

The Egan Site: A Massey Phase and White Hall Phase Campsite in Western Illinois

Andrew C. Fortier

*Mary Simon
Emanuel Breitburg*



*Sleuben
Projectile Point
White Hall Phase*



*Egan Zoned
White Hall Phase*



*Massey Cordmarked
Massey Phase*

The Egan site is situated in the uplands in Scott County in western Illinois, about 20 kilometers east of the Illinois River valley. It was excavated in 1999 by ISAS personnel as a result of a proposed local roads IDOT bridge and road-widening project. Surface surveys had indicated the presence of a small Hopewell occupation. However, following hand excavation of 65 pit features and several isolated postmolds, and the subsequent analysis of all materials, it became clear that the site actually was the location of several chronologically distinct occupations, dating to the Hopewell era (circa cal A.D. 150), the late Middle Woodland Massey phase (circa cal A.D. 400) and the Late Woodland White Hall phase (circa cal A.D. 600).

The Hopewell occupation is the smallest encampment with only two pits and a wide scatter of redeposited Hopewell ceramics and lithics. The late Middle Woodland Massey component consists of twenty-five features divided into two distinct clusters. The two Middle Woodland occupations are separated chronologically by 350 years. Massey diagnostics include Massey Cordmarked and Massey Fabric Impressed ceramics. Massey people probably represent the remnants of an earlier migrant population of southern Illinois Crab Orchard people that had interacted with the local Hopewell population. Finally, the White Hall occupation occurs some 200 years after the Massey campsite and consists of 20 pits separated into two distinct clusters. White Hall diagnostics include Egan Cordmarked and Egan Zoned ceramics (so named in this report for the first time) as well Steuben points.

Of significance is the fact that several distinct occupations occurred in this same relatively isolated location. The author proposes that this location probably was utilized over a 500 year period because it lay along a possible overland trail connecting the Illinois River valley with the upland prairies. It sits above a creek that ultimately drains into the Illinois River valley.

The Egan site is unique in many respects, but it mainly stands out because of its distinctive material assemblages, its surprising chronological placement, its isolated position in the Western Illinois uplands, and its ground-breaking subsistence information. This report represents one of the few attempts to analyze and report material and subsistence assemblages from the Massey and White Hall phases. Because so few are known from these periods in this area the Egan report will stand as a baseline for future research.

Contents

List of Tablesvii
List of Figuresix
Abstract.....xi
Acknowledgementsxiii

PART I BACKGROUND

1 Introduction3
2 Site Location, Physiography, and Environment9
3 History of Site Investigations13

PART II THE MIDDLE WOODLAND COMPONENT

4 Features21
 Method of Determining Feature Attributes21
 South Cluster26
 North Cluster31
 South/North Cluster Comparisons.....39
5 Ceramics45
 Analytical Methods45
 Vessel Attribute Analysis52
 Body Sherd Analysis52
 Undecorated Non-Massey Sherds55
 Massey Cordmarked and Massey Fabric-Imprinted Body Sherds.....55
 Decorated Middle Woodland Body Sherds.....55
 Vessel Analysis57
 Massey Cordmarked Vessels57
 Massey Fabric-Imprinted58
 Hopewell and Pike/Baehr58
 Hopewell Cross-Hatched69
 Hopewell Rocker.....69
 Havana Zoned Incised69
 Havana Plain69
 Baehr Brushed76
 Brangenburg76
 Hopewell Bowls76
 Untyped, Generic Middle Woodland78
 Clay Object and Burned Clay78
 Summary.....78
6 Lithics81
 Raw Materials81
 Chert Assemblage83
 Chert Debitage83
 Chert Types.....83

The Egan Site

Chert Production Trajectory.....	83
Chert Tools.....	90
North Cluster Tools.....	90
Projectile Points.....	90
Flake Scrapers.....	96
Microperforator and Microdrill.....	96
Flake Graver.....	96
Biface Fragments.....	101
Utilized Flakes.....	101
Utilized Lamellar Blades.....	101
South Cluster Tools.....	101
Thumbnail Scraper.....	101
Perforator.....	101
Microdrill.....	101
Biface Fragments.....	101
Utilized Flakes.....	101
Nonchert Assemblage.....	105
Nonchert Debris.....	105
Nonchert Tools in the South Cluster.....	105
Nonchert Tools in the North Cluster.....	105
Discussion.....	106

PART III THE LATE WOODLAND COMPONENT

7 Features.....	111
South Cluster.....	111
North Cluster.....	114
North/South Cluster Comparisons.....	118
8 Ceramics.....	125
Analytical Methods.....	125
Body Sherds.....	126
Decorated Body Sherds.....	126
The Vessel Assemblage.....	126
Egan Cordmarked.....	133
Egan Zoned.....	150
Untyped Jars and Bowls.....	161
Pinch Pots.....	161
Fire Clay Objects.....	164
Burned Clay.....	164
Discussion.....	164
9 Lithics.....	171
Chert Assemblage from the South Cluster.....	171
Chert Tools from the South Cluster.....	174
Projectile Points.....	174
Biface Fragments.....	181
Flake Graver.....	181
Flake Scrapers.....	181
Core Scraper.....	181
Flake Microperforator.....	181
Core Gouge.....	181

Book Notes

Contents

Flake Chisel	181
Polished Tool Fragment	181
Utilized Blades	183
Utilized Flakes	183
Chert Assemblage from North Cluster	183
Chert Tool Assemblage in the North Cluster	183
Projectile Points	183
Biface Fragments	184
Core Scrapers	184
Flake Scraper	184
Microdrill	184
Perforator	184
Tool Fragment	185
Utilized Blade	185
Utilized Flakes	185
Discussion	185
Nonchert Assemblage	185
Nonchert Tools	188
Discussion	189

PART IV UNAFFILIATED FEATURES

10 Features	193
11 Ceramics	201
12 Lithics	205
Chert Debitage	205
Chert Tools	205
Projectile Points	205
Core Scrapers	208
Flake Perforators and Graver	208
Biface Fragments	208
Utilized Flakes	208
Utilized Blades	208
Nonchert Debris	208
Nonchert Tools	210

PART V ANCILLARY STUDIES

13 Floral Remains by Mary Simon	215
Methods	217
Results	217
Massey Component Plants	221
White Hall Component Plants	221
Discussion	228
Exploration of Spatial Distribution Between Components	228
Distributions Within Individual Components	235
Summary of Distributions Within the Egan Site	238
Plant Assemblages from Middle Woodland and Early Late Woodland Sites in	
Western Illinois	238
Concluding Remarks	244

The Egan Site

14 Faunal Remains by Emanuel Bretburg	247
Introduction	247
Methods	248
Skeletal and Taxonomic Composition Distribution	248
Accounts of Species	262
Mammals	262
Btrds	263
Reptiles	263
Fishes	263
Cut and Modified Bone	263
Conclusion	263
15 Radiocarbon Dates	265
Massey Dates	265
Feature 31	265
Feature 51	267
Feature 17	267
Late Woodland Dates	267
Feature 38	267
Feature 16	267
Feature 3	268
Discussion	268
16 Summary and Discussion	269
Chronology and Occupational History	269
Material Culture, Procurement Practices, and Resource Availability	272
Subsistence	273
Occupational Function and Duration	274
The Massey Ceramic Tradition	275
Initial Late Woodland Ceramic Traditions of Western Illinois and the American Bottom	277
Site Significance and Future Research Needs	279
Appendix A: Chert Types	281
Appendix B: Feature Material Inventory	285
Appendix C: Inventory of Archaeobotanical Remains	303
Appendix D: Egan Faunal Inventory	329
References	341

Tables

4.1.	Middle Woodland Pit Attributes	23
4.2.	Middle Woodland Pit Contents	40
5.1.	Middle Woodland Vessel Inventory from Middle Woodland Features	46-51
5.2.	Abbreviations Used for Ceramic Decorative Types	53
5.3.	Undecorated Middle Woodland Body Sherd Inventory by Exterior Surface Treatment	54
5.4.	Undecorated Middle Woodland Body Sherd Inventory by Temper	54
5.5.	Decorated Middle Woodland Body Sherd Inventory	56
5.6.	Massey Cordmarked Vessel Attributes	67
5.7.	Middle Woodland Vessels in Late Woodland Features	73
5.8.	Inventory of Burned Clay from Middle Woodland Features	80
6.1.	Summary of Middle Woodland Lithic Assemblage	82
6.2.	Middle Woodland Chert Type Distribution	84
6.3.	Middle Woodland Chert Debitage Trajectory Categories	84
6.4.	Middle Woodland Heat-Altered Chert	89
6.5.	Middle Woodland Chert Tool Distribution	91
6.6.	Biface Fragments from Middle Woodland Features	94
6.7.	Attributes for Middle Woodland Projectile Points	95
6.8.	Miscellaneous Chert Tools from Middle Woodland Features	97
6.9.	Utilized and Nonutilized Blades from Middle Woodland Features	100
6.10.	Summary of Nonchert Debris Distribution by Percentage	102
6.11.	Middle Woodland South Cluster Nonchert Lithic Debris Inventory	102
6.12.	Middle Woodland North Cluster Nonchert Lithic Debris Inventory	103
6.13.	Middle Woodland Nonchert Tools	104
7.1.	Late Woodland Pit Attributes	113
7.2.	Late Woodland Pit Attributes and Material Weights	123
8.1.	Late Woodland Body Sherds by Temper	127
8.2.	Late Woodland Body Sherds by Surface Treatment	128
8.3.	Late Woodland Decorated Body Sherds	129
8.4.	Late Woodland Vessels from Unaffiliated Features	130
8.5.	Late Woodland Vessels in Middle Woodland Pits	131-132
8.6.	Late Woodland Ceramic Inventory: South Cluster	134-137
8.7.	Late Woodland Ceramic Inventory: North Cluster	138-139
8.8.	Summary of Egan Cordmarked Vessel Attributes from Late Woodland Features	141
8.9.	Summary of Egan Zoned Vessel Attributes from Late Woodland Features	152
8.10.	Group Comparisons of Egan Cordmarked and Egan Zoned Vessels	160
8.11.	Late Woodland Pinch Pot Attributes	163
8.12.	Fired Clay Objects from Late Woodland Features	165
8.13.	Inventory of Burned Clay from Late Woodland Features	166
9.1.	Summary of the Late Woodland Lithic Assemblage	172
9.2.	Late Woodland Debitage Chert Type Distribution	173
9.3.	Late Woodland Chert Debitage Trajectory Categories	175
9.4.	Late Woodland Heat-Altered Chert Debitage	175
9.5.	Utilized and Nonutilized Blades from Late Woodland Features	176
9.6.	Miscellaneous Chert Tools from Late Woodland Features	177
9.7.	Attributes of Late Woodland Projectile Points	178
9.8.	Biface Fragments from Late Woodland Features	182
9.9.	Nonchert Debris Inventory for Late Woodland Features	187
9.10.	Late Woodland Nonchert Tools	188

Book Notes

The Egan Site

10.1.	Unaffiliated Pit Attributes	195
11.1.	Ceramic Vessel Inventory for Unaffiliated Features	202-203
12.1.	Chert Reduction Debitage from Unaffiliated Features	206
12.2.	Chert Tools from Unaffiliated Features	207
12.3.	Nonchert Lithics from Unaffiliated Features	209
12.4.	Nonchert Tools from Unaffiliated Features	211
13.1.	Summary of Plant Remains from the Egan Site	218
13.2.	Plant Remains from Hand-Collected Charcoal Samples	222-223
13.3.	Summary of Archaeobotanical Remains from Massey Features by Cluster	224-225
13.4.	Summary of Archaeobotanical Remains from Late Woodland Features by Cluster ...	226-227
13.5.	Measurements of Sumpweed and Sunflower Seeds from Late Woodland Features ...	229-230
13.6.	Summary of Plant Remains from Massey Sites	240
14.1.	Summary of Faunal Remains Recovered from the Egan Site	249-250
14.2.	Summary Percentages of Identified Faunal Remains Recovered from the Egan Site	252
14.3.	North Middle Woodland Cluster Faunal Remains at the Egan Site	253-254
14.4.	South Middle Woodland Cluster Faunal Remains at the Egan Site	255
14.5.	North Late Woodland Cluster Faunal Remains at the Egan Site	256
14.6.	South Late Woodland Cluster Faunal Remains at the Egan Site	257-258
14.7.	Unaffiliated Feature Faunal Remains at the Egan Site	259-260
15.1.	Radiocarbon Dates	266
16.1.	Comparison of Massey Cordmarked and Egan Cordmarked Vessel Attributes	276

Figures

1.1.	Location of Project Area	4
1.2.	Distribution of All Egan Site Features	5
2.1.	Location of Site	10
2.2.	Local Physiography (Contour Map).....	11
3.1.	Surface Extent of Site and Location of Excavation Block and Test Unit 1	14
3.2.	General Excavation Photos	16
4.1.	Distribution of All Middle Woodland, Massey Features	22
4.2.	Pit Profile Types	24
4.3.	Pit Profiles: Features 5, 23, 31, 65	25
4.4.	Pit Volume Formulae	27
4.5.	Bell-Bottomed Pit Profiles from the Middle Woodland South Cluster	28
4.6.	Miscellaneous Pit Profiles from the Middle Woodland South Cluster	29
4.7.	Feature 17 Communal Hearth	30
4.8.	Location of Feature 17 Communal Hearth and Post Feature 30	32
4.9.	Middle Woodland Post Profiles	33
4.10.	Paired Bell-Bottomed/Basin Pit Profiles from the Middle Woodland North Cluster	34
4.11.	Bell-Bottomed Pit Profiles from the Middle Woodland North Cluster	35
4.12.	Basin and Indeterminate Pit Profiles from the Middle Woodland North Cluster	36
4.13.	Deep Flat-Bottomed Pit Profiles from the Middle Woodland North Cluster	37
4.14.	Flat-Bottomed Pit Profiles from the Middle Woodland North Cluster	38
4.15.	Middle Woodland Pits over 50 cm Deep	41
4.16.	Distribution of Pits with More Than 3,000 g of Material	42
4.17.	Distribution of Bell-Bottomed and Flat-Bottomed Pits from Both Clusters	43
5.1.	Massey Cordmarked Rim Profiles (with Boasting and Decorated Lips)	59
5.2.	Massey Cordmarked Rim Profiles (Unbossed with Undecorated Lips)	60
5.3.	Massey Cordmarked Rim Profiles (with Boasting and Undecorated Lips)	61
5.4.	Massey Cordmarked Rim Profiles (Unbossed and Decorated Lips)	62
5.5.	Massey Cordmarked Vessels	63-64
5.6.	Massey Cordmarked and Massey Fabric-Imprinted	65
5.7.	Massey Cordmarked Rims and Body Sherd Distribution	66
5.8.	Massey Fabric-Imprinted Rim Profiles	68
5.9.	Distribution of Hopewell/Middle Woodland Rims and Body Sherds	70
5.10.	Decorated Hopewell Rims	71
5.11.	Decorated Hopewell Body Sherds	72
5.12.	Hopewell Series Rim Profiles	74
5.13.	Havana/Hopewell Series Rim Profiles	75
5.14.	Brangenburg Rim Profiles	77
5.15.	Painted Brangenburg Rim	78
6.1.	Utilized Blades	86
6.2.	Nonutilized Blades	87
6.3.	Distribution of Lamellar Blades in Massey Feature Contexts	88
6.4.	Prismatic Blade Core from Feature 14	89
6.5.	Middle Woodland Projectile Points	92
6.6.	Middle Woodland Projectile Points	93
6.7.	Miscellaneous Chert Tools	98
6.8.	Biface Fragments	99
6.9.	Distribution of Grinding Stones and Abraders	107
7.1.	Distribution of All Late Woodland Features	112

Book Notes

The Egan Site

7.2.	Deep Bell-Bottomed Pit Profiles from the Late Woodland South Cluster	115
7.3.	Bell-Bottomed Pit Profiles from the Late Woodland South Cluster	116
7.4.	Miscellaneous Pit Profiles from the Late Woodland South Cluster	117
7.5.	Bell-Bottomed and Flat-Bottomed Pit Profiles from the Late Woodland North Cluster	119
7.6.	Miscellaneous Pit Profiles from the Late Woodland North Cluster	120
7.7.	Pit Profiles of Features 8, 29, 38, and 69.	121
7.8.	Distribution of Pits Over 50 cm in Depth	122
7.9.	Distribution of Bell-Shaped and Flat-Bottomed Pits	124
8.1.	Late Woodland Rim Form Types	140
8.2.	Egan Cordmarked Rim Profiles (Unbossed with Decorated Lips)	142
8.3.	Egan Cordmarked Rim Profiles (Unbossed with Undecorated Lips)	143
8.4.	Egan Cordmarked Rim Profiles (Bossing with Undecorated Lips)	144
8.5.	Egan Cordmarked Rim Profiles (Bossing with Decorated Lips)	145
8.6.	Egan Cordmarked Vessels	146
8.7.	Egan Zoned Rim Profiles	147-149
8.8.	Egan Zoned Rim Profiles (Unbossed with Decorated Lips)	151
8.9.	Egan Zoned Rim Profiles (Bossing with Undecorated Lips)	153
8.10.	Egan Zoned Rim Profiles (Unbossed with Undecorated Lips)	153
8.11.	Egan Zoned Rim Profiles (Unbossed with Miscellaneous Rim Decoration)	154
8.12.	Egan Zoned: With Hemiconical Punctates	155
8.13.	Egan Zoned: Without Hemiconical Punctates	156
8.14.	Egan Zoned: Feature 52, V1	157
8.15.	Egan Zoned: Feature 16, V1	158
8.16.	Egan Zoned: Reed Punctate, Feature 52 body sherd and Feature 26, V2	159
8.17.	Late Woodland Pinch Pot Profiles	162
8.18.	Distribution of Pinch Pots	168
8.19.	Distribution of Egan Cordmarked and Egan Zoned Vessels from Late Woodland Pits	169
9.1.	Steuben Projectile Points	179
9.2.	Steuben Projectile Points	180
9.3.	Chert Tools	182
9.4.	Distribution of Steuben Points from Late Woodland Pits	186
9.5.	Nonchert Wedge	189
10.1.	Distribution of All Unaffiliated Pits	194
10.2.	Unaffiliated Features Basin Pit Profiles	196
10.3.	Unaffiliated Features Flat-Bottomed Pit Profiles	197
10.4.	Unaffiliated Features Miscellaneous Pit Profiles	199
10.5.	Unaffiliated Post Profiles	200
12.1.	Perforators from Unaffiliated Feature and BPZ Surface Contexts	210
13.1.	Locations of the Egan Site and Other Massey Phase Sites	216
13.2.	Distributions and Clusters of Massey Features	219
13.3.	Distributions and Clusters of Late Woodland Features	220
13.4.	Distributions of Nutshells, Calculated as Density Counts per Liter, by Component	232
13.5.	Distributions of Seeds, Starchy Grains, as Density Counts per Liter, by Component	233
13.6.	Distribution of Wood, as Density counts per Liter, by Component	234
13.7.	Distributions of Major Plant Classes Among Massey Phase Features by Cluster	236
13.8.	Distributions of Major Plant Classes Among Late Woodland Features by Cluster	237
13.9.	Location of Early Late Woodland Sites Mentioned in the Text	239
13.10.	Comparisons of Densities of Selected Plant Taxa Among Massey Phase Sites	241
13.11.	Comparisons of Densities of Selected Plant Taxa Among Early Late Woodland Sites	243
14.1.	Summary of Egan Site Identifiable Faunal Remains by Cultural Component and Deposit	261

Book Notes



Back top: Site location on upper terrace. Photography by Site Director.

Back bottom: General excavation activity. Photography by Earl Neller.

*Front left: Steuben projectile point, White Hall phase.
Front center: Massey Cordmarked rim, Massey phase.
Front right: Egan Zoned rim, White Hall phase.
All photography by Linda Alexander.*

ISBN 978-1-930487-26-0

