

Manhattan Archaeological Survey Phases I and II

by

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with assistance from
Victoria Rau



Report prepared for

City of Manhattan
Manhattan, Kansas

2009

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The Manhattan Archaeological Survey, which is the subject of this report, has been completed by the Department of Sociology, Anthropology, and Social Work at Kansas State University under a subcontract with the City of Manhattan. This project has been financed in part with Federal funds from the National Park Service, a division of the United States Department of the Interior, and administered by the Kansas Historical Society. The contents of this report do not necessarily reflect the view or policies of the United States Department of the Interior, the Kansas Historical Society, or the City of Manhattan, Kansas.

Abstract

The Manhattan Archaeological Survey was funded in part by a matching Historic Preservation Fund grant awarded to the City of Manhattan, Kansas. The City subcontracted with the Department of Sociology, Anthropology, and Social Work at Kansas State University to complete Phase I and Phase II archaeological surveys for the Manhattan Urban Area. The latter includes the City of Manhattan and a defined area immediately surrounding the present city limits. The Phase I literature search involved review of reports and historical documents pertaining to previous archaeological investigations in the project area and site records in the Kansas Historical Society Archeological Inventory, as well as at the Cultural Resources Division of the Kansas Historical Society and Kansas State University Archaeology Lab. Phase I research identified numerous prior archaeological investigations and 98 previously recorded archaeological sites. Phase II activities included revisiting many of the previously recorded sites in order to assess their present condition and pedestrian survey of more than 436 acres of cultivated fields and pastures. The latter resulted in the discovery of 22 previously unrecorded sites.

Phase I and II investigations revealed a variety of archaeological resources in the Manhattan Urban Area. Included are Archaic, Woodland, Central Plains tradition, historic Native American, and Historic Euroamerican components. Many are prehistoric artifact scatters representing lithic collection stations, workshops, campsites and farmsteads. Former burial sites also exist. Historic sites include a Kansa Indian village; residential, commercial, and agricultural Euroamerican/African American artifact scatters and structures; a relocated cemetery, and features potentially related to an early golf course.

Recommendations are made for managing and gaining a better understanding of the archaeological resources in the Manhattan area. More than one-third of the recorded sites require no further study, largely because they have been destroyed. More could be learned about one other destroyed site through historical research. The condition of 24 previously recorded sites has yet to be assessed through Phase II survey. We are confident that at least eight of these also deserve Phase III testing. Forty-three others also require Phase III evaluation for the National Register of Historic Places. Archaeological monitoring is recommended for six sites, often in combination with survey and testing. Seven prehistoric burial locations deserve protection under the Unmarked Burial Sites Preservation Act. Broader recommendations for the project area include continued Phase II survey of additional properties and archaeological monitoring of selected locations and activities. Geomorphic study of major and tributary stream valleys, geological mapping of chert-bearing exposures, and historical research would greatly facilitate locating and interpreting cultural remains in the project area. Finally, possible preservation measures or incentives (e.g., conservation easements) are briefly reviewed.

Acknowledgements

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Chapter 1

Introduction

The City of Manhattan was awarded an Historic Preservation Fund grant in 2008 to initiate the Manhattan Archaeological Survey. The objectives of this project were to identify archaeological resources in the Manhattan Urban Area, assist in creating community awareness about the importance of significant cultural resources and their protection, identify needs for future archaeological study and preservation, and provide information to elected officials through the Historic Resources Board and to City staff for making meaningful choices for preservation of resources.

The Manhattan Archaeological Survey included two phases. Phase I was a review of literature pertaining to the archaeology of Manhattan with a report summarizing previous archaeological investigations within the project area and describing previously recorded sites. Phase II archaeological survey involved assessing the condition of previously recorded sites and conducting pedestrian survey of areas selected in consultation with City staff. The City of Manhattan subcontracted the Department of Sociology, Anthropology, and Social Work at Kansas State University (KSU) in December 2008 to complete this project. It was initiated that month under the direction of Dr. Lauren W. Ritterbush and Co-Principal Investigator, Dr. Brad Logan. This report summarizes the results of both the Phase I literature review and Phase II survey.

Methodology

The Phase I literature review involved analysis of a wide range of documents pertaining to the archaeology of the project area. Records of formally reported archaeological sites maintained by the Kansas State University (KSU) Archaeology Lab and the Cultural Resources Division of the Kansas Historical Society (KHS), including the electronic Archeological Inventory, were thoroughly studied for information about previously recorded sites. Researchers utilized reports of archaeological investigations, including Section 106 and related compliance projects, for information about specific sites, as well as the extent of previous investigations in the area. The library of compliance reports in the Cultural Resources Division of the KHS supplied information for this purpose. Various historical resources provided less formal reports of early archaeological activities in this area. Dr. Patricia J. O'Brien, KSU Professor Emerita of Anthropology, facilitated access to much of this information through her private research into the history of archaeology in the Manhattan area.

Phase II pedestrian survey commenced in March 2009 and focused on lands believed by City Community Development staff to have relatively high potential for development. Distribution information related to previously recorded sites in the region also suggests

general areas of high potential for archaeological sites. Due to these factors, Wildcat Creek valley west of Manhattan became the focus of much of the pedestrian survey. Other areas of existing sites and archaeological and development potential were also targeted. Although a formal sampling approach was not applied, we attempted to inspect a variety of landforms from valley bottoms to upland slopes and bluff tops. Various constraints, including available time, ground visibility, and landowner permission limited the amount of survey possible within the short duration of this project. As a result, not all previously recorded sites and areas of high potential for archaeological sites or development could be surveyed. In order to make best use of available time, we prioritized accessible lands with good visibility (e.g., recently cultivated fields and burned pastures). In cultivated fields the crew systematically inspected the ground by walking parallel transects 10-15 meters apart. A similar approach was applied in pastures whenever possible. In certain instances, localized areas received separate inspection due to reports of historic sites known to landowners. Visible cultural materials were temporarily flagged until the entire area could be surveyed. Site location and related information was then noted. This information was used to complete new or updated State of Kansas archaeological site forms filed electronically through the KHS.

Project Area and Study Tracts

The Manhattan Archaeological Survey project area includes the city limits of Manhattan, as well as surrounding areas believed to hold potential for future development (Figure 1.1). Specific boundaries for the study area were outlined in consultation with the Community Development staff of the City of Manhattan following the “Manhattan Urban Area Comprehensive Plan” (Clarion Associates 2003).

The project area falls within the northern Flint Hills Uplands of the Central Lowlands (Schoewe 1949; Mandel 2006). The Flint Hills are formed from Permian-age limestones and shales. Erosion of the varied bedrock deposits has resulted in rolling hills with deep stream valleys. The hills often have a step-like form with benches formed of more resistant limestones separated by slopes formed of softer deposits such as shale. These hills are covered with prairie grasses and forbs with pockets of woodlands along north slopes, around springs, in ravines, and in stream valleys. The Flint Hills gained their name from the presence of flint or chert in certain Permian limestone members that outcrop in the region. The most prevalent in the project area is the Wreford Limestone with the chert-rich Three Mile and Schroyer limestone members (Jewett 1941). The Florence limestone member is also exposed in the region and holds many deposits of quality chert. These cherts were used widely during prehistoric times serving as a vitally important resource for people in the broader region for thousands of years. The abundant limestone and other lithic (rock) resources of the Flint Hills were also important, especially certain limestone members that form quality building materials used during historic times. The eastern edge of the project area is along the boundary between the Flint Hills and the glaciated Dissected Till Plains to the east (Schoewe 1949). Glacial deposits including cobbles of quartzite and other non-local materials were useful materials for various kinds of tools and building materials in prehistoric and historic times, respectively.

The Manhattan area has attracted people for many thousands of years for a variety of reasons. One significant factor was its location at the confluence of the Kansas and (Big) Blue rivers. These rivers formed major valleys rich in floral, faunal, and geological resources and served as transportation routes. The Kansas River valley is several miles wide with stepped valley walls and wide alluvial terraces. Although narrower upstream from its confluence, the Blue River also forms an impressive valley, especially in the joint valley near its confluence with the Kansas River. The walls of these valleys rise 150-200 feet (or more as one moves into the uplands away from the major river valleys) to well-defined bluffs and ridges that afford breath-taking views of the surrounding landscape (Schoewe 1949, 1951). A number of tributary streams rise in the Flint Hills, providing fresh clear water, often issuing from springs in the Flint Hills uplands. One of the largest and most noteworthy of these in the project area is Wildcat Creek. Many archaeological sites are located along the valleys of these rivers and streams due to the abundance of resources (e.g., water, arable land, riparian woodlands, varied flora and fauna) concentrated along them and nearby (e.g., chert, prairie flora and fauna).

In order to facilitate discussion of previous archaeological investigations and known site locations in this project area, we have subdivided the project area into study tracts. The boundaries of these tracts are arbitrarily defined according to a variety of factors (e.g., topographic settings, major developments). We hope these will be at least partially meaningful to both archaeologists, city planners, and the public. Names for the tracts were assigned following modern local usage whenever possible. A brief description of the general location of each of the study tracts follows.

Blue Township

Blue Township as defined for the Manhattan Archaeological Project includes that portion of the project area in southwestern Pottawatomie County, immediately east of Manhattan (Figure 1.2). It does not completely encompass the local governmental township with the same name and does not extend beyond those boundaries. This tract includes a three-mile-long corridor along US-24 and two square miles north of this corridor. Its westernmost portion is bounded on the south by the Kansas River and on the west and north by the Blue (or Big Blue) River. The Blue River also forms a boundary for a small part of the northern reaches of this tract. Elbo Creek flows across the northern and western portions before entering the Blue River. River bottoms form much of this tract, with gently sloping uplands in the northern portion.

Blue River Valley

This tract includes the Blue River valley along the right or west bank of that river and a broad lowland along an unnamed tributary north of the primary properties of Kansas State University. This tract contains no upland settings.

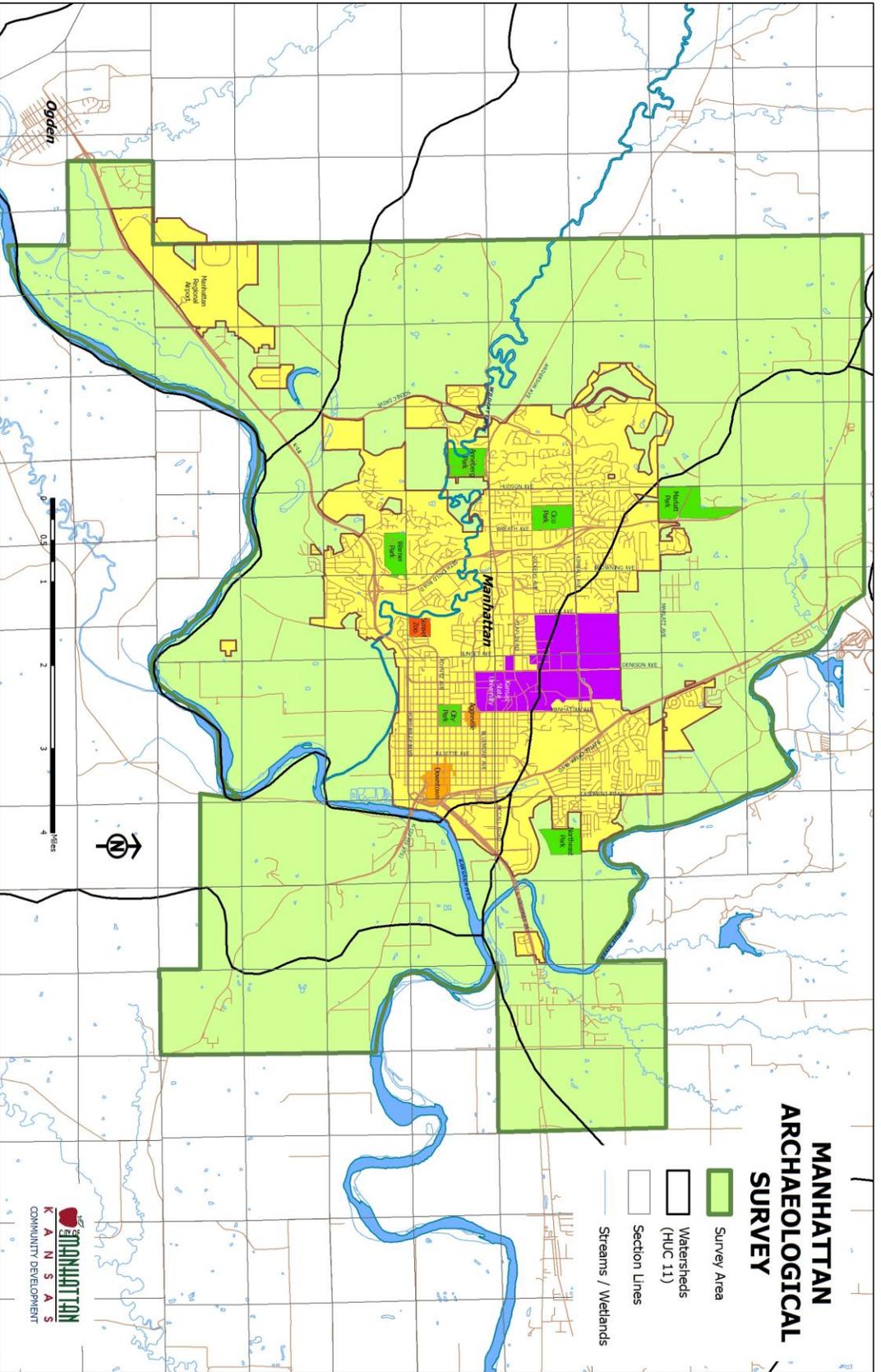


Figure 1.1 Manhattan Archaeological Survey project area.

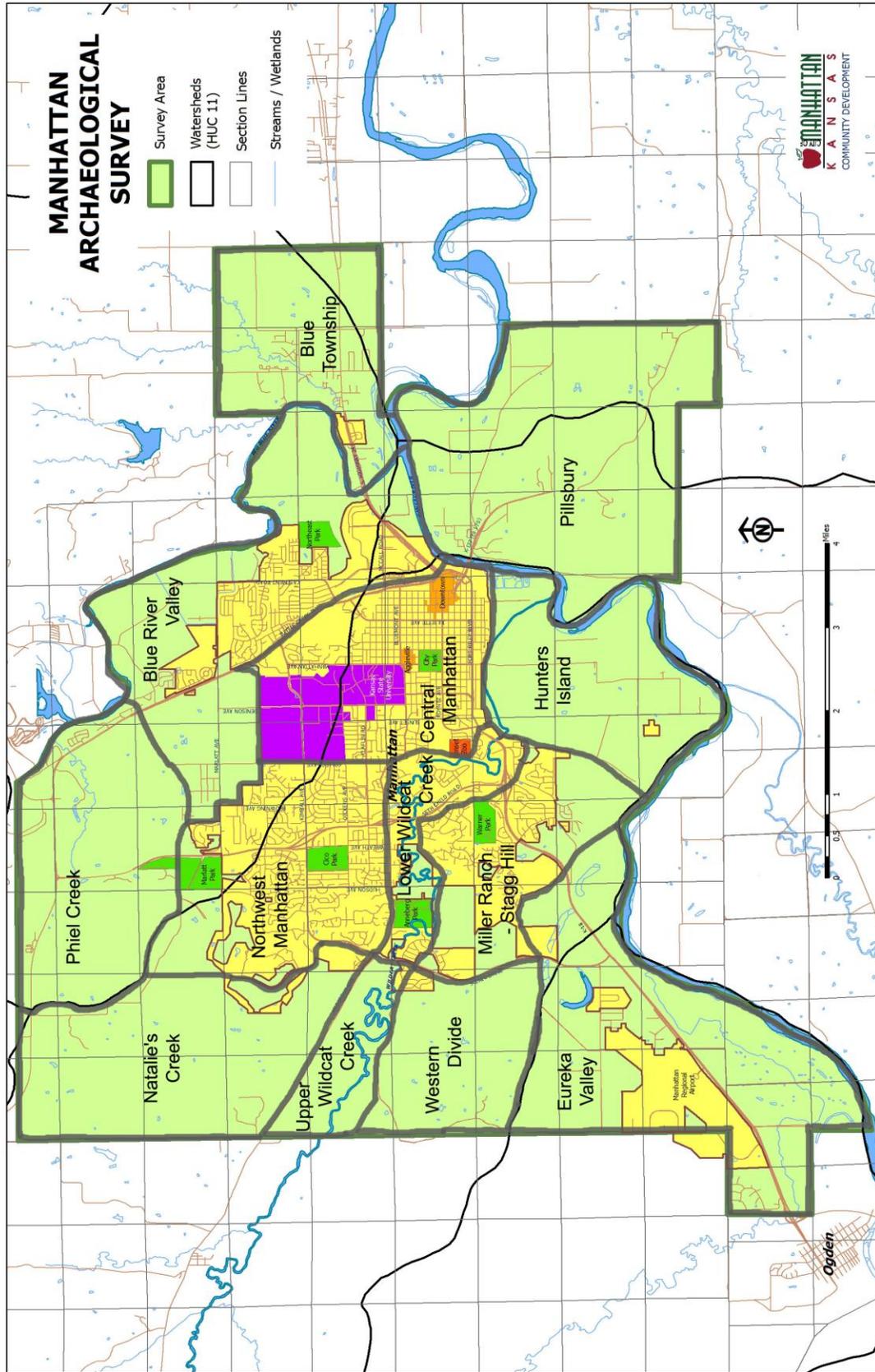


Figure 1.2 Study tracts within the Manhattan Archaeological Survey project area.

Central Manhattan

Central Manhattan includes the original Manhattan town site and surrounding areas to the north, west, and northwest. The original town site is on a terrace previously bordered on the east by the Blue River and on the south by the Kansas River. The channels of these rivers have changed within historic times and are farther from the original town site except along a small portion near the southeast corner. As defined here, this study tract is bounded on the east by the old Blue River channel and modern Tuttle Creek Boulevard, on the south by the Kansas River valley (Hunters Island), and on the west by the generally north-south portion of lower Wildcat Creek valley and College Avenue. The lowland of the Blue River tributary within the previously described tract lays to the north with an arbitrary boundary along the present city limits one-half mile north of Kimball Avenue. This tract includes the main campus of Kansas State University. Landforms range from the large terrace supporting the original Manhattan town site to two major upland areas. These include the landmark Bluemont Hill north of the town site and west of the old Blue River channel and the bluff immediately east of lower Wildcat Creek associated with Sunset Cemetery and Sunset Zoo.

Northwest Manhattan

This tract includes that portion of Manhattan within the city limits west of College Avenue and north of Anderson Avenue and a small area of uplands to the north and northwest. This latter area incorporates the upper reaches of Little Kitten Creek, which flows through the western part of Manhattan.

Phiel Creek

Phiel Creek, a west-bank tributary of the Blue River, is the major feature of this tract. The spelling of this creek name varies as Pfiel, Pfeil, or Phiel. The name presumably comes from landowners R. J. and H. F. Pfeil listed on the 1909 *Standard Atlas of Riley County, Kansas* (Ogle 1909:58). We have chosen to use the more recent spelling as listed on recent topographic maps. The boundaries of the Phiel Creek study tract roughly approximate the divides between this watershed and adjacent drainages, thus include both uplands and Phiel Creek valley. In some instances uplands of neighboring streams are incorporated into this tract. The Blue River just below Tuttle Creek dam forms the eastern boundary.

Natalie's Creek (Klobasa-Quantic)

This is the northwestern-most section of the project area. Its boundaries are defined on the north and west by section lines. Anderson Avenue defines its southern limits because it approximates the juncture between the Wildcat Creek bottoms and upland slopes to the northeast. Although the eastern boundary does not follow a single drainage divide, it approximates the divide between the headwaters of Phiel Creek in the north and Natalie's

Creek, which is the primary feature in this tract. Natalie's Creek is a tributary of Wildcat Creek and flows north to south. Surrounding uplands also contribute to this tract.

Upper Wildcat Creek

The valley of Wildcat Creek is rich in archaeological remains. Thus, we discuss the bottomlands along this stream separately from the adjacent uplands and the valley is divided into two study tracts for the purposes of this project. The first of these encompasses the northwestern portion of Wildcat Creek valley from the western boundary of the overall project area to Scenic Drive. This nearly two and a half mile stretch of valley bottoms is less developed than the lower portion of Wildcat Creek valley to the east.

Lower Wildcat Creek

The Lower Wildcat Creek tract falls within the present city limits of Manhattan and stretches along Wildcat Creek from Scenic Drive to where this stream issues into the Kansas River valley. Although the stream is much longer due to its meandering channel, the western portion of this tract generally encompasses a two and a quarter mile west-east corridor. The stream and its valley bend south for another one and a half miles. The southeastern end of this tract coincides with the former mouth of Wildcat Creek when the channel of the Kansas River previously flowed along the southern edge of central Manhattan. Today the mouth of Wildcat Creek lies farther east as it flows through this former Kansas River channel. This lowest portion of modern-day Wildcat Creek is not included in the Lower Wildcat Creek study tract, but rather in the Hunters Island tract described below.

Miller Ranch-Stagg Hill

Miller Ranch-Stagg Hill incorporates the upland bluff tops and slopes between Wildcat Creek to the north and northeast (Lower Wildcat Creek tract) and the Kansas River valley to the southeast and southwest. The southern part of this tract between Hunters Island and Eureka Valley has long been known as Stagg Hill. The uplands north and west of K-18 include the modern Miller Ranch and nearby residential developments.

Western Divide

The uplands that continue westward from the Miller Ranch area but west of Scenic Drive form the Western Divide. It is bounded on the north by Wildcat Creek valley (Upper Wildcat Creek tract) and by the Kansas River (Eureka Valley) to the south.

Eureka Valley

The Eureka Valley tract incorporates the southwestern portion of the Manhattan Archaeological Survey project area. It includes the Kansas River valley from the uplands of the Western Divide and Miller Ranch-Stagg Hill south to the Kansas River and westward to the Fort Riley Military Reservation and Ogden community. Modern highway K-18 crosses much of this valley, and the Manhattan Regional Airport covers a portion of these flat bottomlands. Eureka Lake, a former oxbow of the Kansas River, was the site of an early recreational resort.

Hunters Island

This tract consists of the Kansas River bottoms on the left (north and west) bank of the Kansas River directly south of central Manhattan. Moehlman Bottoms forms the southern part of this floodplain and is bordered on the west by Stagg Hill. Hunters Island lies to the north. Today the present channel of lower Wildcat Creek borders its northern edge.

Pillsbury

The Pillsbury tract includes those portions of southeastern Riley County that are within the overall project area. This includes the northernmost segment of K-177, the western stretches of Deep Creek and Zeandale Roads, the portion of southwestern Manhattan known as Fairmont, and adjacent areas. The Kansas River encloses the west and north edges. An unnamed south-to-north flowing tributary of the Kansas River bisects the northern point of uplands and drains much of this tract. Herein we refer to this small stream as Spring Branch following terminology used by amateur archaeologists familiar with this area in the late nineteenth century. Uplands in the southeastern portion of this tract drain outside this area into School Creek, a tributary of Deep Creek. Varied landforms are present in this study tract including extensive uplands and prominent bluffs (e.g., Prospect or KS Hill, Fremont Point), tributary stream valleys, and bottomlands south of the Kansas River.

Brief Cultural Historical Background

The following contains a brief review of the human prehistory and early history of the Manhattan area. It outlines the general chronology of human use and settlement of this region and introduces archaeological terminology used elsewhere in this report. This discussion identifies broad periods of past human use of this area, generally accepted time frames for those periods, and brief interpretations of those periods as derived from a variety of regional archaeological and historical studies.

The earliest known evidence of humans within the bounds of present-day Kansas dates between roughly 13,500 and 8,000 years ago, known as the **Paleoindian period**. Earlier evidence of human activities in the Americas has been found, but not yet within the central Plains. The presence of people in this area during the Paleoindian period is supported by finds of distinctive or diagnostic styles of stone tools. The earliest of these includes Clovis spear or dart points found in Riley County, but not formally reported in this project area. In most cases, local artifact collectors who frequent gravel bars in the Kansas and Blue Rivers have found these. The Diskau site northwest of Manhattan has also yielded Clovis remains (Schmits 1987). Late Paleoindian tools, such as Allen points, have surfaced in this region, although also not formally reported. The people who made and used these early objects most likely lived in small mobile groups. They hunted large and small game and collected other wild foods available at the end of the Pleistocene (Ice Ages).

Hunters and gatherers continued to live in this region during the **Archaic period**, generally dated between about 8,000 and 2,000 years ago. Like the Paleoindian period, limited information is available about human occupation in this area during this long period of time partially due to the burial of cultural debris of these early peoples. The study of several sites in the larger region reveal this problem, including the buried cultural horizons exposed by erosion and excavation of the Coffey site in northwestern Pottawatomie County (Schmits 1978). The most commonly preserved remains at Archaic sites are stone tools of various styles including large to medium-sized side-notched (Logan Creek) spear points, distinctive long, narrow, but often relatively thick Munkers Creek knives, and narrow-bladed points with narrow, sloped shoulders and broad straight or slightly expanding stems (Munkers Creek or Dustin points). More often surface finds, the latter artifacts also appear in excavated contexts, notably in buried deposits at the William Young site in Morris County south of this project area (Witty 1982). Also recovered from this site are shallowly notched or stemmed and generally crude bifaces that resemble axes. Others have a broad unifacially retouched end, suggesting use as gouges. Their association with one another and with datable deposits suggests that these regional artifact forms likely date to about 5,000-6,000 years ago. During the Archaic period, hunters and gatherers moved, probably seasonally, throughout the region as they made use of a wide variety of plants, animals, and local chert (flint), a suitable material for making cutting and scraping tools. This period also provides the earliest evidence of firing objects made from clay. A clay bead was recovered from the Coffey site and several small ceramic objects that appear to be effigy heads were found at the William Young site. These are among the earliest evidence of ceramic technology in North America.

The people of this region did not regularly make and use ceramic vessels or pots until roughly 2,000 years ago. Early pottery and other traits characterize the **Woodland period**, also known as the Early Ceramic period. The term “Woodland” does not imply that this region was forested in the past. Rather this archaeological term extended to the eastern Plains because of general similarities in cultural traits in this region at roughly the same time with those in the eastern United States where the term “Woodland period” originally applied. (Archaeologists in the Plains sometimes append the word “Plains” to this term in order to distinguish the two.) The Woodland period dates to approximately AD 1-1000 (2,000-1,000 years ago). Generally people living in the Manhattan area continued to depend on harvesting wild resources, but also experimented with the domestication of native plants (e.g., goosefoot, sunflowers). Archaeological manifestations include distinctive styles of pottery and stone tools (including both spear points and, later, arrow points), as well as burials on bluff tops overlooking major stream valleys. Woodland pottery is often tempered with crushed stone or sand and may have a smooth or (vertically) cord-marked exterior. Pots were sometimes very large and often had a conical base. Miniature vessels have also been found. Woodland pots or potsherds from this area are often identified by distinctive forms of decoration similar to those made during the Middle Woodland period in the Kansas City area. The rims often have a band of cross-hatching above a row of punctates. The Woodland people also used curved rocker-stamping, dentate-stamping, and other forms of decoration. Given the similarity of these remains with those to the east, although not at exactly the same time, has raised important (and as yet unanswered) questions about the relationship between the people and their ways of living across broad areas including Manhattan and beyond. Other common Woodland-era artifacts include blocky and disc-shaped end scrapers, contracting stemmed spear or dart points, and corner-notched points. The latter occur in a variety of sizes. The smallest (Scallorn points) appear during the latter part of the Woodland period and mark the beginning of widespread use of the bow-and-arrow, which and eventually led to the abandonment of the spear-thrower or atlatl. These kinds of artifacts emerge in the Manhattan area as surface finds and in buried deposits in the valleys where Woodland-era people collected wild and early domesticated plants, hunted animals, and camped for varied lengths of time. They also used the uplands, as is evident from the Woodland burial sites common in this area. These consist of cremations, secondary or bundle, and primary burials typically placed atop prominent points of bluffs overlooking major valleys. People often placed mounds or cairns of stone of various sizes over the interments, which usually incorporated multiple burials and funerary objects in each feature. Artifacts included bone and shell beads and pendants, projectile points, pottery, and other objects. Remains from these features help define a regional variant or phase of the Woodland called the Schultz phase (Eyman 1966).

Around AD 1000 native peoples of this region established more permanent homes, building solid lodge structures in or near stream valleys where they not only harvested a wide variety of wild plants and animals, but also maintained gardens of corn and other domesticates. This marks the beginning of the Late Prehistoric or Middle Ceramic period. The archaeological signature of this period varies somewhat across Kansas. As a result, more specific terms describe identifiable patterns in the archaeological record for different regions. The **Central Plains tradition** (CPT) applies to the set of archaeological materials associated with the Late Prehistoric period in much of northern Kansas, southern Nebraska,

and parts of western Iowa and Missouri (Roper 2006a). The CPt generally dates between about AD 1000 and 1400. The term Smoky Hill aspect or phase applies to CPt remains from the specific area from about Manhattan to Salina northward. A distinctive form of pottery called Riley Cord Roughened ware is identified with this archaeological tradition. Potters commonly tempered local clays with sand, grit (crushed rock), or grog (crushed potsherds) and roughened the exterior by patting the damp surface with a paddle wrapped with twisted cords. Vessels usually have a rounded or globular form and straight, outflaring, or thickened rims. They sometimes decorated the rim by pinching the outer edge of the lip or thickened collar or by impressing a stick, finger, or other tool into the lip or rim. In addition to this typical cord-roughened pottery, smooth surface pots, often with different kinds of temper (including crushed shell), rim forms, and decorative elements, also exemplify CPt assemblages specifically in this region.

CPt people used small triangular side-notched arrow points, thin chipped stone knives, and relatively small end scrapers formed on flakes of stone to hunt, butcher, and prepare hides from a variety of large and small game. Many other animals and plants provided food sources from the environments immediately surrounding the homes of the CPt people. They also made other chipped and ground stone tools as well as bone and shell tools. The latter included hoes for gardening made from the flat scapula (shoulder blade) of bison or from large mussel (clam) shells and pointed awls for sewing made by sharpening splinters of bone against rough abrading tools, such as sandstone. Paired rectangular blocks of Dakota sandstone from the Smoky Hills (west of the Flint Hills) were used to straighten and smooth arrow shafts. Large blocks of abrasive sandstone or limestone were placed inside the lodge in order to grind or crush corn or other plant foods. CPt people built houses by setting four large center and a number of outer support posts into the ground in a rectangular or circular form around a central fire pit. These posts supported beams and stringers for the walls and roof. A plaster of clay mixed with grasses coated the exterior of the home. Sometimes this material unintentionally baked resulting in lumps of daub that resist decay and appear at some archaeological sites. Excavations of several sites in Manhattan (e.g., 14RY21, 14RY401) have uncovered features (e.g., postmolds, fireplaces, storage pits) that have informed archaeologists about the house forms and ways of living of CPt people. Woodland period and CPt sites are more numerous than those of earlier periods in this area, in part due to their younger age (commonly resulting in less shallowly buried deposits), intensity of activities, and variety of distinctive artifacts.

Little is known about human use of the Manhattan area after about AD 1400. Materials associated with the **Oneota** tradition appear nearby along the Blue River and in northern Riley County, but not specifically in the Manhattan Archaeological Survey project area. This archaeological tradition dates elsewhere to the latter part of the Late Prehistoric and into the early Historic period. It is best represented in the Midwest, but sites in Nebraska and Kansas indicate migration of eastern populations into the central Plains during the Late Prehistoric and again in the Protohistoric period (Marshall 2006; Ritterbush and Logan 2000; Ritterbush 2002, 2006). Although many of the stone tools used by Oneota peoples resemble those associated with the CPt and other Plains populations, Oneota pottery is distinctive. It has a smooth exterior surface, and the lip of the pot is often simply decorated with tool or finger impressions on the upper or interior edge. More extensive work decorates the

shoulder of the vessel below the rim. This commonly consists of sets of parallel oblique, vertical, or horizontal lines formed by trailing a stick across the surface before the clay dried. These are often arranged in opposing sets to form V-shaped chevrons bordered by other sets of lines. The artist sometimes used the end of a stick to form a row or series of punctates bordering these sets of lines or filling empty spaces. Burned and crushed shell was commonly added as temper to the clay by Oneota potters, but in the Plains, they often used other materials such as sand. Late Prehistoric Oneota migrants to the central Plains appear to have influenced the movement of the indigenous CPT peoples out of certain parts of Kansas and Nebraska. Given that Late Prehistoric Oneota sites exist in the area north of Manhattan, their presence possibly influenced the Manhattan CPT natives. By about AD 1600, if not earlier, these early Oneota migrants appear to have left the region. However, new groups of eastern Oneota peoples migrated to the central Plains, among them the Kansa Indians.

Although the Kansa are the namesake of our State, they arrived relatively late in the Plains and occupied only a portion of Kansas. However, they played an important role in its northeastern part, including Manhattan, during the Protohistoric and early Historic periods. The **Protohistoric period** marks the era of the first arrival of Europeans in the Americas, but before extensive impacts of their presence were felt by native peoples. The timing of this period varies from region to region, depending upon when direct contact occurred between native and European or Euroamerican populations. In Kansas, archaeologists often define this as between about AD 1500 and 1800 and sometimes refer to it as the Late Ceramic period. By the late seventeenth and into the eighteenth centuries, the ancestors of Kansa (Kaw) Indians lived along the Missouri River in what is now northeastern Kansas and northwestern Missouri. The archaeological remains at these villages display clear Oneota traits that differ somewhat from those at earlier Oneota sites in the region. Oral traditions of the Kansa indicate that their ancestry traces to the east. Although not specifically identified, the remains of earlier ancestral Kansa likely include some of the Late Prehistoric Oneota archaeological materials present in the Midwest. While living along the lower Missouri River for at least a century, the Kansa established a dual economy based on corn agriculture and bison hunting. They became skilled hunters who traveled annually as entire villages into the central Plains. No doubt during those expeditions the Kansa became familiar with the Kansas, Blue, Republican, and other river valleys. As contact with foreign invaders such as Europeans, Euroamericans, and displaced eastern Native American groups increased in the late 1700s, the Kansa moved their primary village to the Manhattan area. This large settlement, sometimes referred to as the Blue or Blue Earth village, stretched along the river near the mouth of the Blue River in present-day Pottawatomie County (see discussion of 14PO24 in the following chapter). By the time the Kansa had moved to the Manhattan area, they were already making extensive use of non-native tools and materials (e.g., metal pots and knives, firearms) obtained through frequent and direct trade with Europeans and Euroamericans along the Missouri River (Wedel 1946).

As the Kansa became established in the eastern central Plains, indigenous groups practiced a similar way of living in the broader region. These included the Wichita and Pawnee Indians whose languages show a very distant relationship as Caddoan speakers, while the Kansa spoke a Siouan language distantly related to other groups. These cultural entities had evolved over many centuries on the Plains with Wichita ancestry developing in

what is now central and southern Kansas and the Pawnee farther north in Nebraska and possibly the adjacent states of Kansas and South Dakota. The ancestors of these groups may have utilized the Manhattan area at some time, particularly while on hunting or other trips away from their main villages located elsewhere. By the late eighteenth century, as the Kansa moved to the Manhattan area, the Pawnee lived in several villages in central Nebraska, as well as in two villages in northern Kansas in present-day Geary and Republic Counties. The Wichita had moved southward into present-day Oklahoma. Given the proximity of the Kansa's Manhattan village to the southern Pawnee villages, it is not surprising that they interacted with one another though commonly as enemies.

The Kansa abandoned the Blue Earth village around 1825 as they moved downstream where they had greater access to Euroamerican goods and services. They resided along the Kansas River in several villages until the 1840s when they were moved to the Neosho River valley near present-day Council Grove. In 1873 the government moved them once again to a reservation in Oklahoma, where they continue to reside, while still maintaining close ties to their homelands in Kansas.

Changes in Kansa settlements and lifeways that accelerated in the late eighteenth and early nineteenth century coincide with the beginning of the **Historic period**. Although native history enhances the knowledge of this period, generally people think of Euroamerican developments during this time. Euroamerican settlement began in this region in the mid-nineteenth century. Fort Riley was established upstream from Manhattan at the junction of the Smoky Hill and Republican Rivers in 1853. Its original mission was to offer protection to travelers on the various trade and immigration trails that crossed the region. The number of settlers, soldiers, and entrepreneurs increased after 1854 when the Kansas-Nebraska Act established Kansas territory and opened lands previously set aside for local and immigrant tribes to Euroamerican settlement. Juniata and Ogden were among the first settlements to be established in the area. Juniata lay on the east side of the Blue River where a crossing of that river extended the Fort Leavenworth-Fort Riley Military Road. Southern politics in favor of slavery tended to influence Ogden's original occupants. Other communities developed largely from "free state" advocates. These included Polistra and Canton near the mouth of the Blue River. Manhattan was established in 1855 out of the union of Polistra, Canton, Boston (which was formed by settlers funded by the New England Emigrant Aid Company), and another set of immigrants supported by the Manhattan-Cincinnati Company. The latter group had traveled up the Kansas River on a steamboat named the *Hartford*. They planned to settle closer to Fort Riley, but when their boat snagged on a sandbar, they decided to join those already developing a community on the west side of the mouth of the Blue River (Altizer et al. 2005; Streeter 1975). As travelers on the *Hartford* discovered, the Kansas River proved an unreliable route for steamboat travel. Overland transport occurred along the Fort Leavenworth-Fort Riley Military Road and others that developed in the area. By 1866 the Kansas or Union Pacific Railroad extended to Manhattan and Ogden, greatly facilitating the transport of goods and people to the area. Other rail lines also appeared in the area including the Chicago, Rock Island and Pacific Railroad, which was built in 1887. As the City of Manhattan developed, farmers began to till the land, especially in the valleys of the Kansas and Blue Rivers and Wildcat Creek. The Flint Hills uplands, no longer valuable as a

source of chert for tools, became pasture lands and sources of limestone for building materials.

This provides a very brief and general outline of the prehistory and early history of the Manhattan area to aid the reader in reviewing the chapters that follow. These focus on findings of the literature search pertaining to previous archaeological investigations within each study tract (Chapter 2) and descriptions of previously and newly recorded archaeological sites (Chapter 3) in the project area. The summary chapter (Chapter 4) reviews the project and our findings, presents recommendations for individual sites, as well as for the broader project area, and discusses general preservation issues relevant to the Manhattan area.

Chapter 2

Previous and Present Archaeological Investigations

People have recognized Manhattan as an archaeologically rich region since at least the 1880s (O'Brien 2004, 2008). At that time the Scientific Club of the Kansas State Agricultural College (KSAC) "investigated" sites through artifact collecting and excavation. These early "studies" were not carried out by trained archaeologists, did not follow professional standards, and were poorly documented, thus, provided little substantive information. In August 1937 Waldo R. Wedel of the Smithsonian Institution conducted the first professional archaeological studies in the area (Wedel 1959). However, it was not until 1964 that a professional archaeologist was consistently present in Manhattan. In that year Kansas State University (KSU) hired professional archaeologist Michael B. Stanislawski. Stanislawski did not remain at KSU long, but he initiated a program of documenting and analyzing local sites that was continued by his successor Patricia J. O'Brien between 1968 and 1998. By the 1980s, federally funded or permitted compliance projects included assessments of cultural resources in the Manhattan area. These are typically defined according to a series of phases of archaeological investigation. In Kansas, Phase I projects involve background research, often undertaken by the State Historic Preservation Office (SHPO) at the KHS under request by agencies required to consider the impact of proposed projects on cultural resources. Once a site has been located and recorded, Phase III investigations may be recommended or required. Commonly Phase III testing involves small-scale excavations designed to gain information about the cultural resources present and their integrity. This information is necessary to assess the eligibility of a site for listing on the National Register of Historic Places (NRHP). Most archaeological sites are evaluated for the NRHP based on Criterion D, whether the site contains or has the potential to provide information important in understanding prehistory or history. This information potential depends on the integrity of the site, which in many cases is determined by the presence of intact or undisturbed cultural deposits. In certain instances, Phase IV investigations may mitigate the effects of proposed land-altering activities on significant archaeological remains. This generally consists of large-scale excavations and analyses designed to salvage as much information as possible prior to destruction of the cultural deposits and their context. Few Phase IV excavations have been conducted in this region, although Phase I-III projects have been completed in and around Manhattan in association with construction of highways, the Manhattan Regional Airport, and several residential and commercial developments.

In this chapter, we summarize the archaeological investigations conducted within the Manhattan Urban Area. This information originates from a variety of sources, including compliance reports filed with the Cultural Resources Division of the KHS, as well as published and unpublished manuscripts, historical documents, and personal communications with local archaeologists. We also present a general description of those areas surveyed during Phase II. Maps outlining our survey areas are included in Appendix B, which is on file with the Cultural Resources Division of the Kansas Historical Society. Reviews of investigations are presented according to the study tract in which they were conducted.

Blue Township

One of the best-known archaeological sites in the Manhattan area is in southwestern Pottawatomie County. Referred to as the Kansa, Kaw, or Blue Earth village (14PO24), the Kansa (Kaw) Indians occupied this area in the late eighteenth and early nineteenth centuries. Jean-Baptiste Truteau appears to have referred to this site when he noted that the Kansa were living along the Kansas River in July 1794 approximately 80 leagues above that river's confluence with the Missouri (Nasatir 2002:261). Earlier historical references place the Kansa along the Missouri rather than the Kansas River. For example, in 1785 Spanish Governor of Louisiana General Estaban Rodriguez Miro reported to Antonio Rengel that the "The Cances have their villages about a hundred and forty leagues from the mouth of the Missouri on a very high cliff about two *avanzadas* from the shore of that river" (Nasatir 2002:125). These comments suggest that the Kansa initially constructed the village near Manhattan between about 1785 and 1794. The exact date of abandonment remains uncertain. A party of men from the Stephen Long expedition visited the Kansa at this location in 1819. By 1825 when treaties were signed with the Kansa, they had moved downstream to a series of new villages (Marshall 2006; Unrau 1971).

Archaeologists have formally recorded this site as 14PO24. Naturalist Thomas Say made direct observations of the village and its occupants as he led a party of men sent by Stephen Long to visit with the Kansa in August 1819. He noted ethnographic information, including comments about their village (James 1823). The KHS mapped the site in 1880, well after its abandonment (Anonymous 1881). In 1937 Waldo R. Wedel of the Smithsonian Institution conducted limited archaeological excavations at the site, which had already been adversely impacted by cultivation, modern developments, and erosion (Wedel 1959:187-197). A later attempt to find surface or near-surface remnants of the village by O'Brien failed to find evidence of the site (Esry 1985). Most recently, professional archaeologist Donna C. Roper and geomorphologist Rolfe Mandel conducted a Phase II archaeological survey including geomorphic trenching along a proposed sewer line that will cross a portion of the site. This study also failed to find evidence of this village (Roper 2009).

Several modern archaeological investigations have been undertaken in other parts of southwestern Pottawatomie County. For example, Randall M. Thies of the KHS conducted a Phase II archaeological survey for the Kansas Department of Transportation (KDOT) in August 1981 prior to replacement of the U.S. Highway 24 (US-24) bridge over the Blue River. He failed to identify any visible cultural remains during pedestrian survey, supplemented with arbitrary one inch core samples, on both sides of the river between US-24 (south side) and the Union Pacific Railroad (Thies 1981).

More recently Phase II and III archaeological investigations were conducted on the north side of US-24 prior to a stabilization project along the left bank of the Blue River adjacent to the proposed Heritage Square North development. 14PO402 had previously been recorded in the development area. Brad Logan of KSU directed a pedestrian survey of this and the surrounding cultivated field between the Blue River and US-24 in September 2006. Two artifact scatters consisting primarily of debitage and one potsherd were identified and

mapped as Areas A and B (Logan 2006a). Phase III test excavations conducted the following month uncovered additional lithic debris and nine small body sherds (Logan 2006b). The sherds indicate that the site postdates AD 1 and may represent remains of a Central Plains tradition (CPT) camp. The limited, non-diagnostic cultural materials, most of which were recovered from the disturbed plow zone, provide little information. This site was determined to be ineligible for the National Register of Historic Places (NRHP) (Logan 2006b).

Timothy Weston of the KHS conducted a pedestrian survey, core probing, and limited shovel tests for KDOT in a proposed borrow area approximately three-quarters of a mile north of US-24 in May 1994. This resulted in identification of a small concentration of prehistoric lithic debris (14PO1315) on a cultivated and eroded slope. Given the limited quantity, variety, and extent of cultural materials, their non-diagnostic nature, and the existing damage to the site, Weston recommended no further investigations and allowed borrow activities to continue (Schoen 1994).

Prior to construction of the Green Valley Business Park, Roper (1995) conducted archaeological survey of 70 acres east of Green Valley Road and north of US-24. Pedestrian inspection of a cultivated field on a low terrace between Elbo Creek and the Kansas River floodplain failed to locate any cultural remains other than relatively recent trash.

The General Land Office (GLO) plat maps of 1857 show the Fort Leavenworth-Fort Riley Military Road crossing the northern part of this study tract. Another historic road extends east-west across just north of US-24. Other road spurs and several farm fields appear in the north and south. None of these features, nor those on other historic maps, have been recorded as archaeological or historic sites.

We did not conduct any formal archaeological surveys in Blue Township as part of the 2009 Manhattan Archaeological Survey, although we did complete a windshield reconnaissance of the four previously recorded sites. We confirmed that modern developments within the last few years destroyed 14PO1315 and most, if not all, of 14PO25. The area including 14PO402, which, as noted above, was determined to be ineligible for the NRHP, appears to have been minimally impacted during bank stabilization. Construction of Heritage Square North has not yet occurred. Various processes have dramatically impacted the Kansa or Blue Earth Village site (14PO24). Additional investigations are necessary to relocate possible remnants of this site. (See the following chapter.)

Blue River Valley

There are no reports of previous archaeological investigations or sites in the Blue River Valley tract, which includes the west side of the Blue River valley and one of its tributary valleys. Given the setting as a major river valley, alluvial deposits may have buried archaeological remains, reducing surface visibility and leaving cultural deposits deeply buried. Geomorphic studies are necessary to evaluate the archaeological potential of this tract.

We did not inspect any undeveloped portions of the main Blue River valley during the 2009 Manhattan Archaeological Survey because of the limitations of pedestrian survey of potentially recent alluvial surfaces. This is not to say that surface survey is not necessary, rather, should be guided by geomorphic information whenever possible. We selected two parcels of land along the western tributary of the Blue for pedestrian survey. The first is a relatively low but distinctive bluff overlooking this valley to the west and north and the Blue River valley to the east. Although not as prominent as other bluffs in the area, its general location and good viewscape suggest potential for a prehistoric burial or lookout. The primary author walked about 30 acres of recently burned pasture including the low bluff top and west and northwest-facing slopes, including their base or toe. No prehistoric artifacts were observed. Several features, including borrow pits, a pipeline scar, and a windmill and associated pump, were noted but not recorded. A survey crew also systematically inspected the surface of a cultivated field on the opposite side of the valley to the north that is situated on a gentle slope between a prominent bluff and an intermittent drainage. The field, estimated at about 25 acres, was planted in corn that ranged in height from shin to thigh allowing for very good ground visibility. The field contained several artificial terraces. A few pieces of recent trash (e.g., plastic water bottles) and golf balls, probably from a nearby residence, were the only artifacts observed.

The GLO plats show a number of historic roads that crossed the Blue River valley including roads between Manhattan and Juniata, the Fort Leavenworth-Fort Riley road, and others. One of these may have crossed the edge of our first survey area, but no definitive evidence was identified in the areas inspected. The maps reveal two farm fields and a house along the Blue River. The 1909 atlas also plots a large tract ('float') of Wyandotte Reserve lands within a major bend of the Blue River (Ogle 1909:58).

Central Manhattan

This tract includes the primary historic district of the City west to the bluff overlooking lower Wildcat Creek, north to Bluemont Hill and beyond. Generally few archaeological studies in and around Manhattan have focused on historic sites (generally less than 155 years old). Nonetheless, archaeologists have investigated several Euroamerican sites within Central Manhattan. Six sites in the former area of South 2nd and neighboring Yuma, Colorado, and Pierre streets were researched during Phase I, II, and III investigations between 1990 and 1995 (King et al. 2004; Schoen 1991; White 1990; White and Ward 1990; Williams 1990). These studies were required as part the Kansas River Bridge Replacement project involving alignment of a new K-177/K-18 bridge. Each of these sites was determined ineligible for the NRHP and was destroyed during construction.

The Central Manhattan study tract includes other historic sites investigated by archaeologists. The first is the Goodnow house and barn (14RY378). This farmstead, which dates to the mid-nineteenth century, was purchased in 1859 by Isaac T. Goodnow, influential in the establishment of the City of Manhattan and Bluemont College. This site is listed on the NRHP and is maintained as a State Historic Site. O'Brien (n.d.) conducted excavations around the foundation of the barn in 1991 prior to repair of its north wall.

O'Brien also completed excavations at the original site of Bluemont College. This precursor to Kansas State University was located in the northwest corner of Claflin and College Avenues (technically in the Northwest Manhattan study tract, but more appropriately discussed in relation to other nineteenth century sites in Central Manhattan). O'Brien uncovered the northern portion of the foundation of this nineteenth century building in 1997 and conducted extensive research on this early Kansas educational institution (O'Brien in press). These remains have not been officially recorded as an archaeological site and have since been destroyed by construction of Founder's Hill multi-family residential and associated commercial development. A plaque with information about the history of Bluemont College was installed for the public at the time of this development.

Avocational archaeologist Dick Keck made a fortuitous discovery of historic debris and possible features (14RY445) in 1997 while visiting Manhattan. This artifact scatter is on the property of St. Isadore Catholic Church adjacent to the KSU campus. Logan revisited this site, now a landscaped garden, as part of the 2009 Manhattan Archaeological Survey (see site description in the following chapter).

An archaeological crew under the direction of Roper excavated an abandoned late nineteenth century burial ground in 2004. The Stillman Cemetery (14RY7166) was located along the northeastern edge of the Central Manhattan study tract. Seventeen graves were discovered, and associated remains were removed and studied prior to reinterment nearby (Pye et al. 2004, 2007; Pye 2006, 2007). This was done under an exhumation order issued in Riley District Court in May 2004 to allow residential construction as part of the Meadowlark Hills Retirement Community expansion project. A new cemetery north of the original cemetery site now holds these remains.

K&K Environmental of Leavenworth completed a Phase II survey on a parcel of land near the intersection of North Manhattan and Kimball Avenues prior to erection of a cellular tower as part of the proposed Wildcat Tower project. Researchers identified no cultural resources during literature review and shovel testing of the project area and recommended clearance (Kelly 2003).

Because of extensive historic and modern land-altering developments, few prehistoric archaeological sites are known in the Central Manhattan tract. A burial mound (14RY32) once existed on Bluemont Hill, a prominent bluff overlooking central Manhattan and the Blue and Kansas River valleys. Information about this mound comes from early historical references to its excavation in 1879, prior to its destruction (Failyer 1881:131; Griffing n.d., 1888; Brower 1898, 1899; O'Brien 2004:146, 2008:6). Another mound (14RY39) appears on William J. Griffing's 1888 map on a bluff overlooking the former mouth of Wildcat Creek, but no further information has been found pertaining to this now destroyed site. Similar "mounds" may have existed on this and other prominent bluffs in Central Manhattan. Indian Mound Lane, located approximately one mile north-northwest of 14RY39, may provide a clue to the location of that or another site. This short road segment is on a prominent portion of this bluff, which fits well the typical setting of prehistoric "mounds".

However, it seems too far away from the postulated location of 14RY39. This road's name may refer to an unknown site or simply generally to "Indian mounds" in the general area.

GLO maps identify several early historic features in this tract including a house where the current Town Center Mall is located, sawmill near the old Blue River channel, and several roads, including the Manhattan-Juniata Road. Many more historical features appear on other early maps and in various documents and deserve to be relocated and studied.

Given the extensive development of this tract and the preponderance of historic sites that deserve study by more qualified historical researchers, we did not focus on Central Manhattan during the 2009 Manhattan Archaeological Survey. Logan revisited 14RY445, and Ritterbush conducted a windshield reconnaissance of the general location of 14RY39. Other previously recorded sites in this tract have been destroyed or are protected.

Northwest Manhattan

No formal archaeological investigations or sites had been reported previous to this project in northwestern Manhattan. Roper completed an archaeological survey of portions of the upper reaches of Little Kitten Creek in 1997 for KSU in advance of construction of Colbert Hills Golf Course. She recorded no sites as part of that project (Roper, personal communication, March 2009). Phase II of the Manhattan Archaeological Survey did not include any systematic surveys in this tract, although a stone fence (14RY647) was recorded.

The GLO maps indicate the approximate routes of several historic roads, including the Fort Leavenworth-Fort Riley Military Road and a spur leading into central Manhattan. The locations of the W. E. Goodnow and another early house are also indicated.

Phiel Creek

The Phiel Creek tract has undergone few formal archaeological surveys. The first of these occurred as part of the archaeological investigations conducted prior to and during construction of Tuttle Creek Dam. Although on federal property, the part of this survey that included the area near the mouth of Phiel Creek is relevant here because it provides some indication of the archaeological potential of the shared Blue River-Phiel Creek valley. Ralph Solecki and J. Mett Shippee of the River Basin Surveys carried out the initial archaeological reconnaissance for Tuttle Creek Reservoir in 1952 (Solecki 1953). Later studies included excavations at several sites and later shoreline surveys (e.g., Cumming 1958; Kelly 1966; Johnson 1973; Iroquois Research Institute 1977; Johnson et al. 1980; Miller and Schmits 1982; O'Brien et al. 1973; Schmits 1976, 1978, 1980, 1981; Schmits et al. 1987; Ziegler 1976). These lie outside the project area. However, 14RY10, originally recorded by Solecki and Shippee, falls within the Manhattan Archaeological Survey project area.

Weston conducted the only other professional survey in Phiel Creek valley for KDOT prior to replacement of the US-24 bridges over this stream a short distance upstream from its

present mouth. Weston discovered no archaeological remains during this survey and did not recommend additional investigations prior to construction (Weston 1998).

Two other previously recorded sites lay within or overlapping this study tract. These consist of two mound groups located on bluffs on opposite sides of lower Phiel Creek valley. Neither had been field visited by professional archaeologists, rather, were discovered and “excavated” by amateur prehistorians, including Griffing, in the late nineteenth century. These are 14RY31 (two mounds on a high bluff on the south side of Phiel Creek) and 14RY30 (four mounds on a bluff on the north side of Phiel Creek valley). Most of the latter site, except its southern portion, lies outside this project area.

We surveyed about five acres of the bluff associated with 14RY31. This resulted in accurately relocating two probable mounds and identifying a lithic scatter or collection station at that same location. A modern isolated artifact was found during this survey, but on the upland bench south of and below 14RY31. This is a metal crematory tag from Mount Hope Crematory in Topeka. Research revealed that it was associated with the August 1998 cremation of Manhattan resident Gilbert L. Carrender. Although the Crematory could not confirm this, Carrender’s ashes presumably were spread over this area some time after August 7, 1998.

A windshield survey of the area associated with 14RY30 confirmed that a housing development has severely altered this bluff top. A review of notes and maps pertaining to 14RY10 and its location is discussed in the following chapter. A possible location for the site was not visited since part of it lies on developed federal property. However, an earlier informal visit to the lowest reach of modern Phiel Creek by the directors of this project resulted in the discovery of two chipped stone artifacts suggesting that other cultural materials may be present on or adjacent to this federal property.

No distinctive features were noted along Phiel Creek on the GLO maps.

Natalie’s Creek (Klobasa-Quantic)

Phase I literature search revealed no previous archaeological investigations or recorded sites in this tract. Also, the GLO plats did not indicate any early historic features. Nonetheless, Natalie’s Creek valley has good archaeological potential because of the natural resources and shelter it would have offered. The present landowners of the major portion of the valley bottoms gave us permission to walk their property. We systematically inspected those fields with good visibility, including two planted to corn and two to beans. We bypassed parts of two large wheat fields and smaller areas of thick grass or woods along the edge of the valley. No archaeological sites were found in any of the fields inspected. However, we noted several isolated finds and two historic farmsteads on adjacent lands. The latter were brought to our attention by landowners. We were not able to fully document these in the field, but recorded them as 14RY663 and 14RY667. Other historical structures are present in the valley and deserve study by historians and historical architects interested in the early agricultural history of this region.

Although no prehistoric sites were defined, it is clear that ancient peoples used this valley, as is suggested by the isolated finds identified during our survey. These include portion of a broken projectile point or knife found in the northern portion of the valley. The tip and base of this point are missing, but it appears to be a relatively large, thin spear point or knife with a possible stemmed hafting element (base) (Figure 2.1 left). This tool is finely crafted from local Flint Hills chert. Several possible chert flakes also littered this 15 acre survey area; however, since natural chert was also present, it was impossible to confidently discern whether they represent prehistoric tool-making or accidental breakage from modern farming equipment. We also surveyed a 10 acre corn field in the eastern part of the middle portion of this valley. Two isolated finds were noted. One consisted of a single flake and the other two widely scattered flakes in another part of the field. The latter were found in a rill draining a more elevated part of the field planted in wheat. Another fragment of a projectile point or knife was recovered from the northern or upslope edge of a bean field on the west side of Natalie's Creek near where it issues into the valley of Wildcat Creek. This relatively large, thin biface is made from heat-treated chert and is heavily battered (Figure 2.1 right).



Figure 2.1 Isolated projectile points or knives recovered from Natalie's Creek Valley.

The tip, all of one basal corner, and part of the other are missing making it difficult to discern its original form. It has a slightly convex base that is distinctly narrower than the base of the blade. The hafting element consisted of either a stem or notches with at least one tang projecting towards the base or basal corner. This field of about seven acres contained only this artifact. Because the field was on a slope, parts of it had been modified through the

construction of artificial terraces. We also surveyed another 10 acre corn field on the east side of Natalie's Creek. The eastern part of this field is sloped and contained a patch of grass, perhaps planted to stem erosion or because this area is rocky. Four definite flakes lay in a wide area around this grassy patch but in association with exposed natural chert. Two other flakes clustered farther west on a terrace knoll closer to the stream. Another was noted below and west of this terrace. Although none of these finds fits the accepted definition of an archaeological site, they indicate prehistoric human use of this tributary to Wildcat Creek. Future studies should monitor the lands within this valley and examine those fields not surveyed during this project. Geomorphic study of this valley may reveal useful information about the alluvial dynamics of Natalie's Creek and the deposition of materials from the surrounding uplands. This information would potentially facilitate interpretation of past human use of the area by helping to explain the presence or absence of cultural materials.

Upper Wildcat Creek

The richest archaeological region within the project area is Wildcat Creek valley. In 1881 G. H. Failyer reported to the Kansas Academy of Science that "A locality which promises rich [archaeological] returns is the Wild Cat bottom" (Failyer 1881:132). In 1903, Griffing wrote that "Wild Cat" Creek

seems to have been a favorite camping-place of the aborigines, there being scarcely a farm of any size along its valley that does not give evidence of having been the stopping-place of Indians (Griffing 1904:133).

The number of fortuitously discovered sites confirms these historical observations. Also a large number of sites have been recorded upstream on the Fort Riley Military Reservation, where staff archaeologists, as well as various contract archaeological crews, have conducted systematic surveys. Given the abundance of archaeological remains in this valley and the differential development of the lower and upper reaches, we divided Wildcat Creek valley into two primary tracts, Upper Wildcat Creek, stretching northwest from the intersection of Scenic Drive to the western edge of the project area, and Lower Wildcat Creek, from Scenic Drive east and south to the old mouth of Wildcat Creek.

Few professional surveys have been conducted along the roughly two and a half mile long Upper Wildcat Creek tract. Faculty of Kansas State University (Michael B. Stanislawski, Patricia J. O'Brien, and Lauren W. Ritterbush) reported most of the thirteen previously discovered sites. Patrick O'Neill also recorded several based on review of notebooks and artifacts donated to the KSU Archaeology Lab by an early twentieth century artifact collector Cletus Weygandt. One (14RY385) was reported in association with an archaeological survey for KDOT. This project involved pedestrian survey, coring with an Oakfield soil sampling tool, and excavation of three 45x45cm test pits atop a terrace that was slated to be used for borrow for a highway construction project (Thies 1996). Another survey was conducted north of the above-described project at the request of KDOT to expand the previously noted borrow area (Thies 2006). Surveyors identified no cultural materials.

William B. Lees and Barry G. Williams of the KHS completed Phase II survey along the proposed route of Scenic Drive in August 1986. 14RY424 lay within the survey area and required Phase III testing (Lees 1986). Williams (1986) directed this in November. Cores and limited excavations failed to uncover any undisturbed deposits leading to the interpretation that this site lacked the integrity necessary for inclusion on the NRHP.

The GLO plat maps indicate that the Fort Leavenworth-Fort Riley Military Road traversed parts of Wildcat Creek valley, including the eastern portion of this tract.

Phase I of this project included review of survey records and those pertaining to the 13 previously recorded archaeological sites in this tract. These included 11 prehistoric, one historic, and one multi-component prehistoric and historic site. Little information existed for most of these sites. During Phase II four of the locations were resurveyed, confirming via windshield survey that two sites have been destroyed; six were not revisited. A brief reconnaissance survey of an alfalfa field with poor ground visibility was undertaken along with review of existing site records and reports in order to clarify the location of two previously identified sites (see discussion for 14RY410 in the following chapter).

Based on discussions with City planning staff, we prioritized this tract for systematic survey. We were fortunate to have cooperation of many of the owners of property in this valley and accessed many fields with good ground visibility. We surveyed almost 200 acres of cultivated fields or tree plots in upper Wildcat Creek valley on property owned by six different entities. In addition to gaining updated information about several previously recorded sites, we recorded eight additional sites. These include six prehistoric artifact scatters, one artifact scatter containing both prehistoric and historic debris, and one historic site consisting of a stone fence or wall and ford.

Lower Wildcat Creek

In the late nineteenth century when Failyer (1881), Griffing (1904), Brower (1898, 1899), and others first reported the dense archaeological remains in Wildcat Creek valley, this region lay immediately west of Manhattan. However, over the next century the City of Manhattan grew to incorporate the entire lower Wildcat Creek valley. This study tract has been heavily impacted by commercial and residential developments that continue to expand westward into Upper Wildcat Creek. Because much of the development has been funded privately, few formal archaeological investigations have been conducted in the valley.

The first site in this area to be recorded with the KHS Archeological Inventory is 14RY21, better known as the Griffing site. As described in the following chapter, Jacob V. Brower first mapped this site in 1898 based on information he received from Griffing and others in the late nineteenth century. Waldo R. Wedel of the Smithsonian Institution conducted the first professional investigations of this site in 1937 (Wedel 1959). Wedel's interpretation of the remains from this and similar sites in the broader region laid the groundwork for understanding human use of the Central Plains region during the Late Prehistoric period between about AD 1000-1400.

Little additional work was conducted in Wildcat Creek valley for some time after Wedel's pioneering studies. KSU archaeologist Michael B. Stanislawski surveyed parts of Wildcat Creek valley, completed site forms, and conducted limited test excavations at several locations. Most noteworthy is his work at 14RY401, the Lonergan Trailer site, a portion of the larger Griffing site as mapped by Brower (1898:24). Patricia J. O'Brien continued to record sites in Wildcat Creek valley after her arrival at KSU in 1968. She also completed excavation of a CPt lodge at the Lonergan Trailer site, expanding Stanislawski's earlier excavations. O'Brien directed a second excavation in this tract with a volunteer and student crew in 1980 when a CPt component was uncovered during construction of the Holiday Inn and Holidome. O'Neill (1985) recorded additional archaeological remains in this and the previously described tract based on information documented in sketch maps and notes by artifact collector Cletus Weygandt.

Several compliance projects have been completed along lower Wildcat Creek over the last two and a half decades. Weston completed a Phase II archaeological survey for KDOT in May 1995 near the lowest end of Wildcat Creek, just upstream from where it issues into the broad Kansas River valley. This survey preceded the construction of a pedestrian and bicycle path to connect portions of the Linear Trail on both sides of Fort Riley Boulevard. No cultural materials were seen, including during an attempt to relocate 14RY409, a site "presumed to have been destroyed" by earlier developments (Weston 1995).

Other archaeological investigations have been conducted farther upstream. Archaeologists with Burns & McDonnell Engineering completed a Phase II pedestrian survey in advance of construction of a Home Depot store along the west side of Wildcat Creek (Latham and Mandel 2002). Pedestrian survey and shovel testing were used to investigate the surface deposits across natural landforms within the 13 acre project area in December 2001. Geomorphologist Rolfe Mandel analyzed subsurface deposits exposed in six backhoe trenches in order to evaluate the potential for hidden remains. Importantly, a buried soil welded to the surface soil revealed high potential for archaeological deposits within the T-2 terrace of Wildcat Creek; however, none appeared in the five trenches excavated in the main survey area. A knoll adjacent to Wildcat Creek received special attention because of the presence of a known site, 14RY414. Backhoe and shovel tests showed that the surface of this T-1 terrace remnant had been stripped, compacted, and otherwise modified. Although the T-1 fill contained moderate geomorphic potential for buried cultural deposits, archaeologists determined that construction would likely not disturb intact remains. Research also revealed that 14RY414 lacked integrity because of heavy disturbance (Latham and Mandel 2002).

In February 1996 Roper conducted a Phase II survey of a parcel of land scheduled for development under a CDBG grant for affordable housing through a northwestern expansion of Redbud Estates. Pedestrian survey was supplemented with shovel testing. No cultural remains were discovered (Roper 1996).

Roper completed another Phase II survey in December 2003 prior to construction of self-storage units under a NPDES permit. The project area included about seven acres of

land west of Wildcat Creek, with no construction reportedly planned within at least 50 feet of the stream. Because of poor ground visibility and the possibility of recent alluvium atop this landform, sediments and surfaces were inspected after machines stripped small areas of vegetation and upper sediments. No cultural materials emerged. Records for and collections from 14RY419 and 14RY420 were analyzed as they are adjacent to the project area. Field investigations did not attempt to relocate these sites since they were believed to lie outside the area of impact (Roper 2003). Roper made a brief follow-up visit in February 2005 after a portion of the stream bank behind the storage units slumped, instigating stabilization plans. Roper believed that stabilization as proposed would not impact the two sites, thus, recommended no further investigations (Roper 2005). It is unclear whether the sites, especially 14RY420, were impacted by this slump event.

Thies conducted a Phase II pedestrian survey in March 1994 on both sides of Wildcat Creek where it flows generally north to south after entering this area from the west. Erosion had affected the left or outer bank of this bend, threatening nearby residential property. This survey was conducted in advance of plans by the Soil Conservation Service to stabilize the steep, eroding cut bank with sloped fill and riprap and move the stream channel to the west. No cultural deposits were noted (Thies 1994a).

In June 1989 Williams conducted Phase II survey of two parcels of land in the Lower Wildcat Creek tract in association with a proposed borrow area and temporary access road for KDOT. The borrow area lay within a tight bend of Wildcat Creek containing no previously identified archaeological remains. The access road crossed much of the width of Wildcat Creek valley and a small tributary drainage. Archaeologically, this is within the western portion of the “Griffing Village Site” as originally mapped by Brower (1898:24). As proposed, the road would cross part of 14RY400 and near 14RY406. Despite the presence of these sites, Williams (1989a) granted permission to use the haul road with caution.

One of the most recent professional archaeological investigations in the Lower Wildcat Creek tract was conducted during the summer of 2006. Donna C. Roper (private contractor) and Mark Latham (Burns & McDonnell Engineers) directed Phase II and III investigations at Stone Pointe. This residential development is on the valley slope on the south side of Wildcat Creek immediately east of Scenic Drive. Three sites (14RY421, 14RY422, 14RY423) had previously been recorded near Wildcat Creek. A fourth site (14RY7179) was discovered during Phase II survey. Test excavations revealed shallow cultural deposits at 14RY421, 14RY423, and 14RY7179 that likely would not offer significant information about past human use of the area. The archaeologists recommended additional testing for 14RY422 because initial tests revealed features (e.g., hearths or fireplaces) and evidence of multiple periods of use. Although those excavations provided additional information, Roper determined the site to be ineligible for the NRHP (Roper, personal communication, March 26, 2009).

The westernmost formal archaeological project reported in this and adjacent study tracts included Phase II and III investigations along Scenic Drive. Lees and Williams completed Phase II in August 1986. That portion of the survey at the north end of the then-proposed route of Scenic Drive overlapped with the previously reported site 14RY426. Lees

(1986) recommended Phase III testing to evaluate its eligibility for the NRHP. Williams directed this testing in November 1986. Cores and limited excavations failed to uncover any cultural deposits below the plow zone. Williams believed the site lacked the integrity necessary for inclusion on the NRHP (Williams 1986).

Several early historic features are plotted on the GLO plats along lower Wildcat Creek. The Fort Leavenworth-Fort Riley Military Road entered Wildcat Creek valley near the western end of this tract, probably within the northern portion of modern-day Anneberg Park, and followed westward along the northern part of this valley into the Upper Wildcat Creek tract. Maps indicate an early house on the northern edge of the valley in Section 14, T10S R7E. Another house is mapped within the broad bend of Wildcat Creek where its general flow changes from west-east to north-south. A farm field and house are labeled along the east-west section line about one half mile north of the former mouth of Wildcat Creek. The latter may correspond to a structure mapped on the 1881 plat on land owned by C. Hively (Bird 1881:67). A now-abandoned stone house reportedly built in 1870 stands north of prehistoric site 14RY425. Further investigation of these and other historic features and structures in this and other tracts is recommended.

Thirty-seven sites, the majority prehistoric, had been recorded along lower Wildcat Creek prior to 2009. We discovered inaccuracies in the evidence for three of these (14RY1604, 1605, 1606), suggesting they likely never actually existed. We revisited 12 sites and updated site reports about their existing condition and conducted windshield survey of 17 destroyed sites. We were not able to revisit five of the previously recorded sites, nor could we complete systematic survey in the Lower Wildcat Creek tract, largely because so much of the area had already been developed. However, we conducted reconnaissance survey of approximately 10 acres of Optimist Park in response to on-going land-modifying activities and about 30 acres of the Wildcat Creek Golf Course, which was constructed over and around seven previously recorded sites.

Miller Ranch-Stagg Hill

Despite extensive development, the Miller Ranch-Stagg Hill tract has experienced very limited archaeological study. Much of this area is residential, the development of which rarely involves federal funds or permits triggering cultural resource compliance. The only previous investigations have been associated with highway projects funded by KDOT. The most recent project concerned modifications of K-18 between Manhattan and Ogden. A portion of the highway cuts across the northern edge of Stagg Hill and descends into the valley down a narrow drainage formed by an intermittent stream. Pedestrian survey was conducted on parts of three upland ridges along this route (Thies 2007). These were targeted due to the previous report of a burial mound in this area. As noted in the site description in the following chapter, O'Brien assigned 14RY42 to this general location based on Griffing's 1888 "Archaeological Chart of Manhattan and Vicinity." Thies failed to locate definitive evidence of a burial mound on the bluff west of K-18 during his October 2007 survey.

The second area of investigation within this study tract paralleled Scenic Drive at the northwestern end of this study tract. This August 1986 survey included the proposed road right-of-way across the divide between Wildcat Creek to the north and the Kansas River valley to the south. Surveyors did not walk all of the upland sections of this route, but traversed the top of the divide north into Wildcat Creek valley. Although evidence of archaeological sites was found along portions of the proposed route in Wildcat Creek and the Kansas River valleys (discussed elsewhere), Lees and Williams did not discover any cultural materials or features on the divide (Lees 1986).

The GLO plat maps do not note any features within this tract. A road is shown on the 1881 and 1909 plat maps (Bird 1881; Ogle 1909) across the northwestern portion, known locally as the Fort Leavenworth-Fort Riley Military Road and partially marked by the Manhattan community. This road, portions of which have already been destroyed and at least one portion is still visible, has not been formally recorded as an archaeological site.

Our Phase II investigations of the Miller Ranch-Stagg Hill tract consisted of survey of upland areas in two different sections of the tract. The first is located south of Wildcat Creek and Anneberg Park. Unable to inspect this entire parcel of land, we completed survey of about 35 acres including an isolated bluff top and adjacent slopes and portion of a nearby ridge. Both areas had been recently burned so ground visibility was good. Two possible excavated mounds (14RY652, 14RY653) and a lithic scatter (14RY654) were discovered on the isolated bluff and its eastern slope. An extensive scatter of lithic debris littered the eastern slope of the ridge to the west (14RY656). This site likely extends to the west side of this ridge and possibly beyond. We also inspected the northern point of this ridge, which affords an excellent view of a vast area to the north, east, and west. Modern construction of a fire pit atop the highest point has obscured any archaeological remains that may have existed here. No artifacts were observed on the bench north of this point; however, a somewhat cleared area with a very slight depression was noted near the north-central portion of this generally flat bench. Very few stones existed in the area although a couple of heavily weathered pieces of worked wood rested within this unusual spot. The present landowner was not aware of this subtle feature. Its origins (natural or cultural) are unknown.

The second area we attempted to survey was the remaining undeveloped portion of northwestern Stagg Hill previously associated with the original Stagg Hill Golf Course (which has been moved to the Kansas River valley). Residential development has encroached steadily onto this land. The undeveloped portion consists of about 20 acres and is planted in grass and used as a hayfield. We were only able to conduct a reconnaissance survey because of heavy vegetation, consisting of knee-deep grasses and forbs with brush and woods in the ravines. Despite poor ground visibility, we identified three historic features, which we recorded as sites 14RY658, 14RY659, and 14RY660. We postulate that they may be related to the original Stagg Hill Golf Course, but documentary and oral research is needed to evaluate this tentative interpretation.

We were unable to revisit four of the five previously recorded sites in this tract. As noted above, Thies (2007) was unable to relocate one of these during a previous survey. We confirmed that the fifth had been recently destroyed through construction.

Western Divide

No formal archaeological investigations had been conducted and very few archaeological sites had been identified in this upland tract prior to this project. Upland settings typically are believed to have low archaeological potential. Nonetheless, as evident in this and other upland areas in the region, burial mounds are found in these settings. An historical map vaguely identifies two upland mounds (14RY43, 14RY45) in this tract. The exact location and form of these features had not been field checked prior to this survey. In order to remedy this, we surveyed approximately 22 acres of pastureland (with varying visibility) around the postulated site locations and on landforms believed to be more suitable for these features. We corrected the mapped location of each of these “mounds,” discovering their remnants on nearby prominent bluff tops. Revised site forms with their accurate locations were completed and submitted to the KHS Archeological Inventory.

In addition to relocating the above sites, we discovered three previously unrecorded historic features. These were not discovered during systematic survey. Two stone fences (14RY650, 14RY651) were observed while crossing pastures en route to one of the survey areas. Another stone fence or wall (14RY662) and a stone-lined well (14RY664) were brought to our attention by the owners of nearby property. These were recorded, but not fully documented. Additional historical research and field documentation is recommended for these and other potential historic sites in the area. The 1881 plat (Bird 1881) and the GLO maps indicate that a branch of the Fort Leavenworth-Fort Riley Military Road crossed the western portion of this tract from southwest to northeast. One landowner indicated a probable route of this trail between two bluffs, but we were unable to visit that location.

Eureka Valley

Formal archaeological investigations in Eureka Valley have preceded expansion plans for the Manhattan Regional Airport and road and highway construction and modifications. Two archaeological studies were conducted in 2005 in advance of proposed developments at the Manhattan Regional Airport. The first was related to expansion of the tarmac to allow for additional parking for large military transports. Archaeologists from the Fort Riley Military Reservation conducted a survey in the proposed areas of impact on the southeast side of the existing runway and around a proposed borrow area. They located one isolated flake and a small lithic scatter. They continued to Phase III excavation and evaluation of the latter site, 14RY7153 (Hall et al. 2005).

The second airport study included a Phase II survey focused on identifying architectural resources within the Areas of Potential Effects (APE) for future expansion of the Airport. The APE's were located primarily around the existing airport and runway with expansions to the southwest, northwest, north, and northeast (Altizer et al. 2005). Surveyors examined fifty-six standing structures and inspected two potential construction areas for archaeological remains. Three structures, including a barn, a school used between 1865 and

1947, and a WPA hangar, were recommended as eligible for the NRHP. Two archaeological sites were not recommended for the NRHP. The first (14RY7163) included an historic artifact scatter associated with a twentieth century farmstead that was razed in the 1970s. The second (14RY7164) was similar but included three pieces of flaking debris from a possible prehistoric component (Altizer et al. 2005). The historical association of this site may be in error and deserves additional historical study (see discussion in Chapter 3).

Phase II and III investigations in advance of the construction of Scenic Drive are the earliest formal archaeological investigations in Eureka Valley. Lees and Williams surveyed a portion of this proposed roadway in August 1986. They discovered 14RY374 and recommended evaluation for the NRHP (Lees 1986). Williams directed testing in November 1986. Cores and limited excavations revealed disturbance of archaeological remains in the plow zone. Williams (1986) determined that the site was not eligible for the NRHP.

Williams also conducted Phase II survey in August 1989 of two small areas in Eureka Valley near the proposed route of Scenic Drive that were slated for use as borrow areas for road construction. Williams (1989b) recommended clearance since surface survey failed to identify any archaeological remains.

Recent discussions regarding realignment of K-18 between Manhattan and Ogden led to Phase I and II investigations along four alignment alternatives. Anne Bauer of the KHS directed these studies in April and May 2006. Based on Phase I literature search, Bauer recommended Phase II survey of selected areas for historical and archaeological resources and geomorphic analysis of deposits in two areas. As noted by Bauer, given the setting of most of the alternatives in the Kansas River valley, an area subjected to frequent flooding and stream changes, the likelihood of archaeological materials at or near the surface was small. Instead, cultural deposits might be deeply buried by alluvium. Bauer judged areas with some topographic relief to have some potential for surface manifestations, and thus recommended Phase II survey for proposed crossings of Seven Mile Creek and Eureka Lake. Upon brief inspection, the recommendation for the former was abandoned because it was believed to provide insufficient topographic potential. Field survey of the latter produced negative results. The two areas of deep testing were in areas mapped as Muir soils, considered to hold potential for buried soils. Rolfe Mandel completed the geomorphic analysis and found no buried cultural materials or potential buried soils. Brief inspection of potential historic resources failed to identify any intact structures of significance (Bauer 2006).

We did not complete any systematic survey in Eureka Valley, in part due to the difficulty of identifying archaeological remains, especially prehistoric, on the surface of this geomorphically active region. Careful study of historical maps of the Kansas River valley (e.g., Dort 2009), combined with geomorphic study of surface and subsurface deposits are necessary to guide meaningful survey for prehistoric sites.

Significant historical developments have occurred in Eureka Valley from the time of Euroamerican settlement. This area has also been impacted by natural forces, such as flooding. The potential for historical resources in this valley is high (as indicated in part by the study by Altizer and others [2005]), although destruction associated with flooding and

modern developments is also high. Two of the above-referenced projects have included historical survey of parts of this tract, yet other portions have not received this attention. Historical features are known in the area, but rarely recorded and evaluated. For example, Williams (1987:10) noted in the Phase III report of investigations at the prehistoric site 14RY374 that a stone fence ran “along the upper edge of the field”. The exact location of this feature has not been recorded. We were unable to check this location during our Phase II survey, but know that it is very close to an on-going residential development, if not already destroyed by associated construction. Part of the Fort Leavenworth-Fort Riley Military Road also ascended the bluffs adjacent to this site. The 1857 GLO, 1881, and 1909 plat maps mark two branches of that trail (Bird 1881:67; Ogle 1909:58-59). It is mapped as a single road out of Ogden and along the western portion of Eureka Valley. In the valley it splits with one route heading northeast across the western divide between the Kansas River and Wildcat Creek valleys. The other branch heads eastward to Eureka Lake before ascending a ravine near the modern slope of Scenic Drive and into the modern Miller Ranch development atop the bluff. Portions of this route have been marked in the Miller Ranch and other areas. Systematic survey and professional recording of the various routes of this trail and other historic features is recommended with the assistance of local trail enthusiasts or historians.

Hunters Island

No previous archaeological investigations or sites have been documented in these bottomlands, nor were systematic surveys conducted in this tract during the 2009 Manhattan Archaeological Survey. Given the active nature of the Kansas River, surface deposits are likely of relatively recent age. Old meander scars visible in aerial photographs and on topographic maps provide evidence of former river channels. Historic Channel Change Maps prepared by the Geomorphology Laboratory at the Department of Geology at the University of Kansas under the direction of Wakefield Dort, Jr. (1976, 2009) were completed for the U. S. Army Corps of Engineers as part of the Kansas River Bank Stabilization Study. This study, recently updated and released, mapped changes in the Kansas River channel between 1857 and 1976. Between 1909 and 1913, the river south of Moehlman Bottoms appeared slightly different than in 1971. More dramatic changes are also evident. During the periods from 1909-1913 and 1857-1868, the Kansas River flowed northwest between Moehlman Bottoms and Hunter Island, then looped around to the southeast along the present channel of lower Wildcat Creek. During these periods, a meander of the Kansas River separated these bottomlands, the Kansas River flowed adjacent to the southern limits of the City of Manhattan, and the mouth of Wildcat Creek was at that point where Wildcat Creek now issues from between the upland ridges and just below where K-18 crosses that stream. In 1909-1913 the Kansas River also cut across the bottoms between the ends of this meander loop leaving Hunters Island surrounded by the river.

Due to fluvial actions, prehistoric archaeological remains are unlikely to be present in areas deeply cut by the changing river channel. Nonetheless, localized pockets of historically undisturbed sediments may retain good potential for evidence of past human use of this resource-rich region. For example, the edges of former oxbow lakes may have been used as resource areas or seasonal camps. Although archaeological evidence of these activities may

not be visible on the surface, cultural deposits may lie below the surface. Geomorphic studies within the Hunter Island tract hold the potential for identifying former landforms suitable for past human use. Archaeological remains may also be identified along the edges of the stream valley or as occasional reworked deposits displaced through natural erosion (e.g., artifacts found on gravel bars adjacent to or in the river).

Pillsbury

The most extensive archaeological investigations previously conducted in this tract included a survey of the upper Deep Creek drainage, cultural resource studies associated with KDOT projects along K-177, and a survey prior to construction of a communications tower. We did not complete any formal surveys in this area in 2009, but relocated two sites and checked two other former site locations via windshield reconnaissance.

Robert K. Blasing, then a graduate student at Wichita State University, directed the Upper Deep Creek archeological survey in 1984 and 1985. The project was funded in part through the Historic Preservation Fund, administered by the KHS. The crew walked portions of 48 sections of land encompassing the upper drainage basin of Deep Creek in search of cultural resources (Blasing 1986). Only a portion of that survey area falls within the limits of the Manhattan Archaeological Survey, notably the uplands at the western headwaters of School Creek, a tributary of Deep Creek on the east side of K-177. Blasing (1986) recorded eight sites (14RY504, 1552, 1554, 1556, 1557, 1558, 1559, 1560). We were denied access to these sites in 2009, but it is unlikely that they have been dramatically altered since they were originally recorded since this area serves as cattle pasture for KSU.

Another previously surveyed upland area within this tract is the northwestern point of the bluff top overlooking Fairmont. Roper (1999) inspected this area as part of an environmental assessment for a communications tower. She relocated one of the mounds comprising 14RY36 and provided clearance for construction of the communications tower away from remnants of this prehistoric feature.

Archaeologists with the KHS have completed various archaeological investigations for KDOT in this tract. John D. Reynolds recorded several sites in 1973. Later investigations preceded expansion of highway K-177. Thies completed a pedestrian survey in 1994 of selected areas along the proposed west lane expansion of K-177. In addition, six backhoe trenches were dug in two areas along Spring Branch in search for potential buried soils or cultural materials with negative results (Thies 1994b). Thies returned the following year to inspect three proposed waste areas related to highway construction. He completed test excavations and survey of 14RY304 in addition to pedestrian survey of the proposed waste areas. Thies (1995) found no cultural materials and recommended that the proposed land modifications proceed as planned. Additional surveys were conducted on both sides of the Kansas River in anticipation of construction of a new bridge. Archaeological investigations associated with construction on the west side of the river are discussed as part of the Central Manhattan tract (see above). One significant archaeological site (14RY38) was identified in 1991 during Phase I and II investigations on the east side of the river along

lower Spring Branch. Phase III and IV excavations were completed between 1992 and 1995 (Banks et al. 2001; Benison et al. 2000; Hawley 1992, 1993; Hawley and Benison 1994).

Other sites have been identified in the Pillsbury tract. Among those that we were unable to revisit in 2009 were a couple of lithic scatters (14RY86, 14RY306) and four bluff-top mounds (14RY305, 14RY307, 14RY37, 14RY84). Amateur archaeologists excavated most “mounds” in the region in the late nineteenth and early twentieth centuries. Records pertaining to these “excavations” are limited to brief historical references by Failyer (1881), Griffing (n.d., 1888), Brower (1898, 1899), and Wedel (1959:203-205). Some of these records and their interpretation led to confusion over the location and contents of several mounds. For example, it is unclear whether 14RY37 and 14RY84 both once existed on Prospect Hill. Although we were unable to attempt to relocate these two mounds, we did revisit previously recorded Fremont Point mound (14RY35) and a similar feature (14RY34) on a nearby bluff along the eastern edge of the Manhattan Urban Area. Survey of the latter resulted in more accurate mapping of the location of this feature.

There likely are historical sites in the Pillsbury tract in addition to the prehistoric sites already discovered there. The GLO plats show two roads that crossed this area in the mid-nineteenth century. The first is the east-west Manhattan-Topeka Road along the south side of the Kansas River. The second is a north-south road along the east side of the Kansas River in the western part of this tract. “Bishop’s Field” is shown in Fairmont overlapping part of 14RY38.

