



Heritage Resource Management Plan



**Land Between The Lakes
National Recreation Area**

March 2003

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ACRONYMS

CCC	Civilian Conservation Corps
CFR	Code of Federal Regulations
HRMP	Heritage Resources Management Plan
EIS	Environmental Impact Statement
FR	Federal Register
FY	Fiscal Year (October 1 through September 30)
GPS	Global Positioning System
LBL	Land Between The Lakes
LBR	Land Between the Rivers
OSA	Office of State Archeology
NHPA	National Historic Preservation Act
SHPO	State Historic Preservation Officer
TVA	Tennessee Valley Authority
UTM	Universal Transverse Mercator
WPA	Work Projects Administration

Chapter I.

INTRODUCTION

CHAPTER I. INTRODUCTION

Land Between The Lakes (LBL) is a 170,000-acre outdoor recreation and environmental education area in western Kentucky and Tennessee. This National Recreation Area was established in 1963 when President John F. Kennedy charged the Tennessee Valley Authority (TVA) with a mission to demonstrate how an area (known then as "Between the Rivers" or BTR) with limited timber, agricultural, and industrial resources could be converted into a recreation asset that would stimulate economic growth in the region. The President's rationale was that a recreation area within the region would attract large numbers of visitors, which, in turn, would stimulate the regional economy through tourist spending. With the President's authorization and congressional funding for land purchase in 1964, TVA began the task of developing LBL. TVA subsequently developed LBL into a national recreation and environmental education demonstration area. In 1999, management of LBL was transferred from TVA to the USDA Forest Service where it is part of the Southern Region.

Heritage resource protection and management are important elements in preserving LBL's rich history and supporting its recreation and education mission. There is a long record of human use and occupation of what is today LBL. Site-specific archeological studies confirm that LBL has been a location of human activity since the earliest known Native American cultures. Today, LBL contains many prehistoric and historic archeological resources. These heritage resources are often the focus of LBL's educational programs and the primary reason for thousands of visits each year.

1.1 PLAN GOALS

This Heritage Resources Management Plan (HRMP) provides an overview of LBL's history, documents heritage resource management standards & guidelines, and outlines future management initiatives.

The goals of this HRMP are to develop and implement:

- A comprehensive inventory and evaluation program for LBL's heritage resources.
- A preservation and stabilization program for significant archeological sites, historic structures, and other historic features.
- A broadened public interpretation and education program of LBL's heritage resources.

This HRMP takes into consideration standards for preservation planning set forth by the Secretary of the Interior. The Secretary's Standards set forth a logical sequence to be used in preservation planning for heritage resources, including identification, evaluation, registration, and treatment of resources. The Standards also outline a process to determine when an area should be examined for properties, whether an identified property is significant, and how a significant property should be treated. The Secretary's Standards are based on the following principles:

- Important properties cannot be replaced if they are destroyed.
- If preservation planning of properties is to have positive effects, it must begin before the identification of all significant properties has been completed.
- Preservation planning includes public participation and should provide a forum for open discussion of preservation issues.

Preservation planning essentially involves four steps. First, preservation planning calls for the identification of *historic contexts*, which serve as foundations for decisions about property identification, evaluation, registration, and treatment. Historic contexts allow for a reliable assessment of a site's importance in comparison with other sites in the immediate region or throughout a geographical or heritage area (e.g., the South). The historic context organizes information based on a heritage theme and its geographical and chronological limits; contexts also describe the significant broad patterns of development in an area that may be represented by heritage properties (48 *FR*:44717, September 29, 1983).

Second, preservation planning calls for the establishment of *goals* for identification, evaluation, registration and treatment of heritage properties. A series of preservation goals for each historic context is developed to ensure the range of properties representing the important aspects of each historic context is identified, evaluated and treated. The Kentucky Heritage Council developed a statewide plan identifying both contexts and goals (objectives) for answering research questions by heritage resource managers working in Kentucky. The Kentucky contexts and goals (Pollack 1990) were used in this HRMP as guidelines for management of heritage resources in LBL. However, the contexts and goals in Kentucky's plan are not the only bases for conducting heritage resource management research in LBL, Tennessee contexts and goals were also used.

Third, after historical contexts and goals are established, *priorities* must be set for the goals identified for each heritage context. Goals may change and need to be flexible as new information becomes available.

Finally, the *results* of preservation planning must be made available for integration into broader planning processes. Here, other aspects of an agency come into play. The Forest Service will be beginning the development of a new Land and Resource Management Plan for LBL in the first quarter of 2003. This plan will guide overall public use and resource management and protection for the next 10-15 years and the planning effort is expected to take three or more years to complete. This HRMP, once finalized, will be followed until the Land and Resource Management Plan is completed. It is anticipated that most, if not all, of this HRMP would be incorporated into the overall Forest-level plan.

Funding for LBL programs and activities, including heritage resource management, is derived primarily from congressional appropriations. Accordingly, the extent to which these goals and related activities described in this document are implemented annually is dependent upon the availability of these funds.

1.2 LEGAL BASIS OF HERITAGE RESOURCES MANAGEMENT AT LBL

This HRMP is intended to help guide Forest Service actions in identifying, evaluating, and protecting properties of historic, archeological, architectural, engineering, or heritage significance on LBL. Although the Forest Service is responsible for managing and protecting heritage resources throughout the land base of LBL, heritage resources found below the normal pool lake levels (359 feet above sea level for Lake Barkley; 364 feet for Kentucky Lake) do not fall under the scope of this plan. Lake Barkley is managed by the U.S. Army Corps of Engineers and Kentucky Lake is managed by TVA.

In 1966, Congress enacted the National Historic Preservation Act (NHPA), which requires federal land management agencies to consider the impact proposed undertakings could have on historic resources. NHPA has been amended several times since 1966 and this plan is based on NHPA, as amended. During the assessment of the impacts of federal undertakings on historic properties, agencies are required to consult with the appropriate State Historic Preservation Officer in a process defined in Section 106 of NHPA. The federal regulations governing the implementation of NHPA are located in 36 CFR 800. These regulations define the specific relationship between the federal land management agency and historic properties on the public lands that they manage.

The process of evaluating the significance of historic properties (the Section 106 process) is laid out and the basis for determining the significance of a property is defined as *the criteria for nomination to the National Register of Historic Places*. A historic property is "any prehistoric or historic district, site, building, or object included in, or eligible for inclusion in the National Register (of Historic Places);

such term includes artifacts, records, and remains which are related to such a district, site, building, structure, or object" (Derry *et al.* 1985).

* The criteria for nomination of historic properties to the National Register are crucial elements in this process. The following section is taken verbatim from National Register Bulletin No. 24, "Technical information on comprehensive planning, survey of cultural resources, and registration in the National Register of Historic Places" (Derry *et al.* 1985:5-6).

Criteria of the National Register of Historic Places

The following criteria are designed to guide the States, Federal agencies, and the Secretary of the Interior in evaluating potential entries (other than areas of the National Park System and National Historic Landmarks) for the National Register:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

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

* * Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria, or if they fall within the following categories:

- A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or

- C. A birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his or her productive life; or
- D. A cemetery that derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or
- G. A property achieving its significance within the past 50-years if it is of exceptional importance.

The preceding section reviews the criteria that make a historic property eligible for nomination to the National Register of Historic Places. It is these criteria that will define the quality of *significance* for historic sites found on LBL.

Other statutes also influence the heritage management program on LBL. One of these is the Archeological Resources Protection Act (ARPA) of 1979. ARPA provides a specific permit process in order to protect archeological resources on federal and Indian land. ARPA provides both civil and criminal penalties for failure to comply with the act. A second important legislative act affecting the program on LBL is the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990. NAGPRA requires Federal agencies and museums to inventory their holdings and to return any human remains and grave goods to the appropriate Indian tribe or tribes. Intentional excavation and removal of Native American human remains in future may only occur through issuance of an ARPA permit and after consultation with the appropriate Indian tribe. Any activity that inadvertently exposes human remains must cease, the area must be protected, and consultation must occur with the appropriate Indian tribe.

Graves

Appropriate Indian tribes to be consulted in matters dealing with LBL include the Cherokee, Chickasaw, and Shawnee Nations (see Appendix A). At the time of historic contact in western Kentucky and Tennessee, these tribes utilized this area as hunting grounds. LBL would be considered part of the "hinterland" for these tribes. Of course, tribal boundaries in the South just before contact were fluid. The diseases and political disruptions introduced by Europeans created highly volatile political situations between 1492 and historic contact; the specific conditions found when Europeans arrived in western Kentucky and Tennessee may not have been in place for very long. Archeological surveys conducted prior to dam construction prove that Native Americans lived in the vicinity of LBL long before that specific moment in time when Europeans first entered the area.

The Forest Service conducts heritage resources surveys on LBL in areas potentially affected by current use or proposed actions on a project basis. Alternatively, when approved by the SHPO and the Advisory Council on Historic Preservation, survey may be conducted on a programmatic basis. These projects may include such activities as open land management, development of recreation areas, or timber harvesting. The Forest Service is not required, nor is it necessary, to stop all management activities until all (or some unspecified large percentage) of LBL has been surveyed for heritage resources. NHPA does not require that all activities on federal lands must cease until heritage resource surveys have been completed. The Act does require that specific project areas must be surveyed before the project is carried out and this Act has been implemented on LBL since it was enacted.

In the past, TVA's practice at LBL was to simply avoid any management activity at any historic site where that activity might cause adverse impacts to the site. This process has sometimes been referred to as "flag and avoid" and has been widely utilized by many federal land management agencies, including the Forest Service. It is recognized now, however, that some widespread activities (such as wildlife management or recreation usage) cannot be excluded from specific localities and that these activities may have the potential to cause adverse effects to historic sites, despite all attempts to avoid them. Hence, these activities that could potentially affect heritage resources will now be subject to review and compliance. Adverse effects on heritage resources may be addressed by terminating the adverse actions or by mitigating the impacts in consultation with the appropriate SHPO and the Advisory Council on Historic Preservation. See Appendix A for Kentucky and Tennessee SHPO contact information.

Because of the nature and scope of actions involved, some of the initiatives and activities proposed in this HRMP will only be completed over a relatively long period of time (e.g., twenty years or more). The Forest Service recognizes that during this time many new issues are likely to arise and new approaches may be developed for managing heritage resources. Such changes may require the priorities and schedules described in this plan to change. Accordingly, this plan will guide Forest Service actions on LBL for the next ten years unless significant revisions are required as deemed appropriate by the Forest Service in consultation with the State Historic Preservation Offices in Kentucky or Tennessee and, when appropriate, the Advisory Council on Historic Preservation.

Chapter II.

DEVELOPING HISTORIC CONTEXTS

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Historic contexts group information about related historic properties based on theme, geographical limits, and chronological period for organizational purposes. Given the available information, properties are placed into historic contexts and are thus made easier to manage. The historic context permits the development of plans for identification, evaluation, and treatment of the property, even in the absence of complete knowledge of individual properties. The preservation planning process is centered around the historic context of a property; preservation planning seeks to identify, evaluate, register, and treat the full range of properties representing each context, rather than only one or two types of properties (48 FR:44718, September 29, 1983).

Necessary steps in creating a historic context include:

1. Identify the concept, time period, and geographical limits for the heritage context.
2. Assemble existing information about the heritage context.
3. Synthesize information.
4. Define property types.
5. Identify information needs.
6. Develop goals for preservation.
7. Set priorities for goals.
8. Integrate individual contexts.
9. Integrate with management frameworks.

The Kentucky SHPO followed these nine steps in the development of a heritage resources management plan for all archeological sites (prehistoric and historic) in Kentucky (Pollack 1990). A similar heritage resources management plan for Tennessee is currently being developed. Until Tennessee's plan is complete, the Forest Service will consult closely with the Tennessee SHPO in the implementation of this HRMP, and Kentucky's plan will be used as a guide for management of the heritage resources located within the Tennessee portion of LBL. To supplement Kentucky's plan, regional archeological surveys of nearby Fort Campbell military installation (Albertson and Buchner 1998; Bradbury 1998), Cross Creeks National Wildlife Refuge in Stewart County, Tennessee (Athens 1998), and regional archeological overviews of state lands in Tennessee (Froeschauer *et al.* 1986) served as guides for this plan's treatment of Tennessee's heritage resources in LBL. Additional information from Tennessee archeological sites was referenced in compiling Chapter III. - Overview and Heritage Contexts.

The development of historic contexts for LBL for the prehistoric period relies heavily on research that has been undertaken outside LBL, mostly in Kentucky and Tennessee but also relying on work done in the surrounding states. The following chapter reviews the succession of cultural traditions into which the prehistoric and historic developments of Kentucky and Tennessee have been divided.

The development of historic contexts for LBL for the historic period, on the other hand, cannot rely as extensively on research accomplished elsewhere. Historic developments in LBL were often specific to this area, although broader themes of state and national significance did sometimes intrude on the "Land Between the Rivers". For example, both the Civil War and the development of a 19th century iron industry had definite impacts on LBL.

The following list of potential historic contexts should be developed for LBL. This list is not intended to be definitive, but rather a series of suggestions for appropriate historic contexts for LBL. Additional contexts may well be developed in future.

- Early settlement of the area (1790-1830).
- The iron industry in LBL – both social and environmental effects.
- Other economic activities in LBL (farming – subsistence and for profit, railroad tie cutting, the lime works, the moonshine industry).
- The effects of the Night Rider movement in LBL.
- Kentucky Woodlands Wildlife Refuge.
- Civil War: the Fort Henry/Fort Donelson campaign.
- Civil War: attitudes and sympathies of the local population.
- Civil War: raids/battles after February 1862.
- Status and attitudes of the local population towards African-Americans through time.

• A historic context for the Kentucky Woodlands Wildlife Refuge was developed by Dr. Karen E. Hudson in 1999. Dr. Hudson's recommendation was that the former refuge is not eligible for nomination to the National Register as a district, but that specific elements of the refuge may be eligible as contributing members of eligible complexes.

Other historic contexts will no doubt be developed in cooperation with local historians. Historic archeology is a recently developed subfield of archeology and, as yet, little work has been done in western Kentucky/Tennessee. Future developments in the field of historic archeology may demonstrate other historic contexts that may apply to LBL.

Chapter III.

OVERVIEW AND HERITAGE CONTEXTS

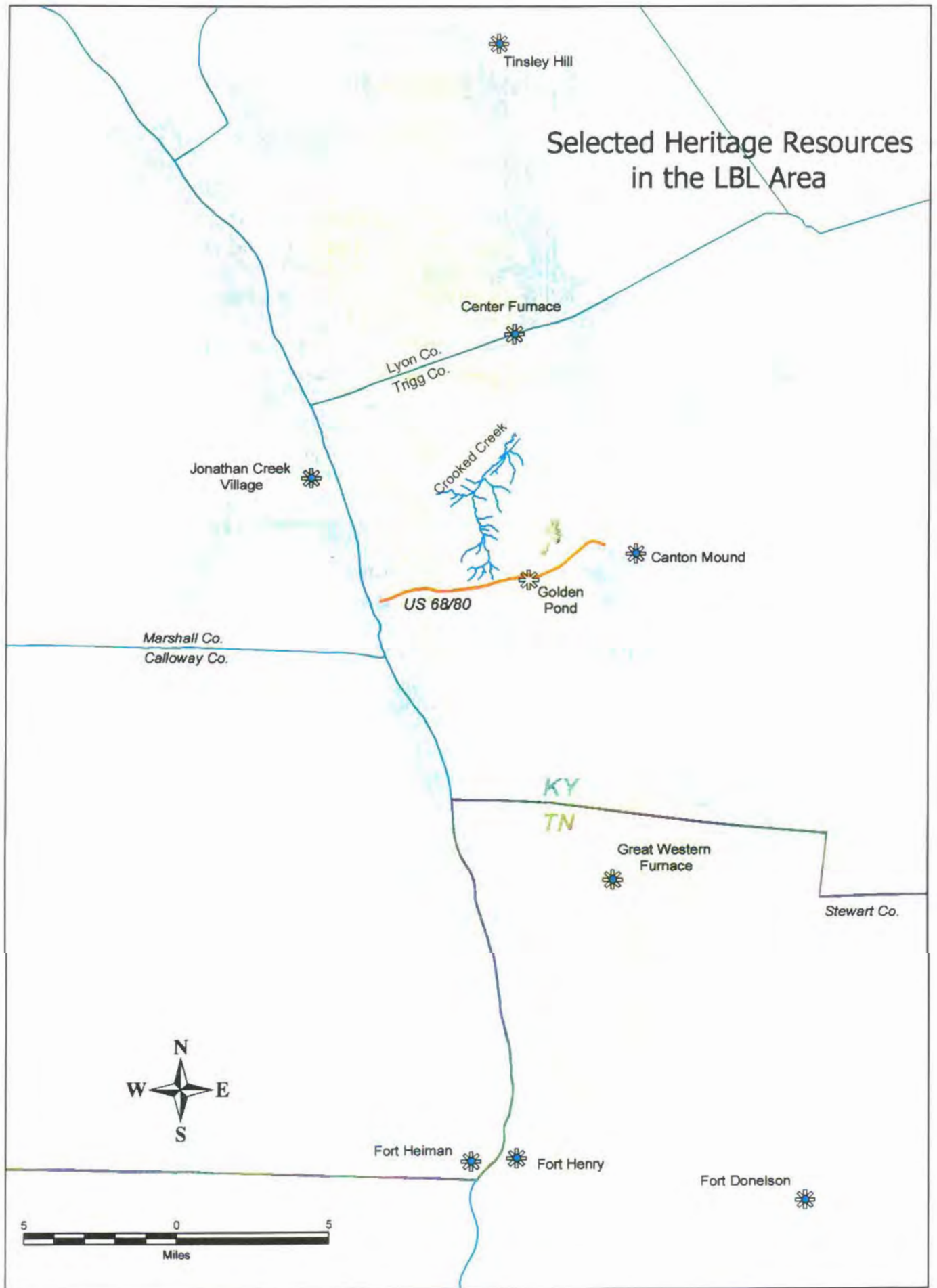


Figure 1.

CHAPTER III. OVERVIEW AND HERITAGE CONTEXTS

3.1 OVERVIEW

The earliest observations in the vicinity of LBL consist of brief reports by antiquarians in the nineteenth century. Haywood (1823) summarized his understanding of aboriginal life and archeological sites in Tennessee. Perrin (1884) reported several mound sites in Trigg County, Kentucky including Canton Mound just east of LBL (Figure 1). Rafinesque (1824, 1833; see also Stout and Lewis 1995) described the Canton Mound site in some detail. Although interesting, these reports have limited use in modern studies due to their speculative nature.

Between 1895 and 1925, Clarence B. Moore cruised in his steamboat *Gopher* along virtually all the major waterways of the Southeast, looking for Indian mounds and sites to dig up (Pearson *et al.* 2000). His field season ran from fall through spring and then he would return to Philadelphia and write up his findings. In 1914, he explored five sites along the Tennessee River in Lyon and Marshall Counties, Kentucky and Stewart County, Tennessee (Moore 1915:188-99). Moore was primarily interested in collecting aesthetically pleasing artifacts and directed his excavation efforts toward cemeteries (Moffat 1983:49). Moore's site descriptions tend to be brief and his work is of limited value to modern archeologists.

The first professional archeological research performed in Kentucky was done by William Webb and William Funkhouser. Webb and Funkhouser distributed handbills to newspapers and individuals throughout the state soliciting information on ancient mounds, earthworks, and archeological remains throughout Kentucky. The results of their survey was published in the 1932 Archeological Survey of Kentucky. They reported 12 sites along the Tennessee and Cumberland Rivers. Also, in 1931, Norman Braden wrote an M.A. thesis at the University of Kentucky on artifacts recovered from Trigg County.

Intensive archeological fieldwork began in the lower Tennessee River in 1939 with the proposed construction of Kentucky Dam near Gilbertsville, Kentucky. Initial reconnaissance of the proposed reservoir was conducted by J.R. Foster (as summarized by Webb 1952:5-6). Foster found 47 sites in five counties in Kentucky and 164 sites in nine counties in Tennessee. In 1941, C.F. Miller directed another survey with CCC laborers that discovered 113 additional sites in and just outside of the proposed reservoir in Marshall and Calloway Counties (Miller n.d.).

- Until World War II interrupted the program, several sites were excavated in the area to be flooded by Kentucky Lake. The CCC provided the labor and the Universities of Kentucky and Tennessee provided supervision for the excavations in each respective state. Many of the sites were incompletely excavated and reported when the long-term archeological program was abandoned because of the war. Webb (1952) published the incomplete work done at Jonathan Creek Village (Figure 1). Fryman (1966) published a report on the work done at the
- Goheen site. McNutt and Graham (1967) tried to fill in a gap in the data from the earlier studies by looking at pre-ceramic sites in the Kentucky Lake area.

The next phase of archeological work in the area began in the 1950's, when the Army Corps of Engineers started planning a reservoir on the lower Cumberland River. The US Park Service and the Universities of Kentucky and Tennessee conducted survey and excavations in the area to be flooded by Lake Barkley until the lake's completion in 1966. Clay and Schwartz (1963) summarized the work in Kentucky. In Tennessee, Coe and Fisher (1959), Morse (1963), and Morse & Morse (1964) have reported on the work there.

- LBL was created in 1964 and was managed by the Tennessee Valley Authority until 1999. TVA's first archeological studies in LBL were carried out by Jack
- Nance in the early 1970's. Nance worked under a joint appointment between TVA and Murray State University. His overall goals were to locate and record prehistoric sites in LBL and to advance archeological knowledge of the lower Tennessee/Cumberland River valleys. He implemented these goals by conducting a brief inspection of a wide geographic area and by performing an intensive survey of a restricted area. He hypothesized that Archaic period sites would be found in the uplands and that they would be small, temporary camps established for hunting forays into the uplands from larger sites that would be located in the bottomlands of the Tennessee and Cumberland Rivers.

- Nance conducted an intensive survey of Crooked Creek (Figure 1), one of the largest permanent streams in LBL (Nance 1972). This survey consisted of surface examination of agricultural fields in the flood plains of Crooked Creek. He located 21 sites in a survey that was able to cover approximately half of the creek bottom. The sites that were found generally matched his expectations, consisting of small lithic scatters dating from the Middle to Late Archaic periods. Generalizing from
- his sample, Nance suggested that there may be on the order of 500 to 600 sites located in the uplands of LBL (Nance 1972:37).

During the 1980's, several small projects were carried out by archeologists hired for short periods by TVA. These projects mainly involved the construction of facilities for LBL. However, there was no general direction provided for the heritage resources program on LBL – work conducted was sporadic and only

carried out in response to legal requirements under the National Historic Preservation Act to survey specific undertakings.

Starting with the 1990 timber harvest areas, archeological survey began to be conducted for the timber program on LBL. The work was done by professional archeologists hired on a temporary basis by LBL. These surveys focused on the high impact areas of the timber sales – skidder paths, haul roads, and deck areas.

In all of the research described above, the focus of archeological work has emphasized the prehistoric sites in LBL. The subfield of historic archeology has not been in existence for very long. The first historic site recorded in LBL is Fort Henry, a Civil War earthen fort that was captured by Federal forces led by General Ulysses S. Grant in February 1862. At the same time Fort Henry was recorded and listed on the National Register of Historic Places, two other historic sites were placed on the Register. Both of these are iron furnaces (Center and Great Western Furnaces) (see Figure 1). Today, modern archeological practices record historic sites and treat them as archeological resources, as long as they are over fifty years old. Most recorded archeological sites on LBL are prehistoric, but that will change over time as historic sites are located and recorded in future.

3.2 HISTORIC CONTEXTS FOR LBL

The first proven evidence of human presence on the North American continent occurred around 10000 B.C. and this date marks the beginning of the first historic context used for this HRMP. Prehistoric developments in LBL are events that took place between 10000 B.C. and A.D. 1783. Historic events occurred between the pre-settlement exploration of the area and the mid-twentieth century. According to NHPA, for an event to be considered historic it must have occurred before 1950. However, this Plan includes as a historic context the federal land acquisition projects that took place between the rivers, some of which occurred after 1950.

The five time frames used here—Paleoindian, Archaic, Woodland, Mississippian, and Historic—are artificial units of cultural time. Each provides a useful context for discussing prehistoric and historic developments in Kentucky and Tennessee. In this plan, these time frames are called “traditions.” A tradition is a way of life that persisted for a long period of time. Traditions consist of smaller, temporal units called “periods.” For example, the Paleoindian Tradition (10000 to 8000 B.C.) contains the Late Paleoindian Period (8500 to 8000 B.C.).

The following definitions of each historic context follow an overview provided by Pollack (1990:3-6), as well as miscellaneous archeological site reports provided by the Tennessee Office of State Archeology.

3.2.1 Paleoindian Tradition

The Paleoindian Tradition dates from ca. 10000 to 8000 B.C. Although people may have lived in what is now Kentucky and Tennessee before 10000 B.C., definitive archeological evidence of such utilization and occupation has not been found. Paleoindians are the first people known to live in Kentucky, exploit its resources, and settle its dynamic environments. Climatically, the LBL region was somewhat cooler and moister than it is today, but a warming trend had begun. During this period, circum-glacial coniferous forests, grasslands, or areas with "mosaic" vegetation began to be replaced with a closed-canopy mixed deciduous hardwood forest. Paleoindian subsistence and settlement strategies responded to these changes.

Excavations of Paleoindian sites in Missouri and Tennessee revealed contextual archeological evidence that Paleoindians hunted large megafauna (mastodon and bison) with lanceolate-shaped (narrow and tapering at each end) fluted stone projectile points and also foraged for vegetative resources from an ever-changing boreal-prairie environment. They apparently lived in small, nomadic bands and were an egalitarian people except for a natural division of labor between the sexes. Paleoindian sites in Kentucky typically have been found near salt licks, sources of water and flint (chert), and within naturally occurring rockshelters and cave entrances. No Paleoindian remains have been found in LBL. If Paleoindian sites are present, they would be expected to occur along the Tennessee-Cumberland divide, near upland springs, and along riverine overlooks. These sites would be marked by the presence of few artifacts, but especially the culturally- and temporally-diagnostic fluted and unfluted lanceolate projectiles, burins (stone engravers), and unifacial stone tools like knives and scrapers. In the LBL region, the Paleoindian Tradition can be divided into two periods: Early Paleoindian (10000 to 8500 B.C.) and Late Paleoindian (8500 to 8000 B.C.).

Early Paleoindian (10000 to 8500 B.C.)

The most telling evidence of an Early Paleoindian site is recovery of a fluted projectile point. Fluted points are usually a bifacially flaked, concave-based, lanceolate form. They are identifiable by the presence of thinning flakes or flutes extending from the base toward the far end of the point. The primary purpose of the fluted projectile point was to slay large game (Tankersley 1990:73-142).

In addition to fluted projectile points, the Early Paleoindian tool kit included unifacial tools such as endscrapers, sidescrapers, concave scrapers, spokeshaves, and knives. Bipolar flakes and cores are common on early Paleoindian sites in the northeastern United States. Tusk ivory and long bones of large herbivores were frequently ground into long, cylindrical, bipointed objects (Tankersley 1990:73-142).

Late Paleoindian (8500 to 8000 B.C.)

Late Paleoindian sites are generally recognized by the presence of unfluted lanceolate projectile points. Like earlier points, Late Paleoindian points are bifacially flaked, lanceolate forms; however, they lack the characteristic flute found on the Early Paleoindian projectile point types. There are no dates for Late Paleoindian occupation in Kentucky, but sites in Missouri (such as Rodger's Rockshelter) contained projectile points dating between 8500 and 8000 B.C. (Tankersley 1990:73-142).

According to Tankersley (1990:73-142):

Paleoindian site types include open habitation, caves and rockshelters, quarry sites and workshops, kill sites, and isolated artifacts. The Lower Tennessee/Cumberland Section is situated within well-developed karst terrain consisting of an extensive sinkhole plain with scattered knobs and ridges. High quality lithic resources are abundant in this region. As a result, it is expected all types of Paleoindian sites will eventually be identified and recorded in this section. Most of the sites investigated, such as Henderson [in Lyon County] and Roach Village [in Trigg County], are multicomponent, open habitation sites. The Henderson Site (15Ly27) is located in Lyon County near the confluence of Eddy Creek and the Cumberland River.... Seven Paleoindian projectile points...were collected from the immediate vicinity by local collectors.... Paleoindian material recovered during excavation included two possible Cumberland projectile point fragments and a large assemblage of unifacial tools....

- The Roach Village Site (15Tr10) is located approximately 0.4 km from the Tennessee River in Trigg County. Excavations...revealed three distinct strata: a disturbed plowzone; an intact stratum containing a Mississippian house basin; and a deflated and mixed basal stratum containing Woodland, Archaic, and Paleoindian artifacts.

- Specifically on excavations in the lakes area of western Kentucky and Tennessee, Broster and Norton (1996:291-2) state:

- Eighteen sites and ten localities have been recorded in the Kentucky Lake region. The Cumberland drainage has produced twelve sites and nineteen localities. Interestingly, eight of the sites in the Kentucky Lake survey have produced one hundred or more artifacts of a Paleoindian age. Data on one of these sites, Nuckolls, were published in the late 1950s.... Reports have been completed on two of the remaining sites, Nuckolls Extension and Twelkemeier..., and reports on others are in progress.... Testing at one of

these sites, Carson-Conn-Short (40BN190) [in nearby Benton County, Tennessee] identified Eastern Clovis and Cumberland fluted points and related unifacial tools.... Test units opened in Area A displayed similar stratigraphic profiles, and numerous fluted points and point fragments, prismatic blades, and uniface were found in the deposits.

So it is clear that evidence from both the Early and Late Paleoindian Periods has been found in the area. This points to the possibility of evidence of the Paleoindian Tradition being located on LBL.

3.2.2 Archaic Tradition

The Archaic Tradition is the segment of North American prehistory dating from 8000 to 1000 B.C. It is generally divided into Early (8000 to 6000 BC), Middle (6000 to 3000 BC), and Late (3000 to 1000 BC) Archaic periods based on various technological, social, subsistence, and settlement criteria (Pollack 1990:3-4).

Tennessee's Eva site, one of the most famous Archaic sites in the Southeast, has been identified with all three Archaic periods. The Eva site is located about thirty miles southwest of LBL and contains heritage information that should be reflected in other Archaic sites that may be present within the LBL area.

Regarding the Eva site in Tennessee, Lewis and Kneberg (1961) state:

Analysis of the artifacts, burials, stratigraphy, and other evidence led to the determination of three chronologically distinct, heritage complexes [Early, Middle, and Late Archaic]. Comparisons with other sites resulted in the recognition of a Mid-continent heritage tradition composed of three phases. The three complexes on the Eva site are components of these three phases. There is little doubt the phases represent a continuum with gradual change due to adaptation to varying ecological conditions, internal development, and influence from other heritage traditions.

Early Archaic (8000 to 6000 B.C.)

Pollack (1990:3-4) describes the Early Archaic period as characterized by:

...technological and social changes associated with the retreat of the last Pleistocene glacier. The glacial retreat brought about significant regional climatic changes, the complete replacement of circum-glacial coniferous forest with mixed deciduous forests, and the replacement of Pleistocene fauna with modern species.

Jefferies (1990:150-151) agrees that the Early Archaic period:

...is defined on the basis of technological and social changes associated with the retreat of the last Pleistocene glacier.... Most significant advances in Early Archaic period research have come from excavations at a few deeply stratified sites. Such deposits are usually found in alluvial or colluvial settings, or in rockshelters.... From the excavation of these deeply stratified Early Archaic sites, researchers found similar projectile point sequences occurred over a wide portion of eastern North America. The distribution of corner and basal notched points..., the variety of raw materials used to manufacture flaked stone tools, and the lack of evidence for long-term occupation, suggest mobile hunting groups continued to exploit relatively large territories much like their Paleoindian predecessors. The relatively rare occurrence of plant food procurement and processing tools at Early Archaic sites indicates these subsistence activities were of relatively minor importance compared with hunting activities....

The limited amount of Early Archaic material found at most sites and the general absence of middens, features, and burials suggest most occupations were of short duration. Early Archaic social units were small, probably consisting of bands comprised of related individuals. The relatively high percentage of projectile points in Early Archaic assemblages made from non-local cherts suggest social groups were highly mobile. Items manufactured from non-local chert would have been incorporated into tool kits when groups traveled near source areas. Some tools manufactured from certain kinds of high quality chert were used and curated for an extended period of time and later discarded far from the source area.

Middle Archaic (6000 to 3000 B.C.)

The Middle Archaic period saw an increased regionalization of cultures, reflected by a variety of technological, settlement, subsistence, and social traits. Also during the Middle Archaic period, regional styles of projectile points emerged. The Archaic tool kit was expanded to include a variety of specialized tools for exploiting resources and for accommodating new processing techniques. Particularly notable on Middle Archaic sites is an increased number and diversity of both formal and informal groundstone tools, many of which were used for plant food processing (Pollack 1990:4).

According to Jefferies (1990:151-152), by the beginning of the Middle Archaic period:

...environmental remnants of the Pleistocene had disappeared and animal and plant communities more closely resembled those present at the time of Euro-American contact. Pollen records from some parts of the region indicate drier climatic conditions associated with the Hypsithermal interval reached their maximum around 4500 B.C. The reduction of arboreal communities and the influx of grass and herb communities appear to have had some impact on Middle Archaic settlement and population distributions....

Substantial Middle Archaic occupations have been located in the ...Lower Tennessee-Cumberland River.... The character of the cultural deposits at some of these sites suggests they served as Middle Archaic base camps occupied for an extended period or reoccupied on a regular basis.... Differences in Middle Archaic assemblages reflect different strategies for adapting to regionally distinctive environments.

Jefferies (1990:163-164) further states:

Eighty-eight Archaic sites have been recorded in the Lower Cumberland River [area].... Archeological survey in the Land Between The Lakes area [by Nance 1972] identified at least three sites yielding Early Archaic projectile points.... These upland sites were small, did not contain deep midden deposits, and appeared to reflect different activities from the larger floodplain sites.

In comparison with Tennessee's Eva site, similar Middle Archaic type points should be found in the Middle Archaic cultural deposits of sites from LBL. In addition, the Eva site is well known for its Early and Middle Archaic human and dog burials (Dye 1996:149-150). The first evidence of planned burial of deceased members of society in the New World occurs during the Archaic Tradition.

Late Archaic (3000 to 1000 B.C.)

The trend toward regional specialization and adaptation begun in the Middle Archaic period continued to develop in the Late Archaic period. "Adaptation to unique regional environmental conditions resulted in the development of specialized technologies used to exploit locally available land and animal resources" (Pollack 1990:4). The Late Archaic period saw an increase in social complexity. Special treatment of certain individuals is suggested by an association of items manufactured from non-local raw materials with certain burials (Pollack 1990:4).

About Late Archaic life-ways, Jefferies (1990:153) states:

Late Archaic subsistence...focused on hunting and collecting native animals and plants, with white-tailed deer and hickory nuts forming the core of the diet. In addition, a wide assortment of small mammals, birds, and fish contributed additional dietary protein and fat.... Seasonally available food resources were exploited at appropriate times during the group's annual settlement/subsistence cycle. Group organization and movement was structured to efficiently accomplish these tasks. The occasional presence of native and tropical cultigens suggests some Late Archaic groups were experimenting with horticulture....

A wide range of flaked stone, groundstone, and bone tools used to perform a variety of specialized extractive and maintenance tasks characterizes late Archaic technology. Late Archaic projectile point types include an assortment of large straight, expanding, and contracting stem points, and smaller stemmed and side-notched types. The development of regional projectile point styles may partially reflect adaptation to local environmental conditions.... Insights into Late Archaic social organization have been derived from the analysis of burials.... The differential treatment of burials suggests a greater degree of social differentiation than during preceding portions of the Archaic [Tradition]. Although it appears social differences existed within these groups, analysis of archeological and skeletal data indicates Late Archaic societies were organized along essentially egalitarian lines.

Most of the large Archaic floodplain sites in Tennessee and Kentucky's portion of LBL are now inundated (see site file records kept at Murray State University's Archeology Laboratory). If stratified Early through Late Archaic sites are to be found in LBL, they will probably be located along the tributaries of streams feeding into the Cumberland and Tennessee Rivers. Nance (1972) conducted a systematic survey of Crooked Creek in Trigg County, Kentucky, and Pryor Creek in Stewart County, Tennessee, which supported this hypothesis.

Nance was interested in assessing the presence and numbers of archeological sites in the uplands of LBL. He hypothesized (Nance 1974:3-4) that several variables contributed to making an area attractive for prehistoric occupants, including a permanent water supply, an ample level and well-drained ground surface, and a diversity of plant life. The area containing the best land according to these criteria is the valley of Crooked Creek in Trigg County, Kentucky (see Figure 1). An intensive surface examination of the plowed fields along Crooked Creek was conducted in 1972 and 21 sites were discovered. Two site types seemed to be present, (1) kill-butcher sites and (2) campsites (Nance 1974:5), largely defined by the variety of tool-types present. The purpose of all sites was hunting, given the lack of plant-processing tools (groundstone artifacts). The projectile points that were found during the survey and site testing of three sites indicate that the sites were utilized during the Middle and Late Archaic periods

(Nance 1974:11-12). The Archaic attribution of these sites is further supported by the complete lack of ceramic artifacts found, which would be present in Woodland or Mississippian occupations.

3.2.3 Woodland Tradition

The Woodland Tradition spans the years 1000 B.C. to A.D. 1000. The Woodland Tradition is divided into three periods: Early Woodland (1000 to 200 B.C.), Middle Woodland (200 B.C. to A.D. 500), and Late Woodland (A.D. 500 to 900-1000).

The Woodland Tradition saw the continuation of the trend toward greater regional specialization and adaptation initiated during the Archaic Tradition. By the Middle Woodland period, at least two distinct heritage adaptations—Adena and Crab Orchard/Copena—are identifiable in the archeological record (Pollack 1990:4-5).

Early Woodland (1000 to 200 B.C.)

The appearance of ceramics is the distinguishing factor between the Late Archaic period and the Early Woodland period (Pollack 1990:4). Early Woodland ceramics were often tempered with vegetal fiber, grit particles, or crushed chert or flint and are distinguishable from other Woodland and later Mississippian ceramics based on these tempering agents, as well as vessel shape and design motifs.

About Early Woodland ceramics, Railey (1990:249) states they:

...first appear in the western part of the state around 500 B.C. [In western Kentucky], Early Woodland ceramics generally consist of conoidal-shaped vessels, usually with narrow, flat bases. Exterior surfaces are either cord-marked, fabric-impressed, or cord-wrapped dowel-impressed. Interior cord-marked or fabric-impressed specimens are sometimes present in Early Woodland assemblages in this area, and in general, this attribute represents a good "early" temporal indicator.

Railey (1990:250) further defines Woodland life-ways, stating:

Early Woodland projectile point assemblages...are dominated by notched and stemmed forms... Early Woodland subsistence patterns... changed little from Late Archaic [but] an important development occurring during Early Woodland times was the intensified utilization and cultivation of weedy annuals.... Another archeological characteristic...is the appearance of social and/or ritual sites spatially segregated from domestic habitations. Initially, isolated mortuary sites were represented by a single burial or a limited number of interments.... These graves often were associated with

offerings, ranging from few items to caches of bifacial blades or other materials. By ca. 500-400 B.C., native peoples in Kentucky began to construct earthen enclosures and burial mounds. The exact social function and ritual meaning of these sites is, as yet, poorly understood. Early Woodland base settlements are marked by a dark organic midden and subsurface features. The number of people who lived at these sites, their season of occupation, and the range of activities carried out at them appear to have varied considerably from place to place.

Middle Woodland (200 B.C. to A.D. 500)

The construction of earthen enclosures and burial mounds begun during the Early Woodland period continued and reached its height of popularity by the midpoint of the Middle Woodland period. While the Archaic period saw an increase in regional specialization, the Middle Woodland period holds evidence that suggests interregional exchange. This interregional exchange is indicated by "many grave goods recovered from Adena burial mounds in north-central and eastern Kentucky, and non-local materials found at Crab Orchard sites in western Kentucky..." (Pollack 1990:4). Middle Woodland habitation sites range from large base camps in western Kentucky to smaller, more dispersed settlements in north-central Kentucky (Pollack 1990:4).

Early Woodland stemmed forms of projectiles gave way to "notched and expanded stem forms around or soon after A.D. 1 (Railey 1990:251-256). About the Middle Woodland period, Railey (ibid.) further notes:

Ceremonial or decorative objects include gorgets, stone or clay tablets, tubular and biconical pipes, barite and galena bars, mica crescents, copper bracelets, bone beads, and marginella shell beads.... Late Middle Woodland ceramic vessels are predominantly subconoidal or subglobular jars, with outflaring, recurved, or direct rims. Jars with flat-bases are extremely rare, and the vast majority have cord-marked or plain exterior surfaces, with fabric or cord-wrapped, dowel-impressed vessels being extremely rare. Small quantities of simple stamped or check stamped sherds are often present, and complicated stamped, brushed, or rocker stamped sherds have been recovered from late Middle Woodland sites....

[Middle Woodland] sites with midden deposits and subsurface features are common in [western Kentucky, but] early Middle Woodland burial mounds are largely unknown from [western Kentucky]. Few mortuary mounds [have been] investigated in [western Kentucky].... Accretional mound building still appears to have been the rule, but stone mounds and the use of stone in earthen burial mounds appear to have become more common during late Middle Woodland times.

Changes in settlement systems are difficult to identify at this time...; [in western Kentucky] few large settlements have been identified.... Although this may reflect a change in local settlement patterns from the large base settlements of the early Middle Woodland to a more dispersed settlement system, it may simply represent a survey and site inventory bias.

Middle Woodland subsistence patterns in Kentucky are poorly understood at present, but evidence from surrounding states indicates a continuation of a hunting-gathering-gardening strategy, with an increase in the exploitation of cultigens. The sharp increase in weedy seed utilization documented for the Early Woodland period, coupled with similar evidence from Early and Middle Woodland contexts in Illinois, Ohio, and the Southeast, all suggest a continuation of these subsistence strategies throughout the Middle Woodland period.

Late Woodland (A.D. 500 to 1000)

Excavation sites from the Late Woodland period have produced artifacts similar to those from the Middle Woodland period. However, the lack of Hopewellian decorated ceramics and other key items indicate rather less interregional exchange than that seen during the Middle Woodland period. Evidence from Late Woodland period sites indicates an increased nucleation of local populations and a shift to a more sedentary and permanent lifestyle. Some groups established circular, donut-shaped settlements (Pollack 1990:5).

Late Woodland subsistence patterns are similar to the hunting-gathering-gardening patterns seen during Middle Woodland times. While Middle Archaic times saw the first domestication of native cultigens, the Late Woodland period saw increased usage of such plants as sunflowers, sumpweed, marshelder, lambsquarter, and pigweed. "By the end of the Woodland period, tropical cultigens such as corn had been incorporated into local diets" (Pollack1990:5)

The Late Woodland period can be divided into two phases: Early Late Woodland (ca. A.D. 500 to 800) and Terminal Late Woodland (A.D. 800 to 1000). Railey describes the two phases (1990:256-257):

Throughout most of Kentucky, Early Late Woodland ceramics consist mainly of subconoidal and subglobular cordmarked jars. Vessel rims are unmodified and lips are usually flattened and plain except for occasional occurrences of diagonal or perpendicular notching. Decoration of vessel necks and bodies is extremely rare. Projectile points consist mainly of expanded stem or crude side notched forms. Although some burial mounds

date to the Early Late Woodland, the construction and use of large earthen or stone enclosures appear to have ceased by A.D. 500, if not earlier.

Seasonal dispersal of local groups was an on-going element of regional settlement systems.... The establishment of village communities by Early Late Woodland times was apparently accomplished without an economic reliance upon intensive horticulture. Although there may have been an increase in the reliance on native cultigens as a food resource during the Early Late Woodland, the archaeobotanical records indicate wild plants and animals continued to be the mainstay of the subsistence economy.

The Terminal Late Woodland is marked by greater regional variability in terms of ceramic styles, subsistence strategies, and possibly social organization. One important technological change occurring during this interval was the shift from the spear/atlatl to the bow and arrow. The appearance of the bow and arrow is marked archeologically by the presence of small triangular projectile points.

[Maize was not a significant component of the Terminal Late Woodland diet] until A.D. 800.... Maize cultivation occurred primarily in portions of western Kentucky. [There is] evidence for large nucleated communities and an increase in ceramic decoration and vessel forms.

Relatively few Woodland sites are known to exist within either the Kentucky or Tennessee portions of LBL. This lack of Woodland sites is partially the result of sampling bias. It is possible the relative absence of Woodland sites from the Tennessee and Kentucky portions of LBL reflect a settlement pattern no longer accessible with the flooding of the Kentucky and Barkley basins. However, it is unlikely that an area rich in Paleoindian, Archaic, and Mississippian sites would be lack Woodland sites. Rarely do archaeologists encounter breaks in the heritage continuum. Although much is known about Woodland culture in Kentucky and Tennessee (see especially Mainfort 1986), little is known about the specifics of Woodland culture in LBL (Nance 1972).

3.2.4 Mississippian Tradition

More is probably known about the Mississippian tradition than any other prehistoric period in the Lower Cumberland/Lower Tennessee River region of Kentucky and Tennessee and surrounding areas (see Baldwin 1966, Clay 1963a, 1963b, 1979, and 1997, Cobb and Butler 2002, Coe and Fischer 1959, Pollack and Railey 1987, Schwartz 1962 and 1963, Smith 1990, Webb 1952, Wesler 1991 and 1997, and Williams 1990). If archeological work at the major mound groups of the Kincaid site in southern Illinois, Wickliffe Mounds in western Kentucky, and the Angel site in southern Indiana were included, the reference list could extend for pages.

Sites dating to the Mississippian Tradition in the western Kentucky/Tennessee area are characterized by the presence of shell-tempered ceramics. They also contain evidence of a "hierarchical settlement system of sites ranging from farmsteads to planned towns or ceremonial centers" that feature plazas flanked by substructure mounds (Pollack 1990:5). This "hierarchical settlement system" indicates that some sites were more important socially than other sites. The Mississippian Tradition is generally considered one where chiefs ruled over society, rather than the more egalitarian social systems that prevailed in the Archaic and Woodland periods.

As early as the beginning of the Mississippian Tradition, archeological evidence clearly points to agriculture as the primary economic base of society. Maize and squash were important components of the diet and some evidence indicates that the common bean may also have been domesticated. Mississippian diets continued to be supplemented by native cultigens and wild plants, as well as with hunting of white-tailed deer and other animals (Pollack 1990:5).

A number of excavated sites in the Lower Tennessee-Lower Cumberland area have provided Mississippian Tradition radiocarbon dates (Lewis 1990:375-466). The Lower Tennessee-Lower Cumberland area has been divided into two major Mississippian phases: Jonathan Creek (ca. A.D. 1000 to 1100), and Tinsley Hill (late Mississippian Tradition) (Clay 1963; 1979) (see Figure 1 for these site locations).

Jonathan Creek Phase (ca. A.D. 1000 - 1100)

According to Lewis (1990:388) and Clay (1963, 1979),

Available data suggest [this phase] spans part of the Late Woodland period and much of the Mississippian Tradition. At present, it is not known whether the site [Jonathan Creek Village] was occupied continuously or discontinuously during these periods. The Early Mississippian period occupation, used as a basis for the description of the Jonathan Creek phase, was a major one. ... Jonathan Creek appears to have been constructed around the mound-and-plaza public space defining the center of social activity in many Mississippian towns. It contained numerous houses, other village maintenance-type features, and at least eight distinct stockade lines constructed around the town. ... The excavated houses also show the same gradual shift from walls of individually set posts to walls set in trenches. ... [And,] although it can be inferred the economic base of Jonathan Creek phase communities was maize horticulture, hunting, and gathering, there are few excavated data upon which to base detailed inferences.

Tinsley Hill Phase (Late Mississippian period)

Lewis (1990), citing Clay (op. cit.) argued:

There is a gap in the regional sequence between the Jonathan Creek and Tinsley Hill phases, best filled with a unit comparable to that of the Angelly phase of the Lower Ohio Valley...[or to the Dorena phase] of the Mississippi River [area]. The settlement system and economy of Tinsley Hill communities appear to have differed little from those of Jonathan Creek phase settlements... Decorated sherds usually account for only a minor proportion of the ceramic assemblage. Tinsley Hill, the type site of the phase, was a village covering about seven hectares of the Cumberland Valley floodplain and three low bluffs near the mouth of Eddy Creek in Kentucky. Several seasons of excavations there yielded data on the village area, cemetery, and substructure mound.

A small Tinsley Hill component was identified at the Roach Site, a multi-component habitation site located on a low rise along the eastern edge of the Tennessee Valley. The Mississippian occupation at Roach consisted of one wall trench structure and a few associated pit features and was interpreted as a small farming outpost from the more extensive Mississippian development village on the west side of the Tennessee River. The house had been constructed in a shallow basin and contained an interior hearth. The ceramic assemblage was comprised almost entirely of undecorated utilization wares.... Other artifacts associated with the ...component included triangular projectile points, a chert hoe, a celt, a chert pick, an adz, a pottery trowel, and several scrapers and other unifacially-worked tools. No organic remains or other direct evidence of subsistence activities were reported. Given the presence of the chert hoe and other tools associated with the remains of the house, it is reasonable to infer the site inhabitants tended nearby crops as part of their seasonal cycle.

Archeologists have observed that in the middle Mississippi River and lower Ohio River a number of Mississippian sites were abandoned between 1300 and 1500 A.D. Williams (1990) has suggested that by 1450 A.D., a "Vacant Quarter" had developed in this area. If this hypothesis is correct, the phenomenon cannot be explained by the impact of European disease and land pressure. The process of abandonment that led to the "Vacant Quarter" apparently was under way well before the introduction of Europeans into North America.

According to maps of the putative vacant quarter provided by Williams (1990), the lower Tennessee/Cumberland river drainage is included at the southern edge of the quarter. Information developed by excavation at Jonathan Creek village and

Tinsley Hill mound and village provide some support that this hypothesis could be accurate.

However, there is some archeological evidence that suggests the Mississippian heritage tradition in the lower Tennessee/Cumberland river area had ties to European trade and/or contact early into the sixteenth century. This evidence was found at the Stone Site (also known as the Bear Creek site), 40Sw23, in Stewart County, Tennessee, just southeast of LBL (Carstens 1991:139-150). At that site, William McHugh excavated a plain Mississippian ceramic vessel containing non-meteoritic iron rivets (i.e., iron of European origin). These rivets would have been connected by an iron wire loop handle (Carstens *ibid.*) The importance of such an artifact argues against the encroachment of the "Vacant Quarter hypothesis" into the LBL vicinity. In other words, it is possible that continuity between prehistoric and historic cultures in the Lower Cumberland-Lower Tennessee regions remained intact despite a rapid depopulation of Mississippian cultural centers located further north along the Mississippi and Ohio Rivers. Both the Vacant Quarter hypothesis and the evidence provided by the Stone site artifact remain questionable with the available evidence. Further research will be needed to confirm or refute these premises.

3.2.5 Historic Tradition

The line between prehistory and history in western Kentucky and Tennessee is not a very clear one. The previous example from the Stone Site suggests that the Historic Tradition may have begun as early as the sixteenth century (Carstens 1991). Other research in western Kentucky and Tennessee and northeastern Arkansas (e.g., Mainfort 1996:172-181) has found evidence that the Native American heritage continuum beginning before A.D. 1500 is unbroken in this region through A.D. 1650 (such as the cultural sequence from the sites of Chucalissa to Otto Sharpe in extreme western Tennessee). However, sites and artifacts of the fourteenth through seventeenth centuries are relatively rare.

On the conservative side of the coin is Pollack's (1990:5-6) assessment regarding when prehistory ends and history begins. Pollack (*ibid.*) states simply that the overwhelming evidence of the historic period begins in the late eighteenth century. Archeological research in both Kentucky and Tennessee has grown steadily over the years, but the majority of historic archeology has taken place during the last two decades (see for example, Smith (1996:5; 11-20) and McBride and McBride (1990:559-561)).

Pre-settlement Exploration (? - 1783)

This temporal unit is characterized by the exploration of what is now Kentucky and Tennessee by representatives of the French government, explorers, traders, and land speculators. Contact with native groups was limited and usually lasted for short periods of time (Pollack 1990:5). At the point of historic contact, the LBL portion of western Kentucky and Tennessee appears to have been claimed by Cherokee (down the Cumberland), Chickasaw (Tennessee to Mississippi Rivers), and Shawnee Native American tribes.

Mulligan (1998:7) refers to the Pre-settlement Exploration period as that of the Pioneers/Long Hunters. Mulligan notes that surveyors did not enter the LBL area until 1783, and settlement only took place thereafter that point in time.

Early Settlement (1783 - 1830)

This time period is marked by conflict among Indians, American settlers, and the British. During the Early Settlement period, most of the land in Kentucky was claimed by whites, an infrastructure of roads was established, towns were created, and counties were formed. Also established were a national banking system, a regional economic system including the use of major rivers to transport goods, and the shipping of farm produce to regional markets (Pollack 1990:5).

The only American settlement in western Kentucky in 1780-1781 was George Rogers Clark's Fort Jefferson, located alongside the Mississippi River at its confluence with Mayfield Creek (Carstens 1993a; 1993b; 1997). Legal settlement in what would become Land Between The Lakes did not begin until after 1783 and west of the Tennessee River not until after the Jackson-Shelby Purchase of 1818.

About the Early Settlement period, Mulligan (1998:11) adds:

The earliest permanent white settlers in the region established small farms close to the area's rivers and streams on the rich bottomlands and with relatively easy access to the rivers for transportation. Initially they grew corn and raised small numbers of hogs and cattle. Later settlers established themselves near springs and creeks to ensure a source of water. They built primitive shelters, replaced as soon as possible by single- and double-pen log cabins. Land was cleaned by sustained hard labor, and corn became the primary crop—fed to animals, eaten as meal or hominy, and distilled into liquor. Some wheat was grown, mostly for local use, and tobacco was grown as a cash crop. Salt from the salt licks dotting the area was essential to the success of settlement because salt was the only way to preserve meat. As settlement was established, smoking became an alternative form of preserving meat.

Antebellum (1830 - 1861)

During the Antebellum period, Kentucky experienced a great deal of growth resulting from a highly productive agricultural economy. For much of this period, Kentucky was the sixth most populous state in the union and its political leaders played a greater role in national affairs than at any other time. County seats grew in population as the countryside was fully settled by Euro-Americans, cleared of forests, and brought into productive use (industrial, such as iron production) and agricultural use (Pollack 1990:6).

Mulligan (1998:11) adds:

The region was from very early on a community of dispersed farmsteads—rather isolated pioneer cabins. One distinctive Southern folkway represented in [LBL] and not regularly interpreted is the family cemetery. Numerous family cemeteries, as well as some church cemeteries, are located on LBL. Most are on their original locations, while others were moved in advance of the formation of the lakes. The practice of burying the family's dead on its own land, at its homeplace, is a Southern, rural pattern. It is also a factor in the strong attachment to place among rural Southerners.

Stilgoe (1982) refers to this Southern rural pattern as follows:

... graveyards gave sacred meaning to land platted according to civil law and sold according to economic demand. Every rural neighborhood was eventually marked by dozens of tiny eruptions of holiness, places where the world of farms and canals and section lines intersected the world of angels and informal spirits. The graveyards did not order the land; no roads converged on them and no villages grew around them. But they ordered residents' perceptions of the land and gave identity to every neighborhood.

Mulligan (1998:17) goes on to describe the Antebellum role that iron making played between the rivers:

The area between the rivers in both Kentucky and Tennessee was an important center of iron making before the Civil War. A large part of the strategic importance of the area during the War was due to its iron producing capacity. Many small furnaces and a few forges dotted the landscape, usually near a source of iron ore and surrounded by timber that could be made into charcoal, the fuel for smelting the ore. These furnaces and forges were small because the technology did not allow for large-scale operations. They made a brittle iron because the temperatures reached with charcoal could not remove all of the impurities in the ore. Cumulatively,

however, they produced a large quantity of iron. Within the technology of the Antebellum era, the iron furnaces of western Tennessee and Kentucky were competitive and significant in the national economy. They were a major source of iron for the South, and their product was shipped down the rivers to New Orleans.

Civil War (1861 - 1865)

This temporal unit is marked by conflict between the Northern and Southern states. About the Civil War, Mulligan (1998:18) states:

The rivers framing and defining the Land Between the Rivers were important in the strategy of both the Union and the Confederacy during the Civil War. The area's role as a source of both food and iron for the South added to its importance. The people of the region were heavily pro-Southern in their sentiments. The 10th Tennessee Regiment and Co. G of the 4th Regiment Volunteers, CSA were raised in the region. Although there were not many slaves in the area, few residents were opposed to slavery, and their heritage and economic orientation was clearly Southern.

In 1862, two Civil War battles were fought between the rivers. Two Confederate forts, Fort Henry on the Tennessee River and Fort Donelson on the Cumberland, fell to Union troops. The Union army shut down iron production between the rivers, and most furnaces never recovered from this economic blow.

Postbellum Readjustment and Industrialization (1865 - 1915)

Throughout the Postbellum period, the South remained predominantly agricultural, while the rest of the nation entered the industrial age. During the Reconstruction Era the local agricultural labor system was restructured, and an effort was undertaken to build a railroad system that integrated Kentucky with the national economy. As a result of the railroads, by 1915 goods produced in Kentucky were being sold in direct competition with those manufactured in distant regions. Simultaneously, the demand for lumber and coal in the growing industrial centers to the east brought other changes to much of Kentucky, as did the rapid expansion of industries and commercial interests in the local urban centers. The lumber, coal, and iron industries restructured the economies of western Kentucky and Tennessee, while the urban industrial and commercial developments required a greater work force. This led many people to move away from rural communities to larger cities in search of jobs. As the extractive industries expanded in eastern and western Kentucky and Kentucky's urban centers grew, the state as a whole remained more rural and traditional than the rest of the nation. During this period, many farms began to grow tobacco (Pollack 1990:6).

The Postbellum period saw great changes in the iron industry between the rivers. Mulligan (1998:18) notes:

The War was very disruptive for the [iron] industry in the area between the rivers; many of the furnaces were unable to continue production during the war and did not resume after the war. Several families who were prominent in the iron industry in the area between the rivers, especially the Hillmans, became prominent in the rise of the Birmingham, Alabama iron and steel industry after the war. The emergence of first coal and later coke as preferred fuels and the change from iron to steel as the ultimate product doomed the small rural furnaces and forges.

Industrial and Commercial Consolidation (1915 - 1950)

During this period, Kentucky and Tennessee continued to lag behind the nation in economic development. Throughout the nation the 1920s were a period of agricultural stagnation. The national prohibition of alcohol had a negative impact on the economy of central Kentucky, which was known for its bourbon, but it caused an increased economy of bootlegged whiskey in rural areas of western Kentucky and Tennessee. This period also saw the emergence of such social issues as the anti-evolution crusade and the rebirth of the Ku Klux Klan in Kentucky. The age of the automobile brought with it the construction of service stations, motels, tourist attractions, and garages. Major roads were widened and realigned, giving both urban and rural Kentucky a new look. This era also witnessed the Great Depression and the birth of Roosevelt's New Deal programs such as the Works Progress Administration (WPA) and the Tennessee Valley Authority (Pollack 1990:6).

Mulligan (1998:25) notes that during this time:

The community of Golden Pond, Kentucky, was the economic and cultural center of life in the Land Between the Rivers. Its central location played a role in this, giving it an advantage over communities located at one edge of the region or the other; Golden Pond was at the heart of the LBR. After the creation of the lakes, the other communities were relocated or removed, and Golden Pond remained as a tangible connection with the area's past.

The community had a colorful and remarkable history. In 1898 a fire destroyed the entire business district, but it was rebuilt. By the 1930s Golden Pond was a sizable community with a bank, a school, a hotel, an apothecary, two blacksmiths, several general stores, as well as a dry goods store and a millinery shop. Salons, taverns, cafes, lodges for the Woodsmen of the World, the Masons and the Eastern Star, as well as three

doctors, a dentist, and two lawyers completed the business district. Many of the buildings in Golden Pond were constructed with locally made bricks.... In 1936, a second fire ravaged the business district, destroying at least five major buildings. Despite the Great Depression, which hit the area hard, the community rebuilt. When construction began on Kentucky Dam, there was optimism the area might experience an economic revival, but the farmland lost to the lake helped increase the decline in population that had been in progress for some time. As the area became more accessible, more people left than settled in the region. In 1939 the Bank of Golden Pond closed and the community was in decline.

Federal Land Acquisition Projects (1936 - 1969)

The twentieth century saw four distinct phases of federal land acquisition projects during which private lands were acquired in the Between the Rivers area. Many families were affected by more than one of these acquisition projects.

Resettlement Administration: Kentucky Woodlands National Wildlife Refuge.

Around the turn of the century, the abundance of wildlife that had once thrived between the rivers was severely depleted. Nearly all of the deer and most of the turkeys had disappeared from western Kentucky and Tennessee. "The game had been depleted by the spread of human occupation, cutting the timber that had been its refuge, and indiscriminate hunting by poachers" (Henry 1975:2).

In 1912, the Kentucky legislature provided for the sale of hunting licenses, the funds of which were to be used for the newly established Kentucky State Game and Fish Commission. The Commission was given the power "to propagate, protect, and conserve wildlife; to create a warden force for protection; and to construct and maintain fish hatcheries and game refuges" (KG&FC 1926:7). Local residents were sworn in as unpaid game wardens in 1913 and began protecting wildlife on a wildlife refuge formed from privately owned farms.

In 1919, the Hillman Land and Iron Company was dissolved and the Hillman Land Company was formed (Hudson 2000:7). In that same year, John Esselstyn, secretary-treasurer and manager of the Hillman Land Company, entered into an agreement with the Kentucky Game and Fish Commission to create a wildlife refuge using Hillman property in Trigg and Lyon Counties, as well as the privately owned farms mentioned above. According to this agreement, Hillman would retain ownership of the land, the Commission would stock and protect the wildlife, and in return there would be no hunting during the duration of the lease. In addition, the Commission could take surplus game from the area to stock other areas throughout the State.

In 1922, the Kentucky Game and Fish Commission stocked English stag deer, English fallow deer, and Virginia white-tailed deer on 40,000 acres in Lyon and Trigg Counties between the rivers ("History of the Wild Turkey":2). By 1925, Kentucky's wild turkey population was extinct, except solely for a small number of turkeys located in the Hillman Game Refuge. The state turkey restoration project that began in 1946 depended entirely on this population of turkeys (Hudson 2000:8).

According to Hudson (2000:8):

Though highly successful, the wildlife restoration projects at the Hillman Game Refuge were not unique. Similar efforts were taking place in other areas of the state. For example, the 1931-1932 Biennial Report of the Kentucky Game and Fish Commission reported that 47 game refuges had been established in all sections of the State. The Jones-Keeney Refuge in Caldwell County, however, was the only refuge owned by the State. The other refuges, as in the case of the Hillman Game Refuge, were leased.

The Kentucky Game and Fish Commission was temporarily abolished by the Reorganization Act of 1936 (*Louisville Courier Journal*, "50,000 Acre Game Refuge is Given State" September 2, 1938). All wardens were released from their duties and little protection was provided from 1936 until 1938. According to records, poaching was common during this period. This, combined with a severe drought in 1937, resulted in a drastic reduction of deer and turkeys.

By 1936, the Resettlement Administration, one of President Franklin D. Roosevelt's New Deal programs (later renamed the Farm Security Agency, then the Bureau of Agricultural Economics, the Soil Conservation Service, and finally today the Natural Resources Conservation Service), acquired the lands of the Hillman Land Company and numerous small farms in the area (Files, LBL Library, Golden Pond, Kentucky). Participation in these land purchases was voluntary; the Resettlement Administration acquired abandoned and bankrupt farmlands during the Depression era.

On August 30, 1938, President Roosevelt established the Kentucky Woodlands National Wildlife Refuge by Executive Order 7966. The refuge was comprised of approximately 46,000 acres from the Resettlement Administration, 15,000 acres from TVA, and 4,000 acres from the US Army Corps of Engineers, for a total of approximately 65,000 acres (KWNWR file, LBL Library, Golden Pond).

Tennessee Valley Authority: Kentucky Lake Reservoir Project

Throughout the history of this region, people between the rivers suffered the ill effects of frequent floods. Homes, lives, livestock, and crops were lost to large floods practically every decade. The Tennessee River flooded numerous times in history, including 1897, 1913, and 1927. A particularly devastating flood came early in 1937. In 1933, the Tennessee Valley Authority was created for the purpose of harnessing the force of the Tennessee River and developing the natural resources of the seven-state Tennessee Valley region. The success of the programs implemented by the TVA meant much to the region; devastating floods were prevented, navigation along the river improved, and power was generated for use in the Tennessee Valley (Henry 1975:183).

By 1937, firm plans were laid for the construction of Kentucky Dam on the Tennessee River. Originally planned at or near the town of Aurora, Kentucky, it was later decided to build the dam about twenty miles down river at the town of Gilbertsville. Kentucky Dam was the next-to-last in a series of dams on the river; it was also the largest of the TVA dams. At its completion, Kentucky Dam stood 206 feet high and stretched over one and one-half miles long. It backed the waters of the Tennessee River for 184 miles from the dam, thus forming Kentucky Lake. This lake's huge reservoir—one of the largest man-made reservoirs in the world—required a total of 134,000 acres of land plus an easement of 100,000 more acres for flood control purposes. The formation of the lake required the relocation of some 3,500 families, and the towns of Birmingham and Newburg were inundated (Henry 1975:183).

Between the Rivers residents on the east bank of the Tennessee River and their neighbors on the west bank were required to change their life-ways in the name of progress. Land purchases for the Kentucky Lake reservoir were not voluntary; for new jobs, electricity, and flood control to come to the area, 3,500 families were required to sell their land and move.

Corps of Engineers: Lake Barkley Reservoir Project

Some farmers along the Cumberland River estimated they lost two crops out of every five because of flooding. With Kentucky Dam on the Tennessee River completed, thoughts in the area turned to construction of a high dam on the Cumberland. Mixed feelings prevailed about the new dam; some citizens outside the area supported the project, thinking the new dam would bring even more economic development. But many Between the Rivers residents opposed the project, fearing further loss of land and population in their communities (Henry 1975: 184-185).

In spite of the unsettled feelings in the area, construction on Barkley Dam was set to begin in 1957 at a cost of \$145,000,000. The US Corps of Engineers was given the lead in the project (Henry 1975:185). By 1961 the dam was nearing

completion, and the construction of a canal to join Kentucky Lake and the new Lake Barkley was planned. The completion date for the seven thousand-foot canal was set for 1966 and it would be located about two miles south of Kentucky Dam. The Corps completed both Barkley Dam and the canal by 1966, and the land between the Cumberland and Tennessee Rivers essentially became a peninsula, with water to the north, east, and west (Wallace 1992:200).

Barkley Dam was named for Alben W. Barkley, who had lived in Paducah, Kentucky, and was Vice President of the United States from 1948 to 1952. Upon Barkley Dam's completion, it backed up the waters of the Cumberland River for 118 miles, and the waters of Lake Barkley rose to cover 57,920 surface acres (LBL Handbook). Twenty-four churches and fifteen cemeteries had to be removed from the water's new path (Wallace 1992:199).

Tennessee Valley Authority: Land Between The Lakes Project

In February of 1961, President John F. Kennedy expressed his desire to create a federal recreational lands program preserving lands for future generations of Americans to enjoy (Wallace 1992:202). As early as the summer of 1961, government officials on the national and state levels realized the narrow strip of land between Kentucky Lake and Lake Barkley would be a perfect candidate for such a program. Before construction on Barkley Dam was completed, plans were already being laid to create a national park or recreation area between the lakes (Henry 1975:187).

President Kennedy announced on June 14, 1963 that the Tennessee Valley Authority would develop the 170,000-acre peninsula between the Tennessee and Cumberland Rivers as a National Recreation Area (White House press release, 1963). The 1964 Public Works Appropriations Act provided \$4 million for TVA to begin developing Land Between The Lakes. That same year the first facility in the National Recreation Area, Rushing Creek Campground, opened to the public (LBL Handbook).

Within LBL's designated boundaries, 73,928 acres were already in federal ownership by the Corps of Engineers, U.S. Fish and Wildlife Service, and TVA. Private holdings totaled 96,382 acres (LBL Handbook).

Table 1: Land Acquired for Land Between The Lakes Project

County	Acres Privately Owned	Corps of Engineers	TVA	U.S. Fish & Wildlife Service	Total Acres
Stewart	58,502	1,970	3,380		63,852
Trigg	27,955	2,720	515	29,576	60,766
Lyon	9,925	7,160	217	28,390	45,692
TOTAL	96,382	11,850	4,112	57,966	170,310

Acquisition of private land began in 1964 and was completed in 1969. Once again, these land purchases were not voluntary. During these five years, TVA provided relocation assistance services to residents displaced by the project to help them find comparable homes and farms (Wallace 1992:230). Many residents opposed the land acquisition, and people organized both in favor of and in opposition to the project. Again, some citizens outside the area supported the project, thinking it would provide economic development, but many Between the Rivers residents opposed the project. Despite the political opposition of the local residents, establishment of LBL remained on schedule and by 1969 the acquisition of land from residents of the area was complete. The land between the Cumberland and Tennessee Rivers was uninhabited.

TVA policy during this period was to remove or demolish all structures on LBL. When structures were removed, the foundations were often left in place. When structures were demolished, the remains were generally bulldozed and burned and the area was left to grow up in forest. All churches were removed or destroyed, although there were some exceptions to this general rule. For example, the isolated St. Stephens Catholic Church was overlooked and has today been restored by volunteers as an example of the rural churches that once dotted the landscape of LBL. Volunteers contributed several thousand man-hours toward the St. Stephen's project. Furthermore, although most houses in LBL were removed or demolished, the home of Mr. Cleo Griffin in Stewart County, Tennessee was not. Mr. Griffin refused to leave his home and his status as a disabled veteran led to intervention by the Veterans Administration into efforts to remove him. Mr. Griffin recently died and the status of his house is currently in doubt. An evaluation of the eligibility of the house for nomination to the National Register must be completed before any action is taken.

There are a number of other structures in LBL that were not demolished when LBL was created. A few standing barns, corn cribs, tobacco barns, and other

structures are still scattered across LBL. These buildings will also be evaluated for eligibility for nomination to the National Register before any actions are taken.

By far the most visible reminders still present on LBL of the former inhabitants of the land between the rivers are the family and church cemeteries scattered across the landscape. Some of these cemeteries are still being used for burials. Even those that have not been used in recent memory are still remembered and cared for by many of the former residents of the area. Although cemeteries are not eligible for nomination to the National Register (see pp. 9-10), they are given special status and protected as if they were eligible (see Appendix B).

Chapter IV.

RESEARCH OBJECTIVES AND GOALS

CHAPTER IV. RESEARCH OBJECTIVES AND GOALS

As part of the Kentucky State Management Plan, research objectives for the historic contexts have been formulated. Archaeologists and agencies that manage heritage resources in Kentucky are required by the State Historic Preservation Officer (SHPO 1991) to be aware of these research objectives and to employ them when studying prehistoric and historic sites in Kentucky.

Minimally, these research objectives include research questions regarding artifact classification and culture history, material culture and technology, subsistence, settlement patterns, trade and exchange, biological anthropology, mortuary practices, and social organization.

The usefulness of any given archeological site on LBL to address the appropriate research objectives will determine the significance level of the site. If a site does not provide information that can be used to address these objectives, then it will likely be determined to be non-significant and will not be protected during LBL projects.

The research objectives in the Kentucky State Management Plan have been revised to focus on potential archeological sites on LBL. They are presented by cultural tradition below. These research objectives pertain to all archeological sites on LBL, whether they occur in Kentucky or Tennessee.

4.1 PALEOINDIAN RESEARCH ISSUES

Note: Follows Tankersley (1990:126-129)

1. Classification and Heritage History
 - a) Determine when early Paleoindian people arrived in LBL.
 - b) Determine what Paleoindian cultures or industries are present in LBL. (Clovis? Cumberland? Dalton?)
 - c) Determine the temporal parameters of Paleoindian cultures in LBL.
 - d) Determine the relationship of Paleoindian in LBL to Paleoindian in Kentucky, the eastern United States, and the western United States
2. Material Culture and Technology
 - a) Document the stratigraphic and geographic distribution of chert source areas, bedrock or surficial in LBL.

- b) Describe the diagnostic petrographic characteristics, macroscopic and microscopic, of different chert varieties in LBL.
 - c) Ascertain, when possible, chemical (trace element) signatures of chert types in LBL.
 - d) Determine Paleoindian chert procurement and exploitation strategies.
 - e) Locate Paleoindian quarry sites and quarry reduction or workshop sites.
 - f) Determine the unique attributes of the Paleoindian "tool kit" in LBL.
3. Subsistence Patterns
- a) Make a comprehensive paleoecological database for LBL.
 - b) Establish a diachronic paleoenvironmental reconstruction of the dominant plant communities during the Paleoindian period, and reconstruct probable carrying capacity of LBL.
 - c) Determine characteristics of cultural change between Paleoindian and Archaic periods.
 - d) Determine which Late Pleistocene megafaunal species were contemporary with Paleoindian culture in LBL.
 - e) Determine the time of extirpation or extinction for Late Pleistocene large herbivores, especially mammoth, mastodon, bison, and horse.
4. Settlement Patterns
- a) Conduct an intensive and extensive survey of public and private collections to obtain data on the distribution and characteristics of Kentucky Paleoindian artifacts from the LBL area.
 - b) Establish a permanent database specifically designed for the recording, storage, and retrieval of the precise location of Paleoindian artifact find spots in LBL and their current repositories.
 - c) Evaluate the mobility of Paleoindian settlement systems in LBL.
 - d) Determine why the initial exploitation of different upland microenvironments occurred in LBL.
5. Exchange Systems
- a) Determine if the use of non-local chert by LBL Paleoindian cultures represents exchange, overlapping territories, or highly mobile foraging. If exchange, identify which cherts were being imported into LBL or exported from LBL.
 - b) Identify non-local cherts in Paleoindian artifact forms from LBL.

6. Bioanthropology
 - a) Locate Paleoindian skeletal material from LBL.
 - b) Describe Paleoindian skeletal material morphologically and metrically.
 - c) Investigate biological distance between LBL populations and suggested source populations.
 - d) Establish demographic profiles for LBL Paleoindian populations.
 - e) Apply stable isotope biochemistry and dental studies to reconstruct paleodiets.
 - f) Identify paleopathologies.
 - g) Define Paleoindian mortality rates.
7. Mortuary Practices - determine if Paleoindian remains were buried, cremated, or left exposed to the elements and if there is any evidence for preferential treatment by age or sex.
8. Social Organization
 - a) Identify contemporary Paleoindian sites.
 - b) Construct hypotheses concerning size, composition, and functions of social groups and the interactions among these groups. Test these hypotheses by investigating material-heritage correlation, such as projectile point styles and their raw material, among contemporary sites.
9. Ideology
 - a) Define elements possibly associated with Paleoindian ideology.
 - b) Compare these Paleoindian elements to those identified in antecedent and subsequent cultures.

4.2 ARCHAIC RESEARCH ISSUES

Note: Follows Jefferies (1990:220-228)

1. Classification and Culture History
 - a) Define Archaic cultural units (components, phases, and cultures) spatially and temporally.
 - b) Develop and/or refine regional cultural-chronological sequences in LBL for intra- and inter-regional trends.
 - c) Identify archeological assemblages for each Archaic cultural unit.
 - d) Identify temporally diagnostic aspects of material culture.

- e) Document regional variation in the shift from Paleoindian to Early Archaic and likewise between each of the major Archaic periods.
- f) Determine if there is a correlation between changes in Archaic adaptive strategies and environmental change.

2. Environment

- a) Identify environmental characteristics for the Early, Middle, and Late Archaic.
- b) Identify and determine the relative importance of physical and cultural environmental variables that influenced the size and distribution of Archaic sites in LBL.
- c) Assess the impact of the Hypsithermal Interval on Middle Archaic adaptation and determine if its impact varied throughout LBL (e.g., prairie adaptations vs. canopy or bottomland adaptations).
- d) Determine if certain site types are associated with specific environmental conditions.

3. Material Culture and Technology

- a) Identify the complete material culture assemblage associated with each cultural period in LBL.
- b) Reconstruct the technology of Archaic flaked stone tool production for LBL.
- c) Identify the kinds of raw materials used for tool production during the Archaic periods in LBL.
- d) Determine if the use of the resources varied among different Archaic cultural units in LBL.
- e) Investigate the relationship between raw material and tool function/type in LBL.
- f) Assess temporal/regional variation in flaked, groundstone, and bone tool production in LBL.
- g) Refine Early, Middle and Late Archaic projectile point typologies within LBL.
- h) Investigate differences in Early, Middle, and Late Archaic resource procurement strategies in LBL.
- i) Investigate the role of exchange in the procurement of raw materials and for tool production in LBL for the Archaic Tradition.

4. Subsistence

- a) Identify the range of plant and animal resources exploited by Archaic hunter-gatherer groups in LBL.

- b) Determine the subsistence base of each Archaic cultural unit in LBL.
- c) Determine the relative importance of different food sources on a regional and temporal basis
- d) Identify the techniques used to procure and process subsistence resources.
- e) Document the social and technological processes that eventually led some Archaic groups to experiment with plant cultivation or manipulation.
- f) Investigate the relative importance of native and tropical cultigens to Middle and Late Archaic groups in LBL.
- g) Document changes in the way plant foods were stored during the Archaic period in LBL.

5. Settlement Patterns

- a) Document the character of the settlement system of each cultural unit in LBL.
- b) Determine how these settlement systems changed through time in LBL.
- c) Identify those factors responsible for changing group mobility in LBL.
- d) Document changes in the level of group mobility/sedentism during the Archaic period in LBL.
- e) Document interregional differences in site distribution and identify social and environmental variables responsible for those differences in LBL.
- f) Investigate the relationship between environmental change and changes in the way Archaic groups are distributed over the landscape in LBL.
- g) Document the function of site types that comprise Early, Middle and Late Archaic settlement systems in LBL.
- h) Investigate the relationships between site type, group mobility, and environmental diversity in LBL.
- i) Investigate intra-site artifact and feature distributions as a means of determining the size and organization of Archaic sites in LBL.

6. Trade and Exchange

- a) Investigate ways of documenting and measuring the extent of interaction and exchange among Archaic cultural units in LBL.
- b) Document the kinds and extent of interregional exchange and interaction between Archaic groups in LBL and those in other parts of Kentucky.

- c) Investigate the mechanisms through which Archaic groups obtained non-local raw materials and finished goods in LBL.
- d) Identify the source of non-local raw material and artifacts found at Archaic sites in LBL.
- e) Document the differential distribution of non-local materials throughout LBL as a means of investigating interregional social ties.

7. Biological Anthropology

- a) Determine the biological characteristics of each Archaic cultural unit in LBL.
- b) Document the incidence of disease and trauma in Archaic burial populations in LBL.
- c) Assess the overall health status of Archaic burial populations in LBL.
- d) Document mortality rates for Archaic burial populations in LBL.
- e) Assess the dental health of Archaic burial populations in LBL.
- f) Document dietary changes of Archaic populations in LBL through trace element, chemical, and other state-of-the-art analytical procedures.
- g) Investigate the relationships between changes in settlement/subsistence practices and changes in-group health in Archaic populations in LBL.
- h) Investigate the relationship between changes in social organization and the kinds of diseases represented in Archaic skeletal series in LBL.
- i) Document genetic ties among different Archaic groups using metric and non-metric skeletal characteristics.
- j) Investigate skeletal samples from non-shell midden sites in LBL.

8. Mortuary Practices

- a) Identify changes in preferred locations for mortuary areas/cemeteries during the Archaic Tradition in LBL.
- b) Examine patterns of interregional variation in Early, Middle, and Late Archaic mortuary practices in LBL.
- c) Investigate the range of status variation in Archaic groups as reflected by mortuary practices in LBL.
- d) Identify the range of burial practices employed by Archaic groups through time in LBL.
- e) Investigate how changes in mortuary practices are reflected by changes in social organization in LBL.

9. Social Organization and Paleodemography

- a) Reconstruct the social organization of Archaic cultural systems in LBL.

- b) Document changes in-group organization from the Early through Late Archaic in LBL.
- c) Investigate the distribution of features and artifacts at Archaic sites to determine the size and composition of the resident social units in LBL.
- d) Document the differential distribution of non-local raw materials and artifacts among burials in Archaic mortuary areas in LBL.
- e) Identify other forms of mortuary behavior reflecting the differential treatment of individuals in LBL.
- f) Document evidence for regional variation in Archaic social organization in LBL.
- g) Document the sex and age characteristics of Early, Middle, and Late Archaic social units in LBL.

10. Cave Archeology

- a) Determine if there are cave resources at LBL and if they were utilized by Native Americans as in other parts of Kentucky.
- b) Document technological and social tasks represented by artifacts manufactured from "perishable" materials not normally preserved in open sites at LBL.
- c) Investigate the role of caves and their contents in the Late Archaic worldview and belief systems in LBL.
- d) Determine which cave resources were used in LBL.

4.3 WOODLAND RESEARCH ISSUES

Note: Follows Railey (1990:334-342)

1. Chronology and Culture History

- a) Define local Woodland period phases in LBL.
- b) Identify aspects of LBL Woodland material culture that are temporally and geographically diagnostic.
- c) Determine when ceramics were introduced in LBL and identify the regional and local characteristics of these ceramics per Woodland period and phase.

2. Material Culture and Technology

- a) Identify temporal and spatial variation in Woodland period technologies in LBL.

- b) Reconstruct the technologies of Woodland flaked stone tool production and assess the temporal and regional variation in flaked stone and ground stone tool production in LBL.
- c) Assess the relationship between stone tool morphology and function on Woodland Tradition sites in LBL using macro- and microscopic techniques.
- d) Identify functional variation in contemporary Woodland ceramic assemblages, and identify temporal changes in ceramic form and function throughout the Woodland Tradition in LBL.
- e) Identify ceramic functional attributes employable in chronometric studies in LBL that can be used to define intra-site activity areas.
- f) Document the development of, and changes in, the technology of plant food processing and preparation in LBL.

3. Subsistence Systems

- a) Identify the subsistence patterns for each Woodland cultural/temporal unit and determine the technologies used to procure and process various subsistence resources in LBL.
- b) Examine the contribution of cultigens to Early, Middle, and Late Woodland sites in LBL.
- c) Examine the extent to which Woodland peoples in LBL cultivated domesticates and semi-domesticated plants (including squash, gourd, maize, sunflower, sumpweed, goosefoot, maygrass, giant ragweed, erect knotweed and groundnut).
- d) Document the initial appearance of maize in LBL and determine its relative contribution to Woodland diets.

4. Settlement Patterns

- a) Identify the full range of Woodland site types in LBL.
- b) Reconstruct the paleoenvironment of LBL using geomorphological data, pollen analysis, phytoliths, and floral and faunal data from archeological contexts.
- c) Identify the environmental context of sites in LBL, such as location within and proximity to particular land form types, soil types, biotic communities, lithic resources, water sources, salt springs, and navigable streams.
- d) Examine the effects of floodplain geomorphologic processes on the destruction or preservation of Woodland period sites in LBL.
- e) Identify and assess the relative importance of physical vs. cultural determinants of Woodland settlement patterns in LBL.

- f) Identify geographical and diachronic trends in community pattern during the Woodland period in LBL.
 - g) Document intra-site community patterning in LBL.
 - h) Develop methods for estimating Woodland period population levels in LBL, and reconstruct demographic patterns both geographically and diachronically.
5. Exchange Systems
- a) Document the nature and extent of interregional exchange and interaction between Early, Middle, and Late Woodland groups in LBL.
 - b) Investigate the mechanisms through which Early, Middle, and Late Woodland groups obtained non-local raw materials and finished goods in LBL.
 - c) Document the differential distribution of non-local materials across LBL as a means of investigating interregional and intra-regional social ties.
 - d) Develop models explaining diachronic variation in Woodland exchange patterns in LBL, especially the proliferation and eventual decline of trade and exchange during Middle Woodland times.
 - e) Determine the role of trade and exchange in the development of village farming communities during terminal Late Woodland times in LBL.
6. Biological Anthropology
- a) Identify the physical characteristics of various Woodland period burial populations in LBL.
 - b) Assess the health status of Woodland burial populations in LBL.
 - c) Investigate the relationships between settlement and subsistence patterns and group health in LBL.
 - d) Document and assess incidence of disease and traumatic events for burial populations in LBL.
7. Mortuary Practices
- a) Examine patterns of intra-regional variation in Early, Middle, and Late Woodland mortuary practices in LBL, and investigate how changes in social organization are reflected in mortuary patterns.
 - b) Identify changes in preferred locations for mortuary areas/cemeteries during the Woodland Tradition in LBL.
 - c) Identify Late Woodland mortuary patterns in LBL.
 - d) Document and assess activities related to graveside ritual, such as charnel house form and function, behavioral implications of pottery from

mound and off-mound contexts, and the presence or absence of associated "mortuary camps" at Woodland sites in LBL.

8. Social Organization

- a) Identify geographical and temporal variation in social organization during the Woodland Tradition in LBL.
- b) Investigate the distribution of features and artifacts at Woodland sites in LBL to determine the size and composition of resident social unit(s).
- c) Document the differential distribution of non-local raw materials and artifacts among burials in Woodland mortuary areas in LBL, and assess their implications for social structure.
- d) Identify and examine patterns of labor organization in the Woodland Tradition in LBL, and assess developments with respect to social transformation.
- e) Identify factors responsible for the rise of social inequality during the Woodland Tradition in LBL.
- f) Explore the relationships among changes in social organization, with changes or continuity in economic systems, ideology, and other aspects of LBL Woodland culture.

9. Ideology

- a) Identify stylistic patterns of decorative motifs on ceramics and other cultural items from Woodland contexts in LBL.
- b) Assess the symbolic implications of decorative motifs, burial patterns, site structure, and other cultural elements.
- c) Identify socioeconomic factors related to ideological trends in Woodland populations in LBL.
- d) Identify enduring and discontinuous ideological elements within the Woodland Tradition in LBL, and assess the possible relationships of these to Archaic and Mississippian ideological elements.
- e) Examine the potential time depth of historically recorded native ideological themes with respect to LBL Woodland Tradition icons and symbols.

4.4 MISSISSIPPIAN RESEARCH ISSUES

Note: Follows Lewis (1990:448-451)

1. Classification and Culture History

- a) Construct a regional cultural sequence for LBL based on stratigraphic data and absolute chronometric dates from more than one component.
- b) Radiocarbon dates for Mississippi contexts should be reported in corrected calendar years using a high-precision calibration.

2. Material Culture and Technology

- a) Identify the factors leading to increased diversity of vessel form in Mississippian ceramic assemblages.
- b) Assess whether decorated vessels in LBL are more common in assemblages dating to the last half of the Mississippi Tradition.
- c) Determine if any ceramic types or vessel forms in LBL are associated predominately with ritual or ceremonial contexts.
- d) Identify the function of salt pans, Wickliffe thick funnels, stumpware, and effigy bowls in LBL contexts.
- e) Reconstruct the sequence of stone tool use in LBL.
- f) Assess the extent to which tool assemblages differ interregionally between LBL and other areas of the state.

3. Subsistence

- a) Identify the nature and timing of the development of maize horticulture in LBL.
- b) Identify the extent to which the emergence of maize horticulture supplanted the cultivation of wild and other domesticated plants in LBL.
- c) Reconstruct temporal and spatial patterns in the exploitation of wild plant and animal foods in LBL.
- d) Reconstruct food storage patterns during the Mississippi Tradition and determine if harvests were stored communally or by households and if storage patterns changed through time or across space in LBL.

4. Settlement Patterns

- a) Determine the extent to which the Mississippian settlement system in LBL was hierarchical.
- b) Reconstruct the major dimensions of community defensive tactics and identify the temporal and spatial similarities and differences in fortifications.
- c) Determine if there are clear instances of continuous defensive postures (stockades) on LBL Mississippian sites.

- d) Identify what defensive mechanisms, if any, were adopted by the inhabitants of small villages and hamlets on LBL Mississippian sites.
- e) Determine if there is unequivocal evidence of an LBL Mississippian community destroyed by warfare and not reoccupied.
- f) Identify the full range of LBL Mississippian site types, and reconstruct the aboriginal uses of each site type through functional analyses of material culture.
- g) Construct detailed topographic maps of towns and isolated earthworks that appear to be well preserved in LBL.
- h) Determine if the basic mound and plaza elements of Mississippian towns were fixed designs throughout their lifespan.
- i) Determine the general "lifespan" of Mississippian towns in LBL and whether they were continuously occupied over several centuries.
- j) Determine if the process of town creation and abandonment was an ongoing phenomenon throughout the period, or if most towns were founded during the Late Woodland or early Mississippi period.
- k) Determine if most of the towns in LBL were abandoned at roughly the same time. If so, determine what affects this had on other levels of the settlement hierarchy.

5. Exchange

- a) Identify to what extent chert for hoes and woodworking tools was procured by "down-the-line" trade rather than direct exploitation of source localities.
- b) Determine if craft specialization was present in LBL Mississippian communities.
- c) Identify which factors promoted and maintained regional trade/communication networks in LBL.

6. Biological Anthropology

- a) Identify evidence of stress and other health indicators in burial populations in LBL in order to assess the relative health of Mississippian communities and possible temporal/spatial changes in health.
- b) Assess what effect contact with European diseases during the late Mississippian period had on local populations in LBL.
- c) Examine skeletal indicators of biocultural adaptations in LBL.
- d) Examine the biological distance between populations, using metric and non-metric skeletal traits.
- e) Conduct bone chemistry studies with Late Woodland and Mississippian skeletons from LBL to delineate the timing of increased consumption of

maize relative to other plant foods and interregional similarities and differences in C4 plant consumption patterns and temporal changes in those patterns.

7. Mortuary Practices

- a) Document whether mortuary ritual emphasized individual or corporate (i.e., village) identity in LBL.
- b) Determine if patterns of mortuary ritual changed through time in LBL.
- c) Investigate the placement of infant and child burials in Mississippian housefloors in LBL.
- d) Determine why stone box graves did not appear in the Lower Tennessee-Cumberland area until late in the Mississippian period, if this is actually the case.

8. Social Organization

- a) Determine if the allocation of food and other resources in LBL was controlled by chiefs or other elite in a re-distributive network.
- b) Determine if social divisions within Mississippian society in LBL were ranked or if there was true social stratification.
- c) Investigate patterns of social differentiation inferable from the analysis of mortuary ritual in LBL.
- d) Determine if LBL Mississippian towns contained elite sectors or neighborhoods.
- e) Identify the minimal social unit of Mississippian households in LBL.
- f) Determine if there is a "Tennessee-Cumberland" style of stone statues and if those statues are associated with charnel/temple shrine contexts in LBL.

4.5 HISTORIC RESEARCH ISSUES

McBride and McBride (1990:559-693) provide a general context for the development of a heritage resources management plan for historic resources on LBL. Their outline, when supplemented with specific documentation supplied through oral history (Hammack 1982) and descriptions of LBL's history as recorded by Andrus and Chandler (1998), Henry (1976), Merritt (1997, 1998), Mulligan (1998), and Wallace (1992), allows for the development of specific research questions addressing the historic context of LBL.

McBride and McBride (1990:559-561) point out that archeological investigation of the historic period is relatively new to Kentucky (this is also true of Tennessee):

With a few exceptions, historic period sites were not investigated by Kentucky archaeologists until the late 1960s. Since then, many of the changes in the goals and methodologies that historical archeology, in general, has undergone are reflected in the history of the development of historical archeology in Kentucky [and Tennessee] ... The present status of historical archeology ... is much improved over that of only a decade ago, but there is still much progress to be made. The inventory of historical archeological sites needs to be expanded. Since historical archeology, like all archeology, is a comparative science, information [about] different site types is needed from all regions of the state.

In their discussion of historical archeology, McBride and McBride (1990:565-566, 573-574) describe no historical archeology as having taken place in the LBL area up to 1990, other than simple site reporting. However, several National Register historic sites (two 19th century furnaces—Center Furnace in Kentucky and Great Western in Tennessee—and a Civil War site location--Fort Henry in Tennessee) were recorded for the LBL area in 1975. Site studies at these National Register sites would make an impressive contribution to the historic archeology record of Kentucky and Tennessee. The kinds of site studies that should be employed at these and other sites of the historic era in LBL include artifact studies, chronological analysis, pattern recognition studies, status studies, zooarcheological studies, thematic site type studies, bibliographical works, paradigmatic research design related studies, and other methodological work.

These research designs and methods can be applied to six of the seven historic contexts for LBL (Pre-Settlement Exploration, Early Settlement, Antebellum, Civil War, Postbellum, Consolidation and Industrialization) (McBride and McBride 1990).

The following list of contextual questions for the Historic Tradition of the LBL area are based on the writings of Andrus and Chandler (1998), Henry (1976), Merritt (1997, 1998), Mulligan (1998), and Wallace (1992):

1. Pre-Settlement Exploration (? to 1783)
 - a) Document the earliest recorded date and associated site of Euro-American activity in LBL.
 - b) It is possible the Pre-Settlement Exploration temporal unit is not represented at LBL, as settlement probably arrived after 1783.
2. Early Settlement/Frontier (1783 - 1830) (McBride and McBride 1990:589-598)
 - a) Earliest documented settlement in western Kentucky is George Rogers Clark's Fort Jefferson in Ballard County, Kentucky. Settlement in the Land Between The Lakes area did not begin until 1783, according to

earliest documented records (Wallace 1992). Document/locate the earliest homestead sites of the Frontier Period in LBL.

- b) Examine the relationship between the earliest settlements of LBL and those in Kentucky/Tennessee by studying settlement patterns, population patterns, technology, economics, ideological connections to outside areas, and patterns of cultural ethnicity.

3. Antebellum (1830 - 1861) (McBride and McBride 1990:599-605)

By 1820, regular steamboat traffic was occurring on the Ohio River. This breakthrough in transportation greatly improved the cultural and economic ties of Kentucky with the East Coast, the deep South and Western Europe.

It also led to increased complexity in social, cultural, political, and economic institutions within the state ... The Antebellum temporal unit, therefore, can be viewed as a time during which the processes of increased complexity begun in the later years of the Early Settlement temporal unit were completed ... Also, as transportation and communication systems were improved, Kentuckians were more immediately affected by broader national and international developments, such as increased industrialization [that brought] Kentucky into the "World System."

Research contexts and questions for the Antebellum period might include:

- a) Investigating economic and transportation developments in LBL.
- b) Investigating the role of rural slavery in LBL.
- c) Investigating the role of early towns/population "centers" in LBL (see Merritt 1998).
- d) Investigating the role of industrial development in LBL (e.g., iron furnaces and the importance of importing African-Americans and Chinese coolies to work the furnaces).

4. Civil War (1861 - 1865) (McBride and McBride 1990:606-614)

- a) Investigate the role of early occupation and engagements in LBL.
- b) Specifically investigate the Fort Henry and Fort Donelson campaigns.
- c) Study the effects on the civilian population in LBL.
- d) With respect to fortifications, McBride and McBride (1990:612) ask:
 - i. What was the final structure of the fort and how was it constructed?
 - ii. Did the fort's structure conform to regulation or was it more informal?
 - iii. How do forts compare to one another across the region?
 - iv. What types of artillery and arms were utilized at forts?

- v. What other activities occurred within the fort?
 - vi. Was there habitation within or surrounding the fort?
 - vii. Was the fort involved in a battle? If it was, how were the defending troops deployed? Where did the attack come from? What ammunition did the attackers use?
- e) With respect to battlefields:
- i. What was the nature of the fortifications or entrenchments?
 - ii. How were troops distributed across the site?
 - iii. Where did the most intensive fighting occur on the battlefield?
 - iv. What was the nature of the variation in arms, ammunition, and equipment?
 - v. Was there a field hospital established? Where?
- f) With respect to encampments:
- i. What was the nature of the habitation structures?
 - ii. How was the camp laid out?
 - iii. How was refuse disposed of?
 - iv. What kinds of food were eaten and how were they prepared?
 - v. What kinds of domestic or recreational items might be expected?
 - vi. Were there any differences by military rank in housing, diet, and equipment at these camps?
 - vii. Did the encampments contain African-Americans?
 - viii. How does the equipment, housing, and food at one site compare to earlier or later sites?
 - ix. What was the nature of medical treatment in these camps?
5. PostBellum Readjustment and Industrialization (1865 - 1914) (McBride and McBride 1990:615-645)
- a) How did LBL populations deal with the emancipation of African-Americans?
 - b) What new trends in agriculture were developed following the war?
 - c) What demographic developments occurred following the war?
 - d) What developments in commerce and manufacturing occurred following the war? (lumbering? mining?)
 - e) What developments occurred in communication and transportation following the war? (river? railroad? roads?)

6. Industrial and Commercial Consolidation (1915 - 1950) (McBride and McBride 1990:646-663)
- a) What new demographic and settlement trends occurred in LBL?
 - b) What new agricultural developments occurred in LBL?
 - c) What was the role of tobacco farming in LBL?
 - d) How did the Depression affect residents of LBL? (economically? socially? ideologically?)
 - e) How did the New Deal Policies affect people in LBL?
 - f) What new trends in industry and commerce occurred in LBL?
 - g) What new manufacturing and industrialization affected LBL?
 - h) How is the national growth of retail trade and consumer goods marked in the rural LBL population?
 - i) How was communication and transportation affected?
 - j) How was lumbering affected in LBL?

Chapter V.

**KNOWN HERITAGE
RESOURCES IN LBL**

CHAPTER V. KNOWN HERITAGE RESOURCES IN LBL

5.1 HERITAGE RESOURCE SITES

Archeologists and Archeological Projects on LBL

Although there has been no centralized direction for the heritage resource program of LBL over the years, a number of projects have been accomplished. Some projects outside of LBL have a bearing on the heritage resources found within LBL. For example, the National Park Service has researched the history of the Civil War Fort Donelson campaign, including the events that took place at Fort Henry. Dr. Edward Bearss produced a series of maps that display troop movements and skirmishes between February 4-12, 1862. Much of this campaign took place on what is today LBL and thanks to Dr. Bearss' work, we have a good idea about where these events took place.

Those archeologists who were hired by TVA for short periods took their responsibilities seriously and often did good work in reviewing the archeological record of LBL. Special credit is due to Dr. Jack Nance who worked on LBL during the early to mid 1970s. Other archeologists who worked on LBL include Hugh Curry, James Merritt, Calvert McIlhany, and Dr. Ken Carstens.

Three sites on LBL are listed on the National Register of Historic Places: Fort Henry, Center Furnace, and Great Western Furnace. These three sites were placed on the Register in 1975.

As of December 31, 2001, approximately 28,000 acres of LBL have received some level of systematic archeological survey (about 16% of LBL). Most of the areas surveyed have been for timber harvest activities, but structural improvements (such as RV dump stations, the Elk and Bison Prairie, and Wranglers Campground) were also surveyed prior to development.

The Kentucky Transportation Cabinet is planning to widen and straighten Highway 68/80, which runs east-west through LBL. The overall project runs from Bowling Green to Mayfield and the part that will affect LBL is only a small segment of the larger project. The project area in LBL was surveyed by a private contractor in 1993 (Schenian and Mocas 1994).

Historic Sites

Although little attention has been given to them to date, the most numerous archeological sites on LBL are the homesteads and farmsteads of the former

residents of the Between the Rivers area. Very few of these sites have been recorded as archeological sites, a situation that will certainly change over the next decade. Valuable information about these sites rests with the former residents of the BTR area and also in the land acquisition files of TVA on file in the Administrative Office in Golden Pond. Two organizations of former residents, Between the Rivers Preservation Organization and Between The Rivers, Inc., are currently recording the locations of all former structures with handheld GPS units. This information will be of great benefit to the heritage resource program of LBL and will help provide protection to these sites.

Other historic sites on LBL derive from the industrial history of this area, rather than the residential history. In the 19th century, LBL sustained an important pig iron production industry using locally available iron ore, limestone, and timber for charcoal production. The remains of a number of iron furnaces are present on LBL and these, along with the associated charcoal hearths, company offices and buildings, and boarding houses and homes of workers, represent a significant historical resource. Although Center Furnace and Great Western Furnace have been placed on the National Register, no archeological work has been done at either site. When the iron industry faded after the Civil War, there was an extensive railroad timber tie production industry in the late 19th through early 20th centuries and sites associated with this industry can be expected to be discovered. Lime kilns were present, especially in the northern part of LBL, from before the Civil War through the early years of the twentieth century.

Finally, as previously mentioned, sites associated with the Civil War are present on LBL. These sites have a historical significance that extends beyond the local area, reflected in the fact that Fort Henry is on the National Register. The outer defensive earthworks of Fort Henry are located on the banks of Kentucky Lake on LBL. Fort Henry itself is currently below the waters of Kentucky Lake. Archeological remains associated with Grant's assault on Fort Henry may also be present above the current lake level.

Prehistoric Sites

The presence of prehistoric sites on LBL cannot be discussed with as much confidence. The largest and most extensive prehistoric archeological sites in this area were inundated by the construction of Kentucky and Barkley Dams. "...the most favorable soils for the practice of prehistoric agriculture occurred in the alluvial river bottoms. ... The soils of the uplands and many of the terraces seem to have offered poor prospects for agriculture during prehistoric times." (Moffat 1983:13-14).

Modern-day LBL consists of the rolling hills and uplands that were once located well away from the better agricultural zones. No doubt the uplands were visited

prehistorically (there are known archeological sites), but it should be kept in mind that those sites present are only a segment of the range of sites that were present before the creation of the lakes that define LBL.

As was reviewed in Chapter III, work by Jack Nance (1974) supports this argument. Nance's work represents the best scientific survey work done in LBL to date. Nance hypothesized that prehistoric use of the uplands should focus on the largest stream valleys, which provide a permanent water source. Dr. Nance further believed that the use of these upland valleys would be mainly for hunting activities. He conducted an intensive survey of Crooked Creek and found a total of 21 prehistoric sites. He was able to divide them into three site types:

- 1) Sites containing a wide range of tool types. These probably represent hunting and butchering camps utilized several times, each time of short duration.
- 2) Sites containing 3-5 different tool types, less intensively used than Group 1 sites. Probably represent single-event usage as temporary hunting camps.
- 3) Sites containing 1-3 tool types plus flaking debris. More accurately referred to as activity areas.

The findings of Nance's Crooked Creek survey support the suggestion that most prehistoric archeological sites on LBL consist of small lithic scatters associated with hunting activities.

Other surveys that have been undertaken in LBL have been motivated by compliance with NHPA. These Section 106 surveys, mainly for timber harvests during the 1990s, were not undertaken to test archeological hypotheses but rather to fulfill TVA's responsibility to consider the effects of its undertakings on historic properties. Although this does not mean that the information collected is not accurate or valuable, it does suggest a reason for the lack of research questions posed by these projects.

It is possible that some other prehistoric sites beyond those types suggested by Nance may exist in the uplands of LBL. Burial mounds, either with or without stone slabs, are known to exist in upland areas in western Kentucky and Tennessee and may also be found on LBL. In addition, other prehistoric sites, unknown at this time may be present.

5.2 ORAL HISTORIES

LBL has supported projects for other types of heritage resources. During the 1980s, Murray State University students working for the Forrest C. Pogue Oral History Institute (Hammack 1982) recorded 50 oral histories of individuals who once lived and worked in LBL. Copies of these records are located in the Forrest C. Pogue Library/Special Collections at Murray. Unfortunately, these oral history recordings were made on reel-to-reel audiotapes at 1 7/8 inch per second tape speed, and the tapes have become extremely fragile and brittle with time. TVA

provided funds to download these tapes to an archivally approved medium for preservation of the oral histories (Kathy Harper, personal communication 9/2/99). The tapes are now stored on compact discs in the Forrest C. Pogue Library, with cassette tapes available for public access to the interviews. Cassettes are also available at the LBL Administrative Office at Golden Pond.

The Land Between The Lakes Oral History Project, originally conceived by Dr. Hammack (1982:v), has been carried on with additional oral histories recorded while Between the Rivers residents are still alive. Approximately 60 interviews of former Between the Rivers residents and others with close connections to the region were conducted between 1997 and 1999 through a grant to Land Between The Lakes Association from the Kentucky Oral History Commission. The interviews will be duplicated at the Kentucky Historical Society, and copies of the tapes will be available at the LBL Administrative Office at Golden Pond. Original tapes of the 1997-1999 interviews will be permanently stored at the state archives in Frankfort. In 1999 the Land Between The Lakes Oral History Project received a transcription grant from the Oral History Commission, providing funds for about half of the 60 interviews to be transcribed to written form.

5.3 CEMETERIES

LBL has 228 recorded cemeteries on its 170,000-acre area and more forgotten and unrecorded cemeteries are being reported regularly. Although by definition cemeteries are not eligible for nomination to the National Register, they are preserved and protected as if they were.

The oldest cemeteries on LBL date to the early 1800s. The earliest recorded burial on LBL occurred in 1811, although unmarked graves may predate this burial. TVA identified all the burials it could when the cemeteries were originally recorded, seeking help from local people in identifying unmarked graves. This information forms the Deceased Persons Information Records, which includes information on approximately 5,600 individuals of an estimated 10,000-12,000 people buried within the boundaries of LBL. As new burials are made, they will also be included in this database. Cemetery records are freely available for public examination at LBL's Administrative Office in Golden Pond, KY.

In addition to records on existing cemeteries within LBL, records about TVA's cemetery relocation activities during the dam construction period are also available at the Administrative Office. Cemetery relocation records include the following: an outline of grave removal operations in Lyon, Trigg, and Stewart Counties; a distribution chart of graves moved, indicating the cemeteries that graves were moved from and to; name of the deceased and date of death, if this information was available; re-interment location, and date; and plat maps with Kentucky Lake Project numbers indicating removal of graves.

Chapter VI.

INITIATIVES AND PRIORITIES

CHAPTER VI. INITIATIVES AND PRIORITIES

Following are LBL's short- and long-term initiatives and priorities for heritage resource management. These initiatives address the three main goals of a heritage resources management plan for LBL, as stated in the EIS (TVA 1994:37):

- Development and implementation of a comprehensive inventory and evaluation program for LBL's cultural resources.
- Development and implementation of a preservation and stabilization program for significant archeological sites, historic structures, and other historic features.
- Development and implementation of a public interpretation and education program of LBL's cultural resources

6.1 SHORT TERM INITIATIVES

1. Develop a Programmatic Agreement (PA) with the Advisory Council and the SHPOs of Kentucky and Tennessee implementing LBL's compliance with Section 106 of the NHPA. Tier this PA to the USDA Forest Service Region 8 PA, currently in the process of being revised (as of September 2002).
2. Define and map site boundaries for the existing three National Register sites and all known eligible National Register sites in LBL; determine what outbuildings/former structures were associated with these sites, and if the context of the sites and associated outbuildings/structures is still present; update National Register nomination forms and resubmit to Kentucky and Tennessee State Historic Preservation Officers. The three sites on LBL that are currently listed on the National Register are Center Furnace in Trigg County, Kentucky; Great Western Furnace in Stewart County, Tennessee; and Fort Henry, also in Stewart County, Tennessee. The first step in this initiative was begun in June 2002, utilizing volunteer labor at Center Furnace.
3. Locate as many of the sites of structures (homes, churches, outbuildings) as is possible that were removed or demolished when TVA purchased the property and evaluate these sites by National Register criteria for possible listing on the National Register, if sites still have archeological context. (See also Long Term Initiative 3). Two local historic groups, Land Between the Rivers, Inc. and Between the Rivers Preservation Organization, have begun a project of locating all former building locations throughout LBL (houses, barns, churches, stores, etc.) using handheld GPS devices. LBL will utilize the information developed by these local groups, with their cooperation, in order to eventually record and evaluate these sites.

4. Continue to stabilize iron furnaces and earthworks in accordance with Secretary of the Interior's standards. (See 53 *FR*:4734, February 17, 1988, for technical briefs, and technical briefs about masonry sites [Secretary of the Interior's Standards for Rehabilitation 1990; Preservation Briefs 2: *Repointing Mortar Joints in Historic Masonry Buildings*, 1998; Preservation Briefs 38: *Removing Graffiti from Historic Masonry*, 1995]). Collaborate with state SHPO/OSA offices in updating and stabilizing National Register sites. In FY2002, the earthworks at Fort Henry were cleared of encroaching brush and small trees, leaving large stable trees (whose root systems provide strength to the earthworks), through a grant from the Tennessee Battlefields Commission. Great Western Furnace was stabilized some years ago by the placement of a metal cap or roof on top of the structure. Center Furnace is a brick structure that is degrading and remains a problem to be solved.
5. Conduct archeological surveys in all active agricultural fields to assess those areas for heritage resources (prehistoric and historic) and determine if any sites merit nomination to the National Register of Historic Places. Report all new sites to Kentucky and Tennessee SHPO and OSA offices and maintain duplicate site files at LBL. In FY2001, 706 acres were surveyed under this initiative. In FY2002, a further 490 acres were surveyed. This project should be accomplished in the next 3-5 years, depending on funding.
6. Continue to integrate heritage resources management in land management as prescribed by NEPA. Continue to conduct Phase I reconnaissance survey for heritage resources in areas scheduled for timber harvests or other forms of land development that meet Section 106 requirements.
7. Consolidate known cemetery records and, in cooperation with the volunteer groups (BTR, Inc., BRPO, other local groups), inventory and protect cemeteries on National Forest land.
8. Continue oral history and folk history programs for LBL. Collaborate with state SHPOs, regional universities, historical societies, and organizations that focus on the Land Between the Rivers with expertise in oral history.
9. Continue to provide education and interpretive programs and information related to LBL's history and heritage resources for general visitors and organized groups. Make books, tapes, and other media related to LBL's heritage resources available at LBL's gift shops and information centers.
 - x - With the cooperation of former residents from the Between The Rivers area, an exhibit has been developed at the Golden Pond Visitor Center that interprets the history of LBL for visitors. Collaborate with area universities and area history-related organizations to offer a variety of heritage resource and heritage programs and information.

10. Utilize the Forest Service's Passport In Time program to involve the public in archeology projects on LBL. In FY2002, the first PIT project on LBL was accomplished at the National Register site of Center Furnace. Thirteen volunteers contributed over 500 hours of labor during this two-week project.
11. Partner with Murray State University for long term curation of artifacts and archeological records (papers and photographic) from LBL heritage resources in compliance with 36 CFR Part 79, Curation of Federally Owned and Administered Archeological Collections; locate all archeological collections from LBL and curate at Murray State University to house the collection in one location near LBL for purposes of external research, exhibit production, and public access. Murray State University has been approved by the Kentucky SHPO as one of three artifact repositories in Kentucky for the curation and artifacts and archeological records.

6.2 LONG TERM INITIATIVES

Twenty-Year Plan, 2003 - 2023:

1. Using current site information, plan systematic reconnaissance and survey of all lands with less than 12 degree slope for prehistoric and historic sites beginning with a five-year, stratified, systematic survey of 10 percent (17,000 acres), including sampling each of the known land forms within LBL. Report all site locations to Kentucky and Tennessee SHPO and OSA offices and evaluate all sites found for National Register qualities.
2. Conduct a shoreline survey of LBL and record heritage resources located in the fluctuation zone around LBL. Determine feasibility of preserving or mitigating sites that are of National Register quality.
3. Identify and evaluate all existing standing historic buildings for nomination to the National Register. Define the historic context for eligibility. Collaborate with the Kentucky and Tennessee SHPOs to evaluate the standing structures and those historic sites where archeological context can still be determined and, if appropriate, nominate them to the National Register. Include information in a GIS database.
4. Identify all known existing iron works (N=8), determine associated outbuilding locations, work areas, and other related heritage materials or areas (e.g., ore pits, charcoal rings, etc.), select a representative sample for preservation, and if appropriate, nominate to the National Register.
5. Continue to integrate heritage resources management in overall management planning, especially in the development of the EIS for the Land and Resource Management Plan for LBL, set to begin in the second quarter of FY2003.

6. Continue to use information gained from heritage resources inventory for interpretative planning, exhibit production, public programs, and community outreach efforts at such places as Golden Pond Visitor Center, campgrounds, or at The Homeplace-1850.
7. In accordance with a bill recently introduced in the House of Representatives (H.R. 5426, Section 5), "enter into a memorandum of understanding [between the Secretary of Agriculture and the Secretary of the Interior] to facilitate cooperatively protecting and interpreting the remaining vestige of Fort Henry and other remaining Civil War resources in the Land Between The Lakes National Recreation Area affiliated with the Fort Donelson campaign." Although this bill is not an enacted law, this initiative is a worthy one and does not require the force of law to be completed.
- 8. Emphasize LBL's history and heritage in tourism promotion and public relations for LBL.

GLOSSARY

GLOSSARY

A total of 16 site types have been established in Kentucky and Tennessee to categorize and classify the range of archeological sites most frequently recorded by the state offices of archeology and the State Historic Preservation Offices. (OSA-Kentucky 1985; OSA-Tennessee 1999). The following site type definitions are taken from Pollack (1990:25-28).

1. Cave

Prehistoric and historic peoples often used caves, which are natural solution cavities formed primarily in limestone. Archeological remains have not only been found at cave entrances, but also deep within cave systems themselves (sometimes referred to as the dark zone). Domestic debris (e.g., midden) is primarily found at cave entrances. Cave interiors were often explored and their natural resources sometimes exploited by prehistoric and historic miners. The interiors of caves also served as burial loci.

2. Cemetery

Cemeteries are non-mound human interment areas and consist of a single area or small clusters of burials in a general area.

3. Earth Mound

Single earth mounds not associated with a recognized habitation area are included within this category. Earth mounds vary in size and configuration and usually contain burials. If more than one mound is present, the site is classified as a mound complex.

4. Earthwork

This site type consists of earth or stone embankments of varying designs—usually circular, rectangular, or linear. Earthworks are considered to be religious/ceremonial sites utilized by regional prehistoric or historic populations. "Sacred circles" and rectangular "forts" are good examples of earthworks.

5. Isolated Burial

A single human burial—which may contain one or more individuals and is not associated with a cemetery—is considered an "isolated burial."

6. Isolated Find

Any single artifact and/or a small cluster of flakes not associated with any other prehistoric remains is considered an "isolated find." This type of site is often represented by a single diagnostic artifact (e.g., a projectile point) or secondarily deposited materials.

7. Historic Property or Historic Resource

Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register is considered a historic property or historic resource. The term includes artifacts, records, and remains related to the property or resource. Any historic property dating to 1949 or older may be eligible for nomination to the National Register of Historic places if the site meets the Secretary's Standards. Sites must first be at least 50 years old to qualify.

8. Mound Complex

A mound complex consists of a cluster of two or more earth and/or stone mounds not associated with any recognized habitation area. These clusters may have been used for religious/ceremonial purposes and/or human interment.

9. Open Habitation with Mound(s)

These sites vary considerably in size, intensity of occupation, and range of activities performed at them. Sites of this type include small habitations (usually less than 1 ha in size) such as hunting, fishing, gathering, and other types of extractive sites, and also large habitations (usually over 1 ha in size) such as base camps and villages. Structural remains, as well as features and human burials, may be present at small habitation sites, while large habitations also often contain substantial midden deposits. This site type is associated with one or more mounds, ranging from earth and/or stone burial facilities to large platform structures used for religious/ceremonial purposes.

10. Open Habitation without Mound(s)

This site type's definition is identical to the site type "Open Habitation with Mound(s)," except this site type is not associated with mounds.

11. Quarry

Natural geologic formations exhibiting evidence of the removal of materials—usually chert or stone—by prehistoric or historic peoples are generally considered to be quarry sites. Quarries may or may not be associated with a nearby workshop site.

12. Rockshelter

A rockshelter site is any natural rock overhang utilized by prehistoric or historic people. These sites are usually habitation areas and often contain thick midden deposits, human burials, and a wide variety of heritage materials. Environmental conditions at many of these sites sometimes result in the preservation of normally perishable items such as baskets and moccasins. Occupation of these sites varies from temporary encampments to long-term occupations. [Rockshelters, by definition, do not have dark zones where light does not penetrate. These only occur in caves.]

13. Stone Mound

This category is characterized by single mounds constructed of stone, varying in size and configuration, and represented by small mounds, ceremonial effigies, and large burial mounds. By definition, this site type is not associated with a recognized habitation area. If more than one mound is present, the site is classified as a mound complex.

14. Undetermined

Undetermined sites cannot be assigned to a specific site type because of a lack of information

15. Workshop

This site type is defined as a concentration of chert (or other resource) or other stone debitage and unfinished or rejected artifacts not associated with any other heritage remains (e.g., midden, features, or structures). In effect, workshop sites are artifact manufacturing and processing sites and may be either historic or prehistoric in origin.

16. Other

A site that, for whatever reason, cannot be assigned to any of the previously defined prehistoric site types is placed within this category. An historic archeological site, or multicomponent prehistoric/historic site is usually assigned to this category.

Advisory Council

Fully titled the Advisory Council on Historic Preservation, "Advisory Council" means the agency, established pursuant to Title II of the National Historic Preservation Act, to be afforded a reasonable opportunity under Sections 106 and 110(f) of the Act to comment with regard to proposed federal, federally licensed, or federally assisted undertakings which may affect properties which are included in or eligible for inclusion in the National Register of Historic Places. Additionally, "Advisory Council" refers to the agency reviewing federal programs pursuant to Section 202(a)(6) of the Act. Federal regulations, 36 CFR Part 800, "Protection of Historic Properties," outline the procedures for complying with the requirements of Section 106 of the Act.

Ha

Ha is an abbreviation for hectare, a metric unit of area equal to 2.471 acres.

Historic Context

The organization format for grouping historic properties sharing similarities of time, theme, and geography (e.g., early twentieth century cattle ranching in the panhandle of Oklahoma) defines the historic context. Historic contexts are linked

to actual resources and are used by public and private agencies and organizations to develop management plans based upon actual resource needs and information.

Intensive Survey

An intensive survey is a systematic, detailed examination of an area, designed to gather information about historic properties sufficient to evaluate them against predetermined criteria of significance within specific historic contexts.

Management Inventory

A management inventory is an organized compilation of information on properties evaluated against the National Register criteria, including both historic and non-historic [prehistoric] properties.

Mitigation

Mitigation is action to minimize, ameliorate, or compensate for the degradation and/or loss of those characteristics of a property making it eligible for the National Register.

National Register

Fully titled the "National Register of Historic Places," the National Register is the list maintained by the Secretary of the Interior of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture.

Property Type

A property type is a grouping of individual properties based on shared physical or associative characteristics

Reconnaissance Survey

A reconnaissance survey is an examination of all or part of an area, accomplished in sufficient detail to make generalizations about the types and distributions of historic properties present on the site.

Secretary

Secretary refers to the Secretary of the Interior.

Secretary's Standards

Secretary's Standards are the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation*, the project and program standards and guidelines for implementing Section 110 of the National Historic Preservation Act. The Secretary's Standards are technical advice concerning archeological and historic preservation activities and methods.

State Historic Preservation Officer (SHPO)

The SHPO is the official (or a representative acting on behalf of the SHPO) appointed or designated pursuant to Section 101(b)(1) of NHPA to administer the state historic preservation program.

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APPENDICES

**Appendix A: Contact
Native American Tribes and
State Historic Preservation Offices,
Kentucky and Tennessee**

Cherokee Nation

Leon Jones, Principal Chief
Eastern Band of Cherokee Indians
Qualla Boundary
P.O. Box 455
Cherokee, NC 28719
(828) 497-2771

Chadwick Smith, Principal Chief
Cherokee Nation of Oklahoma
P.O. Box 948
Tahlequah, OK 74465
(918) 456-0671

Chickasaw Nation

Bill Anoatubby, Governor
Chickasaw Nation
P.O. Box 1548
Ada, OK 74821
(580) 436-2603

Shawnee Nation

Lee Edwards, Governor
Absentee-Shawnee Tribe of Oklahoma
2025 S. Gordon Cooper Drive
Shawnee, OK 74801
(405) 275-4030

Charles D. Enyart, Chief
Eastern Shawnee Tribe of Oklahoma
P.O. Box 350
Seneca, OK 64865
(918) 666-2435

Ron Sparkman, Chairman
Shawnee Tribe of Oklahoma
P.O. Box 149
Miami, OK 74355

Kentucky SHPO

David L. Morgan
Kentucky Heritage Council and State Historic Preservation Officer
State Historic Preservation Office
300 Washington Street
Frankfort, KY 40601

Phone: (502) 564-7005
Fax: (502) 564-5820

Tennessee SHPO

Milton Hamilton
State Historic Preservation Officer
Department of Environment and Conservation
401 Church Street
L + C Tower, 21st Floor
Nashville, TN 37243-0109

Phone: (615) 532-0109
Fax: (615) 532-0120

Appendix B: Cemetery Policy on LBL

**Stewardship Guidelines
for Cemeteries**

at

**Land Between The Lakes
National Recreation Area**

USDA Forest Service
"Caring for the land and serving people"

Section One

The Forest Service supports the interest and concern for the numerous family and church cemeteries on LBL that exists among the former residents of Land Between The Lakes National Recreation Area and their relatives. We are committed to doing our part for these culturally important sites through a spirit of support, avoidance and protection.

Families have the right to care for the graves of their ancestors. They also have a right to expect the Forest Service, as the land management steward of LBL, to be sensitive to these cultural interests and to use their federal resources to protect all cemeteries and the corresponding official records from desecration and vandalism. The Forest Service wants to support and work with the families for these purposes. **We do not wish to interfere in any family's care of a marked, recorded gravesite.**

Section Two

The LBL Protection Act of 1998 provides specific direction to the Forest Service regarding the management of cemeteries in LBL:

Section 528. The Secretary [of Agriculture] shall maintain an inventory of and ensure access to cemeteries within the Recreation Area for purposes of burial, visitation, and maintenance.

This directive clearly outlines these key roles for the Forest Service in cemetery management at LBL. LBL management has been and will continue to provide this support through road access maintenance, provision of basic facilities for family reunions, law enforcement to deter vandalism, record keeping, and with expertise in confirming cemetery discoveries. We share the public's desire to ensure the long-term protection of all cemeteries on LBL and have instituted these guidelines to communicate how the Forest Service proposes to continue to work with the families to provide these services.

A. Access

1. Road access will be provided at the same level as existed when the federal government acquired the land. *This is the same policy applied by TVA.* Often, information on these road conditions is available in the cemetery records, but other sources of information may be used to determine the former condition of roads.
2. Although some cemeteries lie within areas where access fees are charged by LBL, there will be no charge for people wishing to visit cemeteries. *This is the same policy applied by TVA.* Access to cemeteries is guaranteed, even if the road leading to the cemetery is gated and public entry into the area is restricted. Contact the Forest Service Administrative office Golden Pond Visitor Center or the North or South Welcome Stations to inquire about methods of access.
3. It may be necessary to create an access trail to provide access for people and grounds maintenance equipment. Trail construction is permitted, but should not disturb the ground. Brush and small trees less than 6" in diameter may be cut and cleared away from the trail corridor (but not removed from the site). Trees may be blazed to mark the trail, but no ground disturbing tread work should be done. No special permission is required for this trail work from the Forest Service. *This policy is designed to improve access to cemeteries on LBL.*

B. Cemetery Records

1. The cemetery records originally collected by TVA are kept at the Forest Service Administrative Office in Golden Pond. They are located in a secure storage area, and will be available to relatives, former residents, or any interested persons while escorted by FS personnel. *This is the same policy applied by TVA.* Information may be copied, but original records will remain in the office at all times. These records consist of (1) Cemetery Files, (2) Land Tract Records, and (3) Deceased Persons Information.
2. The Forest Service has solicited the names of interested parties and created a list of contacts for each cemetery. There is no limit to the number of contacts for each cemetery. The list will be provided upon request to the public and will be used by the Forest Service when questions arise or if nearby projects are planned.
3. If additional graves are found outside of the mapped boundary of a cemetery, the cemetery boundary will be redrawn to include those graves. A land surveyor will be contacted to make a new plat of the cemetery, which will be included in the official cemetery records maintained by the Forest Service in the Golden Pond, Kentucky Administrative Office.
4. Cemeteries are generally named for families, for churches, or for local geographic points. Some cemeteries are listed in the files as "no name" cemeteries. If agreement cannot be reached regarding an appropriate name, the Forest Service will select one and use it for all maps and files. We would prefer that local interested parties settle on appropriate names.

Section Three

A. Avoidance by the Forest Service

1. It is Forest Service policy to protect cemeteries from the effects of management activities. The presence of cemeteries will be considered during the planning process for all projects, and steps will be taken to prevent disturbances to nearby cemeteries.
2. The boundaries of cemeteries will be marked, by paint or flagging, when potential ground disturbing projects take place in their vicinity.
3. Cemeteries will be identified on maps given to project personnel when activities will occur nearby.
4. Camping is not permitted within the boundaries of cemeteries.

B. Signs and Sign Issues

1. Directional signs may be erected along main roads at the cost of the requesting party. The Forest Service reserves the right to not erect such signs for administrative reasons.
2. The Forest Service will have these directional signs made according to the standards that have been used for such signs in the past.
3. A vandalism prevention sign has been created and a copy of this sign may be placed at any cemetery at the request of the family or any interested party. The Forest Service will provide this sign free of charge.
4. Signs asking for funds to maintain the cemeteries may not be placed on LBL. Informal solicitation of funds at family homecomings for the purpose of cemetery maintenance is not prohibited. It is the formal solicitation of funds on federal lands, aimed at the general public, that is not permitted on federally managed land at any time. OGC ruling.
5. The Forest Service is available at any time to advise interested parties on sign issues. The Forest Service must approve interpretive signs prior to placement in cemeteries.

Section Four

The following letter was issued by TVA on September 18, 1978. It has been presented to the Forest Service for its consideration. All the provisions listed in this letter were incorporated in the guidelines, however the TVA letter is attached to these guidelines for future reference by the managers of LBL.

Cemeteries in Land Between The Lakes are always open for visiting and decoration and for maintenance by relatives, friends, and cemetery associations. Although some cemeteries lie within areas where fees are charged, there will be no charge for people wishing to visit cemeteries for these purposes.

There are 220 known cemeteries in the 170,000-acre area, many dating to the early 1800's and some perhaps even earlier.

Additional burials in cemeteries will be permitted up to the limits of available space within existing cemeteries. The agency has recorded these boundaries and will fence them if necessary in its opinion for their protection.

TVA recorded all past burials in each cemetery, seeking help from local people in identifying unmarked graves. As new burials are made, these too will be recorded. Detailed cemetery records (names, dates, locations, maps, descriptions) are available at the administrative office for consultation by relatives, former residents of the area, and other interested persons.

Access to cemeteries is maintained or improved if it existed at the time TVA acquired the cemeteries. TVA will not object to removal of any existing graves if relatives wish to do this at their own expense.

-- TVA, 9/18/78

Section Five

A. Communication between the Forest Service and Cemetery Groups

The Forest Service wants to be seen as a strong supporter of families with loved ones buried at LBL and of the many associations and cemetery groups as well. We are committed to this goal and to improving communications with all interested parties, and we welcome comments and improvement suggestions at any time.

Many of the cemeteries at LBL are regularly maintained by families or formal and informal types of organizations. Some eighty or so of the 240+ cemeteries on LBL are provided this type of care. This means that about 160 cemeteries do not have a family or cemetery board caring for them. The recent efforts of Between the Rivers, Inc. and Between the Rivers Preservation Organization to locate and maintain these cemeteries is recognized and appreciated by the Forest Service. Family wishes should be solicited and followed wherever possible.

According to our records, the following cemeteries receive regular care and maintenance from families or cemetery associations:

Acree	Hendon	Paradise
Bailey-Byrd	Herndon	Pettit
Barnes	Hicks	Pinnegar
Barrow	Higgins #1	Pleasant Hill
Bethlehem (Lyon County)	Hilltop	Pleasant Valley
Bethlehem (Trigg County)	Jameson	Rushing
Bogard	Jenny Ridge	Rushing Creek
Bohannon	Kuhn	Rutland
Boyd Memorial	Lady	St. Mary's
Bullock Family	Guy Lady	St. Stephens
Cassity	Largent	Salem
Cherry	Lee-Dodds	Sardis
Colson	Litchfield Family	Savells
Cumberland-Matheny	Lone Pine	Scarborough
Dennis	Long Creek	Shaw
Dickerson	Matheny	Smith
Dilday	Mathes	Stone
Dixon	Mays	Turkey Creek
Downs	Morgan	Turner
Ferguson Springs	Mt. Pleasant	Wallace
Fulks	Mount Zion	Whitford

Futrell-Laura Furnace 7J-1	Nevil's Creek	Williams
Futrell (Rufus Lee) 7K-9	Newby	Woodson Chapel
Futrell (Nathan) 8J-3	Newton	
Gatlin	Nickell	
Gray (Garret) 6D-5	Nunn	
Gray (Isaac) 4E-2	Oakley	
Hematite	Outland	

In order to maintain a complete official record for each cemetery, we ask that when burials take place that a copy of the pertinent information be provided to the Forest Service.

Organized workshops have been conducted in the past to educate the public on gravestone repair and other topics of interest. The FS heartily recommends that this educational activity be continued and will provide whatever assistance it can in this effort.

In the interest of clarity, these following on-site guidelines have been arranged to fit the two categories of cemeteries at LBL. These are:

1. Marked and recorded cemeteries.
2. Newly discovered, unmarked or incompletely recorded cemeteries.

B. Care of Marked and Recorded Cemeteries

- A. The Forest Service will support the efforts of families and interested organizations that wish to work on cemeteries at LBL. To the extent possible, the Forest Service will respond to specific requests to provide special assistance (for example, in tree removal). If the Forest Service agrees to provide special assistance, a cemetery representative should be present during the activity.
- B. Some trees or shrubs may have been planted as memorials or grave markers and these can be distinctive features of a cemetery. Removal of trees larger than 10 inches in diameter is a possible safety hazard and may cause damage to gravestones and monuments. The Forest Service has experience and equipment that may be especially helpful to this removal and should be contacted to help. Trees removed from cemeteries may not be sold for commercial gain.
- C. In general, most cemeteries on LBL are not fenced. However, in some cases the families have put up fences. There is no established standard for the type of fencing used. If potential vandalism from a nearby public use facility is a problem, the Forest Service will consider

providing requested fencing. Otherwise, the family or cemetery association must provide it.

- D. Additional burials in existing cemeteries are limited to the available space as recorded in the cemetery records. Following national FS policy (FS Manual 2723.21), cemeteries will not be enlarged for further burials when space is no longer available within the existing boundaries. This is also a continuation of existing policies at LBL since its inception.

C. Newly Discovered, Unmarked or Incompletely Recorded Gravesites

- A. The FS recognizes that an unknown number of unrecorded gravesites may exist on LBL. These cemeteries are generally small and are usually poorly marked. There may even be some controversy whether a cemetery exists at all. The Forest Service welcomes the participation of all interested parties in these determinations.
- B. Previously unrecorded gravesites should be reported to the Forest Service as soon as possible. The process to resolve these discoveries will be:
1. The LBL Archeologist and the reporting party will make a visit to the purported cemetery.
 2. If the Archeologist agrees that a previously unknown cemetery is present, then:
 - a. A report will be written to that effect.
 - b. The cemetery will be named and numbered.
 - c. Boundary limits will be established.
 - d. Metal markers will be placed at the corners.
 - e. The land surveyor will make a map.
 - f. All inscriptions or grave markers will be recorded.
 - g. The deceased persons database will be updated.
 - h. Orientation photos will be taken.
 - i. The cemetery will be added to the database.

3. If the Archeologist does not agree that a cemetery exists or feels that insufficient information is available to make a determination, the potential use of ground penetrating radar or magnetometer survey will be considered, in consultation with experts in this field. Final determination is the responsibility of the Forest Service.
- C. To protect family interests, when cleaning or marking an abandoned cemetery or one that has not yet been fully documented, the Forest Service archeologist should be consulted before work is begun to ensure accidental damage does not occur. If possible, final determination and recording of the cemetery should occur before the work is done. Until the cemetery is recorded, it is not appropriate to remove deteriorated grave markers or to fill in grave depressions. Old grave markers and grave depressions are indications of the existence of cemeteries and can provide valuable information to the experienced eye.

- May 28, 2001 Draft Cemetery Handbook prepared by Forest Service and mailed out to public for comments.
- June 20, 2001 Meeting with local County Judge Executives, representatives from Congressmen Whitfield and Bunning, plus some twenty members of the public regarding the Draft Cemetery Handbook.
- Dec. 27, 2001 Revised Cemetery Guidelines mailed out to public. The revised Guidelines would be reviewed after a six month trial period.
- July 2002 Revised Guidelines in place six months -- no problems and few comments received.
- March 15, 2003 Guidelines reformatted. 1978 TVA letter added for reference by future managers of LBL. No substantial changes from 12/27/2001 Guidelines.