No. 98-1182-7. Submitted to U.S. Army Corps of Engineers, Rock Island District.

Hajic, E. R., C. F. Martin, and M. D. Wiant
1996 *Historic Property Potential and Geomorphological Assessment along the Illinois Waterway for the Rock Island District of the United States Army Corps of Engineers.* Illinois State Museum Society, Quaternary Studies Program, Technical Report No. 95-939-20. Submitted to U.S. Army Corps of Engineers, Rock Island District.

Hall, R. L.
1974 *The Impact on Archaeology of Dredge Spoil Disposal Resulting from Nine-Foot Channel Maintenance Operations in the Illinois Waterway from Beardstown to the Des Plaines-Kankakee Confluence.* University of Chicago. Submitted to USACE-Chicago District.

1991 The Archaeology of La Salle's Fort St. Louis on Starved Rock and Problem of the Newell Fort. In *French Colonial Archaeology: The Illinois Country and the Western Great Lakes*, edited by J. A. Walthall, pp. 14-28. University of Illinois Press, Urbana, Illinois.

Harn, A. D.
1970 *Notes on the Mississippian Occupation of the Central Illinois River Valley.* Paper presented at the 69th Annual Meeting of the American Anthropological Association, San Diego.

1971 *The Prehistory of Dickson Mounds: A Preliminary Report.* Dickson Mounds Museum Anthropological Studies No. 1. Illinois State Museum, Springfield.

1986 The Marion Phase Occupation of the Larson Site in the Central Illinois River Valley. In *Early Woodland Archeology,* edited by K. B. Farnsworth, and T. E. Emerson, pp. 244279. Center for American Archeology Press, Kampsville, Illinois.

Harrison, C.
1985 *The Archaeology of Two Lakes in Minnesota.* Cultural Resource Series No. 2. Archaeological Research Services. Submitted to U.S. Department of the Interior, Bureau of Land Management, St. Paul, Minnesota.

Howard, R. P.
1972 *Illinois: A History of the State.* Eerdmans, Grand Rapids, Michigan.

Jackson, D. K.
1992 Oneota in the American Bottom. In *The Sponemann Site 2: The Mississippian and Oneota Occupations,* edited by C. J. Bareis, and J. A. Walthall, pp. 383-391. University of Illinois Press, Urbana.

Jelks, E., and J. Unsicker
1981 *Archeological Assessment of Seven Sites Purported to be the Location of LaSalle's Fort Crevecoeur.* Midwestern Archeological Research Center, Illinois State University. Submitted to Illinois Department of Conservation.

Jennings, J. D.
1974 *Prehistory of North America.* McGraw-Hill, New York.

Jeske, R. J.
1989 *Horticultural Technology and Social Interaction at the Edge of the Prairie Peninsula.* Illinois Archaeology 1(2): 103-120.

1990 Langford Tradition Subsistence, Settlement, and Technology. *Midcontinental Journal of Archaeology* 15(2): 221-249.

Joyer, J. E., and D. C. Roper
1980 Archaic Adaptations in the Central Osage River Basin: A Preliminary Assessment. In *Archaic Prehistory on the Prairie-Plains Border, e*dited by A. E. Johnson, pp. 12- 23. University of Kansas, Publications in Anthropology No. 12. Lawrence.

Kinietz, W. V.
1972 *The Indians of the Western Great Lakes: 1615-1760*. University of Michigan Press, Ann Arbor.

Larson, J. W.
1979 *Those Army Engineers: A History of the Chicago District U. S. Army Corps of Engineers.* The U. S. Army Corps of Engineers, Chicago District.

Markman, C. W.
1991 *Chicago Before History: The Prehistoric Archaeology of a Modern Metropolitan Area.* Illinois Historic Preservation Agency, Studies in Illinois Archaeology No. 7.

Maxwell, M. S.
1959 The Late Woodland Period. In I*llinois Archaeology*, ed. by E. A. Bluhm. Illinois Archaeological Survey Bulletin 1: 27-32.

McGimsey, C. R., and M. D. Wiant
1986 The Woodland Occupations: Summary and Conclusions. In *Woodland Period Occupations of the Napoleon Hollow Site in the Lower Illinois Valley*, edited by M. D. Wiant, and C. R. McGimsey, pp. 527-541. Center for American Archeology, Kampsville Archeological Center, Research Series No. 6. Kampsville, Illinois.

McGregor, J. C.
1952 The Havana Site. In *Hopewellian Communities in Illinois*, edited by T. Deuel, pp. 43-91. Illinois State Museum, Scientific Papers No. 5. Springfield.

1958 *The Pool and Irving Villages*. University of Illinois Press, Urbana.

Michalik, L. K.
1982 An Ecological Perspective on the Huber Phase Subsistence-Settlement System. In *Oneota Studies*, edited by G. E. Gibbon, pp. 29-53. University of Minnesota, Publications in Anthropology No. 1. Minneapolis.

Milner, G. R., T. E. Emerson, M. W. Mehrer, J. A. Williams, and D. Esarey
1984 Mississippian and Oneota Period. In *American Bottom Archaeology*, edited by C. J. Bareis, and J. W. Porter, pp. 158-186. University of Illinois Press, Urbana.

Munson, P. J.
1966 *The Sheets Site: A Late Archaic-Early Woodland Occupation in West-Central Illinois.* The Michigan Archaeologist 12: 111-120.

1986 Black Sand and Havana Tradition Ceramic Assemblages and Culture History in the Central Illinois River Valley. In *Early Woodland Archeology*, edited by K. B. Farnsworth, and T. E. Emerson, pp. 280-300. Center for American Archeology Press, Kampsville, Illinois.

Nassaney, M. S., and C. R. Cobb (editors)
1991 *Stability, Transformation, and Variation: The Late Woodland Southeast*. Plenum, NY.

Perino, G.
1971 The Yokem Site, Pike County, Illinois. In *Mississippian Site Archaeology in Illinois: I. Site Reports from the St. Louis and Chicago Areas*, ed. by J. A. Brown. Illinois Archaeological Survey Bulletin 8:149-186.

Post, Susan L. and Michael D. Wiant
2004 *Illinois River Ecosystem Restoration Feasibility Study Restoration Needs Assessment Native Ecotype and Historic Change Assessment.* (ISM Technical Report No, 2004-15430-00, August). The report was prepared by Illinois State Museum Society, Springfield, Illinois, under Corps Indefinite Deliveries Contract Number DACW25-93-D-0017, Delivery Order No. 0018.

Santure, S. K., A. D. Harn, and D. Esarey
1990 *Archaeological Investigations at the Morton Village and Norris Farms 36 Cemetery.* Illinois State Museum, Reports of Investigations No. 45. Springfield.

Smith, H. G.
1951 *The Crable Site, Fulton County, Illinois.* University of Michigan, Museum of Anthropology, Anthropology Papers No. 7.

Stafford, B. D., and M. B. Sant
1985 *Smiling Dan: Structure and Function at a Middle Woodland Settlement in the Illinois Valley.* Center for American Archeology, Kampsville Archeological Center, Research Series No. 2. Kampsville, Illinois.

Stafford, C. R. (editor)
1985 *The Campbell Hollow Archaic Occupations: A Study of Intrasite Spatial Structure in the Lower Illinois Valley.* Center for American Archeology, Kampsville Archeological Center, Research Series No. 4. Kampsville, Illinois.

Struever, S.
1964 The Hopewellian Interaction Sphere in Riverine-Western Great Lakes Culture History. In *Hopewellian Studies*, edited by J. R. Caldwell, and R. L. Hall, pp. 87-106. Illinois State Museum, Scientific Papers No. 12. Springfield.

Styles, B. W.
1981 *Faunal Exploitation and Resource Selection.* Northwestern University Archaeological Program, Evanston.

Tanner, H. H. (editor)
1987 *Atlas of Great Lakes Indian History.* University of Oklahoma Press, Norman.

Temple, W. C.
1977 *Indian Villages of the Illinois Country: Historic Tribes.* Illinois State Museum, Scientific Papers No. 2, Pt. 2. Illinois State Museum, Springfield, Illinois.

Titus, S., W. G. Howe, W. Neal, and J. D. Anderson
1995 *Final Report: A Phase I Archaeological Survey for Historic Properties within the Swan Lake Habitat Rehabilitation Enhancement Project (HREP), Environmental Management Program (EMP), Pool 26, Illinois River, Calhoun County, Illinois.* St. Louis Historic Properties Report No. 42. American Resources Group, Ltd., Carbondale, Illinois. Submitted to U.S. Army Corps of Engineers, St. Louis District and Harland Bartholomew and Associates, Inc.

Valley, D., and M. M. Lembcke (editors)
1991 *The Peorias: A History of the Peoria Indian Tribe of Oklahoma*. Peoria Indian Tribe of Oklahoma, Miami, Oklahoma.

Walker, M. B.
1992 *Soil Survey of Peoria County, Illinois.* U.S. Department of Agriculture, Soil Conservation Service, Washington, D. C.

Walsh, M.
1982 *The Rise of the Midwestern Meat Packing Industry*. University of Kentucky, Lexington.

Walthall, J. A., F. T. Norris, and B. D. Stafford
1992 Woman Chief's Village: An Illini Winter Hunting Camp. In *Calumet and Fleur-de-Lys: Archaeology of Indian and French Contact in the Midcontinent,* edited by J. A. Walthall and T. E. Emerson, pp. 129-153. Smithsonian Institution Press, Washington, D. C.

Warren, R. E., and M. J. O'Brien
1982 Models of Adaptation and Change. In *The Cannon Reservoir Human Ecology Project: An Archaeological Study of Cultural Adaptations in the Southern Prairie Peninsula,* edited by M. J. O'Brien, R. E. Warren, and D. E. Lewarch, pp. 85-95. Academic Press, New York.

White, R.
1991 *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815.* Cambridge University Press, Cambridge.

Wiant, M. D., E. R. Hajic, and T. R. Styles
1983 Napoleon Hollow and Koster Site Stratigraphy: Implications for Holocene Landscape Evolution and Studies of Archaic Period Settlement Patterns in the Lower Illinois River Valley. In *Hunters and Gatherers in the American Midwest,* edited by J. L. Phillips and J. A. Brown, pp. 147-164. Academic Press, New York.

Wiant, M. D., and C. R. McGimsey (editors)
1986 *Woodland Period Occupations of the Napoleon Hollow Site in the Lower Illinois Valley.* Center for American Archeology, Kampsville Archeological Center, Research Series No. 6. Kampsville, Illinois.

Wiant, M. D., and H. D. Winters
1991 *The Lincoln Hills Site: A Paleoindian Workshop in the Central Mississippi River Valley.* Paper presented at the 56th Annual Meeting of the Society for American Archaeology, New Orleans.

Willey, G. R.
1966 *An Introduction to American Archaeology,* vol. I, North and Middle America. Prentice-Hall, Inc.

Zitomersky, J.
1994 *French Americans-Native Americans in Eighteenth-Century French Colonial Louisiana: The Population Geography of the Illinois Indians, 1670s-1760s.* Lund University Press, Lund, Sweden.