

The CAHOKIA MOUNDS



WARREN K. MOOREHEAD

Edited and with an Introduction by JOHN E. KELLY

The Cahokia Mounds

WARREN K. MOOREHEAD

Edited and with an Introduction by John E. Kelly

THE UNIVERSITY OF ALABAMA PRESS

Tuscaloosa and London

Acknowledgments, Introduction, Key to Plates and Figure Numbers, and Index copyright © 2000
The University of Alabama Press
Tuscaloosa, Alabama 35487-0380
All rights reserved
Manufactured in the United States of America

The three works by Warren K. Moorehead (including sections by Jay L. B. Taylor, Morris M. Leighton, and Frank C. Baker) reproduced by facsimile in this volume were published originally as the following University of Illinois Bulletins, University of Illinois, Urbana: Portions of *The Cahokia Mounds: A Preliminary Paper XIX*, no. 35 (April 24, 1922); portions of *The Cahokia Mounds: Part I, A Report of Progress*, and *Part II, Some Geological Aspects XXI*, no. 6 (October 8, 1923); and *The Cahokia Mounds XXVI*, no. 4 (September 25, 1928, copyright © 1929).

1 2 3 4 5 6 7 8 9 • 08 07 06 05 04 03 02 01 00

Cover design by Robin McDonald

00

The paper on which this book is printed meets the minimum requirements of American National Standard for Information Science-Permanence of Paper for Printed Library Materials, ANSI Z39.48–1984.

Library of Congress Cataloging-in-Publication Data

Moorehead, Warren King, 1866-1939.

The Cahokia Mounds / Warren K. Moorehead; edited and with an introduction by John E. Kelly.

p. cm. — (Classics in southeastern archaeology)

Includes bibliographical references and index.

ISBN 0-8173-1010-X (alk. paper)

1. Cahokia Mounds State Historic Park (Ill.) I. Kelly, John Edward.

II. Title. III. Series.

E78.I3 M66 2000 977.3`89—dc21

99-047252

British Library Cataloguing-in-Publication Data available

- II Fig. 1.—East view of Monks Mound. Fig. 2.—North view of Monks Mound.
- III Fig. 1.—Monks Mound as it appeared at the time of Putnam's visit. Fig. 2.—Dr. Patrick's restoration of Monks Mound.
- IV The Red Mound south of Monks Mound.
- V View of the Fox Mound and another mound located south of Monks Mound.
- VI One of the smaller mounds of the group, north of Monks Mound.
- VII Fig. 1.—A large pond near the Kunnemann Mound. Fig. 2— The face of the trench of the Kunnemann Mound at a height of 25 feet. Fig. 3.—Trench in the Kunnemann Mound.
- VIII The altar of baked clay in the Kunnemann Mound.
 - IX Skeleton of Cahokia Indian in the Edwards Mound.
 - X Fragments of pottery, James Ramey Mound, No. 33.
 - [XI] [From 1922 volume] Fragments of pottery from the Cahokia mounds, collected by Dr. George Higgins.
 - XI Fragments of pottery from the village site located on the Wells and Tippetts farms.
- [XII] [From 1922 volume] Fig. 21, 22, 23, 24, 25.—Designs on pottery fragments from Cahokia. Fig. 26.—Head of a bird in white and red. Fig. 27.—Head of bird. Fig. 28.—Forearm and hand. Figures 27 and 28 show the beginnings of sculpture in clay.
- XII Fragments of pottery from village site on the Ramey, Wells, and Tippetts farms.
- [XIII] [From 1922 volume] Figs. 29, 30, 31, 32.—Designs on pottery fragments from Cahokia.
- XIII The Cahokia type of arrowheads.
- XIV Fig. 1.—The hollowed bone awl. Fig. 2.—A slender, broken drill. Fig. 3.—Cahokia type arrowheads. All found in the field opposite Monks Mound.
- XV Fig. 1.—Pottery bird effigy. Found south of Monks Mound. Fig.2.—Agricultural implements found north of the Merrell Mound.
- XVI Fig. 1.—Hand and forearm in clay. Fig. 2.—Effigy in clay. Fig. 3.—Ornament in red stone. Fig. 4.—Stone pipe. Fig. 5.—Effigy in clay. Fig. 6.—Engraved stone. Fig. 7.—Stone pipe. Fig. 8.—Cutting tool (hatchet).
- XVII Figs. 1, 2, 3.—Burial pots with skeleton No. 12, Mound No. 20; 2, 3, characteristic Cahokia forms, especially 3. (A363, a, b, c.) Fig. 4.—Small pot with skeleton No. 9, a child (A304). Fig. 5.—

- Small crucible-like pot from burned basin, Sawmill Mound (A305). Fig. 6.—Burial pot with skeleton No. 11, Sawmill Mound (A306).
- XVIII Fig. 1.—A vessel of considerable size, probably a salt pan, Wells-Tippetts Village Site (A355). Figs. 2–4.—Grooved stones of quartzite-like sandstone, possibly sinew stones (A356), Ramey Village Site. Fig. 5.—Grooved stone of quartzite-like sandstone, from burned basin 100 yards south of Sawmill Mound (A357).
 - XIX Figs. 1–6.—Types of decorated pottery. Wells-Tippetts Village Site (A313).
 - XX Figs. 1–9.—Fragments of pottery. Wells-Tippetts Village Site, 1 to 3 ¹/₂ ft. below surface (A313). Fig. 10.—Peculiarly decorated pottery fragment, Ramey Village Site (A314). Figs. 5, 6 are common Cahokia designs.
 - [XXI] [From 1923 volume] Monk's Mound viewed from the southeast, showing the left foreground the terrace or apron.
 - XXI Fig. 1.—Pottery fragment, James Ramey Mound, depth of 23 feet (A310). Figs. 2–8.—Ramey Village Site, types of pottery design (A312).
- [XXII] [From 1923 volume] Map of Cahokia Mound Group. Based on map of J. J. R. Patrick, 1880. Camp sites and burial sites are indicated, showing result of 1921–22 field work.
- XXII Decorated pottery from the James Ramey Mound. Figs. 1–3.— Near surface (A307). Fig. 4.—Depth of 19ft. (A309). Figs. 5, 6.— Depth of 15 ft. (A309). Fig. 7.—Depth of 23 ft. (A310). Fig. 2.— Engraved sandstone (A311).
- XXIII Fig. 1.—Shell gorget with skeleton No. 11, Sawmill Mound (A321). Fig. 2.—Shell effigy, Sawmill Mound, made from shell of fresh water mussel (A322). Fig. 3.—Nose or ear ornament made from shell of freshwater mussel (*Elliptio dilatatus*) James Ramey Mound (A323). Fig. 4.—Clay bird's-head effigy, Wells-Tippetts Village Site, 3 ft. deep (A324). Figs. 5, 6.—Clay bird's-head effigies, James Ramey Mound, 16–23 feet below surface (A325). Fig. 7.—Clay mammal-head effigy, Sawmill Mound (A326). Fig. 8.—Portion of clay pot or ornament (A327). Fig. 9.—Ornament on rim of pot (A328). Figs. 8, 9.—From James Ramey Mound.
- XXIV Figs. 2, 4, 9, 12.—Shell beads made from marine conch (*Busycon*) (A329). Figs. 5, 6.—Shell beads made from fresh water mussels (A330). Figs. I, II.—Shell ornaments from marine *Busycon* (A331). Figs. 7, 8, 10, 20.—Shell ornaments made from fresh water mussels (A332). Figs. 13, 15, 17.—Shells and central axis of marine

Figures and Plates

conch, Busycon perversa (A333). Fig. 16.—Marine conch, Busycon carica (A442). Fig. 19.—Ornament made of side of Busycon shell (A334). Fig. 14.—Marine shell, Strombus Pugilis alatus (A334). Fig. 18.—Marine olive shell, Oliva literata (A336). All from James Ramey Mound, between 8 and 23 feet below surface.

Figs. 1, 2.—Awl and celt made of deer bone (A337, A338) Wells—Tippetts Village Site. Figs. 3, 7.—Deer bone awls, James Ramey Mound, 8 feet deep (A339). Fig. 4.—Bone awl with skeleton No. 39, Pittsburg Lake (A340). Figs. 5, 6.—Bone awls (A341, A342). From Judge Sullivan's Mound, 10 ft. below surface. Fig. 8.—Bone knife with skeleton No. 11, Sawmill Mound (A343). Fig. 9.—Part of breast bone of Virginia deer, Ramey Village Site (A344). Fig. 10.—Awl made from heel (calceneous bone) of deer (*Odocoileus virginianus*) found with skeleton No. 18 (Mounds 19, 20, 21) (A345). Fig. 11.—Pathologic leg bone of deer, from Ramey Village Site (A346). Fig. 12.—Foot bone of Wapiti with deeply incised lines, James Ramey Mound (A347). Fig. 13.—Lower jaw of Virginia deer used as a chisel or gouge, Sawmill Mound (A348).

XXVI Fig. 1.—Flint or chert knife of fine workmanship; James Ramey Mound, 12 feet deep, near stake 125 (A358). Fig. 3.—Shouldered hoe. Figs. 2, 4.—Spades, of flint or chert, from field southwest of Monks Mound (A359, A360). Fig. 5.—Spade of flint or chert; James Ramey Mound, west side, 17 feet deep (A361).

XXVII Pottery discs perforated and unperforated, are common in the mounds and on the surface. Attention is directed to the peculiar design on Fig. 3. Fragments such as Fig. 1, with a rude circle and cross lines are frequently found. Fig. 1.—Pottery fragment with oval design; Sawmill Mound, 3 feet deep (A315). Fig. 2.—Pottery disc, James Ramey Mound, 15 feet deep (A316). Fig. 3.—Fragment with peculiar design; Stockyards Village Site (A317). Fig. 4.—Pottery disc, James Ramey Mound, 12 feet deep (A318). Fig. 5.—Perforated clay disc, Wells-Tippetts Village Site (A319). Fig. 6.—Perforated disc of fine-grained sandstone, Ramey Village Site (A320).

XXVIII Fig. 1.—Flint knife, broken; James Ramey Mound, 8 feet deep (A349). Fig. 2.—Fine-pointed needle of bone, with skeleton No. 30; Mounds 19, 20, 21 (A350). Figs. 3–5.—Bone awls, Wells-Tippetts Village Site (A351). Figs. 6–8.—Flint arrow points, James Ramey Mound, 17 feet deep (A352). Figs. 9, 10.—Flint war arrow points. Wells-Tippetts Village Site (A353). Fig. 11.—Flint spearhead, James Ramey Mound, 17 feet deep (A354).

- XXIX Fig. 1.—Digging trench in Sawmill Mound. Fig. 2.—Skeleton No. 11, Sawmill Mound (A302).
- XXX Fig. 1.—Skeleton No. 12, from Mound No. 20 (A485). Fig. 2.—Circle in James Ramey Mound.
- XXXI Fig. 1.—Trench in James Ramey Mound (No. 33). Note altar in center foreground at trowel. Fig. 2.—Skeletons in position, Mound No. 20. Fig. 3.—General view of circles in James Ramey Mound.
- XXXII Fig. 1.—Bone awls and needles. Figs. 2–6.—Mussel shells (*Lampsilis ventricosa*); W. J. Seever collection. (¹/₄ natural size.) Fig. 7.— Hematite axe. Fig. 8.—Grooved axe; Monticello Seminary collection. Fig. 9—Celt of porphyritic rock, Wells-Tippetts Village Site (A362).
- XXXIII Figs. 1–5.—Five pipes, several of them effigies, from the Monticello Seminary collection. Figs. 6, 7.—Stone effigies; Monticello Seminary collection. Fig. 8.—Large effigy pipe; W. J. Seever collection.
- XXXIV Fig. 1.—string of shell beads cut from busycon conch. Fig. 2.— Marine conch shell, *Busycon carica*. Fig. 3.—Marine conch shell, *Busycon perversa*. (¹/₄ natural size.) Monticello Seminary collection. Fig. 4.—Arrowhead of quartz, unusual workmanship. Found on the surface of Monks Mound.
- XXXV Characteristic Cahokia motifs from the James Ramey Mound.
- XXXVI The discoidal, or chunkee stone, found on the face of a skeleton in Section 15-C of Mound No. 66.
- XXXVII Mound No. 66. Property of the Baltimore & Ohio Railroad Company.
- XXXVIII Cross section of Mound No. 66 at Station 35, major axis.
 - XXXIX The Powell Mound, from Taylor's photograph.
 - XL Jar with serpent motif. Mound No. 6, Neteler.
 - XLI Jar from the Neteler Mound, No. 6.
 - XLII Four copper hatchets.
 - XLIII Illustrating six bear tusks, two of which are split; three small copper hatchets and spearhead of agate-like flint from the Neteler Mound.
 - XLIV Necklace of split bear tusks, Skeleton 6, Mound No. 6, Neteler.
 - XLV Copper head-band and portions of two human jaws cut into ornaments, Mound No. 6, Neteler.
 - XLVI View of some skeletons *in situ* in the mound owned by Dr. Don F. Dickson, Lewistown, Illinois, also accompanying objects.
 - XLVII Skeleton and objects in position.
 - XLVIII Objects from the log tombs near Liverpool.

- XLIX Bone knife inserted in a grizzly bear tusk. Found in the long tomb, Liverpool, Illinois.
 - L Field map of Dickson's Cemetery.

Acknowledgments

Any attempt to understand the history of archaeology cannot be accomplished without the much needed assistance and perceptiveness of those colleagues also engaged in this endeavor. The author would like to thank the following individuals who provided suggestions on the Introduction as well as their respective institutions where many of the documents are presently curated: Dr. James Bradley, Director of the R. S. Peabody Museum at Andover Academy; Professor Douglas Brewer, Director of the Natural History Museum at the University of Illinois; Dr. Thomas Emerson, Director of the Illinois Transportation Program and Laboratory of Anthropology at the University of Illinois; William Iseminger, Site Archaeologist at Cahokia Mounds Historic Site; and Dr. Bradley Lepper of the Ohio Historical Society.

Other institutions that provided access to their archives and collections include the National Anthropological Archives of the Smithsonian Institution, the University of Michigan Museum of Anthropology, and the Illinois State Museum. Dr. Hal Hassen of the Illinois Department of Natural Resources directed me toward the Illinois State Archives. Professor James Brown of Northwestern University, Scott Bruton of the University of Oklahoma, Professor Melvin Fowler of the University of Wisconsin at Milwaukee, Professor Robert Hall of the University of Illinois at Chicago, and Lucretia Kelly of Washington University have all provided helpful suggestions and comments.

I also cannot thank enough the late Dr. James B. Griffin, Dean of North American Archaeology, for the insights he shared with me on Moorehead. I would like to acknowledge Paul Chucalo, his sister Zorina Lane, and the late Marie Fingerhut for their historical perspective on Moorehead. Professors George Milner of Pennsylvania State University and James Stoltman of the University of Wisconsin provided extensive comments on the content and organization that helped immensely.

To Dr. Stephen Williams, emeritus historian of archaeology, I ex-

tend my gratitude for his critical reading of the various drafts. Steve has provided numerous comments, suggestions, and extremely useful criticisms of this introduction. Nearly a decade ago Steve provided some of the initial direction that has lead me into some of the archives and literature that I have pursued in my attempt to understand the overall context of Moorehead's involvement at Cahokia.

Lastly, I would like to thank especially Judith Knight of The University of Alabama Press for the opportunity to reprint Moorehead's volumes on Cahokia as part of the Classics in Southeastern Archaeology series and Professors Janet Keller, Chair, and Timothy Pauketat of the Department of Anthropology at the University of Illinois for their support in pursuing this project.

Note on This Edition

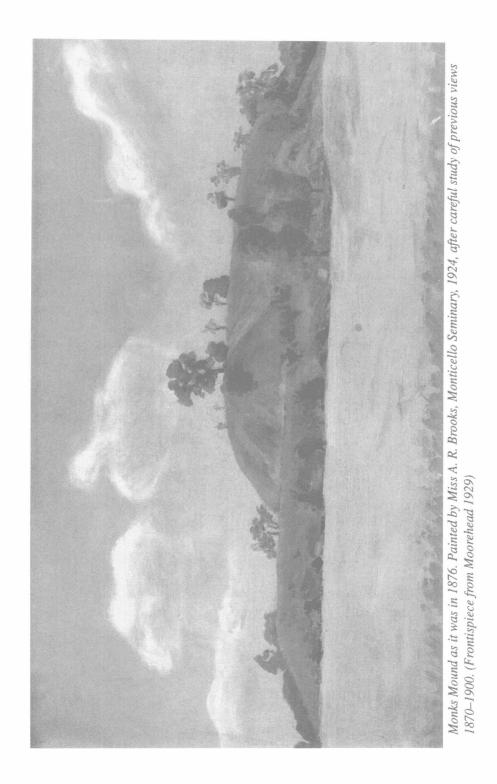
This edition reproduces the 1922, 1923, and 1929 University of Illinois Bulletins on the Cahokia Mounds by Warren K. Moorehead, without the bibliographies from the 1922 and 1923 volumes.

The plates in the original 1922, 1923, and 1929 bulletins were placed at the end of each volume. The 1929 volume included the plates from the previous two volumes, plus some new plates. To avoid duplication, this edition reproduces the plates from the 1929 volume, along with a few plates that were included in the 1922 and 1923 volumes but omitted in the 1929 volume.

The captions in the 1922 and 1923 volumes differ slightly from the captions reproduced herein from the 1929 volume. Also, the plate and figure numbers differ in the three volumes; for example, a photograph of Fox Mound is Plate V in the 1929 volume, Plate XIX in the 1923 volume, and Plate VI (Figure 8) in the 1922 volume. Because this edition uses the 1929 numbering, a "Key to Plate and Figure Numbers" is included at the front of the plates section and can be used to find the plates referred to in the text for the 1922 and 1923 volumes. In the 1922 volume, the text refers only to figure numbers.

The line drawings within text (intratext, numbered figures in the 1923 and 1929 volumes) are reproduced as they were in the original volumes.

The 1929 volume originally contained six foldout figures (figs. 1, 8, 9, 19, 20, 21) which have been included herein, but not all of them as foldouts.



Contents

Figures and Plates	vii
Acknowledgments	XV
Note on This Edition	xvii
Introduction by John E. Kelly	1
References	49
The Cahokia Mounds: A Preliminary Paper (1922)	59
The Cahokia Mounds: Part I, A Report of Progress and Part II, Some Geological Aspects (1923)	97
The Cahokia Mounds (1929)	189
Plates	369
Key to Plates and Figure Numbers	370
Index	427

Figures and Plates

FIGURES

	Painting of Monks Mound in 1876	xviii
	Introduction	
1.	Newspaper headlines	12
2.	Cahokia Mounds Historic Site-National Historic	
	Landmark boundaries	facing page 12
3.	Advertisement for trolley car rides to Monks	010
	Mound, ca. 1900	13
4.	Ramey mural of Monks Mound	15
5.	Warren King Moorehead meeting with the Ramey	rs 19
6.	First page of flier, "Help Save The Cahokia Moun	ds" 20
7.	Letter from Fred Ramey showing letterhead and n	nap,
	December 1921	23
8.	Location of Moorehead's investigations at Cahokia	ι,
	1921, 1922, and 1927	26
9.	Cahokia site chronology	34
10.	Location of Moorehead's investigations in the	
	American Bottom, 1922, 1923	35
11.	Augering into the Harding Mound, 1927	37
12.	William Seever's 1896 map of the Mitchell site	40
13.	Grid layout at the Harding Mound, 1927	47
	Moorehead 1922	
Design on	a fragment of pottery	92
	-46 are contained within the plates, <i>following page</i> 3'	
	Moorehead 1923	
1.	Positions of skeletons in trench cut through moun	ds 112
	0	

2.	Ground plan of trench in James Ramey Mound	115
3.	Plan of circular trench, etc., in James Ramey Mound	116
4.	Diagram of Tusant Jondro Mound	121
5.	Field plan of the Jondro Mound	122
6.	Mound on bluffs east of St. Louis	127
7.	Large polished celt or hatchet	138
8.	Map showing the location of the Cahokia Group	159
9.	Sketch of west face of trench, James Ramey Mound	168
10.	Sketch of chimney section, James Ramey Mound	170
11.	Arrangement of materials in the east face, James	
	Ramey Mound	172
12.	Sketch of irregular contacts between layers of fine	
	material in mounds	174
13.	Sketch showing arrangement of materials in	
	Albert Kunnemann Mound	176
14.	Sketch of structure of materials in north face, Sam	
	Chucallo Mound	178
15.	Sketch of structure of materials in south face, Sam	
	Chicalo [sic] Mound	179
	Moorehead 1929	
1.	Reproduction of the map drawn by J. J. R. Patrick	
	about 1880 facing page	204
[1a.]	Design on a fragment of pottery	227
2-7.	[Same as 1–6 in Moorehead 1923] starting on page	231
8.	Contour lines, survey of Mound No. 66 facing page	
9.	Cross section of Mound No. 66 at major axis facing page	
10–18.	[Same as 7–15 in Moorehead 1923] starting on page	
19.	Cross section of Mound No. I, Havana group	347
20.	Ground plan and cross section of Mound No. 5, Havana,	
	Illinois	348
21.	Ground plan of interments and objects in Mound	
	No. 6, Havana group	357
	Following Page 371	
	PLATES FROM MOOREHEAD'S WORKS	
[I]	[from 1922 volume] Fig. 1.—Reproduction of the map	
[-1	drawn by J. J. R. Patrick about 1880.	
Ι		
	Cross section of Kunnemann Mound a short distance north	of

Introduction

John E. Kelly

Pearly one hundred mounds distributed over a five-square-mile area of the Mississippi floodplain constitute the large Mississippian site complex of Cahokia. Although located within eight miles of metropolitan St. Louis, Missouri, the Cahokia site has managed to survive much of the ravages of modern development. Within the last two hundred years Cahokia has attracted much attention from travelers, archaeologists, and other scientists. One of the many individuals attracted to the Cahokia Mounds in the early part of the twentieth century was Warren King Moorehead. The results of his investigations at Cahokia and a number of nearby sites were published in a series of three reports through the University of Illinois. In later correspondence with Frank C. Baker, Moorehead (1936) indicated that the notes were left at the University of Illinois.

The first two Moorehead volumes published in 1922 and 1923 succinctly summarized his fieldwork and his efforts to demonstrate the human construction of the mounds that form part of the large Cahokia site. The results of a third season at a number of sites outside Cahokia were not published until after the fourth and final season was completed in 1927. The last of three volumes, published in 1929 (in the September 25, 1928, bulletin), included the work of the first two seasons along with a description of the 1923 and 1927 field seasons. The reports contain a description of each mound, site, or location examined. Occasional maps show some of the more relevant profiles, and each report contains a map of Cahokia with the various mounds numbered following John J. R. Patrick's initial numbering sequence.

At the end of each report is a set of plates that show the various excavations and some of the artifacts recovered. Occasionally Moorehead relied on specialists such as zoologists, chemists, and geologists for the analysis of certain materials. Of particular importance was the work of Morris Leighton, a geologist with the Illinois Geological Survey at the University of Illinois. His field study of the mound

profiles described in the 1923 and 1929 reports laid to rest any notion that the mounds were natural features. Once Leighton's initial results were known, it was then possible for the state to purchase a portion of the Cahokia site.

Moorehead's reports were not only a source documenting the prehistoric construction of the Cahokia Mounds by Native Americans but also the only substantive publication on the site for over four decades. More important, they are a tribute to his participation in the successful preservation of a small section of Cahokia as a state park in 1925 (Figure 2). As a result of his initial efforts and those of the local citizens, the Cahokia Mounds State Historic Site presently contains nearly 50 percent of the site. Today Cahokia has achieved the prestigious status as a UNESCO World Heritage Site, something no one probably could have envisioned 75 years ago. It was then a very different time and place. Nonetheless, the concerns of those involved in the preservation endeavor were no less important than the challenges that face us today.

This introduction essentially provides the context behind Moorehead's work, especially the purchase of the mounds at Cahokia. His reports, as with many of his earlier publications, are largely descriptive and not analytic. Although Moorehead understood the concepts of stratigraphy, his interest, as with many others before him, was the artifacts. Thus, although more rigorous and systematic techniques were being employed at the time, Moorehead continued to use large horse-drawn scrapers and human labor to remove mound fill.

The techniques Moorehead used at Cahokia in 1921 were the same ones he used 30 years earlier in the excavations at the Hopewell group in Ohio. Although some profile and plan maps of his Cahokia excavations were completed, most of the work was not mapped. In looking at the broader picture of the Eastern Woodlands, the differences observed in the cultural materials recovered were more apt to be related to geography than stratigraphy. A decade later others had begun to establish a chronology that placed much of what was being discovered in some type of culture-historical framework.

The following introductory discussion is divided into several parts: The first part describes Moorehead and his background in archaeology. Then I discuss the antecedents to the preservation of Cahokia and the initial efforts. Next, I examine the context of the four seasons of excavation at Cahokia and the surrounding environs with respect to the three reports reprinted herein. Finally, I conclude with an epilogue discussing other work done at Cahokia and a summary.