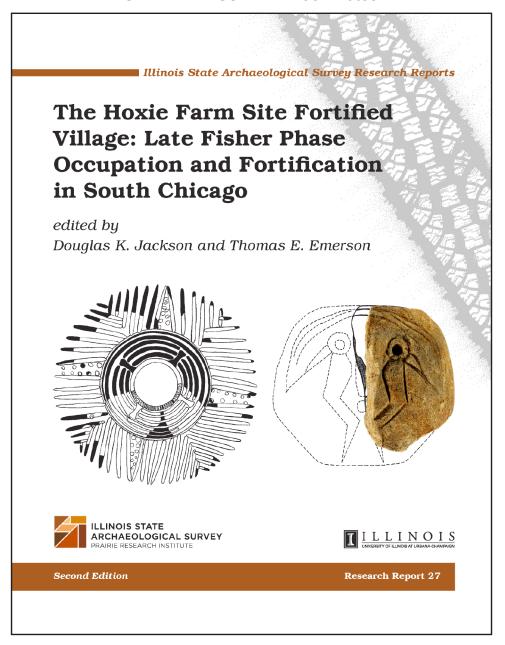
# **OPEN ACCESS: MAC Book Notes**



Published by the Illinois State Archaeological Survey. 2014. 502 pp., \$42.50 (paper).

he Hoxie Farm site (11CK4) is a large, intensively occupied multicomponent site located in the south suburban Chicago area of Cook County, Illinois, near the Village of Thornton. Most segments of prehistory are represented in the various collections and excavated data sets from the site, and the native occupations may have extended into the protohistoric area. Euro-Americans occupied this site just prior to the mid-nineteenth century. These ISAS archaeological investigations were prompted by a joint IDOT and Illinois State Highway Toll Authority (ISTHA) project to expand and modify a segment of the Kingery Expressway (the Interstate 80/294 corridor), and its interchange with the Calumet Expressway (Interstate 94/394). Large-scale site investigations were undertaken during two full field seasons, in 2001 and 2002, and during a partial field season in 2003.

The ISAS investigations encountered significant and extensive archaeological deposits, the majority of which are associated with a series of late prehistoric, Upper Mississippian occupations relating to the late Fisher phase and the Huber phase. In all, more than 2,400 individual subsurface features (structures, hearths, pits, earth ovens, post molds, etc.) were defined and excavated. What is unarguably the most important aspect of the site investigations was the exposure of a portion of a large, densely populated village that was surrounded by fortifications—what we term the Fortified Village. This village occupation can be confidently assigned to the fourteenth-century late Fisher phase. Importantly, the village was found to be spatially discrete and segregated from the more intensively utilized portion of the site exposed during the investigations. This latter area, which we refer to as the Main Occupation Area, lies to the north and west of the Fortified Village. The Main Occupation Area will be covered in a future volume that is currently in production.

The publication of the results of the ISAS investigations will be presented in two volumes. This first volume will provide background information on the site setting, a history of the site, and a summary of the previous investigations, in addition to summarizing the Fortified Village portion of our site investigations. The second volume will present the archaeological evidence recovered from the occupations located within the Main Occupation Area.

# Contents

List of I	lgures t	ĸ
List of T	ables x	v
Acknow	ledgments xt	x
1	Introduction Douglas K. Jackson	1
2	Site Description and Environmental Setting Douglas K. Jackson	Э
	Physiography 1:	3
	Thorn Creek and Local Area Drainage	7
	Soils 19	Э
	Plant Communities 20	o
	Food Resources	
3	Cultural Background Douglas K. Jackson	ā
	Upper Mississippian Occupation in the Chicago Region	
	Langford and Fisher 28	
	Huber Phase	4
4	History of Site Investigations Douglas K. Jackson	
	Early Historic Era Site Evidence	5
	Railroad Construction	7
	Albert Scharf Investigations	7
	University of Chicago Activities	Э
	Bluhm and Wenner 1953 Salvage Excavations	
	Ed Lace and Forest Preserve Investigations	
	ISAS Investigations	
	Phase I Investigations	
	Phase II Investigations 4	
	Research Design and Objectives	
	Phase III Investigations5	
	Definition of the Fortified Village	
5	Features Douglas K. Jackson	,
ə	Introduction 7	
	Feature Excavation Methods	
	Feature Typology. 7	
	Structures	
	Small Structures8	
	Medium Structures99	
	Large Structures10	
	Basin Structures in the Southern Lake Michigan Region	
	Structure Interior Features	
	Hearths	
	Alcove Pits	
	Sidewall Pits13	
	Interior Pits	
	Structure Post Molds	3

	Nonstructure-Related Features	14
	Pits	14
	Burial and Possible Burial Features	15
	Earth Ovens	15
	Rock Pile	152
	Posts	
	Discussion of Nonstructure-Related Features	150
	Fortification Features	
	Palisade F1765	
	Ditch Features	
6	Radiocarbon Dates Douglas K. Jackson and Thomas E. Emerson	18
7	The Fortified Village Community Douglas K. Jackson	190
•	Phase Association	
	Village Description	
	Euro-American Site Impacts	
	Investigations East of the Railroad Corridor	
	Village Size	18
	Defensive Measures	
	Village Location.	
	Village Duration	
	Village Internal Arrangement	
	Central Cluster	
	Arc I	
	Arc II	
	Near West and Far West Segments	
	Community Material Distribution Patterns	
	Structure Floor Material	
	Spatial Grouping 1	
	Spatial Grouping 2	
	Spatial Grouping 3	
	All Feature Context Material	
	Spatial Grouping 3	
	Spatial Grouping 4	
	All Feature Material Discussion and Summary	224
8	Electrical Resistance Investigations Michael L. Hargrave	
	and Douglas K. Jackson	22
	Introduction	
	Goals	
	Electrical Resistance Survey	
	Data Processing	
	Resistance Survey Results	
	Anomaly Descriptions	
	Ground-Truthing Investigations	
	Soil Probing Methods	
	Soil Probe Results	201
	Resistance Survey Reliability Evaluation	
	Comparison of Resistance Survey and Soil Probing	
	Comparison of Resistance Survey and Soil Probing	

#### Contents

	homas E. Emerson and Kjersti E. Emerson	
	cus, Upper Mississippi Phase to Fisher Phase,	240
	opian Culture	0.46
	dtural Context	
	Typology	
	Typology Typological Research	
	mic Attribute Analysis	
	Illage Ceramic Assemblage	
	Definitions	
	Elements and Motifs	
	ed Village Fisher Ware	
	ontinuous Ceramic Variables	
	Situations Certaine Verlasies	
	eturing	
	essels	
	Ceramic Objects	
	Vessels	
	e Spatial Organization	
	opian Culinary Assemblage	
	position Patterns	
	tions	
Understand	ing the Ceramic Assemblage of the Hoxie Farm	
Fortified Vill	lage	316
	· · · · · · · · · · · · · · · · · · ·	
	ery Evolution	
	Pottery Debris	
Household and	Pottery Debris	318
Household and The Place of		318 se319
Household and The Place of Conclusion	f the Fortified Village Assemblage in the Fisher Pha	
Household and The Place of Conclusion Lithic Assemblage	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans, Ian Fricker, Brenda Beck, Dougla	
Household and The Place of Conclusion  Lithic Assemblage Stephanie Daniels, Je	f the Fortified Village Assemblage in the Fisher Pha:  Madeleine Evans. Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler	
Household and The Place of Conclusion  Lithic Assemblage Stephante Dantels, Je Introduction	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans, lan Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler	318 se318 325 s K. Jackson, 327
Household and The Place of Conclusion Lithic Assemblage Stephante Dantels, Je Introduction Lithic Raw Material	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans. Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler	318 se318 325 s K. Jackson, 327 323
Household and The Place of Conclusion  Lithic Assemblage Stephante Daniels, Je Introduction  Lithic Raw Material Chipped Raw M	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans, Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler L	
Household and The Place of Conclusion  Lithic Assemblage Stephante Dantels, Je Introduction Lithic Raw Material Chipped Raw M Non-Chipped M	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans. Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler I. Iaterial laterial	318 318 328 328 327 327 327 327 327 330 330 332 332
Household and The Place of Conclusion  Lithic Assemblage Stephante Dantels, Je Introduction  Lithic Raw Material Chipped Raw M Non-Chipped M Sandstone	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans. Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler Laterial Laterial	316 316 326 316 327 327 327 330 330 332 332 332 332 333
Household and The Place of Conclusion Lithic Assemblage Stephante Dantels, Je Introduction Lithic Raw Material Chipped Raw M Non-Chipped Raw M Sandstone Pennsylvani	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans. Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler I Iaterial Iaterial	318 se. 318 326 s K. Jackson, 327 322 330 333 332 333 333
Household and The Place of Conclusion Lithic Assemblage Stephante Dantels, Je Introduction Lithic Raw Material Chipped Raw M Non-Chipped M Sandstone Pennsylvani Sandstone Sandstone	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans. Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler I. Iaterial Iaterial Ian Age Sandstone Gravel	318 sc. 318 325 s K. Jackson, 327 330 332 333 332 333 332 333
Household and The Place of Conclusion  Lithic Assemblage Stephanie Daniels, Je Introduction  Lithic Raw Material Chipped Raw M Non-Chipped M Sandstone . Pennsylvani Sandstone C Dolomite	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans. Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler Laterial Iaterial Ian Age Sandstone Gravel	318 318 328 348 328 328 332 332 332 332 332 332 332 33
Household and The Place of Conclusion Lithic Assemblage Stephante Dantels, de Introduction Lithic Raw Material Chipped Raw M Non-Chipped Raw M Sandstone . Pennsylvani Sandstone C Dolomite Igneous and	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans. Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler I	318 se. 318 326 s K. Jackson, 327 320 330 333 332 332 332 333 333
Household and The Place of Conclusion Lithic Assemblage Stephanie Daniels, Je Introduction Lithic Raw Material Chipped Raw M Non-Chipped M Sandstone Pennsylvani Sandstone c Dolomite Igneous and Hematite	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans, Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler 1	318 se 316 327 327 s K. Jackson, 327 330 332 332 332 332 332 332 332 332 332
Household and The Place of Conclusion  Lithic Assemblage Stephante Daniels, Je Introduction  Lithic Raw Material Chipped Raw M Non-Chipped Riw M Sandstone Pennsylvani Sandstone ( Dolomite Igneous and Hematite Limonite	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans, Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler I laterial laterial lan Age Sandstone Gravel	318 sc 318 326 s K. Jackson, 327 337 339 339 332 332 332 332 3332 33
Household and The Place of Conclusion Lithic Assemblage Stephante Dantels, de Introduction Lithic Raw Material Chipped Raw M Non-Chipped Raw Sandstone . Pennsylvani Sandstone ( Dolomite Igneous and Hematite Limonite Galena	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans. Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler I	318 se. 318 326 327 s K. Jackson, 327 330 333 332 333 333 333 333 333 333 333
Household and The Place of Conclusion Lithic Assemblage Stephanie Daniels, Je Introduction Lithic Raw Material Chipped Raw M Non-Chipped M Sandstone . Pennsylvani Sandstone ( Dolomite Igneous and Hematite Limonite Galena Quartz	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans, Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler 1	318 se 316 327 s K. Jackson, 327 330 332 333 332 333 332 333 332 333 333
Household and The Place of Conclusion	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans, Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler 	3 18 se 318 326 s K. Jackson, 327 327 327 333 336 336 337 337 337 338 338 338 338 338 338 338
Household and The Place of Conclusion	f the Fortified Village Assemblage in the Fisher Pha Madeleine Evans, Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler I. Idaterial Iaterial Ian Age Sandstone. Gravel	3 18 se 318 se 3
Household and The Place of Conclusion Lithic Assemblage Stephanie Daniels, Je Introduction Lithic Raw Material Chipped Raw M Non-Chipped M Sandstone . Pennsylvani Sandstone (C Dolomite Igneous and Hematite Limonite Galena Quartz Catlinite Assemblage Descrip Chipped Material	f the Fortified Village Assemblage in the Fisher Pharmadeleine Evans, Ian Fricker, Brenda Beck, Douglaennfer Howe, and Amanda Butler  1	318 se 316 327 327 s K. Jackson, 327 330 332 332 332 332 332 333 333 333 333
Household and The Place of Conclusion	f the Fortified Village Assemblage in the Fisher Pharmadeleine Evans, Ian Fricker, Brenda Beck, Dougla ennifer Howe, and Amanda Butler  1.	3 18 se 318 se 3
Household and The Place of Conclusion	f the Fortified Village Assemblage in the Fisher Pharmadeleine Evans, Ian Fricker, Brenda Beck, Douglaennfer Howe, and Amanda Butler  1	318 se 318 326 327 s K. Jackson, 327 330 333 333 333 333 333 333 333 333 33

	Formal Endscrapers	34
	Bifacial Drills	349
	Long Multifunctional Uniface	35
	Unidentified Hafted Bifaces	35
	Unhafted Bifaces	35
	Piece Esquilles	
	Informal Tools	
	Cores	
	Debitage	35
	Fortified Village Chipped Material Procurement and Technology	
	Nonchipped Lithics	
	Pipes	
	Groundstone Tools	
	Abraders	
	Cobble Tools	
	Minerals	
	Rough Rock	
	Data Analysis	
	Structure Contents.	
	Unusual Structures	
	Disposal Context	
	Standardized Material Distribution	
	Density Distribution	
	Fortified Village Lithics Conclusions	
	Totalica Things Dianes Contains International	
11	Human Remains and Mortuary Behavior Ian Fricker, Eve A. Hargrave,	
**	and Kristin Hedman	4.1
	Introduction	
	Burial	
	Possible Burials	
	F1600	
	F1640	
	Possible Burials with No Human Remains	
	Artifact Associations	
	Feature Orientation	
	Feature Orientation Features Containing Isolated Human Remains	
	F1594	
	F 1619	
	F1739	
	F1999	
	Human Remains	
	Methods	
	Results	
	Discussion	42
• •	71 11 1 1 1 1 1 1 7 1 7 7 7 7 7 7 7 7 7	
12	Floral Analysis Kathryn C. Egan-Bruhy and Jean Nelson	
	Introduction	
	Analytical Methods	
	Results	
	Wood Charcoal	
	Bark Charcoal	43

#### Contents

	Domesticates	432
	Maize	433
	Tobacco	433
	Squash	433
	Bean	433
	Seeds	434
	Starchy- and Oily-Seeded Annuals	434
	Edible Fleshy Fruits	434
	Other Seeds	434
	Other Floral Remains	435
	Intrasite Interpretation	435
	Environmental Reconstruction	435
	Dietary Reconstruction	435
	Site Seasonality	436
	Distribution	436
	Intersite Comparison	437
13	Animal Remains from the Fortified Village Terrance J. Martin	
	Methods	
	Discussion	443
14	Fortified Village Summary Douglas K. Jackson and Thomas E. Emerson	
	Fortified Village Community Details	
	Village Location	
	Village Age	
	Cultural Association	
	Settlement and Subsistence	
	Community Organization	
	Structures	
	Community Duration	
	Lithic Assemblage	
	Ceramic Assemblage	
	Langford.	
	Southwest Michigan	
	Central and Southern Indiana	
	Wisconsin and Iowa	
		463
	Summary	463
Referen	Summary	

#### **Chapter Appendices**

To facilitate the production process long appendices are available online in PDF format and are not included in the paper copy of this report. Copy the URLs below and paste them into a web browser to download the data. Acrobat or a similar program that can open .pdf file is required.

A. Feature Data

http://isas.illinois.edu/publications/data/TARR/27/11CK4\_Hoxie\_Farm\_FV\_Appendix\_A.pdf

- B. Ceramic Data http://isas.illinois.edu/publications/data/TARR/27/11CK4\_Hoxie\_Farm\_FV\_Appendix\_B.pdf
- C. Lithics Data http://lsas.illinois.edu/publications/data/TARR/27/11CK4\_Hoxle\_Farm\_FV\_Appendix\_C.pdf
- D. Botanical Data http://lsas.tlltnots.edu/publications/data/TARR/27/11CK4\_Hoxle\_Farm\_FV\_Appendix\_D.pdf
- E. Hoxie Farm Feature Plan Map http://lsas.illinois.edu/publications/data/TARR/27/11CK4\_Hoxie\_Farm\_FV\_Appendix\_E.pdf

# Figures

FM.1.	Hoxie Farm summer 2001 crew	xix
FM.2.	Hoxie Farm summer 2002 crew	xx
FM.3.	Hoxie Farm fall 2002 crew.	xxi
1.1.	Hoxie Farm site location in the upper Midwest	1
1.2.	Fortified Village excavation views	4
1.3.	Main occupation area excavation views	5
1.4.	Aerial view of the Hoxie Farm landscape	
2.1.	Hoxie Farm site location within the south suburban Chicago region	10
2.2.	Hoxie Farm site complex location	
2.3.	Archaeological sites within the Hoxie Farm site complex	12
2.4.	A portion of the Chicago Lake Plain area	
2.5.	Northeastern Illinois area from Lake Michigan to the Kankakee River valley	
2.6.	Hoxie Farm site and the Thorn Creek drainage area	18
2.7.	Hoxie Farm Site Complex area pre-European settlement vegetation pattern	
	based on GLO data	
3.1.	Important regional late prehistoric site locations	
4.1.	1861 plat map of the Hoxie Farm Site Complex area	
4.2.	1953 Hoxie Farm site excavation views	
4.3.	1953, Ed Lace, and ISAS excavation area map	
4.4.	ISAS Hoxie Farm site project corridor and associated sites	
4.5.	ISAS Phase I investigation map	
4.6.	Test unit excavation views	
4.7.	Flotation sample processing	
4.8.	Initial test-unit excavation block map and test unit wall, profile example	
4.9.	Phase II excavated test-unit map and machine excavation limits	
4.10.	Phase II and Phase III excavation map	
4.11.	Initial Fortified Village area excavation map	
4.12.	Mechanical excavations in the Fortified Village area	
4.13.	Fortified Village feature distribution map index.	
4.14.	Map section 1	
4.15.	Map section 2	
4.16.	Map section 3	
4.17.	Map section 4	
4.18.	High water levels within Excavation Block 19	
4.19.	Far northeastern excavation area and F1900 ditch	
4.20.	View of project corridor east of the railroad corridor	
4.21.	General geophysical investigation location within the Fortified Village area	
4.22.	Completed interstate corridor views	
5.1.	Fortified Village structure hypothesized exterior view and idealized profile view	
5.2.	Fortified Village structure distribution map	
5.3.	Structure surface area histogram	
5.4.	Small structure basin profiles	
5.5.	Structure F1230 plan and profile	
5.6.	Structure F1599 plan and profile	
5.7.	Structure F1866 plan and profile	
5.8.	Structure F1616 plan and profile	
5.9.	Structure F1710 plan and profile	93

5.10.	Structure F1801 plan and profile	
5.11.	Structure F1935 plan and profile	
5.12.	Medium-structure basin profiles 98	
5.13.	Structure F1715 plan and profile	
5.14.	Structure F1757/F1744 plan and profile	
5.15.	Structure F1532 plan and profile	
5.16.	Structure F1700 plan and profile	
5.17.	Structure F1754 plan and profile	
5.18.	Structure F1982 plan and profile	
5.19.	Structure F1982 post mold plan view, alcove pit profile, and artifact cache view	
5.20.	Structure F1280B plan and profile	
5.21.	Structure F1780 plan and profile	
5.22.	Structure F1955 plan and profile	
5.23. 5.24.	Structure F1618 core cache	
5.25.	Structure F1771 plan and profile	
5.26.	Structure F1771 pian and profile.	
5.20. 5.27.	Structure F1511 plan and profile	
5.28.	Structure F1609 plan and profile	
5.29.	Hearth feature plan and profile examples	
5.30.	Type 1 alcove-pit plan and profile examples	
5.31.	Type 2 alcove-pit plan and profile examples	
5.32.	Sidewall-pit plan and profile examples	
5.33.	Interior-pit profile examples	
5.34.	Structure Feature 1528 post molds	
5.35.	Exterior-pit depth by surface area scatter plot	
5.36.	Exterior-pit surface-area histogram	
5.37.	Small exterior-pit profiles	
5.38.	Medium exterior-pit profiles	
5.39.	Large exterior-pit profiles	149
5.40.	Exterior pit F1701 plan and profile views	
5.41.	Earth-oven feature profiles	153
5.42.	F1521 rock pile feature plan map	
5.43.	Post feature profiles	
5.44.	Fortification complex plan map.	
5.45.	Palisade F1765 profile views	
5.46.	Ditch F1800, southern hand-excavated section profile	
5.47.	F1751, northern hand-excavated section profile	169
5.48.	Ditch F1751, southern hand-excavated section profile	
5.49.	Ditch F1751, machine-excavated section profile	
5.50.	Ditch F1810, plan view	
5.51.	Ditch F1810, machine-excavated profile	
5.52.	Ditch F1810, northern hand-excavated section profile	
5.53.	Ditch Feature 2057 hand-exeavated section profile	
5.54.	Ditch F1900, area plan map	
5.55.	Ditch F1900, western leg and northern leg profiles	
6.1.	Distribution of features with radiocarbon assays  Calibrated radiocarbon samples, one sigma confidence interval	180
6.2.		
7.1.	Fortified Village excavation area	
7.2. 7.3.	Project investigations east of the railroad corridor and the Fortified Village	102
7.3. 7.4.	Fortified Village feature distribution maps	
4 · ** ·	roruned vinage leature distribution maps	201

#### Figures

7.5.	Fortified Village hypothesized community plan—Spatial Grouping 1	
7.6.	Possible alternatives to the hypothesized community plan	
7.7.	Fortified Village Far West area possible cemetery	
7.8.	Fortified Village community plan—Spatial Groupings 3 and 4	
8.1.	Geoscan RM-15 electrical resistance unit in use at Hoxie Farm	229
8.2.	Electrical resistance survey block locations, survey area designations,	
	and month surveyed	
8.3.	Electrical resistance data image map including all resistance data [after Despiking]	
8.4.	Electrical resistance data threshold map showing only the strong negative anomalies	
8.5.	Electrical resistance data image map showing selected anomalies	
8.6.	1938 Fortified Village area aerial photograph	235
8.7.	Distribution of positive and negative soil probes relative to the strong	
	negative anomalies	
8.8.	Percentage of positive soil probes by survey block	239
8.9.	Distribution of simulated positive soil probes within the overall excavated	
	Fortified Village area and percentage of positive soil probes within four	
	simulated soil probe blocks	
9.1.	Distribution of relevant sites in northeastern Illinois and northwestern Indiana	
9.2.	Faulkner's models of Fisher-Huber evolution	
9.3.	Faulkner's Fisher-Huber seriation chart	
9.4.	Shell-tempered pottery from the Fisher site	
9.5.	Fifield Trailed vessel from the Fifield site	
9.6.	Fifield Bold vessel from the Griesmer site	
9.7.	Methodology	
9.8.	Decorative motifs on Fortified Village jars	
9.9.	Illustration and photograph of decorated jar V1949-2	
9.10.	Photographs of two rim sherds and two shoulder sherds belonging to V1754-1	
9.11.	Fisher component vessels	
9.12.	Fisher component vessels	
9.13.	Fortified Village shoulder sherd profiles	
9.14.	Fortified Village shoulder sherd profiles Rim angles	
9.15. 9.16.	Observed orifice diameters.	
9.10.	V1979-1	
9.17.	Strap handles	
9.19.	V1595/1658-1, Fisher vessel resembling those found at the Strawtown	270
9.19.	and Taylor sites in Indiana	276
9.20.	Appendages	
9.21.	Loop handles	
9.22.	Lugs	
9.23.	Lugs	
9.24.	Rim decoration	
9.25.	Rim decoration	
9.26.	Notched appliques on rims	
9.27.	Fisherware decorated shoulder sherds	
9.28.	Fisherware decorated shoulder sherds	
9.29.	Examples of shoulder trailing	
9.30.	Vessel V1514-1 with horizontal trailings	
9.31.	Notehing on lips	
9.32.	V1532-2 with fine width shoulder trails and loop handles with notching	
9.33.	Cross-mended vessel (V1618/1776-1) with a loop handle decorated	
	with two punctates at the top	292
	r	

9.34.	Example of decorative Style B vessel 1776-2 with oppositional diagonal	
	shoulder trailings with punctate borders	294
9.35.	Use of punctates	295
9.36.	V1776-3 has continuous vertical trailing on shoulders, horizontal rim trailing,	
	and pinched lugs	
9.37.	Fisher component vessels	
9.38.	V1880-1, undecorated burial jar	
9.39.	Miniature vessels	298
9.40.	Fortified Village miniature vessel profiles	300
9.41.	Clay objects	30
9.42.	Non-Fisher ware vessel distribution	302
9.43.	Non-Fisher ware vessels	
9.44.	Non-Fisher ware vessels	304
9.45.	Map of are divisions	
9.46.	Map of alternate village layouts: Scenario 2 and Scenario 3	
9.47.	Incidence of use wear in each jar size category	307
9.48.	Vessel distribution by size	310
9.49.	Map of cross-mended vessel distribution	
9.50.	Ceramic densities and distribution	
10.1.	Pre-Upper Mississippian hafted bifaces	328
10.2.	Selected triangular bifaces from structure floor contexts and likely grave inclusion	334
10.3.	Triangular biface distribution	338
10.4.	Comparison of triangular biface tip fragment and base fragment distribution	339
10.5.	Large bifacial knives	
10.6.	Selected humpbacked triangular bifaces	34
10.7.	Selected formal endscrapers	343
10.8.	Frequency curve illustrating the number of formal endscrapers in 5 mm length intervals	9.47
10.9.	Selected bifacial endscrapers, ventral surface view.	346
10.9. 10.10		346 347
10.9. 10.10. 10.11.	Selected bifacial endscrapers, ventral surface view	346 347 348
10.9. 10.10. 10.11. 10.12.	Selected bifacial endscrapers, ventral surface view.  Wandotte chert endscraper blanks from F1982 eache Formal endscraper distribution.	346 347 348
10.9. 10.10. 10.11. 10.12. 10.13.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F1982 cache Formal endscraper distribution Selected bifacial drills	346 347 348 350
10.9. 10.10. 10.11. 10.12. 10.13. 10.14.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F1982 cache  Formal endscraper distribution  Selected bifactal drills  Bifactal drill distribution.	346 348 350 351
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution Selected bifacial drills Bifacial drill distribution. Long multifunctional uniface	346 347 350 351 352
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution  Selected bifacial drills  Bifacial drill distribution.  Long multifunctional uniface  Selected unidentified hafted bifaces	346 348 350 350 350
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 eache Formal endscraper distribution  Selected bifacial drills  Bifacial drill distribution.  Long multifunctional uniface  Selected unidentified hafted bifaces.  Unhafted biface distribution.  Informal tool distribution.	346 346 350 352 354
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F1982 cache Formal endscraper distribution Selected bifactal drills Bifacial drill distribution Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution	346 346 350 352 354 356
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution  Selected bifacial drills  Bifacial drill distribution.  Long multifunctional uniface  Selected unidentified hafted bifaces.  Unhafted biface distribution  Informal tool distribution.  Core distribution by frequency.	346 347 350 350 354 356 356
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F1982 cache Formal endscraper distribution Selected bifacial drills Bifacial drill distribution. Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by weight	346 346 350 350 350 356 356 357
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution Selected bifacial drills Bifacial drill distribution. Long multifunctional uniface Selected unidentified hafted bifaces. Unhafted biface distribution Informal tool distribution. Core distribution by frequency. Core distribution by weight. Platteville-Galena chert cobbles and cores.	346 347 350 351 354 356 357 356
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.21.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution  Selected bifacial drills  Bifacial drill distribution Long multifunctional uniface  Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by weight Platteville-Galena chert cobbles and cores F1618 cache material	346 347 350 351 356 356 357 356
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.21.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F1982 cache Formal endscraper distribution Selected bifacial drills Bifacial drill distribution Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by weight Platteville-Galena chert cobbles and cores F1618 cache material Floor-derived debitage totals.	346 347 350 351 354 356 357 356 358
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.21. 10.22. 10.22.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution  Selected bifacial drills  Bifacial drill distribution. Long multifunctional uniface  Selected unidentified hafted bifaces.  Unhafted biface distribution Informal tool distribution. Core distribution by frequency.  Core distribution by weight. Platteville-Galena chert cobbles and cores. F1618 cache material. F160r-derived debitage totals. F1982 cache material.	346 347 350 351 354 356 357 356 358
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.21. 10.22. 10.22.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution Selected bifacial drills Bifacial drill distribution Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by frequency. Flore distribution by weight Platteville-Galena chert cobbles and cores F1618 cache material Floor-derived debitage totals F1982 cache material Debitage distribution Map of shovel test locations with debitage frequency and presence or absence	346 347 350 352 354 356 356 356 356 366
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.21. 10.22. 10.23. 10.24.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution Selected bifacial drills Bifacial drill distribution Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by weight Platteville-Galena chert cobbles and cores F1618 cache material Floor-derived debitage totals F1982 cache material Debitage distribution	346 347 350 352 354 356 356 356 356 366
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.21. 10.22. 10.23. 10.24.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution Selected bifacial drills Bifacial drill distribution Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by weight Platteville-Galena chert cobbles and cores F 1618 cache material Floor-derived debitage totals F 1982 cache material Debitage distribution Map of shovel test locations with debitage frequency and presence or absence of feature fill indicated Flose composition of Beach Pebble debitage across excavated part	346 347 350 351 352 356 356 356 356 366 366 366
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.21. 10.22. 10.23.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution Selected bifacial drille Bifacial drill distribution Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by frequency. Core distribution by weight. Platteville-Galena chert cobbles and cores F1618 cache material Floor-derived debitage totals F1982 cache material Debitage distribution Map of shovel test locations with debitage frequency and presence or absence of feature fill indicated. Flake composition of Beach Pebble debitage across excavated part of the Fortified Village	346 350 352 352 353 356 356 356 366 366 366
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.22. 10.23. 10.24. 10.26.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache.  Formal endscraper distribution.  Selected bifacial drills.  Bifacial drill distribution.  Long multifunctional uniface.  Selected unidentified hafted bifaces.  Unhafted biface distribution.  Informal tool distribution.  Core distribution by frequency.  Core distribution by weight.  Platteville-Galena chert cobbles and cores.  F 16 18 cache material.  Floor-derived debitage totals.  F 1982 cache material.  Debitage distribution.  Map of shovel test locations with debitage frequency and presence or absence of feature fill indicated.  Flake composition of Beach Pebble debitage across excavated part of the Fortified Village.  Comparative distribution of specific raw material types.	346 350 352 352 356 356 356 356 366 366 366 366
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.21. 10.22. 10.23. 10.24. 10.25. 10.26.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution Selected bifacial drills Bifacial drill distribution Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by weight Platteville-Galena chert cobbles and cores F1618 cache material Floor-derived debitage totals F1982 cache material Debitage distribution Map of shovel test locations with debitage frequency and presence or absence of feature fill indicated Flake composition of Beach Pebble debitage across excavated part of the Fortified Village Comparative distribution of specific raw material types. Pipe distribution map	346 347 35 35 35 35 35 35 35 35 35 35 36 3
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.20. 10.21. 10.22. 10.23. 10.24. 10.25.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution Selected bifacial drille Bifacial drill distribution Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by requency. Core distribution by weight. Platteville-Galena chert cobbles and cores F1618 cache material Floor-derived debitage totals F1982 cache material Debitage distribution Map of shovel test locations with debitage frequency and presence or absence of feature fill indicated. Flake composition of Beach Pebble debitage across excavated part of the Fortified Village Comparative distribution of specific raw material types. Pipe distribution map Disk ptpe diagram	348 347 35 35 35 35 35 35 35 35 35 36 36 36 36 36 36 36 36 36 35 35 36 35 36 3
10.9. 10.10. 10.11. 10.12. 10.13. 10.14. 10.15. 10.16. 10.17. 10.18. 10.19. 10.20. 10.21. 10.22. 10.23. 10.25. 10.26.	Selected bifacial endscrapers, ventral surface view.  Wyandotte chert endscraper blanks from F 1982 cache Formal endscraper distribution Selected bifacial drills Bifacial drill distribution Long multifunctional uniface Selected unidentified hafted bifaces Unhafted biface distribution Informal tool distribution Core distribution by frequency. Core distribution by weight Platteville-Galena chert cobbles and cores F1618 cache material Floor-derived debitage totals F1982 cache material Debitage distribution Map of shovel test locations with debitage frequency and presence or absence of feature fill indicated Flake composition of Beach Pebble debitage across excavated part of the Fortified Village Comparative distribution of specific raw material types. Pipe distribution map	346 357 356 357 356 356 356 356 356 366 366 366 366 366 366 366 376 376 376 376 376

#### Figures

10.32.	F1609/F1665 catlinite pipe fragments and unfinished silicified limestone pipe	
	from F1878	377
10.33.	Sandstone pipes and fragments	378
10.34.	Decorated pipe bowl fragment	379
10.35.	Map of groundstone tool and igneous debitage distribution	382
10.36.	F1785 celt bit fragment	383
10.37.	Miscellaneous groundstone.	383
10.38.	Selected rectangular abraders	385
	Cobble tool distribution	
10.40.	Fitted hammerstones	389
10.41.	Intentionally modified cobble tools	391
10.42.	Notable mineral specimens	392
10.43.	Selected modified minerals	392
10.44.	Hematite distribution	393
	Copper distribution	395
10.46.	Total volume of feature fill in each segment of proposed community plan	
	and rough rock distribution	
	Wyandotte endscrapers and scraper blanks from structure F1982	
	F1700 endscraper piece plots	
	Standardized distribution of selected artifact categories	
10.50.	Village map depicting lithic material density of features	405
10.51.	Village map depicting chipped material density of structures—floor and basin	
	zones combined	
10.52.	Village map depicting nonchipped material density of structures—floor and basis	
	zones combined	
	Village map depicting nonchipped material density of structure floor zones	
	Village map depicting chipped material density of structure floor zones	
	Plan map of the Fortified Village showing mortuary features	
11.2.	F1951 plan and profile	
11.3.	Profiles of possible burial features	
11.5.	Orientation of burial and possible burial features measured in degrees east of no	
12.1.	Percentage of flora by count.	
12.2.	Identified wood charcoal taxa.	
12.3.	Percentages of identified nutshell by count	432
12.4.	Percentage of identified seeds by count	
12.5.	Upper Mississippian subsistence assemblages	
B.1.	Fortified Village vessel profiles	518
B.2.	Fortified Village vessel profiles	
B.3.	Fortified Village vessel profiles	
B.4.	Fortified Village vessel profiles	
B.5.	Fortified Village vessel profiles	
B.6.	Fortified Village vessel profiles	523
B.7.	Fortified Village vessel profiles	524
B.8.	Fortified Village vessel profiles	525
B.9.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	
B.10.	Bird's-eye view of three nearly whole Fisher ware vessels	527
B.11.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	
B.12.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	
B.13.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	
B.14.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	
B.15.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	532

3.16.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	.533
3.17.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	.534
3.18.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	.535
3.19.	Rollouts of Fortified Village vessels detailing decorative elements and motifs	.536
€.1.	Hoxie Farm Feature Plan Map	.586

# Tables

4.1.	Shovel Test Material Totals	59
5.1.	Summary of Structure Data by Structure Type Category	80
5.2.	Structure Type Material Density t-Test Results for Lower Floor	82
5.3.	Small Circular and Small Oval Structure t-Test Results	85
5.4.	Hearth Plan Shape Category Summary Data	131
5.5.	Exterior Pit Data	143
5.6.	Exterior Pit Size Category Material Density t-Test Results	
5.7.	Palisade Post Tree Cutting Labor Estimates	
5.8.	Palisade Post Transport Labor Estimates	
5.9.	Palisade Post Mold Excavation Labor Estimates	
5.10.	Palisade Post Setting Labor Estimates	163
5.11.	Ditch Feature Material Weight Total and Density Figures	
5.12.	Ditch Feature Length and Volume Estimates	
5.13.	Fortification Ditch Excavation Estimates	181
6.1.	Fortified Village Radiocarbon Dates	184
7.1.	Projected Structure Density Figures and Village Population Estimates	
7.2.	Structure Lower Floor Material Density Comparisons between Village Segments	221
7.3.	Spatial Grouping 3 All Feature Material Data	
7.4.	Spatial Grouping 4 All Feature Material Density t-Test Results	225
8.1.	Occurrence and Mean Depth of Positive Soil Probes	241
8.2.	Ground-Truthing Results Using Soil Probes as the Units of Analysis	
8.3.	Ground-Truthing Results Using Anomalies as the Units of Analysis	242
8.4.	Comparison of Results from Use of Resistance and Soil Probes	
9.1.	Item Type Total Counts and Weights	258
9.2.	Vessel Types	259
9.3.	Fisher Ware Jar Metric Attributes	271
9.4.	Lip Attributes	273
9.5.	Appendage Types	274
9.6.	Bodysherd Decorative Motifs	287
9.7.	Lip Notching	289
9.8.	Decorative Styles	293
9.9.	Jar Size and Use Wear by Deposition	308
	Fisher Component Ceramic Comparisons by Site	
	Pre-Upper Mississippian Lithic Diagnostics	
10.2.	Triangular Biface Edge Shape Frequency	335
10.3.	Triangular Biface Metric Statistics Reported from Regional Sites	336
10.4.	Triangular Biface Assemblage Raw Material Composition	
	Frequency of Observed Use Wear on Triangular Bifaces	
10.6.	Humpback Triangular Biface Summary	342
10.7.	Formal Endscraper Summary	344
10.8.	Endscraper Length Group Comparative Data	345
	Use Wear Observed on Formal Endscrapers	
	Bifacial Drill Summary	
	Unhafted Biface Summary	
	Informal:Formal Tools Reported for Upper Mississippian Sites	
	Platteville-Galena and Beach Pebble Chert Debitage Comparison	
10.15.	East End Debitage (Arcs I and II East)	365

10.16.	Standardized Frequency of Debitage in East End Structure Basins	367
10.17.	Pipe Summary	375
	Abrader Summary	
	Rectangular Abraders	
	Cobble Tool Summary	
	Artifact Distribution among Structures	
	Structure Assemblage Diversity	
	Artifact Disposal Context	
	Summary of Burial and Possible Burial Features in the Fortified Village	
11.2.	Summary of Material Densities in Interment and Possible Interment Features	
	Human Remains, Hoxie Farm Fortified Village	
11.4.		
13.1.	Species Composition of Animal Remains from the Fortified Village	444
13.2.	Fortified Village Identified Animal Taxa and Specimens by Feature Number	
A.1.	Individual Structure Data	
A.2. A.3.	Individual Structure Lower Floor Material Data	
A.3. A.4.	Individual Structure Lower Floor Material Data	
A.4. A.5.	Structure Data by Structure Type Category	
A.6.	Hearth Feature Data.	
A.7.	Type 1 Alcove Pit Data	
A.8.	Type 2 Alcove Pit Data	
A.9.	Sidewall Pit Data	
A.10.	Interior Pit Data	
A.11.	Structure Post Data	
A.12.		
A.13.	Medium Exterior Pit Data	
A.14.	Large Exterior Pit Data	
	Earth Oven Pit Data	
	Exterior Post Feature Data	
A.17.	F1765 Palisade Post Data	
B.1.	Vessel Attributes	
B.2.	Ceramic Distributions by Scenario	512-515
в.з.	Miniature Vessels	516-517
C.1.	Triangular Biface Recording Scheme	538
C.2.	Triangular Biface Attributes	539-543
C.3.	Large Bifacial Knife Attributes	543
C.4.	Humpback Triangular Biface Attributes	544
C.5.	Formal Endscraper Metric Attributes	
C.6.	Bifacial Drill Attributes	
C.7.	Unidentified Hafted Bifaces	
C.8.	Unhafted Biface Attributes	
C.9.	Core Summary	
	Fortified Village Debitage Totals per Site Area	552–553
C.11.	Floor-Zone-Derived Debitage Totals per Structure	
C.12.	Fortified Village Pipe Attributes	
C.13.		
	Abrader Attributes	
C.15.		558–559
	Fortified Village Mineral Artifacts by Feature Context	
	Fortified Village Copper	
C.18.	Fortified Village Feature Rough Rock Totals	562–565

#### Tables

C.19.	Chipped Stone Tools and Cores Recovered from Direct Household Context	566-567
C.20.	Nonchipped Stone Tools and Core Recovered from Direct Household Context	568-569
C.21.	Feature Lithic Material Density.	570-572
D.2.	Features Analyzed for Floral Remains	574-577
D.3.	F1616 Floor Context Identified Flora Specimens	578-580
D.4.	Individual Samples with Stonificantly Higher Densities of Flora	581-584

#### Table Appendices

To facilitate the production process, long appendices tables are available online in their original Excel format and are not included in the paper copy of this report. Copy the URLs below and paste them into a Web browser to download the data. Excel or a similar program that can open .xls files is required.

D.1. Hoxie Farm Fortified Village Floral Inventory http://isas.illinois.edu/publications/data/TARR/27/11CK4\_Hoxie\_Farm\_FV\_Appendix\_D1.xls

