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East Texas Caddo Ceramic Sherd Database

Timothy K. Perttula Heritage Research Center, Stephen F. Austin State University

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East Texas Caddo Ceramic Sherd Database

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East Texas Caddo Ceramic Sherd Database

Timothy K. Perttula

INTRODUCTION

A considerable amount of effort has been expended over the years by archaeologists in the identification, description, and classification of ancestral Caddo ceramic vessels and sherds recovered from sites across East Texas, beginning with the masterful efforts of Alex D. Krieger (1941, 1946). These analyses have led to an appreciation of the stylistic, technological, functional, and morphological character of Caddo ceramics, as well as their age, and their role in the identification and scale of social networks of different Caddo communities in existence as early as ca. A.D. 850 to the early 19th century.

The purpose of the compilation of attribute-level data on Caddo ceramic sherds in East Texas is to build on the understandings already achieved through many years of study by numerous individuals regarding the stylistic, technological, and functional character of Caddo ceramics (see Perttula 2013i). This compilation is a distillation of 50+ years of the analysis and study of Caddo ceramics—particularly the quantification of the methods of decorations present on sherds from different assemblages—and a compilation that is useful for both present and future detailed studies of the sherds from ceramic vessel made by perhaps 40 or more generations of skilled Caddo potters.

CERAMIC SHERD DATABASE

The East Texas Caddo ceramic sherd database (Table 1) presents uniform information on the character of ceramic assemblages on East Texas Caddo sites of different ages and components within sites collected from published reports, articles, and manuscripts (Figure 1). Ceramic data on a uniform set of attributes has been gathered from these sources of information, even when information is not available on all the attributes in the assemblages. The database contains assemblage-level information from 399 Caddo sites and/or components in East Texas and eight sites and/or components from sites along the Sabine River at Toledo Bend Reservoir in western Louisiana (Table 1). To date, the East Texas Caddo ceramic sherd database contains information on the occurrence and relative percentages of 248,148 decorated sherds from these sites/components, while there is similar information on 11,948 decorated sherds from the western Louisiana Caddo sites; the total number of decorated sherds in the database as of August 2014 is 260,096. For present purposes, the database entries were restricted to sites and assemblages with more than 40 decorated sherds in areas where decorated sherd assemblages were small (i.e., the upper Sulphur River drainage and upper Red River drainage), or with more than 90-100 sherds elsewhere in the region. On average, an individual site or assemblage in the database contain ca. 1500 decorated sherds on average.

The database includes percentage information on the following attributes: (a) temper (i.e., grog, bone, shell, grog-bone, and sandy paste); (b) firing conditions (reduced, oxidized, incompletely oxidized, and reduced-oxidized); (c) rim profile (direct, inverted, and everted); (d) lip profile (rounded, flat, rounded-exterior folded, and beveled); (e) use of pigments (red and white); (f) decorative methods in utility wares (appliqued, appliqued-brushed, appliqued-incised, appliqued-punctated, brushed, brushed-incised, brushed-punctated, brushed-appliqued, incised, incised-punctated, neck banded, pinched, tool punctated, fingernail punctated,

Table 1. East Texas Caddo ceramic sherd database.

Table 1.	East	Tex	as C	Caddo	cera	mic	sherd	data	base.									
Trinomial	Tgrog	Tbone	Tshell	Tgrog-bone	Psandy	Freduced	Foxidized	Finc-oxidized	d Fred-oxidized	d Rfdirect	Rfinverted	Rfeverted	Lfrounded	d Lfflat	Lfrounded-folded Lfb	eveled Pre	d Pwhite	e DMUWappliqued
41CP495	92.40	7.50	0.10													0.7		1.00
41CP72	94.10	5.60	2.20	0.00	40.40	42.20	2.00	4.00	50.00	55.50	22.20	22.20	00.00		20.00	1.8	0 0.90	3.50
41RA13 41CE421	12.00 94.60	44.40 5.40	23.10	0.90	19.40	42.30 17.00	2.90 36.00	4.80 3.00	50.00 44.00	55.50	22.20	22.20	80.00		20.00		0.01	0.30
41CE423	93.30			6.70														
41RA13 41CE426	11.90 99.00	29.50 1.00	48.10		10.50	13.20	31.10	1.90	53.80									0.60
41CE429	99.10	0.80				11.60	34.70	9.50	44.20									
41NA223	8.10	73.90	5.40	8.10	2.70	30.00	6.30	4.50	59.20	50.00	30.00	20.00	61.50	23.10	15.40		0.90	
41CE324 41AN87	96.80 81.10	1.10 2.70		2.10 5.30	4 20	18.90 11.70	8.40 22.00	14.70 18.30	52.60 43.00	80.00 73.70	2.60	20.00 23.70	46.70 58.10	26.70 18.60	26.70 23.30	1.5	0	
41CE309	85.00	15.00		3.30	4.30	11.70	22.00	10.50	43.00	73.70	2.00	23.70	36.10	10.00	23.30	1.5	,	
41HE337	94.40	5.60																1.30
41CE354 41RK191	95.10	0.90		2.70	1.30	14.50	27.70	22.00	36.60	66.70	9.10	24.20	70.60	20.60	8.80		0.80	1.10
41RK191 41RK197																		
41RK200	38.60	42.40		19.00														0.30
41CP230 41WD52	88.90	0.10		10.40	0.60													1.60 5.20
41FK107																		0.50
41SM195	51.10			48.90														
41TT650 41UR279	65.00 89.20	1.60 1.30	0.60	23.00		23.60	16.60	15.90	43.90							1.3	0	1.30
41CP245	89.20	1.30	0.60	8.90		23.00	10.00	15.90	43.90							1.3	,	2.40
41HS574	49.00	35.00		16.00														1.70
41BW171 41WD46	95.00	5.00								100.00			63.20		36.80			0.40 1.30
41VD46 41LR351	83.00	3.80		13.20		14.70	15.60	9.40	56.10	97.30		2.70	61.50	24.40	14.10			0.60
41SM442	92.20	7.00			0.80	20.00	12.00	24.00	44.00									1.40
41CE339	95.50	4.50																
41CE445 41SM440	94.50 85.00	5.50 13.90			1.10	21.40	21.00	35.70	21.40									
41SM442	92.90	6.90			0.20	21.40	21.00	33.70	21.10							0.3	0	1.70
41SM444	95.00	5.00																
41CP239 41GG31	87.00 90.50	13.00 8.90		0.60												0.9	n	0.60 1.00
41MR6	90.00	10.00		0.00		20.00	13.00		67.00							0.5	•	2.90
41CP288	71.00	28.00			0.30													
41TT758 41FK107	83.00 57.90	17.00 2.90		39.20		10.40	16.30	9.50	58.50	94.60		5.40	79.70	11.40	8.90	0.5	n	0.20
41CP490	91.40	8.60		33.20		10.40	10.50	5.50	30.30	34.00		5.40	75.70	11.10	0.50	0.5		3.90
41CE467	94.30			5.70		9.20	10.30	21.80	52.90									0.30
41CP493 41CP8, Area A	90.00 92.00	10.00 8.00																1.70
41CP496	98.50	1.00	0.50													2.8	0 0.70	1.40
																3.2	0	
41HP237 41HP238	93.20 93.40	0.40	1.10 4.40	5.30 2.20		21.00 15.60	13.80 28.90	14.50 8.90	48.10 42.20							9.5	0.40	12.40 11.90
41HP240	92.20	0.50	3.30	4.00		20.70	20.00	15.80	41.20	81.50		18.50	58.30	9.40	28.10	3.1		16.20
41WD208	98.90	1.10														3.4		10.30
41SM193 41SM55	55.50	44.50																0.10
41HS524	81.70			18.30						73.30		26.70	56.70	30.00	3.30	10.00		0.10
41PN149	75.40			24.60						39.00		61.00	73.00	13.80	13.80			
41RK476	29.20			70.80		39.40	18.20		42.30									4.00
41NA327 41SM56	65.50			34.50		81.00	19.00									1.7	o	1.00
41SA135	35.90	5.10		59.00														
41CP71																		1.80
41CP490 41TT891																		2.90
41TT892																		
41LR351	82.90	3.80		13.30		14.70	15.10	9.40	56.60	91.80		2.00	55.00	24.50	20.20	0.0	•	0.90
41UR10	82.30	17.70														0.3 3.0		1.70
41CE19	93.10			6.90													0.20	
41HP78	86.60	5.10			8.30													
41DT16 41DT52	100.00	12.00		34.20	53.80													
41HP102	84.30	11.70	4.00															
41DT1	11.50	3.80			84.70													
41HP105 41DT80	14.90 15.90	8.90 31.10	4.50	1.00 2.20	75.30 46.20													
41HP105	79.40	31.10	4.50	6.70	2.90													
41HP78	87.00		1.00	11.00														
41DT80 41AN19	73.00	12.70	1.00	22.00 9.10	4.00 0.30													0.10
41NA144	77.50	12.70		5.10	0.30													0.10
41SY81																		2.70
41HS11	20.00	2.00	20.00	20.70	1 20													1.40
41MR211 41HS835	29.60 22.00	2.60 55.00	36.80	29.70 23.00	1.30	12.80	19.10	6.40	61.70									2.50
41HE22																		
41HE166 41HE185	98.50	1.50																
41HE185 41HE184																		
41HE80	100.00																	
41AN67	99.20	0.80			0													
41AN70 41CE30	97.20	2.70			0.10													
41CE86																		
41CE19																		
41CE19, Late 41SB50																		1.20
41SA89																		
41SA94																		
41SB36 41NA11			0.30															
-11011			0.30															

Table 1. East Texas Caddo ceramic sherd database, cont.

	DMUWappliqued-brushed [morrappiiqueu meiseu							
1CP495		0.70		48.60	2.60	0.90	0.70	16.00	1.50
1CP72				19.50	6.30	1.80	0.90	15.00	4.40
IRA13 ICE421			0.10	52.70 86.50	0.20	1.40		9.10 4.10	0.20
ICE423			0.10	91.90	0.20	1.10		5.20	0.20
RA13				18.40		2.60		13.40	
CE426				91.90		1.90	0.60	1.30	
CE429				87.70	0.40	2.20	0.20	3.70	
NA223				35.40	4.20		2.10	10.40	
CE324				75.00	5.90	1.10		3.70	
AN87	1.50	0.30	0.90	51.10	1.50	0.30		12.80	3.00
CE309	0.10			66.90	1.60	1.40	0.50	12.10	1.80
HE337				34.90	5.50	0.70	0.40	18.80	6.00
CE354 RK191				73.60 75.30	5.50 0.40	2.10	0.40	3.80 12.80	0.40
RK197				67.90	1.60	3.10 2.40		7.30	0.80
RK200				60.30	1.20	0.60		18.50	1.10
P230		0.30		27.00	5.60	1.80	0.30	15.70	1.30
VD52		0.50	0.40	13.80	2.30	0.10	0.40	16.80	1.00
K107				2.40				19.40	2.40
M195								14.30	3.80
TT650								38.90	11.10
JR279				49.70	7.80			18.70	0.60
CP245		0.80		20.30	3.20	3.20		18.80	2.40
HS574				69.50		1.70	6.80	3.40	
BW171								55.00	16.80
WD46	0.90		0.40	49.50				13.50	4.40
LR351					4.40	4 ***		46.60	5.70
SM442				6.90	1.40	1.40		38.90	2.80
CE339		1.20	1 20	39.30	2.60			33.30	4.10
CE445		1.30 1.50	1.30	48.80 40.60	1.30	2.90		25.00 33.30	5.00 1.50
SM440 SM442		1.50		9.10	0.30	1.20		34.80	3.80
SM444		1.70		48.30	5.20	1.70		27.60	1.70
CP239		1.80		48.20	7.30	1.70	1.80	9.80	1.20
GG31		0.20		10.70		0.40	0.50	3.50	1.30
MR6	1.50			59.10	0.70	2.70	3.30	4.40	0.70
CP288				6.10				18.20	6.10
TT758								24.60	2.90
FK107				2.30				18.50	4.20
CP490		1.00		42.90	7.30	0.50	1.00	12.70	1.50
CE467		0.30	0.30	83.00	1.30	1.00			0.30
CP493				18.60		2.30		23.00	9.30
CP8, Area A				37.90	12.10	3.40		15.50	
CP496	2.80			29.60	7.00	2.10		17.60	2.10
HP237				7.10	0.70			2.80	
HP238	0.20	0.40	0.50	2.40	4.80	0.20	0.20	2.00	0.40
HP240	0.20	0.10	0.50	2.40	0.60	0.20	0.20	2.00	0.10
.WD208 .SM193		1.10	1.10	8.00 27.80		7.70	1.10	3.40 13.40	1.10 7.00
SM55				20.40	1.00	16.30		20.80	5.50
HS524				3.20	0.40	0.40		43.60	7.80
PN149				21.30	****	1.70		23.70	11.70
RK476	1.30			5.30				40.00	9.30
NA327				72.70	2.00	3.00		5.10	1.00
SM56								25.90	11.20
SA135				49.80		0.60		13.50	2.40
CP71		1.80		38.60		1.80		10.50	1.80
CP490	2.90	0.50	1.00	48.50	3.40	0.50		12.10	0.50
TT891								22.00	6.80
TT892				1.80				18.40	5.30
LR351								38.50	6.80
JR10		3.70		39.30		5.70	2.00	9.00	0.70
CE19				0.20				38.30	19.00
HP78									20.00
DT16 DT52				5.60 10.50	8.80			55.60	22.20
				10.00	6.60			72.00	
HP102 DT1									
HP105									
DT80									
HP105									
HP78									
DT80									
AN19				74.20				6.10	
NA144		1.20		64.60				14.60	2.40
SY81				10.70				42.70	14.70
HS11				50.80	10.70			8.80	
MR211				60.30				15.90	3.20
HS835			2.50	72.50	7.50		2.50	7.50	
HE22				31.60					
HE166				18.50					
HE185				50.70					
HE184				68.50					
HE80				62.70					
AN67				61.40					
				65.90					
AN70				75.50					
AN70 CE30				75.50					
AN70 CE30 CE86								14.00	6.10
AN70 CE30 CE86 CE19									
AN70 CE30 CE86 CE19 CE19, Late				83.10	0.60	0.50	0.80	5.10	1.80
AN70 CE30 CE86 CE19 CE19, Late SB50				46.30	0.60	0.50	0.80	5.10 40.30	1.80 4.60
AN70 CE30 CE86 CE19 CE19, Late SB50 SA89				46.30 28.10	0.60	0.50	0.80	5.10 40.30 27.60	1.80 4.60 8.80
AN70 CE30 CE86 CE19 CE19, Late SB50 SA89 SA94 SB36				46.30	0.60	0.50	0.80	5.10 40.30	1.80 4.60

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	DMUWneck banded	DMUWpinched	DMUWtool punctated	DMUWfingernail punctated	DMUWcircular punctated	I DMUWcane punctated	DMUWridged	DMFengpunct.	DMFWengraved	DMFWengraved-appliqued
41CP495	0.30		3.70	0.40	0.50		0.20		20.20	
41CP72		0.90	6.30	0.90	0.90				32.70	
41RA13 41CE421	0.70	1.10	3.70 1.80	0.30					30.90 3.30	
41CE423									2.10	
41RA13			2.50						60.90	
41CE426 41CE429	0.60		1.30 1.10				0.40		3.10 2.60	
41NA223	2.10								45.80	
41CE324		1.60	0.50	1.60				0.00	9.60	
41AN87 41CE309		0.30 0.10	3.00 5.30	2.00				0.90	17.00 8.10	
41HE337		0.70	12.10	6.70					16.80	
41CE354	0.20		0.60						11.60	
41RK191 41RK197	0.40		2.20 4.00						4.90 16.10	
41RK200	0.04		5.80					0.20	11.80	
41CP230	5.70		3.60	5.90		0.20			16.90	
41WD52 41FK107	4.30	1.00	2.90 28.40	28.40				0.10	27.70 14.70	
41SM195		1.00	30.50	21.90					29.50	
41TT650			2.80	11.10					30.60	
41UR279 41CP245			1.30 7.90	1.30 0.80		0.60 0.80			16.10 17.30	
41HS574			5.10	3.40		1.70			8.40	
41BW171			8.00	2.70					17.20	
41WD46	2.20		11.80 5.70	0.90 1.90	0.60				8.80 24.50	
41LR351 41SM442			13.90	6.90	1.40				18.20	
41CE339	0.40	3.70	7.90	0.70	0.40				6.70	
41CE445		1.50	6.30	3.00					11.30	
41SM440 41SM442		1.50 0.30	7.20 12.80	2.90 6.80	0.30				8.70 15.10	
41SM444		0.50	3.50	0.00	0.50				10.30	
41CP239	1.80		2.40		0.60				22.60	
41GG31 41MR6	0.30	0.20	2.80	0.40			1.50	0.60	78.90 26.30	0.10
41CP288			20.20	35.40			1.50		14.10	
41TT758			4.40	53.60					14.50	
41FK107 41CP490	5.40	0.30 0.50	26.30 2.40	30.50	1.80				14.00 21.00	
41CE467	1.60	0.70	0.70						5.90	
41CP493			14.00	4.70					20.90	
41CP8, Area A			5.20	0.70					20.70	
41CP496			4.90	0.70					24.70	
41HP237	7.40		2.10	0.40					58.30	
41HP238	21.40		2.40	2.40	0.20				47.60	
41HP240 41WD208	10.00 21.80		3.20 2.30	0.50	0.20				44.60 49.60	
41SM193		1.30	12.40	3.20		3.50			22.60	
41SM55		2.10	15.90	9.00	0.40	0.10			6.60	
41HS524 41PN149			13.50 N/A	10.00 N/A	0.40 N/A	2.30 N/A			16.70 10.30	
41RK476			14.70	10.70	6.70				10.70	
41NA327			2.00						12.10	
41SM56 41SA135			4.20 14.10	29.40 3.60				0.20	29.40 15.80	
41CP71	3.50		7.00	5.00				0.20	33.30	
41CP490	1.50		6.80						15.00	
41TT891 41TT892			20.30 19.40	22.00 9.60		0.90			28.80 43.80	
41LR351			5.10	2.60	0.90	1.70			28.20	
41UR10			1.70	1.00					35.70	
41.0510	0.10	2.00	1.00	21.00					14.20	
41CE19 41HP78	0.10	3.90	1.90	21.80					14.20	
41DT16			5.60	5.60	5.60					
41DT52				7.00		1.80				
41HP102 41DT1										
41HP105										
41DT80										
41HP105 41HP78										
41DT80										
41AN19	0.70	1.30	2.10	4.00			0.20		11.50	
41NA144 41SY81			1.20 2.70	9.30					18.30 12.00	
41HS11		0.80	N/A	9.30 N/A			0.80		12.80	
41MR211			•	3.20					15.90	
41HS835 41HE22				7.60					5.00	
41HE22 41HE166				7.60 3.00					15.00 15.00	
41HE185				0.90					7.40	
41HE184				0.90					8.90	
41HE80 41AN67				1.00					8.70 9.70	
41AN70				0.60					7.50	
41CE30				0.60					7.10	
41CE86 41CE19				3.60					7.30	
41CE19 41CE19, Late				0.10					3.50 2.30	
41SB50							0.20		4.50	
41SA89									12.50	
41SA94									7.80 11.10	
41SB36										

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	DMFWengraved-brushed	DMFWred-slipped	DMFWtrailed	Other decorative method	No. of decorated sherds	Reference	Estimated age
41CP495		3.10			764	Perttula 2013a	ca. A.D. 1500-1550
41CP72		7.10			113	Perttula 2013b	ca. A.D. 1200-1430
41RA13		1.80		1.8 [Grooved]	55	Perttula 2012	ca. A.D. 1750
41CE421					1805	Walters and Perttula 2012	ca. 1680-1720
41CE423					97	Walters and Perttula 2012	ca. 1680-1720
41RA13 41CE426					719 160	Story et al. 1967 Walters and Perttula 2012	ca. A.D. 1750 ca. 1680-1720
41CE429				1.1 [Grooved]	465	Walters and Perttula 2012	ca. 1680-1720
41NA223					48	Perttula 2008a	ca. A.D. 1750
41CE324	1.10				188	Perttula and Middlebrook 2009	ca. A.D. 1600-1650
41AN87 41CE309		0.10			335 1369	Perttula 2009a Perttula 2009b	ca. A.D. 1400-1450 ca. A.D. 1400-1560
41HE337		1.30		0.7 [Lip notched]	149	Perttula 2009c	ca. A.D. 1400-1500
41CE354		0.20		(p	474	Perttula 2009d	ca. A.D. 1650-1800
41RK191		0.40			226	Perttula et al. 2009	ca. A.D. 1700-1730
41RK197					124	Perttula et al. 2009	ca. A.D. 1700-1730
41RK200		42.40			2282	Perttula et al. 2009; Marceaux	A.D. 1720-1730
41CP230 41WD52		13.40 24.30	0.20		1034 820	Nelson and Perttula 2003a Perttula 2005a	A.D. 1430-1600 ca. A.D. 1430-1550
41FK107		2.40	0.20	0.5 [Lip notched]	212	Nelson and Perttula 2006	ca. A.D. 1200-1430
41SM195				(105	Walters 2003	ca. A.D. 1315-1440
41TT650		2.80			36	Nelson et al. 2004	ca. A.D. 1000-1200
41UR279		2.60			155	Perttula et al. 2004	ca. A.D. 1430-1500
41CP245		18.10			127	Perttula and Nelson 2006a	ca. A.D. 1000-1400
41HS574					59	Perttula and Nelson 1997	ca. A.D. 1200-1430
41BW171 41WD46		5.20			262 229	Perttula 2005b Perttula et al. 1993a	ca. A.D. 1300-1400 ca. A.D. 1400-1430
41VD46 41LR351		12.60			159	Perttula 2013c	ca. A.D. 1150-1300
41SM442		7.00			72	Perttula and Walters 2012	ca. A.D. 1200-1400
41CE339					267	Perttula et al. 2012a	ca. A.D. 1400-1480
41CE445					80	Perttula et al. 2012a	ca. A.D. 1400-1480
41SM440					69	Perttula and Thacker 2014	ca. A.D. 1400-1450
41SM442		14.10		0.3 [Lip notched]	353	Perttula and Thacker 2014	ca. A.D. 1000-1300
41SM444 41CP239		0.60			58 164	Perttula and Thacker 2014 Perttula 2013d	ca. A.D. 1400-1480 ca. A.D. 1430-1600
41GG31	0.70	0.00		0.2 [Lip notched]	1125	Perttula et al. 2013a	ca. A.D. 1550-1680
41MR6		2.20	0.70		137	Perttula et al. 2012b	ca. A.D. 1600-1680
41CP288					99	Perttula et al. 2012c	ca. A.D. 1200-1300
41TT758					69	Perttula et al. 2012c	ca. A.D. 1000-1200
41FK107		2.00	0.20		651	Perttula and Nelson 2012a	ca. A.D. 900-1400
41CP490 41CE467				3.0 [Grooved]	205 305	Perttula and Nelson 2012b Perttula et al. 2013b	ca. A.D. 1430-1550 ca. A.D. 1680-1720
41CP493		4.70		5.0 [Glooveu]	43	Perttula 2013e	ca. A.D. 1200-1400
41CP8, Area A		3.40			58	Perttula 2013f	ca. A.D. 1430-1680
41CP496		8.40			142	Perttula 2013g	ca. A.D. 1430-1600
				0.4 [Lip notched];			
41HP237		2.50	0.40	5.7 [CCI]	283	Perttula 2009e	ca. A.D. 1550-1680
41HP238		7.10 14.70	0.00	2.0 [CCI]	42 1347	Perttula 2009e	ca. A.D. 1550-1680
41HP240 41WD208		2.20	0.60	2.9 [CCI]	87	Perttula 2009e Perttula et al. 1993b	ca. A.D. 1550-1680 ca. A.D. 1430-1600
41SM193		1.00			597	Walters and Haskins 1998	ca. A.D. 1300-1430
41SM55		0.80			730	Walters and Haskins 2000	ca. A.D. 1200-1400
41HS524		2.00			562	Perttula 2000	ca. A.D. 1000-1200
41PN149					300	Haskins and Walters 2001	ca. A.D. 1400-1650
41RK476 41NA327	1.00	1.30			75 99	Walters 2001 Perttula et al. 2011a	ca. A.D. 1000-1200 ca. A.D. 1680-1720
41SM56	1.00				286	Walters 2009	ca. A.D. 1000-1720
41SA135					468	Middlebrook 2010	ca. A.D. 1400-1450
41CP71					57	Perttula 2010a	ca. A.D. 1500-1680
41CP490		1.00	0.50	0.5 [Lip notched]	206	Perttula et al. 2010a	ca. A.D. 1550-1680
41TT891		1.70			59	Perttula et al. 2010a	ca. A.D. 1000-1200
41TT892 41LR351		0.90 15.40			114 117	Perttula et al. 2010a Perttula 2010a	ca. A.D. 1000-1200 ca. A.D. 1000-1150
41UR10		15.40			301	Jelks and Tunnell 1959	ca. A.D. 1000-1150
4101110					301	Thurmond and Kleinschmidt	CG. 71.D. 1430 1330
41CE19				0.6 [Grooved]	803	1979	ca. A.D. 900-1300
41HP78					15	McGregor et al. 1996	ca. A.D. 980-1130
41DT16					18	Doehner et al. 1978	ca. A.D. 1200-1300
41DT52 41HP102					57 187	Doehner et al. 1978 Doehner and Larson 1978	ca. A.D. 1200-1300 ca. A.D. 900-1200
41DT1					1	Hyatt and Doehner 1975	ca. A.D. 900-1200
41HP105					18	Hyatt and Doehner 1975	ca. A.D. 900-1200
41DT80					8	Hyatt and Doehner 1975	ca. A.D. 900-1200
41HP105					26	Hyatt et al. 1974	ca. A.D. 1000-1200
41HP78					5	Hyatt et al. 1974	ca. A.D. 900-1200
41DT80		0.10			15	Hyatt et al. 1974	ca. A.D. 900-1200 ca. A.D. 1400-1650
41AN19 41NA144		0.10			5868 82	Kleinschmidt 1982 Corbin and Kisling 1983	ca. A.D. 1400-1650
41SY81		5.30			75	Robinson 1997	ca. A.D. 900-1200
41HS11		4.00			1048	Wormser 1991	ca. A.D. 1550-1680
41MR211					63	Parsons et al. 2002	ca. A.D. 1800-1838
41HS835					40	Perttula 2002a	ca. A.D. 1430-1680
41HE22					133 1404	Anderson et al. 1974	ca. A.D. 1400-1650
41HE166 41HE185					912	Anderson et al. 1974 Anderson et al. 1974	ca. A.D. 1200-1400 ca. A.D. 1400-1650
41HE184					1693	Anderson et al. 1974	ca. A.D. 1400-1650
41HE80					1730	Anderson et al. 1974	ca. A.D. 1400-1650
41AN67					4116	Anderson et al. 1974	ca. A.D. 1400-1650
41AN70					1590	Anderson et al. 1974	ca. A.D. 1400-1650
41CE30					622	Anderson et al. 1974	ca. A.D. 1400-1650
41CE86					220	Anderson et al. 1974	ca. A.D. 1400-1650
41CE19 41CE19, Late					379 488	Fields 1978 Fields and Thurmond 1980	ca. A.D. 900-1300 ca. A.D. 1400-1650
41SB50					4452	Jelks 1965	ca. A.D. 1400-1680
41SA89					3409	Jelks 1965	ca. A.D. 1200-1400
41SA94					1960	Jelks 1965	ca. A.D. 1200-1400
41SB36					550	Jelks 1965	ca. A.D. 1200-1400
41NA11					2504	Jelks 1965	ca. A.D. 1400-1680

Table 1. East Texas Caddo ceramic sherd database, cont.

table 1.1		Tex		auuu				uatai		UIII.	DC	D(D d	B - 1-71 -	DAMINA
rinomial	Tgrog	Tbone	Tshell	Tgrog-bone	Psandy	Freduced	Foxidized F	inc-oxidized	Fred-oxidize	d Rfdirect	Rfinverted	Rfeverted	Lfrounde	d Lfflat L	frounded-folde	ed Lfbeveled	Pred	Pwhite	DMUWappliqued
1SA123			0.20																
1SB8 1SA69			0.50																
1SA116			0.20																
1BW3	99.20		0.80																11.90
1UR118 1UR133																			0.90 1.30
1UR106																			2.90
1UR130																			
1UR109 1UR105																			9.20
1UR116																			
1UR114																			
1BW553	86.00	6.00	2.10	4.50	0.60	45.20	14.90	2.60	36.90	23.30			56.70	36.70		3.30			5.40
1TT670 1HS240	87.00 57.20	0.20 13.00		12.40 26.00	0.20 1.50	39.60 28.50	18.90 16.90	5.40 10.00	36.10 44.60	29.00			52.60	34.20					1.00 2.20
1CP408	66.10	10.30		22.80	0.80	17.90	9.60	11.10	61.40	70.80	8.30		73.30	8.30	4.20		3.10		0.80
1NA231	64.90	7.60		24.60	1.80	23.30	23.30	13.50	42.40								0.40		0.60
1NA235 1NA236	51.60 70.70	12.10 16.00		35.50 12.00	1.30	24.20 9.30	25.80 25.30	7.30 21.30	42.70 41.30								0.10	0.20	0.40
INA230 INA242	72.20	3.50		23.90	0.50	34.00	25.00	8.00	33.00								0.10	0.20	0.10
INA285	68.70	11.50		14.70	1.70	19.40	11.90	10.40	54.00								0.40		0.10
INA338																			
INA21 INA304																			0.20
INA303	24.90	17.70	0.50	56.40	0.50	26.80	8.90	18.90	45.30										0.60
IHP106	70.10	6.80	0.30	22.20						97.90	0.50	1.60	90.00		8.20				
LRK170	76.00	7.40		14.90	1.70	15.70	12.10	15.10	57.10	88.00	4.60	7.40	68.40	22.10	7.40		1.70		0.20
1CP304 1HS15	89.60 44.00	1.10 16.00	0.70	7.50 40.00	1.10	23.90	13.90	11.00	52.20	83.50 4.00	0.80 2.00	15.70 69.00	45.00 36.00	17.30 5.00	37.70 36.00		0.60	0.20	0.60 4.10
INA49	75.90	24.10	0.01	40.00						73.00	2.00	27.00	61.90	25.40	11.90		5.00	J.2U	0.40
LHE70	44.40	50.00	3.40		2.30												0.20		
IVN6	83.70		1.00	16.30															
LDT1 LSM73	72.40		1.60	26.10															
ISM74																			
SM76																			
LSM82																			
ISM87 ISM89																			
SM90																			
SM91																			
HE22 CE39																			
WD529	99.20	0.80															0.50	0.60	11.20
WD51	98.60	1.40																	17.70
HE114																			0.20
HP175 RA5	57.00 14.70	0.10 25.70	40.50 25.70	2.10 3.50	30.60					11.00	26.40	62.60	22.40	32.80	44.80		1.80		4.50 1.60
3W5	20.50	5.00	71.30	5.50	3.20														0.40
HS16	41.20	51.20		7.20	0.40	13.40	27.70		58.90	48.90	43.30	7.80	84.70	14.20	1.00				
SA83 LR1	68.80	24.10	43.80	7.10	56.20														2.20
.RA8			45.60		50.20														1.70
IGG33																			
RK3	52.00	43.00	5.10																2.50
BW169 BW716	98.00 72.40	0.40	0.90 27.60	0.50		31.30 38.30	12.20 16.10	16.20 7.40	31.80 38.30										2.00
PN175	18.80	66.70		13.00	1.50	20.40	8.40	18.00	53.50	76.00		24.00	85.00	15.00					1.40
CP20																			
RK19 RK30																			
RK39																			
SM54																			2.20
HP1	100.00																0.40		7.70
TT13 DT11	76.00		5.00	17.00						33.30	33.30	33.30	50.00	50.00			0.10		3.40
DT21	84.00		1.00	6.00						33.30	33.30	33.30	30.00	66.70	33.30				
)T54	68.00		4.00	21.00									75.00	25.00					6.30
DT63 ND73	76.00	6.00	1.00	15.00								100.00	16.70	83.30					0.00
WD/3 WD482	55.70 64.40	17.90 11.20		25.50 16.50															0.90 2.00
WD495	57.40	5.10		30.00															7.70
WD538	86.70	5.10		7.60															12.50
WD450 WD503	86.90 82.80	0.90 1.60		11.40 15.20															1.50
WD109	95.40	4.30		13.20															3.90
JR142	32.70	9.80		49.30	8.20														3.00
UR136	95.00	5.00		0.20															8.90
HE139 AN38	91.80			8.20													2.00		2.50
SM243	45.70	5.90		47.90		47.90	23.00		28.20								0.90	0.90	
RK4	72.30			27.60	0.10														
SM325 FT769	74.30 83.60	4.60 12.60	3.60	17.10	1.30	23.00 6.80	15.80 18.40	14.50 17.80	46.70 57.00								1.00		0.30 7.70
kory Creek #2	70.80	13.10	5.00	14.60	1.40	0.80	10.40	17.00	37.00										7.70
WD75	69.60	30.40								66.70	20.00	13.30							
WD524	95.50	4.50								66.70	4.20	29.20							2.20
RA48 WD74	82.70 72.30	17.30 27.70								62.80 55.80	4.70 23.30	32.60 20.90							
RR15	5.60	27.70	93.00	5.60						55.00	23.30	20.50							
RR204	0.50		99.50																1.80
CP55	90.00	9.10		44.00	0														2.40
.UR271 .CE19, Village	76.20	4.80		11.90	9.50														
ICE19, Village ICE19, Md. A																			
ICE19, Md. B																			

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	DMUWappliqued-brushed	DMUWappliqued-incised	DMUWappliqued-punctat	ed DMUWbrushed D	OMUWbrushed-incised	d DMUWbrushed-punctated	DMUWbrushed-appliqu	ed DMUWincised DN	1UWincised-punctated
41SA123				32.10				24.70	2.00
41SB8				57.80				23.90	3.30
41SA69 41SA116				15.70 27.20				45.70	4.30 4.50
418W3				27.20	8.60			41.70 14.4 (Trailed-I)	4.50
41UR118				50.00		3.00		7.90	1.80
41UR133				50.00	0.40	1.50		15.00	1.10
41UR106 41UR130				30.80 63.50		1.80 1.90		17.00 7.70	2.20
41UR109				36.60		2.10		2.80	1.40
41UR105				23.90	0.60	1.20		17.10	4.40
41UR116			0.80	19.40	0.40	0.80		14.50	1.50
41UR114				53.10	2.00	6.10		10.20	2.00
41BW553 41TT670				1.40		1.40 1.00		58.10 53.10	8.10 4.10
41HS240				77.80		1.00	4.40	11.10	2.20
41CP408		0.80	0.80	12.50	2.30			24.20	6.30
41NA231		0.10	0.20	34.50	3.30	3.00	1.30	15.90	7.80
41NA235 41NA236		0.70 0.20		41.40 67.30	5.70 4.90	3.60 1.80	0.80 1.70	22.50 12.00	3.70 1.00
41NA242		0.20		30.00	1.60	4.00	0.80	14.90	7.60
41NA285				11.60	0.50	1.10	0.80	24.10	9.40
41NA338				72.80			0.40	3.20	
41NA21				78.90	1.00	2.40		1.30	
41NA304 41NA303				44.10 37.80	0.20	3.30 2.80	1.00	13.40 10.20	2.50 4.80
41HP106		0.20	0.70	3.70	0.30	0.20		8.40	7.60
41RK170		0.20		2.80	0.20	2.00	0.20	25.70	16.00
41CP304		0.20	0.10	39.80	3.20	2.00	0.80	13.50	2.50
41HS15 41NA49		0.10		66.10 55.00	3.90	5 60	1.60	9.00	4.20
41NA49 41HE70		0.10		55.00 24.70	1.20	5.60	1.60	13.20 25.90	7.20
41VN6				51.40				20.60	1.10
41DT1								39.20	5.90
41SM73 41SM74				23.30 74.70	3.00 1.10			35.90 2.20	
41SM74 41SM76				68.90	1.10			16.70	
41SM82				86.70				4.00	
41SM87								42.90	
41SM89				37.90				31.60	2.10
41SM90 41SM91				60.50 82.70		1.20		13.60 6.10	2.50
41HE22				76.50				12.30	1.30
41CE39				75.20				15.90	
41WD529				8.70		0.40	0.20	4.00	0.10
41WD51				0.70		0.20		3.40	
41HE114 41HP175			2.90	84.00		0.20 0.40		5.00 2.70	
41RA5			2.50	7.90		0.40		9.50	
41BW5			0.20	1.30				0.20	48.10
41HS16				8.00		1.10		43.20	30.70
41SA83 41LR1				44.10		6.90	0.20	13.90	8.00 38.70
41LK1 41RA8								63.80	38.70
41GG33								90.00	1.30
41RK3				40.40		13.90		2.50	11.40
41BW169				6.10	1.00			13.10	
41BW716 41PN175				47.40 52.70	4.40	0.30	0.70	15.80 25.70	1.70
41CP20				38.70	4.40	0.30	0.70	22.60	12.90
41RK19				40.40				35.60	
41RK30				8.60				60.00	
41RK39 41SM54			2.20	58.30 1.10		1.10		31.30 17.80	6.70
415N/54 41HP1			2.20	2.60		1.10		12.80	0.70
41TT13				11.20	0.60			7.30	
41DT11				3.70				37.00	
41DT21 41DT54				16.70				16.70 12.50	25.00
41DT63								12.30	
41WD73								43.20	
41WD482				0.10				51.50	
41WD495								20.50	
41WD538 41WD450								12.50 42.60	
41WD503								47.00	
41WD109				3.60				24.80	
41UR142				** 20				49.00	4.00
41UR136 41HE139			2.50	41.30 17.50				16.20 37.50	2.50
41AN38			2.30	76.00		4.00	2.00	6.00	2.30
41SM243				26.10		4.50		27.90	13.50
41RK4								31.30	10.30
41SM325	0.10		0.10	17.00	1.90	2.40	1.00	35.80	8.80
41TT769 Hickory Creek #2				10.20 49.30	0.70	2.60 4.30	1.00	10.20 12.10	3.60 6.40
41WD75				.5.50	2.70	50		91.70	
41WD524				68.90				3.30	
41RA48				1.60				68.20	
41WD74 41RR15				11.10				84.20	
41RR204									2.70
41CP55		0.30		67.00	2.40	0.30		8.10	
41UR271				66.70			4.80	4.80	
41CE19, Village								32.10	9.90
41CE19, Md. A 41CE19, Md. B								35.40 34.80	21.00 14.90
, :=:=									

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	DMUWneck banded	DMUWpinched	DMUWtool punctated	DMUWfingernail punctated	d DMUWcircular punctated	DMUWcane punctated	DMUWridged	DMFengpunct.	. DMFWengraved	DMFWengraved-appliqued
41SA123									11.00	
41SB8 41SA69									3.90	
41SA116									13.90	
41BW3	1.70		4.40					2.20	39.50	0.30
41UR118 41UR133	0.30	0.60	12.10 4.20	0.90 0.20					18.80 11.40	
41UR106	0.40	0.70	9.40	1.40					16.30	
41UR130			5.80						19.20	
41UR109			4.20							
41UR105 41UR116		1.10	9.00 9.10	7.20 9.10					22.00 20.50	
41UR114		1.10	8.20	5.10					18.40	
41BW553		1.40							10.70	
41TT670			1.00	29.60					4.10	
41HS240 41CP408			7.80	10.20		0.80		0.80	2.20 28.10	
41NA231	0.40	1.30	10.60	0.80	0.50	0.60		0.00	17.60	
41NA235		1.30	6.90	0.60	0.10	0.20			9.00	
41NA236 41NA242		0.80 3.30	2.90	0.70 1.00	0.60	1.50		0.10 0.30	2.40 12.40	
41NA285		1.10	18.00 8.70	7.60	1.10	0.10		0.30	20.60	
41NA338	0.40								15.90	
41NA21									14.90	
41NA304 41NA303									17.50 27.40	
41HP106			10.70	2.40	2.70			0.60	10.80	
41RK170			16.00	7.70	0.60	5.50			22.00	
41CP304	2.30	0.10	4.20	2.10				0.10	19.40	
41HS15 41NA49		2.40 0.10	4.20 7.70	3.60 1.40			0.70	0.20	8.10 6.10	
41NA49 41HE70		3.00	28.90	3.00				0.20	10.20	
41VN6	0.60	0.60	17.70						8.00	
41DT1			15.70	21.50					17.60	
41SM73 41SM74		12.10	2.40	33.50					0.60 4.40	
41SM76		12.10		8.90					5.60	
41SM82									9.30	
41SM87									28.60	
41SM89 41SM90			1.10	1.10					11.60 17.30	
41SM91		1.10							3.90	
41HE22	0.40	1.80							7.00	
41CE39									4.40	
41WD529	14.40 26.00		0.20	2.80			0.70		41.60 40.10	
41WD51 41HE114	0.20	1.60					0.70		5.60	
41HP175		0.40	1.20	22.00					32.50	
41RA5		1.60							77.80	
41BW5 41HS16			4.50	3.40					41.50 8.00	
41SA83		1.20	4.30	3.40					8.60	
41LR1									53.00	
41RA8									13.80	
41GG33 41RK3				5.00 2.50					3.80 26.60	
41BW169	4.00		3.00	2.30					46.40	
41BW716									36.80	
41PN175			3.00	2.40	0.30	0.30			7.80	
41CP20 41RK19									16.10 1.90	
41RK30									2.90	
41RK39									2.10	
41SM54		1.10	11.10	3.30					14.40	
41HP1 41TT13	3.90	3.40	2.60						74.40 57.30	
41DT11			3.70	14.80					14.80	
41DT21				8.30					8.30	
41DT54 41DT63			6.30 12.50	50.00						
41WD73			12.30	JU.UC					8.90	
41WD482	0.10								17.70	
41WD495	4.80								43.30	
41WD538 41WD450	3.00								47.50 26.50	
41WD450 41WD503	3.00 4.40								26.50	
41WD109	2.60								44.80	
41UR142				18.00					24.00	
41UR136 41HE139	3.20 2.50		15.00	2.50					19.00 12.50	
41AN38	2.30		4.00	2.30					8.00	
41SM243		1.80	1.80	6.30					18.00	
41RK4			4.60	32.10					21.90	
41SM325 41TT769	6.60	0.40	14.90 26.00	0.70 1.00	1.50	0.70			16.30 16.30	
Hickory Creek #2	0.00	1.40	20.00	1.00	1.30				17.90	
41WD75		0							50	
41WD524									18.90	
41RA48									7.90	
41WD74 41RR15	4.20								4.60	
41RR204	52.00								4.30	
41CP55	0.30		3.60						15.70	
41UR271									14.30	
41CE19, Village	1.10	1.80	0.10	24.00					26.90	
41CE19, Md. A 41CE19, Md. B	2.10 0.80			10.00 23.10					31.40 26.50	
. LULLO, IVIU. D	5.00			23.10					20.50	

Table 1. East Texas Caddo ceramic sherd database, cont.

Mary New Personne Mary						No. of		
1985 1985						decorated		
14986 170	Trinomial	DMFWengraved-brushed	DMFWred-slipped	DMFWtrailed	Other decorative method	sherds		
MATCHES 17.00 19								ca. A.D. 1400-1680
1941-1950 1941								
Marche								ca. A.D. 1400-1680
4481133				17.20				ca. A.D. 1300-1650
44181056 1.00								ca. A.D. 1430-1550
Manuface								
SUMBING								
STATE 1985								ca. A.D. 1430-1550
418915 48990000 48990000 48990000 48990000 489900000 48990000 48990000 48990000 489900000000000000000000000000000000000						322		ca. A.D. 1200-1550
4 14 14 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16								ca. A.D. 1200-1550
1417-170								
MISSES								ca. A.D. 1200-1300
SEA Permis 2008 C. A. D. 100-106 C. A. D. 1								ca. A.D. 1300-1400
SEA 1995 1	41CP408		4.70			128		ca. A.D. 1200-1400
STATE 1900 Pertula 2008 C. A. D. 100-105		0.10						ca. A.D. 1200-1400
Althorage 1,00 1,								
STATE STAT			0.10					
MANDATION MATERIAN			0.10					ca. A.D. 900-1300
41MA396	41NA338					283	Jackson et al. 2012	ca. A.D. 1720-1730
414-14930					1.4 [Grooved]			ca. A.D. 1680-1730
MESTION 0.30 0.8 Lip nothers 551 Pertuba and Neison 2003 Ca. A.D. 1193-106				0.70	0.2 [CCI]			
44.P595			0.30	20				ca. A.D. 1150-1400
1411449	41CP304		7.10			3952	Perttula 2005d	ca. A.D. 1430-1600
1411-70			0.70					ca. A.D. 1350-1650
41001								
41011								ca. A.D. 1430-1600 ca. A.D. 1400-1650
MEMORY M								
MISME			0.60	0.60				ca. A.D. 1400-1650
MISMB2								ca. A.D. 1400-1650
HEMMS								
MISSING 1.10			2.90					ca. A.D. 1400-1650
415M91								ca. A.D. 1400-1650
All File								ca. A.D. 1400-1650
MECHS 1.5.0 1.5								ca. A.D. 1400-1650
1400529								
MUNDS1			16.50					
1419175 20.00 0.6 Cord impressed						147		ca. A.D. 1430-1680
14885								ca. A.D. 1400-1650
148W5			20.00		0.6 [Cord impressed]			
1.1			2.80	3.20				
1415A83			2.00	3.20	1.1 [Lip notched]			
17 Lip notched 58 Duffield 1961 Ca. A. D. 1200-1400 18 18 18 19 19 10 10 10 10 10 10			0.60					ca. A.D. 1450-1600
AGG33								ca. A.D. 1700-1730
418W159 15.20 3.0 [Trailed-Incised] 99					1.7 [Lip notched]			
418W169 15.20 3.0 [Trailed-incised] 99 Sundermeyer et al. 2008 ca. A. D. 1500-148 (a. A								
418W715 418P0175 0.30 0.30 296 0iff and Pertula 2002 ca. A.D. 1200-145 41CP20 9,70 31 Hunt et al. 1996 ca. A.D. 1200-145 41KR19 104 McDonald 1972 ca. A.D. 1200-145 41KR39 104 McDonald 1972 ca. A.D. 1200-145 41KR39 190 Pertula and Walker 2008 ca. A.D. 1200-145 41KR39 190 Pertula and Walker 2008 ca. A.D. 1200-145 41KR39 190 Pertula and Walker 2008 ca. A.D. 1200-145 41KR19 193 Scurlock 1962 ca. A.D. 1200-145 41KR19 193 Scurlock 1962 ca. A.D. 1200-145 41HP1 193 Scurlock 1962 ca. A.D. 1200-145 41HP1 193 Scurlock 1962 ca. A.D. 1200-145 41HP1 193 Scurlock 1962 ca. A.D. 1500-186 41HP1 193 Scurlock 1962 ca. A.D. 1500-186 41HP1 193 Scurlock 1962 ca. A.D. 1500-186 41HP1 194 Scurlock 1962 ca. A.D. 1500-186 41HP1 195 Ca. A.D. 1500-186 41HP1 195 Ca. A.D. 1500-186 41HP1 197 Cadus et al. 1992 ca. A.D. 900-1200 41DT54 195 Ca. A.D. 1500-186 41DT54 195 Ca. A.D. 1500-186 41DT54 195 Ca. A.D. 1500-186 195 Ca. A.D. 1500-180 195 Ca. A				15.20	3.0 [Trailed-Incised]			ca. A.D. 1500-1680
ALCP 1970						19		ca. A.D. 1650-1680
41RK19 41RK39 41RK39 38.90 41SM54 41S								ca. A.D. 1200-1450
41RK30 41RK39 41RK30 41			9.70					
418M39 418M54 38.90 418M54 38.90 418M54 418M1 6.00 1.70 1.70 1.78 60gers et al. 2003 6.0. A.D. 1200-145 418M11 3.70 1.70 1.78 60gers et al. 2003 6.0. A.D. 1500-168 418M11 3.70 41071 410								
41MP1 6.20 1.70 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.78 6.20 1.70 1.70 1.70 6.20 1.70 1.70 6.20 1.70 1.70 6.20 1.70 1.70 1.70 6.20 1.70 1.70 6.20 1.70 1.70 6.20 1.70 1.70 6.20 1.70 1.70 6.20 1.70 1.70 6.20 1.70 1.70 6.20 1.70 1.70 6.20 1.70 1.70 6.20 1.70 6.20 1.70 6.20 1.70 6.20 1.70 6.20 1.70 6.20 6.20 6.20 6.20 6.20 6.20 6.20 6.2								ca. A.D. 1200-1450
AITT13			38.90			90		ca. A.D. 1200-1450
41DT11 41DT21 41DT54 25.00 41DT63 41WD473 5.60 41213 41WD482 41A40 41WD73 41A40 41A4								ca. A.D. 1550-1680
ADDT21				1.70				
41DT54 25.00 16 Gadus et al. 1992 ca. A.D. 900-1400 11DT64 25.00 8 8 Gadus et al. 1992 ca. A.D. 1200-1400 11DT63 25.00 8 8 Gadus et al. 1992 ca. A.D. 1200-1400 11DT64 25.00 12DT64 11DT64 11DT			5./U					
ADTES 25.00			25.00					
14 14 15 15 15 15 15 15	41DT63							ca. A.D. 1200-1400
AlW0495								ca. A.D. 900-1200
41WD538 7.50 40 Bruseth and Perttula 1981 ca. A.D. 1430-168 41WD450 5.50 68 Bruseth and Perttula 1981 ca. A.D. 1000-120 41WD503 5.50 181 Bruseth and Perttula 1981 ca. A.D. 1000-120 41WD109 3.30 2.0 [CCI] 306 Bruseth and Perttula 1981 ca. A.D. 1000-120 41WD109 3.30 2.0 [CCI] 306 Bruseth and Perttula 1981 ca. A.D. 1200-140 41UR136 247 Nelson and Perttula 1993 ca. A.D. 1200-140 41UR136 247 Nelson and Perttula 1993 ca. A.D. 1430-160 41HE139 5.00 40 Cliff et al. 2004 ca. A.D. 1430-160 41HE139 5.00 40 Cliff et al. 2004 ca. A.D. 1430-160 41HR139 5.00 60 Perttula et al. 2007 ca. A.D. 1450-165 41SM243 50 Perttula et al. 2007 ca. A.D. 1450-165 41SM243 50 Perttula 41. 2007 ca. A.D. 1450-165 41SM325 0.30 0.1 [Up notched] 693 Walters 2008 ca. A.D. 1200-140 41UT769 13.30 0.1 [Up notched] 693 Walters 2008 ca. A.D. 1200-140 41UT769 13.30 0.1 [Up notched] 693 Walters 2008 ca. A.D. 1300-143 41WD55 8.30 0.1 [Up notched] 693 Walters 2008 ca. A.D. 1300-143 41WD54 2.20 69 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 90 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 41WD54 2.20 60 Bruseth and Perttula 1980 ca. A.D. 1300-143 61 61 61 61 61 61 61 61 61 61 61 61 61								
41W0450 5.90 68 Bruseth and Perttula 1981 ca. A.D. 1000-120								
41WD503								ca. A.D. 1430-1680
41UR142 1.50 68 Nelson et al. 1996 ca. A.D. 1200-140 41UR136 247 Nelson and Perttula 1993 ca. A.D. 1300-150 41HE139 5.00 40 Cliffe et al. 2004 ca. A.D. 1000-140 41SMM24 50 Perttula et al. 2007 ca. A.D. 150-165 41SMM23 111 Walters 2006 ca. A.D. 1200-140 41RK4 681 Bruseth and Perttula 2006 ca. A.D. 1200-140 41SM325 0.30 0.1 [Lip notched] 693 Walters 2008 ca. A.D. 1200-140 41TT769 13.30 196 Perttula et al. 2010b ca. A.D. 1300-143 41W075 8.30 12 Bruseth and Perttula 1980 ca. A.D. 1300-143 41W0754 2.20 90 Bruseth and Perttula 1980 ca. A.D. 1300-143 41RA48 22.20 63 Bruseth and Perttula 1980 ca. A.D. 1000-120 41RW074 108 Bruseth and Perttula 1980 ca. A.D. 1000-120 41RR15 95.80 24 Reese 2001 ca. A.D. 1400-168 41RR204 2.00 2051 Kenmotsu 2005 ca. A.D. 1400-168 <	41WD503						Bruseth and Perttula 1981	ca. A.D. 1000-1200
41UR136					2.0 [CCI]			ca. A.D. 1200-1400
All HE139			1.50					
41AN38 41SM243 41SM243 41SM243 41SM243 41SM243 41SM243 41SM243 41SM25 41SM325 41SM325 41SM325 41SM325 41SM326 41SM326 41SM326 41SM327 41W075 41SM326 4			5,00					ca. A.D. 1430-1600
41SM243 41SM244 41SM245 41SM325 0.30 0.1 [Lip notched] 693 Walters 2008 ca. A.D. 1200-140 41TT/69 13.30 0.1 [Lip notched] 693 Walters 2008 ca. A.D. 1200-140 41TT/69 13.30 1.5 [Perttula et al. 2010b thickory Creek #2 140 Perttula et al. 2010b thickory Creek #2 140 Perttula 2011a 140 Perttula 19180 ca. A.D. 1300-143 14WD52 12 Bruseth and Perttula 1980 ca. A.D. 1300-143 14WD52 12 Bruseth and Perttula 1980 ca. A.D. 1300-143 14WD54 14RA5 15 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18			2.00					ca. A.D. 1450-1460
41SM325 0.30 0.1 [Up notched] 693 Walters 2008 ca. A.D. 1200-140 11T769 13.30 0.1 [Up notched] 693 Walters 2008 ca. A.D. 1200-140 11T769 13.30 13.30 14. [Up notched] 196 Pertfula et al. 2010b ca. A.D. 1430-160 140 Pertfula 9101a ca. A.D. 1300-143 14WD75 8.30 12 Bruseth and Pertfula 1980 ca. A.D. 1000-130 14WD524 2.20 90 Bruseth and Pertfula 1980 ca. A.D. 1000-130 14WD524 62.20 63 Bruseth and Pertfula 1980 ca. A.D. 1000-130 14WD74 188 Bruseth and Pertfula 1980 ca. A.D. 1000-130 14WD74 188 Bruseth and Pertfula 1980 ca. A.D. 1000-130 14WB75 95.80 24 Resea 2001 ca. A.D. 1000-130 14RR15 95.80 25 Kenmots 205 ca. A.D. 1000-130 14RR15 14RR204 2.00 251 Kenmots 205 ca. A.D. 1400-168 14RR204 32.00 251 Kenmots 205 ca. A.D. 1400-168 14UR571 210 Campbell 2001 ca. A.D. 1430-158 14UR571 220 Stokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 1.60 54 Stokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981 ca. A.D. 900-1300 14CE19, Wilage 2.00 55 Kokes and Woodring 1981								ca. A.D. 1200-1400
41TT69 13.30 196 Perttula et al. 2010b ca. A.D. 1430-160 Hilkdory Creek #2 140 Perttula 2011a ca. A.D. 1430-163 41WD75 8.30 12 Bruseth and Perttula 1980 ca. A.D. 1400-130 41WD74 2.20 90 Bruseth and Perttula 1980 ca. A.D. 1430-168 41WD74 108 Bruseth and Perttula 1980 ca. A.D. 1000-120 41RR15 95.80 24 Reese 2001 ca. A.D. 1400-168 41RR204 2.00 2051 Kenmotsu 2005 ca. A.D. 1400-168 41CP55 332 Perttula et al. 2014a ca. A.D. 1430-158 41CE19, Wilage 1.60 2220 Stokes and Woodring 1981 ca. A.D. 100-130 41CE19, Md. A 10654 Stokes and Woodring 1981 ca. A.D. 00-130			0.20		0.4 0.000000000000000000000000000000000			ca. A.D. 980-1250
Hickory Creek #2					0.1 [LIP notched]			
41WD75 8.30 12 Bruseth and Perttula 1980 ca. A.D. 1000-130 41WD524 2.20 90 Bruseth and Perttula 1980 ca. A.D. 1030-130 41RA48 22.20 63 Bruseth and Perttula 1980 ca. A.D. 1000-130 41WD74 108 Bruseth and Perttula 1980 ca. A.D. 1000-120 41RR15 95.80 24 Reese 2001 ca. A.D. 1400-168 41RR204 2.00 2051 Kenmotsu 2005 ca. A.D. 1400-168 41CP55 332 Perttula et al. 2014a ca. A.D. 1430-158 41UR271 21 Campbell 2001 ca. A.D. 1430-168 41CE19, Village 1.60 2220 Stokes and Woodring 1981 ca. A.D. 900-1300 41CE19, Will. A 10654 Stokes and Woodring 1981 ca. A.D. 900-1300			13.30					ca. A.D. 1430-1600 ca. A.D. 1300-1430
41WD524 2,20 90 Bruseth and Perttula 1980 ca. A.D. 1430-168 41RA48 22.20 63 Bruseth and Perttula 1980 ca. A.D. 1000-120 41WD74 108 Bruseth and Perttula 1980 ca. A.D. 1000-120 41RR15 95.80 24 Resez 2001 ca. A.D. 1400-168 41RR204 2.00 2051 Kenmotsu 2005 ca. A.D. 1400-168 41CP55 332 Perttula et al. 2014a ca. A.D. 1430-158 41UR271 21 Campbell 2001 ca. A.D. 1430-168 41CE19, Wilage 1.60 2220 Stokes and Woodring 1981 ca. A.D. 900-1300 41CE19, Md. A 10654 Stokes and Woodring 1981 ca. A.D. 900-1300			8.30					ca. A.D. 1000-1300
41WD74 108 Bruseth and Perttula 1980 ca. A.D. 1000-120 41RR15 95.80 24 Reese 2001 ca. A.D. 1400-168 41RR204 2.00 2051 Kenmotsu 2005 ca. A.D. 1400-168 41CP55 332 Perttula et al. 2014a ca. A.D. 1430-158 41CE19, Village 1.60 2220 Stokes and Woodring 1981 ca. A.D. 900-1300 41CE19, Md. A 10554 Stokes and Woodring 1981 ca. A.D. 900-1300	41WD524					90	Bruseth and Perttula 1980	ca. A.D. 1430-1680
41RR15 95.80 24 Reese 2001 ca. A.D. 1400-168 41RR204 2.00 2051 Kennots 2005 ca. A.D. 1400-168 41CP55 332 Perttula et al. 2014a ca. A.D. 1430-158 41UR271 21 Campbell 2001 ca. A.D. 1430-168 41CE19, Village 1.60 2220 Stokes and Woodring 1981 ca. A.D. 900-1300 41CE19, Md. A 10654 Stokes and Woodring 1981 ca. A.D. 900-1300			22.20					ca. A.D. 1000-1300
41RR204 2.00 2051 Kenmotsu 2005 ca. A.D. 1400-168 41CP55 332 Perttula et al. 2014a ca. A.D. 1430-155 41UR271 21 Campbell 2001 ca. A.D. 1430-168 41CE19, Village 1.60 2220 Stokes and Woodring 1981 ca. A.D. 900-1300 41CE19, Md. A 10654 Stokes and Woodring 1981 ca. A.D. 900-1300			05.00					ca. A.D. 1000-1200
41CP55 332 Perttula et al. 2014a ca. A.D. 1430-155 41UR271 21 Campbell 2001 ca. A.D. 1430-168 41CE19, village 1.60 2220 Stokes and Woodring 1981 ca. A.D. 900-1300 41CE19, Md. A 10654 Stokes and Woodring 1981 ca. A.D. 900-1300								
41UR271 21 Campbell 2001 ca. A.D. 1430-168 41CE19, Village 1.60 2220 Stokes and Woodring 1981 ca. A.D. 900-1300 41CE19, Md. A 10654 Stokes and Woodring 1981 ca. A.D. 900-1300								ca. A.D. 1430-1550
41CE19, Md. A Stokes and Woodring 1981 ca. A.D. 900-1300								ca. A.D. 1430-1680
			1.60					ca. A.D. 900-1300
	41CE19, Md. A 41CE19, Md. B					10654 256	Stokes and Woodring 1981 Stokes and Woodring 1981	ca. A.D. 900-1300 ca. A.D. 900-1300

Table 1. East Texas Caddo ceramic sherd database, cont.

Temper T					-															
Series	Trinomial	Tgrog	Tbone	Tshell	Tgrog-bone	Psandy	Freduced	Foxidized	Finc-oxidized	Fred-oxidize	d Rfdirect	Rfinverted	l Rfeverted	Lfrounde	d Lfflat	Lfrounded-folded	l Lfbeveled	Pred	Pwhite	DMUWappliqued
Column																				
March Marc	41AN8																			
Conting																				
Mathematical Math																				
Mathematical Math																			4.20	
Control Cont		82.70	4.30		12.70	0.60	18.20	12.90	11.50	53.50	63.40	2.90	10.10	53.40	33.00	10.40	3.20	1.90		0.30
Minima																				
Mary 1968 1968 1969				0.40			25.10	9.30	19.00	46.50										2.40
Minima	41NA27																			0.50
Maria Mari	41CP10																			4.30
March Marc	41DT80	78.80	0.90	5.90		14.40														2.80
March Marc				0.40	20.00															
HANDE STATE OF THE PROPERTY OF				16.00																11.80
HANCE COLVEY COL	411.020	74.40	1 10	0.20	22.70	0.00														
State Stat		74.40	1.10	0.30	23.70	0.00														
HAME HAME HAME HAME HAME HAME HAME HAME																				4.70
Section Sect																				1.70
March Marc																				
March Marc																	10.90			0.20
March Marc																				
Part		96 20	12 70																	0.40
March Marc		80.30	13.70															0.80	0.40	
March Marc	4411674	75.00	20.00			4.20														1.00
Mathematical Math				68.60	0.20															1.90
4 HATCH 1987 1998 1999 1999 1999 1999 1999 1999	41LR2	51.40	6.20	10.20		32.20														3.10
4 HATCH 1987 1998 1999 1999 1999 1999 1999 1999	41RR14	42.40	0.30	40.00	8.10	9.40	30.60	7.70	8.00	52.70										5.60
HATT HEAT OF THE PROPERTY OF T	41RR16			4.60	29.10															4.60
141111 100				100.00)															
14BH256	41RR11																			2.80
41HR2		39.70																		
HITMOOF MATERIAL STATE OF THE PROPERTY OF THE		61.90																		3.60
414H050 77.0 2.50 1.0 4.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1				1.80		6 70														2.30
HITMS 6410 100				0.10			24.20	10.10	15.40	40.30										0.30
41R186											30.00	10.00	60.00	89.50	10.50					
44CE19 41CE19 41			7.10		35.90		34.20	19.50	30.50	21.90										1.30
HINTER HINTER	41RR16			100.00)															
HINTER HINTER	41CE19																			0.10
4UMB12 4UMB12 4UMB13 4UMB13 4URM13 4URM14 4URM15 7790 8.20 4.10 2.09	41DT16	72.40	8.60	0.50	5.90															
41MR1																				
41MT65	41MR12																			0.70
41TH53		74.70	4.40		20.90		23.70	9.70	4.30	60.40	100.00			80.00	20.00					
41RK215 1000 1400	41TT653	77.90	8.20		4.10															2.40
414N2216 95.9			0.90		0.90	12.80														1.80
41MA236 41MA248 41MA24	41RK216					4.50														
41NA244 41NA265 41NA276 41NA277 41NA27																				1.00
41NA264 41NA274 41NA274 41NA276 41CP277 41CP277 41CP277 41CP377 41CP378 41NA283 41T1310 72.00 28.00 17	41NA244																			
41NA247 41NA247 41NA247 41NA247 41CP277 41CP277 41CP178 41CP377 41T1310 72.0 28.0 28.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3																				
410P257 41CP277 41CP27																				
4LCP272 4LTP370 4LTP37																				
41CP172 41CP173 41CP174 41CP175 41CP17																				
41TT310	41CP272																			
4HT510																				
41HS574 57.00 20.00 17.0		72.00					34.00	8.60	22.30	35.00								3.40		
4HS843				0.30		0.30														
4HR586 70.0 13.0 2.0 35.0 36.0 2.0 35.0 36.0 37.0 38.0 38.0 38.0 38.0 38.0 38.0 38.0 38				6.60																
4HF588	41HS844	63.00	11.00		25.00	0.00														1.60
41F1425 64.00 19.00 0.10 13.00 3.00 3.00 3.00 3.00 3.00				2.60		0.60														
41NA50 89.40 3.40 0.40 5.30 1.50 7.90 19.00 21.40 39.40 48.90 6.70 44.60 78.60 13.20 8.30 0.30 0.30 0.10 0.11 0.11 0.11 0.11 0	41FT425	64.00	19.00	0.10	13.00															
41T372 83.0 1.10 14.60 1.10 17.30 16.50 32.50 33.80 41CE354 100.0 41CE354 96.00 0.9 2.70 1.30 14.50 27.70 21.10 36.60 66.70 9.10 24.20 70.60 23.50 5.90 0.60 1.10 41R811 69.20 2.720 3.50 5.90 0.60 1.10 41R813 87.00 14							7,90	19.00	21,40	39.40	48.90	6.70	44.60						0.30	0.10
41CE354 96.00 0.90 2.70 1.30 14.50 27.70 21.10 36.00 66.70 9.10 24.20 70.60 23.50 5.90 0.60 1.10 41IR11 69.20 27.20 3.50 3.50 3.50 3.50 3.50 3.50 3.50 3.5	41TT372	83.20		210							. 3.30	2.70	. 1.00	. 5.00	_5.20	2.50				2.20
41LR11 69.2 7.20 3.50 14LR31 1.80 14LR31 1.80 14LR31 1.80 14LR31 97.60 2.50 48.40 37.50 14.10 0.20 9.90 14.00 9.90 14.00 5.10 7.70 2.60 15.40 20.50 12.80 51.30 14.10 0.20 9.90 14.0			0 00		2 70	1 20	14 50	27 70	21 10	36.60	66 70	9 10	24 20	70.60	23 20	5 00				1 10
41MX5 29.00 14.00 49.00 97.60 2.50 48.40 37.50 14.10 0.20 9.90 41H091 84.60 5.10 7.70 2.60 15.40 20.50 12.80 51.30 41CE461 41NA15 80.30 8.20 0.40 10.70 0.40 10.90 12.90 12.90 60.00 10.00 41H0263 72.90 6.30 18.80 2.10 2.00 14.00 6.00 78.00 14.00 6.00 78.00	41LR11		5.50				±4.JU	27.70	21.10	50.00	30.70	2.10	24.20	70.00	23.30	5.50			0.00	
41H091 84.60 5.10 7.70 2.60 15.40 20.50 12.80 51.30 41CE461 41NA15 80.30 8.20 0.40 10.70 0.40 10.90 12.90 12.90 60.00 41H0263 72.90 6.30 18.80 2.10 2.00 14.00 6.00 78.00		20.00	14.00			40.00					07.00		2.50	40.40	27.50	14.10		0.20		
41C461 41NA15 80.30 8.20 0.40 10.70 0.40 10.90 12.90 12.90 60.00 41H0263 72.90 6.30 18.80 2.10 2.00 14.00 6.00 78.00					7.70		15.40	20.50	12.80	51.30	97.60		2.50	48.40	37.50	14.10		0.20		9.90
41H0263 72.90 6.30 18.80 2.10 2.00 14.00 6.00 78.00	41CE461								12.00											4.00
				U.40																1.00
																				1.30

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	DMUWappliqued-brushed	DMUWappliqued-incised [DMUWappliqued-puncta	ted DMUWbrushed DI	MUWbrushed-incised	DMUWbrushed-punctated	DMUWbrushed-applique	ed DMUWincised DM	MUWincised-punctate
41AN1				11.80	4.40	16.20		10.30	
41AN2				2.40			2.40	17.10	2.40
41AN8				62.00	1.90	2.80		2.80	0.90
41AN23 41AN32				45.70 51.90		1.90		1.90	
41CE3				75.00	1.70	6.70		1.50	
41CE4				81.30		1.30			
41CE8						16.00		10.70	2.70
41AN38		0.04		35.60	1.80	1.70	0.10	18.60	5.60
41LR170 41LR186								45.50 33.30	11.10
11LR187				2.40				4.90	2.40
41NA27				89.60	0.60			1.30	0.20
41CP10				15.90				23.40	
11DT80 11DT124		1.40						16.90 50.00	17.90
41RR48								69.60	4.30
11LR60								63.10	
11LR39								46.40	5.50
11RK19			0.20	44.90	0.10	0.20	0.50	15.90	
11RK21 11RK32				79.20 8.30				3.00 21.70	1.70
11RK36				61.50				11.50	1.70
1RK39				58.80				16.50	3.10
1RK214	1.10	0.10	0.03	13.90	0.40	4.80		19.40	9.50
11GG33								66.40	14.40
11GG33				85.90	13.90	2.50	9.20		
11SY92 11AN51			0.10	37.60 1.90	0.30			19.70 29.80	9.60 6.00
ICP71		0.70	0.10	44.40	4.50	2.70	0.50	13.90	1.40
		5.70			-1.50	2.70	5.50	13.30	1.40
41HS74				27.40		0.10	0.10	19.40	7.80
41BW5		0.20		2.40				41.20	
11LR2								36.30	
110014				0.30				7.00	
41RR14 41RR16				0.30				7.90 44.30	6.40
11RR16						0.10		5.30	4.40
1RR11		0.70	1.50					21.60	8.90
11RR11				8.30				13.90	
11RR236								5.20	
11RR248			1.30					0.60	4.50
41RR290 41BW3				1.00	0.30		0.30	20.00 13.30	2.30
41TT672				27.40	1.60		0.30	32.20	3.20
41NA49				51.60	3.80	2.40		12.60	3.80
41HO50				69.40			1.20	14.10	3.50
41TT653				25.00		1.90		28.80	3.80
41RR16								39.60	1.30
41RR16				0.70				2.70	1.20
41CE19				1.60				43.70	5.80
41DT16								41.20	
41MR2				5.40		11.70	6.40	15.80	
41UR11		0.50		50.80		4.80	6.20	12.80	3.00
41MR12		0.40	0.20	48.80		4.50	4.50	7.40	0.50
41MR1 41UR30		0.40	0.30	70.00		4.50	1.50	8.80 35.30	0.60 3.30
41TT653		1.10	0.40	42.60	2.40	0.80	0.20	15.80	3.90
41RK214				22.70	4.40			28.10	2.60
41RK215					4.20			33.30	
11RK216				16.70	3.30	7.00		36.70	6.70
41NA235 41NA236		0.70		36.40 67.10	9.70 3.40	7.20 3.40	1.00 1.40	19.50 19.10	2.10 2.10
41NA236 41NA244		0.70		5.90					2.10
11NA248						1,50	1.50	17,60	7,40
11NA264				14.40	4.40 2.40	1.50	1.50	17.60 30.10	7.40 4.80
						1.50 2.10	1.50		4.80
1NA285				14.40 74.50 9.80	2.40 4.30 1.60	2.10 0.80	1.50	30.10 4.30 29.40	
11NA285 11NA243				14.40 74.50 9.80 65.90	2.40 4.30 1.60 4.50	2.10 0.80 9.10	1.50	30.10 4.30 29.40 9.10	4.80 7.40
11NA285 11NA243 11NA247				14.40 74.50 9.80 65.90 16.20	2.40 4.30 1.60	2.10 0.80	1.50	30.10 4.30 29.40 9.10 24.30	4.80
11NA285 11NA243 11NA247 11CP257				14.40 74.50 9.80 65.90 16.20 27.10	2.40 4.30 1.60 4.50	2.10 0.80 9.10 2.70	1.50	30.10 4.30 29.40 9.10 24.30 1.20	4.80 7.40 21.60
#1NA285 #1NA243 #1NA247 #1CP257 #1CP272				14.40 74.50 9.80 65.90 16.20	2.40 4.30 1.60 4.50	2.10 0.80 9.10	1.50	30.10 4.30 29.40 9.10 24.30	4.80 7.40
11NA285 11NA243 11NA247 11CP257 11CP272 11FK107 11TT804				14.40 74.50 9.80 65.90 16.20 27.10 37.00	2.40 4.30 1.60 4.50	2.10 0.80 9.10 2.70	1.50	30.10 4.30 29.40 9.10 24.30 1.20 14.10	4.80 7.40 21.60 4.30
11NA285 11NA243 11NA247 11CP257 11CP272 11FK107 11TT804				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90	2.40 4.30 1.60 4.50 5.40	2.10 0.80 9.10 2.70	1.50	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10	4.80 7.40 21.60 4.30 3.20 3.40
11NA285 11NA243 11NA247 11CP257 41CP272 11FK107 11TT804 11TT310 11HS573				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80	2.40 4.30 1.60 4.50 5.40	2.10 0.80 9.10 2.70	1.50	30.10 4.30 29,40 9.10 24,30 1.20 14,10 13.40 13.60 24,10 4.70	4.80 7.40 21.60 4.30 3.20 3.40 0.70
11NA285 11NA243 11NA247 11CP257 11CP272 11FK107 11TT804 11TT310 11H5573 11H5574				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20	2.40 4.30 1.60 4.50 5.40	2.10 0.80 9.10 2.70	1.50	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 24.10 4.70 5.20	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40
11NA285 11NA243 11NA247 11CP257 11CP272 11FK107 11TT804 11TT310 11HS573 11HS573 11HS574				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90	2.40 4.30 1.60 4.50 5.40	2.10 0.80 9.10 2.70	1.50	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.60 24.10 4.70 5.20 17.10	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50
11NA285 11NA243 11NA247 11CP257 11CP272 11FK107 11TT804 11TT310 11HS573 11HS574 11HS843 11HS844				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20	2.40 4.30 1.60 4.50 5.40	2.10 0.80 9.10 2.70	1.50	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.60 24.10 4.70 5.20 17.10 22.30	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80
11NA285 11NA247 11NA247 11CP257 11CP272 11FK107 11TT804 11TT310 11H5573 11H5574 11H5843 11H5844 11H5844		0.10		14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90	2.40 4.30 1.60 4.50 5.40	2.10 0.80 9.10 2.70	1.50	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.60 24.10 4.70 5.20 17.10	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50
11NA285 11NA243 11NA247 11CP257 11CP272 11FK107 11TT804 11TT310 11HS573 11HS574 11HS843 11HS844 11HS846 11HS846 11HS886		0.10		14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60	2.40 4.30 1.60 4.50 5.40	2.10 0.80 9.10 2.70 3.30		30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 23.80 9.80 30.30	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80
11NA285 11NA243 11NA247 11CP257 11CP257 11CP272 11FK107 11TT300 11H5573 11H5584 11H5843 11H5846 11H5588 11H5886 11H5588				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70	2.40 4.30 1.60 4.50 5.40 4.50 3.40	2.10 0.80 9.10 2.70 3.30	1.50	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 23.80 9.80 30.30 42.90	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10
1111A285 111NA243 111NA247 11CP257 11CP257 11CP272 11FK107 11TT300 11H5573 11H5574 11H5843 11H5844 11H5846 11H5886 11H5888 11F425 11DT11		0.10		14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70	2.40 4.30 1.60 4.50 5.40 4.50 3.40	2.10 0.80 9.10 2.70 3.30		30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 23.80 30.30 42.90 5.20	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10 0.30
11NA285 11NA243 11NA247 11CP257 11CP257 11CP272 11FK107 11TT804 11TT810 11H5573 11H5843 11H5844 11H5846 11H5846 11H5888 11H5846 11H5888 11H5846 11H5888 11H5846 11H5888			0.70	14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70	2.40 4.30 1.60 4.50 5.40 4.50 3.40 0.50 2.10 4.40	2.10 0.80 9.10 2.70 3.30	1.50	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 9.80 30.30 42.90 5.20 34.70	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10
11NA285 11NA243 11NA247 11CP257 11CP257 11CF217 11TT810 11TT810 11H5573 11H5574 11H5574 11H5584 11H5846 11H5588 11F425 11H5588			0.70	14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70 72.30 19.20 71.10	2.40 4.30 1.60 4.50 5.40 4.50 3.40 0.50 2.10 4.40 1.30	2.10 0.80 9.10 2.70 3.30	1.50 0.30	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 23.80 9.80 30.30 42.90 5.20 34.70 7.90	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10 0.30
11NA285 11NA247 11NA247 11CP257 11CP257 11CP272 11FK107 11T1804 11T1510 11H1S573 11HSS73 11HSS84 11HS846 11HS846 11HS846 11HS888 11HT5888 11HT5425 11DT11 11NA60 11TT372			0.70	14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70	2.40 4.30 1.60 4.50 5.40 4.50 3.40 0.50 2.10 4.40	2.10 0.80 9.10 2.70 3.30	1.50	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 23.80 9.80 30.30 42.90 5.20 34.70 7.90 3.80	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10 0.30
IINA285 IINA243 IIINA247 IINA247 IICP257 IICP257 IICF257 IITT804 IITT810 IIHTS573 IIHSS843 IIHSS844 IIHSS845 IIHSS885 IIHSS881 IITF425 IICF11 IINA60 IITT737 IICF354 IICF354			0.70	14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70 72.30 19.20 71.10	2.40 4.30 1.60 4.50 5.40 4.50 3.40 0.50 2.10 4.40 1.30	2.10 0.80 9.10 2.70 3.30	1.50 0.30	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 9.80 30.30 42.90 5.20 34.70 7.90 3.80 31.60	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10 0.30
IINA285 IINA243 IINA243 IINA247 IICP257 IICP257 IICF272 IIFK107 IITT8104 IITT810 IIHS573 IIHS574 IIHS584 IIHS584 IIHS584 IIHS588 IIFT425 IIIT11 IINA60 IITT372 IICE354 IICE354 IICE354			0.70	14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70 72.30 19.20 71.10	2.40 4.30 1.60 4.50 5.40 4.50 3.40 0.50 2.10 4.40 1.30	2.10 0.80 9.10 2.70 3.30	1.50 0.30	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 23.80 9.80 30.30 42.90 5.20 34.70 7.90 3.80	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10 0.30
IINA285 IINA243 IINA243 IINA247 IICP257 IICP257 IICP257 IITF804 IITT810 IIHT8574 IIHS843 IIHS843 IIHS844 IIHS884 IIHS888 IITT425 IICP357 IITF806 IITF8				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70 72.30 19.20 71.10 73.60	2.40 4.30 1.60 4.50 5.40 4.50 3.40 0.50 2.10 4.40 1.30 5.50	2.10 0.80 9.10 2.70 3.30	1.50 0.30	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 23.80 9.80 30.30 42.90 5.20 34.70 7.90 3.80 24.60 34.30 7.70	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10 0.30 0.30
11NA285 11NA247 11NA247 11NA247 11CP257 11CP257 11CP257 11FK107 11T1804 11T1310 11H15573 11H5574 11H5846 11H5846 11H5846 11H5846 11H5888 11H5888 11H5898 11T7425 11DT11 11NA60 11TT372 11CE354 11CE356 11CE356 11CE366				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70 72.30 19.20 71.10 73.60	2.40 4.30 1.60 4.50 5.40 4.50 3.40 0.50 2.10 4.40 1.30 5.50	2.10 0.80 9.10 2.70 3.30 2.80 0.90 0.70 1.30 2.90	1.50 0.30 0.40 2.60	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 9.80 30.30 42.90 5.20 34.70 7.90 3.80 31.60 24.60 34.30 7.70 2.00	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10 0.30 0.30
IINA285 IINA243 IINA247 IINA247 IINA247 IICP257 IICP257 IICP257 IITF804 IITT810 IIHT8574 IIHS843 IIHS844 IIHS843 IIHS844 IIHS845 IIHS888 IITF125 IICF11 IINA60 IICF2554 IICF2554 IICF2554 IICF2554 IICF2554 IICF211 IILR11				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70 72.30 19.20 71.10 73.60 3.30 66.70 83.70 83.70 76.30	2.40 4.30 1.60 4.50 5.40 4.50 3.40 0.50 2.10 4.40 1.30 5.50	2.10 0.80 9.10 2.70 3.30	1.50 0.30 0.40	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 9.80 30.30 42.90 5.20 34.70 7.90 3.80 31.60 24.60 34.30 7.70 2.00 6.00	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10 0.30 0.30
IINA285 IINA243 IINA243 IINA243 IINA247 IICP257 IICP257 IICP272 IIFK107 IITT804 IITT810 IIHTS573 IIHSS84 IIHSS84 IIHSS84 IIHSS88 IIHT825 IIHSS88 IITT425 IICT11 IITT11 IIT				14.40 74.50 9.80 65.90 16.20 27.10 37.00 1.90 41.40 65.80 36.20 43.90 37.20 25.60 63.10 2.70 72.30 19.20 71.10 73.60	2.40 4.30 1.60 4.50 5.40 4.50 3.40 0.50 2.10 4.40 1.30 5.50	2.10 0.80 9.10 2.70 3.30 2.80 0.90 0.70 1.30 2.90	1.50 0.30 0.40 2.60	30.10 4.30 29.40 9.10 24.30 1.20 14.10 13.40 13.60 24.10 4.70 5.20 17.10 22.30 9.80 30.30 42.90 5.20 34.70 7.90 3.80 31.60 24.60 34.30 7.70 2.00	4.80 7.40 21.60 4.30 3.20 3.40 0.70 2.40 4.50 0.80 10.70 4.60 4.80 7.10 0.30 0.30

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	DMUWneck banded	DMUWpinched	DMUWtool punctated	DMUWfingernail punctate	d DMUWcircular punctate	d DMUWcane punctate	d DMUWridged	DMFengpunct	t. DMFWengraved	DMFWengraved-appliqued
41AN1	8.80	2.90	7.30						38.30	
41AN2	17.10		7.30	7.30					39.00	
41AN8	0.90	0.90		1.90					25.90	
41AN23		2.90	4.00						51.40	
41AN32 41CE3		6.70	1.90						42.30 10.00	
41CE4	2.70	0.70							18.70	
41CE8	18.70	4.00	2.70						45.30	
41AN38	0.10	0.40	10.40	0.50		0.20		0.40	20.70	
41LR170				9.10		18.20			27.30	
41LR186 41LR187		11.10	9.80	11.10 22.00					33.30 29.30	
41NA27	0.03	0.01	0.60	0.80					6.00	
41CP10	0.03	0.01	0.00	0.00					35.20	
41DT80	8.50			47.90				2.80	12.70	
41DT124	8.30		5.40	8.90	5.40			3.60	7.10	
41RR48			4.30		4.30				4.30	
41LR60			7.80	2.00					2.00	
41LR39		2.60	13.20	0.90				0.40	14.00	
41RK19	0.30	0.10	26.70	3.50					7.20	
41RK21		0.70	8.90	0.70					6.70	
41RK32	1.70		23.30	3.30					3.30	
41RK36 41RK39			19.20 10.30						7.70 11.30	
41RK214		0.60	7.50	22.50	0.30	1.80			11.30	
41GG33		2.90	7.20	2.00					6.40	
41GG33			1.30						2.50	
41SY92		1.00	20.00	0.00	2.20	0.10			19.50	
41AN51 41CP71	0.50	1.90	20.80 3.40	8.60	2.30	0.10		0.70	16.30 18.70	
-101/1	0.30		J.#U					0.70	10.70	
41HS74				4.30					22.80	
41BW5			2.20	0.20					52.80	
41LR2	16.50			10.00					24.40	
41RR14	0.80								51.60	
41RR16									13.20	
41RR16	35.30								21.70	
41RR11	2.22								31.30	
41RR11 41RR236	8.30			13.80					25.00 10.30	
41RR248	79.60			13.00					5.70	
41RR290									20.00	
41BW3			2.00	0.30	1.00			1.00	43.00	
41TT672		0.50	16.10	4.80				0.40	14.50	
41NA49 41HO50		0.60		1.20				0.10	13.40 7.10	
41TT653							1.90		17.30	
41RR16									0.60	
41RR16	23.60								29.80	
41CE19	0.40	0.40	0.40	3.70			0.30		10.00	
41DT16				11.80			5.90		29.40	
41MR2	0.60		5.40			1.60		0.10	37.90	0.10
41UR11 41MR12		2.40	1.00	0.80				0.20	9.10 32.80	
41MR1	0.10						1.50		7.40	
41UR30		2.00	9.20	8.50	2.00				34.70	
41TT653	0.90		9.40	1.00	0.20	0.10			4.70	0.10
41RK214			15.70	14.90					9.60	
41RK215 41RK216			16.70 13.30	16.70	10.00			6.70	29.20 6.70	
41NA235	0.50		8.70	1.00		1.00			10.80	
41NA236		0.70	1.40	0.70						
41NA244			7.40	13.20		3.00			23.50	
41NA248 41NA264			4.80 2.10	4.80 4.30	2.10				26.50 6.40	
41NA285		1.60	8.20	7.40	2.10				32.80	
41NA243						2.30			6.80	
41NA247			8.10	5.40					16.20	
41CP257	1.20		13.00	13.00		1.10			23.50 15.20	
41CP272 41FK107	2.20		6.50 7.00	4.40 54.10		1.10 3.80			15.20 11.40	
41TT804			4.50	45.40		3.00			18.20	
41TT310			3.40	17.20					6.90	
41HS573			2.90	1.80			1.10		12.30	
41HS574 41HS843		3.30	23.90	1.40					21.00 29.30	
41HS844		0.80	5.00	10.70					20.70	
41HS846	0.60	0.60	8.30	6.00					19.10	
41HS588		0.80	5.80	1.40			0.40		9.70	
41FT425		1.60	8.10	27.00					29.70	
41DT11 41NA60	0.10	0.60	1.30 1.50	4.60 0.10	0.10				35.70 12.70	
41TT372	0.10		8.10	8.80	0.10				23.20	
41CE354	1.30								14.50	
41CE354	0.20		0.60						11.60	
41LR11			5.30	26.30					26.30	
41LR31 41MX5	15.60		1.20	8.80 3.10					14.00 19.10	
41MX5 41H091	15.00	2.60	5.10	5.10					15.40	
41CE461					2.00				10.20	
41NA15		0.20	1.90					0.10	11.40	
41HO263	3.60		9.10	3.60	1.90				7.30	
41NA321			5.80		0.60				13.00	

Table 1. East Texas Caddo ceramic sherd database, cont.

					No. of		
Trinomial	DMEWongraved brushed	DMEM/rod clipped DMEM/tr	ailad	Other deserative method	decorated sherds	Reference	Estimated age
Irinomiai	Divirwengraved-brusned	DMFWred-slipped DMFWtr	alled	Other decorative method	sneras	Keterence	Estimated age
41AN1					68	Perttula et al. 2011b	ca. A.D. 1400-1650
41AN2	4.90				41	Perttula et al. 2011b	ca. A.D. 1400-1650
41AN8					108	Perttula et al. 2011b	ca. A.D. 1400-1720
41AN23 41AN32					35 52	Perttula et al. 2011b Perttula et al. 2011b	ca. A.D. 1400-1650 ca. A.D. 1400-1650
41CE3					60	Perttula et al. 2011b	ca. A.D. 1400-1650
41CE4					75	Perttula et al. 2011b	ca. A.D. 1400-1650
41CE8					75	Perttula et al. 2011b	ca. A.D. 1400-1650
41AN38	0.10	0.70		0.04 [Lip notched]	2572	Perttula et al. 2011b	ca. A.D. 1400-1480
41LR170					11	Mahoney 2001	ca. A.D. 1000-1200
41LR186		25.00			9	Mahoney 2001	ca. A.D. 1000-1200
41LR187 41NA27	Trace	26.80		0.3 [Grooved]	41 22619	Mahoney 2001 Fields 1995	ca. A.D. 1200-1400 ca. A.D. 1680-1750
41CP10	11000			0.5 [0.004cu]	970	Turner and Smith 2002	ca. A.D. 1200-1430
							ca. A.D. 1000-1200,
41DT80		4.20		2.8 [Painted]	71	McGregor et al. 1996	A.D. 1500+
41DT124		1.80			56	McGregor et al. 1996	ca. A.D. 1000-1200
41RR48 41LR60		13.00 13.70			23 51	Mallouf 1976 Mallouf 1976	ca. A.D. 1000-1200 ca. A.D. 1200-1400
41LKOU		13.70		1.7 [Lip notched]; 0.4	21	Malioui 1976	Ca. A.D. 1200-1400
41LR39		14.90		[Grooved]	235	Mallouf 1976	ca. A.D. 1000-1200
41RK19		0.50		0.1 [Stamped]	1864	Clark and Ivey 1974	ca. A.D. 1200-1400
41RK21		0.70			135	Clark and Ivey 1974	ca. A.D. 1400-1500
41RK32		1.70			60	Clark and Ivey 1974	ca. A.D. 1200-1400
41RK36 41RK39					26 97	Clark and Ivey 1974	Ca. A.D. 1680-1730
41RK214		0.80	0.03	0.03 [Lip notched]	3847	Clark and Ivey 1974 Rogers and Perttula 2004	ca. A.D. 1200-1400 ca. A.D. 1200-1450
41GG33		0.00	0.03	0.6 [Lip notched]	343	Perttula 2011b	ca. A.D. 900-1200
41GG33					79	Perttula 2011b	ca. A.D. 1500-1680
41SY92					1862	Middlebrook 1994	ca. A.D. 1200-1400
41AN51		11.30			688	Perttula et al. 2012d	ca. A.D. 1200-1400
41CP71		6.20	0.50		418	Perttula and Nelson 2004a	ca. A.D. 1430-1680
41HS74				0.03 [Lip notched]	2912	Heartfield, Price and Greene 1988	ca. A.D. 1200-1450
41BW5		0.50		0.03 [Lip Hotcheu]	417	Gilmore 1986	ca. A.D. 1700-1760
41LR2		10.00			455	Krieger 2000	ca. A.D. 1100-1400
							ca. A.D. 1100-1300,
41RR14		25.40			126	Prikryl 2008	1500-1700
41RR16		17.40			219	Perttula 2008c	ca. A.D. 1100-1300
41RR16 41RR11		6.10 18.70	1.40	0.3 [Lip notched]	1094 134	Perttula 2008c Perttula 2008d	ca. A.D. 1400-1680 ca. A.D. 1100-1300
41RR11 41RR11		30.60			36	Perttula 2008d	ca. A.D. 1100-1300
41RR236		58.60			58	Perttula 2008d	ca. A.D. 1300-1500
41RR248		4.50			157	Perttula 2008d	ca. A.D. 1400-1600
41RR290			10.00		10	Perttula 2008d	ca. A.D. 1300-1500
41BW3		2.30	30.80		302	Perttula and Nelson 2003b	ca. A.D. 1100-1600
41TT672 41NA49			1.40		62 3431	Dixon et al. 1995 Hart 1982	ca. A.D. 1430-1600 ca. A.D. 1200-1450
41HO50			1.40	1.2 [fabric impressed]	85	Jurney 2000	ca. A.D. 1400-1450
41TT653		3.80		()	52	Galan et al. 1997	ca. A.D. 1430-1680
41RR16		44.20			154	Skinner et al. 1969	ca. A.D. 1000-1300
41RR16		42.80	0.60		503	Skinner et al. 1969	ca. A.D. 1300-1680
44.0540		0.50		0.4 (4254	C 4070	4.0.000.4300
41CE19 41DT16		0.60 5.90		0.1 [painted] 0.1 [grooved]	1354 17	Creel 1979 Jurney et al. 1993	ca. A.D. 900-1300 ca. A.D. 1000-1200
41MR2		7.80			2148	Davis et al. 2010	ca. A.D. 1430-1680
41UR11		3.50	1.40		858	Davis et al. 2010	ca. A.D. 1430-1680
41MR12		7.80	0.60	1.4 [stamped]	727	Davis et al. 2010	ca. A.D. 1430-1680
41MR1				0.7 [account /6]to d]	2216	Davis et al. 2010	ca. A.D. 1430-1680 ca. A.D. 900-1200
41UR30 41TT653		4.60		0.7 [grooved/fluted]	153 1641	Perttula 2011c Perttula and Sherman 2009	ca. A.D. 1430-1680
41RK214		4.00			114	Rogers et al. 1994	ca. A.D. 1200-1450
41RK215					24	Rogers et al. 1994	ca. A.D. 1200-1450
41RK216					30	Rogers et al. 1994	ca. A.D. 1200-1450
41NA235		1.00			195	Perttula 2002b	ca. A.D. 1400-1650
41NA236 41NA244					146 68	Perttula 2002b Perttula 2002b	ca. A.D. 1400-1650 ca. A.D. 1200-1400
41NA244 41NA248					83	Perttula 2002b Perttula 2002b	ca. A.D. 1200-1400 ca. A.D. 1200-1400
41NA264					47	Perttula 2002b	ca. A.D. 1400-1650
41NA285				0.8 [Lip notched]	122	Perttula 2002b	ca. A.D. 900-1300
41NA243	2.30				44	Perttula 2002b	ca. A.D. 1400-1650
41NA247		16.00			37	Perttula 2002b	ca. A.D. 1200-1400
41CP257 41CP272		16.00 10.90			81 92	Nelson and Perttula 2003b Nelson and Perttula 2003b	ca. A.D. 1430-1680 ca. A.D. 1430-1550
41FK107		0.60			157	Nelson and Perttula 2003b	ca. A.D. 1000-1200
41TT804		4.50			22	Nelson and Perttula 2003b	ca. A.D. 1200-1400
41TT310					29	Perttula and Nelson 2002b	ca. A.D. 1430-1680
41HS573					277	Gadus et al. 2006	ca. A.D. 1430-1680
41HS574 41HS843		2.40			210	Gadus et al. 2006 Gadus et al. 2006	ca. A.D. 1200-1450 ca. A.D. 1430-1680
41HS844 41HS844		2.40 0.80			41 121	Gadus et al. 2006 Gadus et al. 2006	ca. A.D. 1430-1680 ca. A.D. 1430-1680
41HS846		2.40			168	Gadus et al. 2006	ca. A.D. 1200-1430
41HS588			0.10		780	Dockall et al. 2008	ca. A.D. 1300-1640
41FT425					185	Gadus et al. 2002	ca. A.D. 1250-1400
41DT11		7.80			154	Fields et al. 1994b	ca. A.D. 900-1300
41NA60 41TT372	0.90		0.10	2.4 [grooved]	2132 297	Perttula et al. 2010c Barnhardt et al. 1997	ca. A.D. 1680-1730 ca. A.D. 1200-1430
4111372 41CE354					76	Perttula and Nelson 2007a	Ca. A.D. 1200-1430 Ca. A.D. 1680-1730
41CE354		0.20			474	Perttula and Nelson 2007a	Ca. A.D. 1680-1730
41LR11		10.50			19	Lorrain and Hoffrichter 1968	ca. A.D. 1000-1200
41LR31		50.90			57	Lorrain and Hoffrichter 1968	ca. A.D. 1200-1400
41MX5		2.10	2.50		514	Brewington et al. 1995	ca. A.D. 1400-1480
41HO91			2.00		39	Perttula and Nelson 2007b	Ca. A.D. 1680-1730
41CE461 41NA15	0.10		2.00	0.4 [grooved]	49 1120	Perttula and Nelson 2009 Walker and Perttula 2011	Ca. A.D. 1680-1730 Ca. A.D. 1680-1730
41HO263	0.10			ibiooveuj	55	Perttula et al. 2011c	Ca. A.D. 1680-1730
41NA321		0.60		1.3 [grooved]	154	Perttula et al. 2011c	Ca. A.D. 1680-1730

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial		Thone						Finc-oxidized		d Rfdirect	Rfinverted	I Rfeverted	Lfrounde	d Lfflat	Lfrounded-folded	Lfbeveled	Pred	Pwhite	DMUWappliqued
41NA336	92.40	1.50		4.50	1.50	21.50	12.30	9.20	56.90										0.10
41CS14	89.90	1.20		7.00	1.90	24.50	0.70	40.00	40.00	400.00			24.50	co 40					7.00
41SM273, Block I 41SM273, Bl. III	61.80 70.20	12.40 14.90		19.10 11.30	6.80 3.60	21.50 22.00	9.70 14.60	19.90 17.40	49.00 45.90	100.00 94.40	5.60		31.60 57.80	68.40 35.50	4.40	2.20	0.90		0.30
41SM273, Bl. II	68.70	13.70		13.70	3.90	19.30	12.50	24.80	43.40	96.60	3.40		37.90	55.20	6.90				
41TT396 41TT400	81.90 72.40	4.30		14.10 14.30	4.00 9.00														1.00
41DT6	53.40	5.40	2.10	38.60	5.00					20.00	400	40.00	47.60	38.10	9.50				1.00
41DT16	58.40	12.70	1.20	25.00		6.00	40.40	47.00	57.00	28.60	21.40	50.00	52.40	23.80					0.00
41TT769 41TT13	26.30		1.30	72.50		6.80	18.40	17.80	57.00								11.50		8.80
41BW600	98.50	1.50															6.70		20.00
41HO211 41HO214	77.40 74.00	11.80 12.30		9.70 11.50	3.20 2.20	14.10 20.70	13.00 7.70	12.00 13.50	54.30 56.30										0.60
41SM272	97.10			2.90															
41CP314 41CP317																			3.00 2.30
41CP304	95.00			5.00		5.00	26.00	9.00	60.00										0.90
41CP315	89.00	0.00		10.00	1.00														
41SM272 41SM273	76.00	8.00		12.00															1.20
41SY100	52.20	2.00			45.80														
16SA101 16SA17	40.10 39.00	5.80 12.90			54.00 48.10														0.70
16SA204	76.20	12.50	0.40	23.50	-10.20														1.10
16SA62																			0.30
16SA30B 16SA37B																			1.00 0.30
16SA37A																			8.00
16SA30A 41TT110																			0.60
41UR1																			3.50
41UR3 41UR13																			2.00
41UR14																			
41UR18																			0.70
41WD16 41CP8																			1.90
41CP14																			1.00
41FK4 41MX6																			20.70
41MX8																			3.90
41TT4 41TT6																			3.10 4.30
41TT17																			0.80
41TT28																			1.50
41TT52 41CP15																			2.60
41HS1																			16.70
41HS10 41HS11																			0.90
41MR6																			
41MR13 41MR31																			7.30
41MX22																			14.30
41TT18																			7.00
41TT151 41UR15																			3.40
41CP3			1.30																
41CP71 41CP55	97.80	2.20																	1.10 6.20
1101 33	37.00	2.20																	0.20
41LR2 41GG5	85.50 91.80	8.60 8.20	5.90																5.60
41GG50	89.40	10.60																	
41BW3, VP 1	85.70	1.40	2.40	10.00		19.20	15.10	15.50	46.40										11.80
41BW4 41RK19	97.20 88.70	2.80 11.30															0.40	3.70	6.00 0.50
																	0.70		
41BW2 41TT12	84.90 76.40	9.40 23.60	5.70							72.90	7.40	19.70	77.70	1.60	20.70			1.50	6.40 2.00
41TT11	72.70	27.30															1.40		0.60
41NA317	78.00	4.20		16.40	1.40	2.80	8.30 16.70	20.80	68.00										0.60
41CE299 41SM404	79.90 92.00	4.20 8.00		9.20	6.80	27.20 9.30	16.70 15.80	10.30 16.30	46.00 58.60	93.10	4.30	2.60	74.10	16.40	6.00	0.90	0.90		0.60
41RK240	72.10			16.50	12.60												1.10		
41RK242 41RK243	76.80 74.60	0.70		14.70 10.40	7.70 13.60					88.00		12.00	79.00	21.00					
41UR106				_5.40						-5.00			. 5.00						0.80
41UR106B																			0.90
41UR109 41UR118																			0.90
41UR129																			
41UR133, Saddle 41LR297	62.50	14.80		21.60		23.50	12.30	8.00	56.20										1.90
41SY323	11.90	69.50		18.60		13.60	5.10	15.30	64.40										1.10
41RK557	42.90	31.80		24.30	1.10														
41HS269 41PN175	31.70	53.70		14.00	0.50	18.20	10.90	9.00	61.90	85.80	1.10	12.90	86.00	5.20	8.70				0.10
41HS12	58.10	8.70		31.70	1.50	14.70	8.10	18.50	52.40	91.70	8.30		74.50	23.00	2.50				
41CP408 41AN21	40.60 94.30	4.40 0.80	0.20 4.10	54.20	0.50	25.20 12.70	13.40 30.90	19.90 40.00	41.10 16.40	92.20 37.50	18.80	7.80 43.80	66.30 83.30	15.70 16.70	16.80	1.10			1.90
41CE39	94.60	0.00	10	4.30	1.10	11.40	22.90	14.90	50.90	37.30	10.00	-3.00	03.30	10.70					1.60
41NA321	0E 70	1.00		12.70		12.70	17.00	24.40	44.40										
41CE20 41CE48	85.70 69.90	1.60 9.70		12.70 19.70	0.80	13.70 15.20	17.60 18.50	24.40 9.80	44.40 56.50	50.00	16.70	33.30	88.90		11.10			0.50	
41CE293	93.60	1.10		4.50	0.70	10.60	18.90	15.60	54.70	44.40	5.60	50.00	76.90	7.70	15.40				

Table 1. East Texas Caddo ceramic sherd database, cont.

inomial	DMUWappliqued-brushed I	DMUWappliqued-incised DN	1UWappliqued-puncta	ited DMUWbrushed D	MUWbrushed-incised	d DMUWbrushed-punctated [DMUWbrushed-applique	d DMUWincised DI	//UWincised-pund
LNA336				89.20	1.00	1.00		3.00	0.10
ICS14				34.20	8.40			10.90	1.00
SM273, Block I				10.50	2.10	2.10		31.60	5.30
SM273, Bl. III				4.40	0.90			12.60	4.10
SM273, Bl. II				6.10	1.20	1.20		28.20	8.00
T396				19.60	2.20	1.20		39.10	0.00
T400				23.50	2.20			31.60	1.00
T6			4.70	23.30				28.10	3.10
T16			4.70	5.80				16.50	11.60
						2.20	4.40		
F769				9.90		2.20	1.10	9.90	6.60
13				7.70				11.50	
V600								20.00	
0211				41.40	27.10	2.90		11.40	1.40
0214	1.70			58.70	14.00	2.30		7.00	
1272				76.20					4.80
314				33.30	3.00	3.00			
317		1.50	0.80	31.80	5.40	4.70	3.10	8.50	3.10
304			1.80	40.20	9.80	4.50		4.50	1.80
315				50.00	3.30	13.30		3.30	
272				74.10	11.10	13.30		3.70	
1273				9.30	2.30		1.20	18.60	12.80
					2.30		1.20		
100				3.70				63.00	3.70
101				1.30				71.30	11.10
17				15.70				53.20	12.30
204				36.70	2.10			10.50	0.30
62	0.04	0.10		31.60	0.02	0.10		6.60	0.40
30B				27.60				31.10	
37B				24.90	1.50			38.70	4.60
37A				46.70				17.80	
30A				3.00				39.70	
110				26.90		0.50	0.30	20.30	2 00
						0.50	0.50		2.80
1				36.70	4.00	2.00		11.10	1.00
3				63.40	4.40	2.30		9.40	
13				82.00	6.60			4.10	
14				72.80	5.40	4.70		4.10	0.90
18		0.10		67.20	5.10	3.60		4.40	
016			1.40	17.20	0.70	0.70	0.70	18.60	2.80
3		0.10		42.00	1.30	1.50		19.40	1.50
14				12.00	0.60			39.10	
1			2.40	7.30	0.00		1.80	10.40	
			2.40	53.80		1.10	1.00	6.60	
(6					4.20				4.20
(8				50.00	1.30	6.60		8.60	1.30
4			0.80	35.70	3.90	2.30	0.80	7.00	0.80
5				13.90			1.10	10.60	
17		0.80		28.80		1.50	0.80	22.00	1.50
28				18.90				30.00	
52				29.50	1.70	5.20	1.70	28.90	0.60
15				17.90	2.60			33.30	
1				57.40	2.00			9.30	1.90
10				71.70	3.80			5.70	1.50
						2.50	6.70		
11				66.00	6.30	3.60	6.70	3.00	
R6				46.30	3.00			26.90	
R13				68.30				4.90	
31				50.00				21.70	
(22				32.70	2.00			18.40	2.00
18				60.50	4.70			2.30	
151				15.50				48.30	
15				74.10	5.20	1.70		6.90	
					3.20		2.10		2.10
3				43.60		1.10	2.10	3.20	2.10
71		0.50		48.60	4.80	2.30	1.40	12.00	1.40
55				53.80	9.20			6.20	
2								16.70	5.60
i5				26.00		2.00		8.00	
50				38.10		9.50		9.50	
/3, VP 1	0.60			7.80	1.50			15.40	1.20
14	0.70	0.40	1.10	3.00	1.90	1.90		19.00	12.70
	2.70	0.05	20	36.60	3.80	1.90	0.60	17.10	10.60
		3.03		30.00	3.00	1.50	0.00	17.10	10.00
13								14.70	0.70
		1.20	0.10	0.00	0.20	0.00		14.70	
/2		1.20	0.10	8.60	0.20	0.60	1.30	22.40	
/2 12		0.30		1.10	0.30			32.10	4.30
/2 12 11			0.10	1.10 10.80	0.30 1.80	0.40	0.20	30.50	4.30 8.80
/2 12 11 317		0.30		1.10 10.80 70.00	0.30 1.80 8.00		0.20	30.50 2.00	8.80
/2 12 11 317 299		0.30		1.10 10.80 70.00 51.90	0.30 1.80 8.00 1.90	0.40 6.00		30.50 2.00 14.90	8.80 3.20
12 12 11 317 299		0.30		1.10 10.80 70.00 51.90 10.70	0.30 1.80 8.00 1.90 3.10	0.40 6.00 2.00	0.20 0.60	30.50 2.00 14.90 38.70	3.20 4.90
12 12 11 317 299		0.30		1.10 10.80 70.00 51.90	0.30 1.80 8.00 1.90	0.40 6.00	0.20	30.50 2.00 14.90	8.80 3.20
72 12 11 317 299 404		0.30		1.10 10.80 70.00 51.90 10.70	0.30 1.80 8.00 1.90 3.10	0.40 6.00 2.00	0.20 0.60	30.50 2.00 14.90 38.70	3.20 4.90
72 12 11 317 299 404 240		0.30		1.10 10.80 70.00 51.90 10.70 30.50 12.80	0.30 1.80 8.00 1.90 3.10 0.50	0.40 6.00 2.00 11.80	0.20 0.60 0.50	30.50 2.00 14.90 38.70 4.80 3.80	3.20 4.90 10.20 15.40
72 12 11 317 299 404 404 240 242		0.30	0.20	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40	0.30 1.80 8.00 1.90 3.10	0.40 6.00 2.00 11.80 2.60 0.40	0.20 0.60 0.50	30.50 2.00 14.90 38.70 4.80 3.80 15.00	3.20 4.90 10.20 15.40 6.80
2 2 1 317 199 404 440 442 443		0.30 0.60	0.20	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90	0.30 1.80 8.00 1.90 3.10 0.50	0.40 6.00 2.00 11.80 2.60 0.40 2.90	0.20 0.60 0.50	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60	3.20 4.90 10.20 15.40 6.80 0.50
12 12 13 13 17 19 19 40 40 40 42 40 24 22 31 10 6		0.30 0.60	0.20	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50	0.30 1.80 8.00 1.90 3.10 0.50 3.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90	0.20 0.60 0.50 9.00	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70	3.20 4.90 10.20 15.40 6.80 0.50 3.30
12 12 13 13 17 199 404 240 242 243 106 106B		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70	0.30 1.80 8.00 1.90 3.10 0.50 3.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00	0.20 0.60 0.50 9.00	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70	3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50
72 12 11 317 199 404 404 240 243 106 106B 109		0.30 0.60	0.20	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60	0.30 1.80 8.00 1.90 3.10 0.50 3.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40	0.20 0.60 0.50 9.00	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20
12		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 53.60 63.10	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00	0.20 0.60 0.50 9.00	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10 4.10	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40
12		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60	0.30 1.80 8.00 1.90 3.10 0.50 3.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40	0.20 0.60 0.50 9.00	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20
72 12 11 317 299 404 240 242 243 106 106B 109 118 129 133, Saddle		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 53.60 63.10	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40	0.20 0.60 0.50 9.00	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10 4.10	3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50
/2 12 11 317 299 1404 240 242 243 106 106B 109 118 129 133, Saddle		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40	0.20 0.60 0.50 9.00	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10 4.10 31.70 45.40	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10
/2 12 11 1317 299 404 404 240 242 243 106 106B 109 118 129 133, Saddle 297		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10 1.00	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40	0.20 0.60 0.50 9.00 0.90 0.40 0.30	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 7.10 4.10 31.70 45.40 14.80	3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50
/2 12 11 317 299 404 404 242 243 106 1068 109 118 129 133, Saddle 297 823		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10 1.00	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40	0.20 0.60 0.50 9.00	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10 4.10 31.70 45.40 14.80 28.90	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10
/2 12 11 1317 2999 4004 242 240 243 106 1066 1068 109 118 129 133, Saddle 297 323 557 557 569		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 53.60 63.10 1.00	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20 1.90	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40	0.20 0.60 0.50 9.00 0.90 0.40 0.30	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10 4.10 31.70 45.40 14.80 28.90 9.50	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10 3.40
/2 12 11 11 1317 299 4404 4240 4242 424 1066 1068 109 118 129 133, Saddle 297 2557 2669 1775		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10 1.00	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40	0.20 0.60 0.50 9.00 0.90 0.40 0.30	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 4.10 4.10 31.70 45.40 14.80 28.90 9.50 18.10	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10 3.40
/2 12 11 1317 299 404 404 4240 242 243 106 1068 119 118 129 133, Saddle 129 732 557 269 1175 12		0.30 0.60 0.50 0.30	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10 1.00 64.80 49.10 64.30 59.10	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20 1.90 2.30	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40	0.20 0.60 0.50 9.00 0.40 0.30	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10 4.10 31.70 45.40 14.80 28.90 9.50 18.10 67.00	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10 3.40
/2 12 11 1317 299 404 404 4240 242 243 106 1068 119 118 129 133, Saddle 129 732 557 269 1175 12		0.30 0.60	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 53.60 63.10 1.00	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20 1.90	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40	0.20 0.60 0.50 9.00 0.90 0.40 0.30	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 4.10 4.10 31.70 45.40 14.80 28.90 9.50 18.10	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10 3.40
/2 12 11 1317 299 400 400 400 400 400 400 400 400 400 4		0.30 0.60 0.50 0.30	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10 1.00 64.80 49.10 64.30 59.10	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20 1.90 2.30	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40	0.20 0.60 0.50 9.00 0.90 0.40 0.30 1.20 0.30	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10 4.10 31.70 4.40 4.40 9.50 18.80 28.90 9.50 18.10 67.00 23.50	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10 3.40 1.10 13.40 5.40
V2 112 111 1317 299 1404 240 242 243 1006 1068 109 1118 129 133, Saddle 297 269 1175 12		0.30 0.60 0.50 0.30	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 59.60 63.10 1.00 64.80 49.10 64.30 59.10	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20 1.90 2.30 5.60	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40	0.20 0.60 0.50 9.00 0.40 0.30	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10 4.10 31.70 45.40 14.80 28.90 9.50 18.10 67.00 23.50 2.70	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10 3.40 1.10 13.40 5.40 0.70
V2 12 11 11 1317 299 1404 240 242 243 2106 106 1019 1118 1129 1133, Saddle 297 323 557 569 175 122 408		0.30 0.60 0.50 0.30	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10 1.00 64.80 49.10 64.30 59.10 18.40 72.80 65.30	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20 1.90 2.30 5.60 3.00	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40	0.20 0.60 0.50 9.00 0.90 0.40 0.30 1.20 0.30	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 4.10 31.70 4.540 14.80 28.90 9.50 18.10 67.00 23.50 2.70 9.70	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10 3.40 1.10 13.40 5.40
/2 12 11 13 13 17 299 4404 240 243 106 1068 109 118 129 133, Saddle 297 12 269 175 12 269 139 331 39 3321		0.30 0.60 0.50 0.30	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10 1.00 64.80 49.10 64.30 59.10	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20 1.90 2.30 5.60 3.00	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40 1.20 0.60	0.20 0.60 0.50 9.00 0.90 0.40 0.30 1.20 0.30 0.10 1.40	30.50 2.00 14.90 38.70 4.80 3.80 11.60 13.70 13.10 7.10 4.10 31.70 45.40 14.80 28.90 9.50 18.10 67.00 23.50 2.70 9.70	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10 3.40 1.140 13.40 5.40 0.70 2.40
V2 12 11 11 3317 299 1400 240 242 243 263 106 106 109 1118 113, Saddle 297 323 323 557 269 5175 12 408 813 12 12 12 12 12 12 12 12 12 12 12 12 12		0.30 0.60 0.50 0.30	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10 1.00 64.80 49.10 64.30 59.10 18.40 72.80 65.30 78.60 70.90	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20 1.90 2.30 5.60 3.00 1.60 2.10	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40 1.20 0.60 1.00 1.40	0.20 0.60 0.50 9.00 0.90 0.40 0.30 1.20 0.30	30.50 2.00 14.90 38.70 4.80 3.80 15.00 11.60 13.70 13.10 7.10 4.10 31.70 45.40 14.80 28.90 9.50 18.10 67.00 23.50 2.70 9.70 3.40	8.80 3.20 4.90 10.20 15.40 6.80 0.50 3.30 1.50 0.20 2.40 20.50 9.10 3.40 1.10 13.40 5.40 0.70
3W2 TIT12 TIT11 WA317 EE299 SM404 RK240 RK242 RK243 RR106 JR106B JR106B JR118 JR119 JR118 JR129 JR118 JR129 JR133, Saddle R.297 R5269 FS151 FS152 FP408 AW21 EE39 WA321 EE39		0.30 0.60 0.50 0.30	0.20 0.40 0.30	1.10 10.80 70.00 51.90 10.70 30.50 12.80 10.40 58.90 42.50 45.70 59.60 63.10 1.00 64.80 49.10 64.30 59.10	0.30 1.80 8.00 1.90 3.10 0.50 3.20 1.10 0.90 0.20 1.90 2.30 5.60 3.00	0.40 6.00 2.00 11.80 2.60 0.40 2.90 1.10 3.00 0.40 2.40 1.20 0.60	0.20 0.60 0.50 9.00 0.90 0.40 0.30 1.20 0.30 0.10 1.40	30.50 2.00 14.90 38.70 4.80 3.80 11.60 13.70 13.10 7.10 4.10 31.70 45.40 14.80 28.90 9.50 18.10 67.00 23.50 2.70 9.70	8.80 4.90 10.2: 15.4.4 6.80 0.50 0.20 2.40 20.5: 9.11 3.40 1.14 1.3.4 0.70 2.40

Table 1. East Texas Caddo ceramic sherd database, cont.

	5.710 WHEEK DAILUE	. Dovepinicineu D	vv too: punctated L	OMUWfingernail punctated	oocii cuiai punctateu 1	Dirio II cane punctate	a Dino Wilagea	orn engr paner		rrengravea apprique
41NA336	4.50		3.00	0.50	0.50				16.20	
1CS14	4.50		0.50	0.50	0.50				30.20	
ISM273, Block I ISM273, Bl. III			21.10 11.10	3.20 5.20		2.10 2.30			16.80 10.50	
SM273, Bl. II			28.20	9.80		4.30		0.60	11.00	
TT396			4.30	4.30		4.30		2.20	17.40	
TT400			6.10	14.20				1.00	12.20	
DT6		1.60	14.10	4.70				1.00	29.70	
DT16		1.00	1.00	20.40					30.00	
TT769	11.00		17.60	1.10					13.20	
TT13	1.90		5.80	1.90					76.00	
BW600	6.70								53.30	
HO211	1.40								14.30	
HO214	2.90		2.90	0.60					9.30	
SM272			4.80						14.30	
CP314	9.10			18.20					18.20	
CP317	0.80		3.90	4.70					21.70	
CP304	0.90		4.50						23.30	
CP315									30.00	
SM272									7.40	
SM273									17.40	
SY100									7.40	
SA101 SA17							0.00		5.70	
SA204		0.01					0.60 35.10		4.20 12.00	
SA62		0.01					8.00	0.02	52.00	
iSA30B							15.40	0.02	20.90	
iSA37B							4.00		19.10	
SA37A							00		26.40	
SA30A							1.50		8.40	
TT110	1.40			0.20					6.80	
UR1		0.50		3.00					31.70	
UR3		0.10		1.00					14.10	
UR13				1.60					5.90	
UR14		0.70	0.70						7.10	
UR18				0.80					12.70	
WD16	0.70			4.10					44.80	
CP8	0.30	0.30							22.30	
CP14		6.90							26.00	
FK4	0.60	1.80		2.40					44.50	
MX6									35.20	
MX8		0.70		4.60			0.70		16.40	
TT4				6.20					28.70	
TT6 TT17		0.80		10.60 6.80					45.70 16.70	
TT28	0.30	0.80		0.80					28.80	
TT52	0.30			0.60					13.90	
.CP15		2.60		0.00					2.60	
LHS1	1.90								11.10	
LHS10	1.90								11.30	
LHS11							0.30		6.90	
IMR6				4.50					10.40	
LMR13		2.40							17.10	
MR31	2.20			8.70			2.20		13.00	
MX22	2.00								24.50	
TT18				2.30					14.00	
TT151									19.00 10.30	
UR15 CP3				2.10					36.20	
.CP3	0.40		3.70	2.10					19.10	
.CP55	3.10		3.70						21.50	
CI 33	5.10								21.50	
LR2			22.20	5.60					16.70	
GG5			14.00	2.00					48.00	
GG50		4.80	4.80					4.80	28.60	
BW3, VP 1	1.80							2.10	27.10	
BW4			6.70	6.00				0.70	29.90	0.40
RK19		1.40	2.00	0.30	0.50				8.60	
BW2	1.00		3.10	0.70				0.10	49.30	0.30
TT12	0.90		9.40	31.00	2.30	0.30		0.30	12.80	
TT11	0.20	0.40	11.20	5.10	0.60	0.20			17.30	
NA317			4.00	4.00					6.00	
ICE299			10.40	0.60		0.60			14.90	
ISM404		0.20	14.30	2.20				4.50	16.50	
RK240		3.70	9.60	7.00		1.10			12.80	
RK242			12.80	19.20		1.30			18.00	
RK243 .UR106		3.20	11.10	24.30		0.70			27.90 12.40	
UR106B		3.20							20.20	
UR100B UR109									20.40	
UR118	0.20	0.20		0.20					19.50	
UR129	0.20	0.20		0.20					16.30	
UR133, Saddle									22.40	
LR297				12.50	1.10	1.10			30.70	
SY323			1.10	50		0	4.50		5.70	
S1323 RK557		1.20	1.80	8.00			0.60		8.00	
HS269		2.20		0.00			0.00		23.80	
N175			1.90	0.30	0.10				5.80	
HS12		1.10	4.10	6.60	· ·				6.30	
CP408		0.80	8.00	8.50	0.70	0.70			18.90	
AN21	2.00	1.40							13.60	
CE39	0.80	-							11.30	
		7.90							7.90	
INA321	1.70								13.20	
INA321 ICE20 ICE48 ICE293	1.70 0.50 1.90								13.20 11.30 3.30	

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	DMFWengraved-brushed	DMFWred-slipped	DMFWtrailed	Other decorative method	decorated sherds	Reference	Estimated age
11NA336					198	Perttula et al. 2011c	ca. A.D. 1680-17
11CS14		2.00			202	Perttula 1998	ca. A.D. 1200-14
11SM273, Block I 11SM273, Bl. III		4.20 0.60	0.30		95 342	Perttula and Nelson 2004b Perttula and Nelson 2004b	ca. A.D. 900-120 ca. A.D. 900-120
11SM273, Bl. II		1.20	0.30		163	Perttula and Nelson 2004b	ca. A.D. 900-120
11TT396		6.50			46	Nash et al. 1995	ca. A.D. 1430-16
1TT400		8.20		1.0 [stamped]	98	Nash et al. 1995	ca. A.D. 1200-14
I1DT6		14.10			64	Fields et al. 1993	ca. A.D. 1000-12
11DT16 11TT769		13.60 18.70			103 91	Fields et al. 1993 Walters et al. 2003	ca. A.D. 1000-12 ca. A.D. 1200-14
1TT13		1.90			52	Bell 1981	ca. A.D. 1430-14
11BW600					15	Cliff et al. 1997	ca. A.D. 1200-14
11HO211					70	Perttula and Nelson 2006b	Ca. A.D. 1680-17
11HO214					172 21	Perttula and Nelson 2006b Perttula and Nelson 2000a	Ca. A.D. 1680-17
11SM272 11CP314		12.10			33	Perttula and Nelson 1999	ca. A.D. 1400-16 ca. A.D. 1430-16
1CP317		6.20			129	Perttula and Nelson 1999	ca. A.D. 1430-16
1CP304		8.00			112	Perttula and Nelson 1998	ca. A.D. 1430-16
1CP315		6.70			30	Perttula and Nelson 1998	ca. A.D. 1430-16
1SM272 1SM273		3.70 3.50			27 86	Perttula and Nelson 2001 Perttula and Nelson 2001	ca. A.D. 1400-16
1SW273 1SY100		3.50			86 27	Benham et al. 1973	ca. A.D. 900-120 ca. A.D. 1000-12
6SA101					296	Benham et al. 1973	ca. A.D. 1000-12
6SA17					2298	Benham et al. 1973	ca. A.D. 1400-16
6SA204			1.50		1498	Kelley 2006	ca. A.D. 1500-16
6SA62				0.02 [lip notched]	4871	Woodall 1969	ca. A.D. 1400-16
6SA30B					1263	Woodall 1969	ca. A.D. 1400-16
6SA37B 6SA37A			0.20	0.1 [stamped]	1210 451	McClurkan et al. 1966 McClurkan et al. 1966	ca. A.D. 1400-16 ca. A.D. 1400-16
6SA30A					131	McClurkan et al. 1966	ca. A.D. 1000-10
1TT110		29.50			6361	Thurmond 1990	ca. A.D. 1200-14
IUR1		9.00			199	Thurmond 1990	ca. A.D. 1430-16
LUR3		0.70	0.30		298	Thurmond 1990	ca. A.D. 1430-16
IUR13 IUR14		1 70			122 706	Thurmond 1990	ca. A.D. 1430-16
1UR14 1UR18		1.70 3.00			706	Thurmond 1990 Thurmond 1990	ca. A.D. 1430-16 ca. A.D. 1430-16
IWD16		4.10			145	Thurmond 1990	ca. A.D. 1430-16
1CP8		2.20			1565	Thurmond 1990	ca. A.D. 1430-16
1CP14					624	Thurmond 1990	ca. A.D. 1200-14
1FK4		4.30			164	Thurmond 1990	ca. A.D. 1430-16
IMX6		3.30	4.20		91	Thurmond 1990	ca. A.D. 1200-14
1MX8 1TT4		1.30 3.10	1.30		152 129	Thurmond 1990 Thurmond 1990	ca. A.D. 1430-16 ca. A.D. 1430-16
1TT6		4.30			94	Thurmond 1990	ca. A.D. 1200-14
LTT17		6.10	0.80		132	Thurmond 1990	ca. A.D. 1430-16
1TT28					915	Thurmond 1990	ca. A.D. 1430-16
1TT52		7.50			173	Thurmond 1990	ca. A.D. 1200-14
1CP15		28.20			39	Thurmond 1990	ca. A.D. 1200-14
1HS1 1HS10		1.90			54 53	Thurmond 1990 Thurmond 1990	ca. A.D. 1430-16 ca. A.D. 1430-16
1HS11			0.60		332	Thurmond 1990	ca. A.D. 1430-16
IMR6		1.50			67	Thurmond 1990	ca. A.D. 1430-16
IMR13					41	Thurmond 1990	ca. A.D. 1430-16
1MR31		2.20			46	Thurmond 1990	ca. A.D. 1430-16
1MX22 1TT18		2.00 9.30			49 43	Thurmond 1990 Thurmond 1990	ca. A.D. 1430-16 ca. A.D. 1430-16
1TT151		5.30			58	Thurmond 1990	ca. A.D. 1430-10
LUR15					58	Thurmond 1990	ca. A.D. 1430-16
1CP3		4.30			94	Thurmond 1990	ca. A.D. 1430-16
1CP71		4.70	0.20		2591	Perttula 2014a	ca. A.D. 1430-16
1CP55					65	Perttula and Nelson 2014	ca. A.D. 1430-16
1LR2		22.20			18	Perttula et al. 2014b	ca. A.D. 1100-13 1680-1730
IGG5					50	Perttula et al. 20140 Perttula and Nelson 2013	ca. A.D. 1200-14
.GG50					42	Perttula and Nelson 2013	ca. A.D. 1200-14
BW3, VP 1		4.80	19.90		332	Perttula 2014b	ca. A.D. 1100-16
BW4		3.40	6.00	0.057	268	Perttula 2014c	ca. A.D. 1200-15
.RK19		0.10		0.05 [stamped]	2096	Perttula 2014d	ca. A.D. 1200-14
BW2		2.00	1.00	0.1 [li[notched]; 0.2 [rough]	1223	Perttula 2014e	ca. A.D. 1500-17
TT12		3.10	1.00	[.oagii]	352	Perttula 2014e Perttula 2014f	ca. A.D. 1300-17
TT11		11.20			509	Perttula 2014f	ca. A.D. 1200-14
NA317					50	Perttula 2013h	ca. A.D. 1680-17
CE299					154	Perttula and Nelson 2000b	ca. A.D. 1400-16
SM404		6.50			448	Nash et al. 2012	ca. A.D. 1200-14
RK240 RK242		1.30			187 78	Sherman 2001 Sherman 2001	ca. A.D. 1200-14 ca. A.D. 1200-14
RK243		2.30			280	Sherman 2001	ca. A.D. 1200-14
UR106		6.30			380	Parsons 2011	ca. A.D. 1430-16
UR106B		1.60		0.5 [painted]	183	Parsons 2011	ca. A.D. 1430-16
UR109		0.30		0.3 [painted]	328	Parsons 2011	ca. A.D. 1430-16
UR118		2.00			1120	Parsons 2011	ca. A.D. 1430-16
UR129 UR133, Saddle		2.00			295 161	Parsons 2011 Parsons 2011	ca. A.D. 1430-16 ca. A.D. 1200-14
LR297					161	Parsons 2011 Perttula 2009g	ca. A.D. 1200-12
SY323		2.30			88	Perttula 2010c	ca. A.D. 1500-120
RK557					163	Dockall and Fields 2011	ca. A.D. 1300-16
HS269					42	Griffith et al. 2012	ca. A.D. 1430-16
PN175		0.20		0.1 [lip notched]	1798	Perttula 2014g	ca. A.D. 1300-1
HS12	0.40	1.40		0.2 [1:	558	Goode et al. 2014	ca. A.D. 900-120
.CP408	0.10	5.40		0.3 [Lip notched]	729	Perttula and Ellis 2012	ca. A.D. 1200-14
AN21		1.40			147 124	Marceaux 2011 Marceaux 2011	ca. A.D. 1680-17 Ca. A.D. 1680-17
.CE39 .NA321					124 89	Marceaux 2011 Marceaux 2011	ca. A.D. 1680-17
ICE20					182	Marceaux 2011 Marceaux 2011	ca. A.D. 1680-17
					194	Marceaux 2011	ca. A.D. 1680-17
.CE48							

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	Tgrog	Tbone	Tshell	Tgrog-bone	Psandy	Freduced	Foxidized	Finc-oxidized	Fred-oxidized	Rfdirect	Rfinverted	Rfeverted	Lfrounded	Lfflat	Lfrounded-folded Lfbeveled	Pred	Pwhite	DMUWapplique
41AG22	92.00	1.60		6.40		9.40	9.40	18.80	61.90	66.70		33.30	92.90	7.10			1.20	0.60
41CE62	71.20	4.50		24.20		5.70	26.20	13.90	54.20									
41NA6	85.10	6.60		7.70	0.50	12.60	13.70	17.10	56.60	71.40	14.30	14.30	66.70	22.20	11.10			0.30
41NA15	79.20	7.00		13.90		16.70	7.60	19.70	56.10	69.20		30.80	64.30	21.40	14.30		0.50	0.50
41NA44	64.20	21.70		10.70	3.30	21.40	20.30	10.90	47.30	62.50	1.60	35.90	71.60	13.60	14.80			0.70
41NA54	73.50	10.80		15.70		13.10	4.80	15.50	66.70									
41NA21	27.60	42.80	0.40	28.80	0.50	22.60	12.20	13.90	51.20	52.20	8.70	39.10	80.00	14.50	5.70		0.50	0.10
41NA22	57.20	20.60		20.60	1.60	10.30	16.60	9.20	63.90	78.10		21.90	83.30	7.30	9.10		0.10	0.10
41NA23	84.50	5.50		9.50	0.30	11.50	22.90	16.70	48.90	73.50		26.50	64.40	17.80	17.80			0.30
41NA111	59.60	22.20		18.20		9.10	11.10	17.20	62.60									0.50
41NA183	64.30	13.20	1.00	21.40		24.00	12.50	5.20	58.30									0.40
41NA206	56.40	31.50	0.80	10.20	1.00	34.10	22.00	8.30	35.80	77.50		22.50	67.50	6.10	26.50		0.02	0.20
41NA67	75.50	6.30		18.10		29.70	6.30	10.90	53.10	62.50		37.50	85.70	2.40	11.90			
41SA94	58.50	18.10	0.70	22.90		13.60	7.80	9.60	68.90	88.90	3.00	8.10	53.30	20.00	26.70			0.20
41SA25	1.30	75.20	12.90	5.50	5.40					68.80	3.10	28.10	73.00	8.10	18.90			
41BW3, Mound																		9.90
41SA25	1.70	79.20	10.80	8.60	0.10					18.90	11.70	69.40						
41WD577	76.20	1.00		18.60	4.10					89.50		10.50	38.50	42.30	19.20			2.00
41SY43	51.50	48.40																0.20
41SY279	24.00	76.00																1.10
41SY280	18.30	81.70																1.50
41LR2	72.40	11.70	15.90															5.40
41SY41	69.80	30.20																1.60
41SY45	53.70	46.30																
41SY27	17.00	83.00																4.50
41LR2, NMNH	68.00	13.40	18.60															5.20
41GG69	84.40	15.60																0.40
41FN1	49.30	10.30	40.40															
41LR1	71.40	10.00	18.50															3.10
41WD3	99.40	0.60																11.70
41TT851	64.00	10.30		25.50														2.40
41TT852	45.30	8.30		46.40														3.00
41TT853	65.30	1.90		32.80														0.60
41WD6	95.20	4.80																15.80
41WD1	96.90	3.10																4.80

Table 1. East Texas Caddo ceramic sherd database, cont.

41AG22 41CEG2 41NA6 41NA15 41NA44 41NA54 41NA21 41NA21 41NA22 41NA23 41NA111 41NA183 41NA206 41NA67 41SA94	1.40 1.10 3.80 0.80 1.90 0.50	0.03	0.10 0.60 0.03 0.70 0.70 0.90 1.30	87.70 90.50 78.80 60.50 55.70 72.00 68.90 77.40 76.90 79.70 58.00	0.60 1.60 2.20 5.80 8.50 0.30 1.60 1.00 1.90 1.70	1.80 2.10 3.20 5.10 3.20 0.40 3.60 1.90 2.30 1.30	0.60 0.70 1.60	1.20 5.40 4.30 2.70 7.20 5.80 6.90 3.40 6.30 1.40 10.90	1.20 0.30 0.50 1.90 0.50 0.20 0.10 0.70
41NA6 41NA15 41NA44 41NA54 41NA21 41NA22 41NA23 41NA111 41NA183 41NA106 41NA67	1.10 3.80 0.80 1.90	0.03	0.60 0.03 0.70 0.70 0.90 1.30	78.80 60.50 55.70 72.00 68.90 77.40 76.90 79.70 58.00	2.20 5.80 8.50 0.30 1.60 1.00 1.90	3.20 5.10 3.20 0.40 3.60 1.90 2.30		4.30 2.70 7.20 5.80 6.90 3.40 6.30 1.40	0.50 1.90 0.50 0.20 0.10 0.70
41NA15 41NA44 41NA54 41NA52 41NA21 41NA22 41NA23 41NA111 41NA183 41NA66 41NA67	1.10 3.80 0.80 1.90	0.03	0.60 0.03 0.70 0.70 0.90 1.30	60.50 55.70 72.00 68.90 77.40 76.90 79.70 58.00	2.20 5.80 8.50 0.30 1.60 1.00 1.90	3.20 5.10 3.20 0.40 3.60 1.90 2.30		2.70 7.20 5.80 6.90 3.40 6.30 1.40	0.50 1.90 0.50 0.20 0.10 0.70
41NA44 41NA54 41NA21 41NA22 41NA23 41NA111 41NA183 41NA106 41NA67	1.10 3.80 0.80 1.90	0.03	0.03 0.70 0.70 0.90 1.30	55.70 72.00 68.90 77.40 76.90 79.70 58.00	5.80 8.50 0.30 1.60 1.00 1.90	5.10 3.20 0.40 3.60 1.90 2.30	1.60	7.20 5.80 6.90 3.40 6.30 1.40	1.90 0.50 0.20 0.10 0.70
41NA54 41NA21 41NA22 41NA23 41NA111 41NA183 41NA206 41NA67	1.10 3.80 0.80 1.90	0.03	0.03 0.70 0.70 0.90 1.30	72.00 68.90 77.40 76.90 79.70 58.00	8.50 0.30 1.60 1.00 1.90	3.20 0.40 3.60 1.90 2.30		5.80 6.90 3.40 6.30 1.40	0.50 0.20 0.10 0.70
41NA21 41NA22 41NA23 41NA111 41NA183 41NA206 41NA67	3.80 0.80 1.90	0.03	0.70 0.70 0.90 1.30	68.90 77.40 76.90 79.70 58.00	0.30 1.60 1.00 1.90	0.40 3.60 1.90 2.30		6.90 3.40 6.30 1.40	0.20 0.10 0.70
41NA22 41NA23 41NA111 41NA183 41NA206 41NA67	0.80 1.90 0.50	0.03	0.70 0.70 0.90 1.30	77.40 76.90 79.70 58.00	1.60 1.00 1.90	3.60 1.90 2.30		3.40 6.30 1.40	0.10 0.70
41NA23 41NA111 41NA183 41NA206 41NA67	0.80 1.90 0.50	0.03	0.70 0.90 1.30	76.90 79.70 58.00	1.00 1.90	1.90 2.30		6.30 1.40	0.70
41NA111 41NA183 41NA206 41NA67	1.90 0.50		0.90 1.30	79.70 58.00	1.00 1.90	1.90 2.30		1.40	
41NA183 41NA206 41NA67	1.90 0.50		1.30	79.70 58.00	1.90	2.30		1.40	
41NA183 41NA206 41NA67	0.50		1.30	58.00					3.40
41NA67			0.20						
41NA67				52.60	2.80	0.60		12.30	1.40
	0.60			16.20		1.00		24.80	10.00
				46.00	1.00	2.60		12.60	5.00
41SA25		0.10		0.60	0.10			35.60	0.80
41BW3, Mound				12.40	****			36.60	****
41SA25				12.40				29.10	3.40
41WD577			5.00	1.00	1.00	2.00		21.80	6.00
41SY43		0.10	3.00	66.30	3.00	1.80	1.00	9.00	0.60
41SY279		1.10		52.80	5.00	1.00	2.20	20.90	1.10
		1.10					2.20	20.50	
41SY280				55.70	6.30	0.40		17.30	0.30
41LR2				1.20				15.00	
41SY41				45.20	3.20	6.50		9.00	9.50
41SY45				62.70	5.90	4.90		8.60	3.20
41SY27				87.20		0.80	0.80	1.70	
41LR2, NMNH			0.40	0.40				10.90	1.50
41GG69		0.20		13.30	3.50	1.80		24.40	21.90
41FN1				3.60				28.60	
41LR1		0.30	0.60	3.90	0.60	0.30		31.90	1.40
41WD3				21.10	8.80		4.10	2.90	
41TT851			0.70	11.50		0.50	0.20	18.10	2.70
41TT852		0.30	0.70	32.60		1.50	0.70	17.70	2.50
41TT853		0.10	0.40	43.20		2.70	2.50	15.00	4.60
41WD6			1.40	3.40	0.50			12.50	1.00
41WD1			1.00	5.80	0.50			43.30	1.00
411101			1.00	5.00				45.30	1.00

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	DMUWneck banded	DMUWpinched	DMUWtool punctated	DMUWfingernail punctated	DMUWcircular punctated	DMUWcane punctated	DMUWridged	DMFengpunct.	DMFWengraved	DMFWengraved-appliqued
41AG22									4.30	
41CE62									3.40	
41NA6		1.50							7.70	
41NA15	0.50	0.50							23.20	
41NA44	0.10	1.10						0.10	12.00	
41NA54		1.10							5.80	
41NA21	0.20								10.50	
41NA22		0.30							6.40	
41NA23	0.70	0.20							8.00	
41NA111	0.50	0.50							6.90	
41NA183								0.40	8.40	
41NA206	0.10	0.40							22.30	
41NA67			21.50	2.40					23.80	
41SA94		0.30							24.90	
41SA25									59.30	
41BW3, Mound	2.00								8.10	
41SA25			2.00	0.50	0.20				64.80	
41WD577			6.90	8.90	6.90				20.00	
41SY43			3.40	0.10			0.30	0.30	13.50	
41SY279			4.40				4.40		9.90	
41SY280			2.80	0.10			6.80	0.10	5.00	
41LR2	3.00		3.00	4.20	1.20	0.60			51.50	
41SY41			5.30	2.10	1.10				16.00	
41SY45			4.90	0.50					9.30	
41SY27							0.80		4.10	
41LR2, NMNH	7.90	0.40	2.20	9.00	1.10	0.40			36.90	
41GG69		0.50	12.30	1.60	3.00	0.20	0.20		16.10	0.20
41FN1			3.60	1.80					8.90	
41LR1	0.90	0.30	6.80	5.90					33.30	
41WD3	12.30		0.60	2.90					30.40	
41TT851	0.50	5.60	16.40	17.90					23.30	
41TT852	0.30	1.20	11.80	5.90					21.90	
41TT853	0.50	2.70	6.20	4.60					17.10	
41WD6	30.30		3.80	0.50					25.00	
41WD1		1.00	5.80	3.90	1.00				14.40	

Table 1. East Texas Caddo ceramic sherd database, cont.

Trinomial	DMFWengraved-brushed	DMFWred-slipped	DMFWtrailed	Other decorative method	No. of decorated sherds	Reference	Estimated age
41AG22					163	Marceaux 2011	ca. A.D. 1680-1730
41CE62					148	Marceaux 2011	Ca. A.D. 1680-1730
41NA6	0.70			0.1 [Grooved]	673	Marceaux 2011	Ca. A.D. 1680-1730
41NA15	1.60			1.6 [Grooved]	185	Marceaux 2011	Ca. A.D. 1680-1730
41NA44	0.30		0.10	0.8 [Grooved]	1812	Marceaux 2011	Ca. A.D. 1680-1730
41NA54					189	Marceaux 2011	Ca. A.D. 1680-1730
41NA21	0.10		0.02	0.03 [Lip notched] 0.4 [grooved]; 0.2 [lip	9819	Marceaux 2011	ca. A.D. 1680-1730
41NA22	0.10			notch]	2874	Marceaux 2011	Ca. A.D. 1680-1730
41NA23	0.10			0.6 [grooved]	2301	Marceaux 2011	Ca. A.D. 1680-1730
41NA111				0.5 [grooved]	217	Marceaux 2011	Ca. A.D. 1680-1730
41NA183	0.40				238	Marceaux 2011	Ca. A.D. 1680-1730
				0.4 [grooved]; 0.1 [lip			
41NA206	0.02		0.02		4156	Marceaux 2011	Ca. A.D. 1680-1730
41NA67			0.50		210	Marceaux 2011	Ca. A.D. 1680-1730
41SA94				0.1 [lip notched]	1195	Marceaux 2011	ca. A.D. 1500-1700
41SA25				[p	1940	Marceaux 2011	ca. A.D. 1720-1770
41BW3, Mound		8.10	7.30	6.3 [roughened]	6198	Perttula 2014b	ca. A.D. 1400-1690
41SA25				[8]	441	Corbin et al. 1990	ca. A.D. 1720-1770
41WD577		18.90			101	Perttula and Gilmore 1988	ca. A.D. 1200-1430
41SY43			0.30		873	Selden and Perttula 2014	ca. A.D. 1400-1600
41SY279			1.10	1.1 [Lip notched] 0.1 {Impressed}; 0.1	91	Selden and Perttula 2014	ca. A.D. 1500-1600
41SY280			3.10	[Stamped]	753	Selden and Perttula 2014	ca. A.D. 1500-1600
41LR2		14.40	0.60		167	Perttula et al. 2015	ca. A.D. 1100-1700
41SY41				0.5 [grooved]	188	Perttula 2014h	ca. A.D. 1400-1500
41SY45					185	Perttula 2014i	ca. A.D. 1400-1500
41SY27					258	Perttula and Selden 2014	ca. A.D. 1450-1550
							ca. A.D. 1100-1300,
41LR2, NMNH		17.60	4.10	1.1 [lip notched]; 0.7, CCI	266	Perttula et al. 2015	1600-1740
41GG69		0.50			570	Perttula 2015a	ca. A.D. 1300-1400
							ca. A.D. 1100-1300,
41FN1		51.80	1.80		56	Perttula 2015b	1680-1730
							ca. A.D. 1100-1300,
41LR1		10.20	0.30	0.3 [lip notched]	354	Perttula 2015c	1680-1740
41WD3		5.30			171	Perttula 2015d	ca. A.D. 1430-1680
41TT851					408	Fields et al. 2014	ca. A.D.1250-1325
41TT852					745	Fields et al. 2014	ca. A.D. 1425-1500
41TT853				0.1 [lip notched]	787	Fields et al. 2014	ca. A.D. 1400-1500
				1.0 [lip notched]; 1.4			
41WD6		3.40		[grooved]	208	Perttula 2015e	ca. A.D. 1430-1600
41WD1		17.30		1.0 [lip notched]	104	Perttula 2015f	ca. A.D. 1200-1400

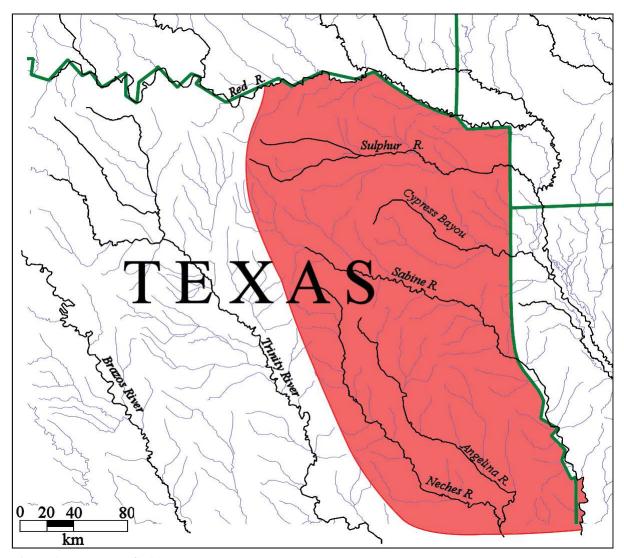


Figure 1. East Texas Caddo area.

circular punctated, cane punctated, and ridged) and fine wares (engraved, engraved-punctated, engraved-appliqued, engraved-brushed, red-slipped, and trailed), as well as other decorative methods (grooved, lip notched, corn cob impressed [CCI], cord impressed, fabric impressed, roughened, trailed-incised, painted, stamped); (g) number of decorated sherds; (h) reference; and (i) estimated age of the site and/or component assemblages, as best as can be determined from published analyses and reported calibrated radiocarbon dates. The focus on methods of decoration in the assemblages is in recognition of the fact that their differences across sites and assemblages provide an indication of regional variation in ceramic assemblages, and the broad categories of decoration "are less subject to inter-observer variation in classification than finer type designations" (Peeples and Roberts 2013:3003).

INITIAL INTERPRETATIONS

In this section, I review several interpretive findings from the ceramic sherd database regarding East Texas Caddo ceramics. These findings have barely plumbed the depths of the ceramic sherd database, but constitute a beginning effort at the identification of similarities in Caddo ceramic assemblages that likely have a basis in regional patterns of interaction within social networks (e.g., Mills et al. 2013) between differ-

ent Caddo communities. That is to say, the residents of different settlements of Caddo peoples with similar ceramic assemblages (however measured) were most likely to have interacted more frequently with each other than they did with other Caddo settlements with quite different and dissimilar ceramic assemblages.

Proportion of Engraved Fine wares

Engraved fine ware sherds are ubiquitous in East Texas Caddo ceramic assemblages for a millennium, from ca. A.D. 850 to A.D. 1838. However, there are significant temporal and spatial differences in the relative proportions of engraved sherds in decorated sherd assemblages. Sites where engraved sherds comprise more than 40 percent of decorated sherd assemblages are found in the Red, Big Cypress, upper and middle Sabine, the upper Neches, and the lower Angelina River basin (Figure 2). These are both habitation and mound sites, although all the mound sites with high proportions of engraved sherds are located in the Red River basin: these include Eli Moores (41BW2), Hatchel (41BW3/41BW169), Fasken (41RR14), and Sanders (41LR2) (see Table 1).

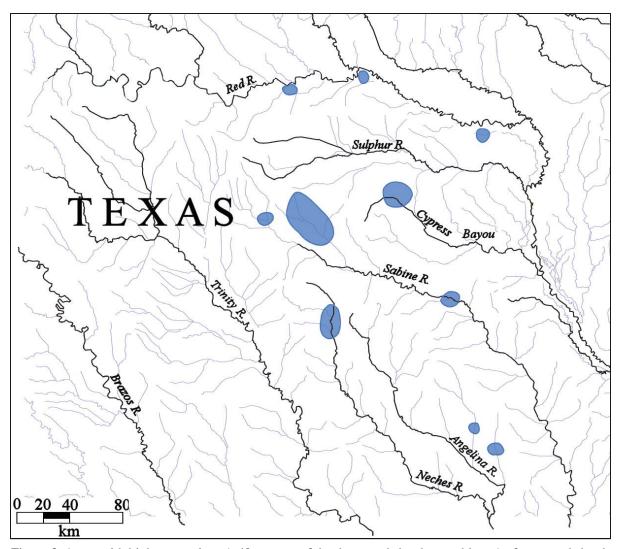


Figure 2. Areas with high proportions (>40 percent of the decorated sherd assemblages) of engraved sherds in East Texas Caddo sites.

Pre-A.D. 1400 sites (n=8) with considerable amounts of engraved sherds in decorated sherd assemblages are present in the upper and middle Sabine, Big Cypress, and the middle reaches of the Red River (see Figure 2). Sites where engraved sherds comprise more than 40 percent of the decorated sherd assemblages are much more common (n=27) in ca. A.D. 1400-1830 Caddo sites throughout East Texas, particularly in Titus phase sites in the upper Sabine River and Big Cypress Creek basins, Frankston phase sites in the upper Neches, and Historic Caddo sites in the upper and middle Sabine, Angelina, and Red River basins (see Table 1).

Use of Red-Slipped Ceramics

Red-slipped fine wares (bowls, carinated bowls, and an occasional bottle) are a common part of ancestral Caddo ceramic assemblages in several parts of East Texas, most notably in sites in the middle Red River, the Big Cypress Creek basin, the upper Sulphur and Sabine River basins, and the middle Sabine River basin (Figure 3). The virtual absence of red-slipped sherds in ceramic assemblages from the Neches and Angelina River basins is particularly notable.

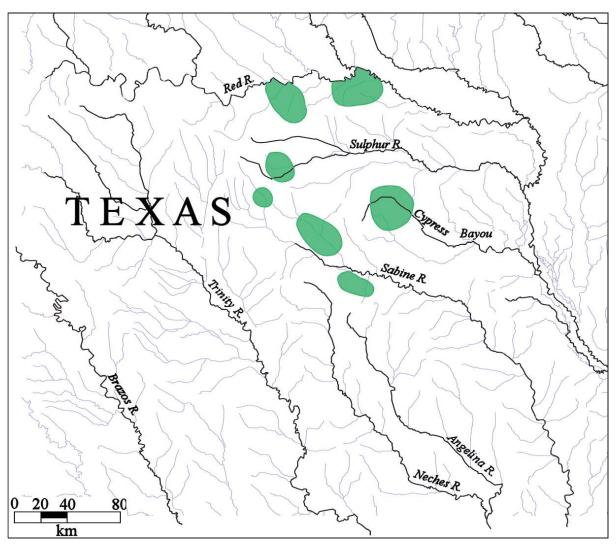


Figure 3. Caddo site clusters with high proportions (>10 percent of decorated ceramic assemblages) of red-slipped sherds in East Texas.

Pre-A.D. 1400 ceramic assemblages where red-slipped sherds are relatively abundant are well represented in the aforementioned areas, particularly at sites such as Jamestown (41SM54), A. C. Gibson (41WD1), Sam Kaufman (41RR16), A. C. Mackin (41LR31), Harling (41FN1), and Sanders (41LR2) on the Sabine and Red rivers, respectively, several sites in the upper Sulphur River basin (41DT54 and 41DT63), and 41TT110 on Big Cypress Creek (see Table 1).

Later ceramic assemblages (i.e., dating after A.D. 1400) with red-slipped sherds are found in these same areas, most notably in shell-tempered wares (Clement Redware, see Flynn 1976) in McCurtain phase sites on the middle reaches of the Red River (see Figure 3) and the ca. A.D. 1680-1740 components at the Harling (41FN1) and Sanders sites. Other Late Caddo sites where red-slipped sherds are common in assemblages include Titus phase sites in the Big Cypress and upper Sabine River basins and 41HP175 in the upper Sulphur River basin (see Table 1).

Trailed wares

Sherds with trailed decorative elements, likely from Keno Trailed bowls and bottles (see Suhm and Jelks 1962), are found in percentages greater than 2 percent in ceramic assemblages in only a few parts of East Texas, principally in sites on the Red River (Figure 4). These sites generally date between ca. A.D. 1400 (or later) and A.D. 1730. The highest proportion of trailed sherds in ceramic assemblages (7.3-30.8 percent) are found in various Texarkana phase village and mound areas at the Hatchel site (41BW3) on the Red River (Perttula 2014b).

Use of Brushed Ceramics

Sherds from brushed utility ware vessels, particularly jars, are a distinctive characteristic of both Middle, Late, and Historic Caddo sites in much of East Texas. It also appears to be the case that the relative proportions of brushed utility wares increase through time in those areas where brushed vessels were made and used, such that sherds with brushing marks may comprise as much as 90 percent of all the decorated sherds in some post-A.D. 1400 East Texas ceramic assemblages.

In the East Texas Caddo ceramic sherd database, only a few ca. A.D. 1200-1430 sites have assemblages with high proportions (>60 percent of the decorated sherd assemblage) of brushed sherds; these occur in the mid-Sabine and Big Cypress Creek drainage basins (see Table 1). Late Caddo ceramic assemblages in East Texas with high proportions of brushed sherds occur in the upper and mid-Neches (Frankston phase sites), Angelina, middle Sabine and Big Cypress (Titus phase sites), and sites (of unknown cultural taxonomy) on tributaries of the Sabine River west of the Toledo Bend Reservoir area (Figure 5). Caddo ceramic assemblages without considerable amounts of brushed sherds occur in the upper Sabine, Sulphur, and Red River basins.

Historic Caddo sites with high proportions of brushed sherds in ceramic assemblages are found principally in four parts of East Texas (see Figure 5). The first is in Allen phase sites (n=15) in the upper Neches River basin (there is also one mid-Neches River basin Historic Caddo site, 41HO91, with abundant brushed sherds), A.D. 1700-1730 Nasoni Caddo sites (n=3) in the western part of the Angelina River basin (Perttula et al. 2009), and other Allen phase sites/assemblages (n=18) in the central part of the Angelina River basin. One Historic Caddo Kinsloe phase site in the middle Sabine (41RK36) also has high proportions of brushed sherds in its decorated sherd assemblage (see Table 1).

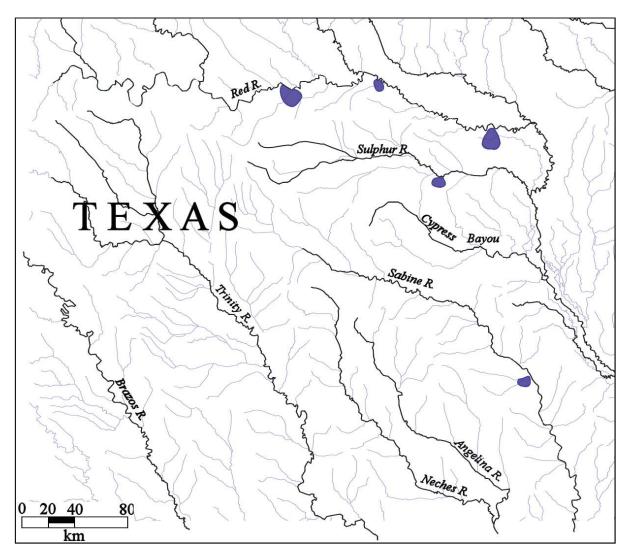


Figure 4. Distribution of sites where trailed sherds are most common in East Texas Caddo ceramic assemblages.

Ridged Ceramics

Ridged utility ware sherds (i.e., from Belcher Ridged jars, see Suhm and Jelks 1962:11 and Plate 6) are common (in proportions greater than 4.0 percent of decorated sherd assemblages) only in post-A.D. 1500 East Texas and western Louisiana Caddo communities in one locale along the Sabine River in the Toledo Bend Reservoir area (Figure 6). These are sites of undefined taxonomic affiliation, but they apparently are representative of "a local group whose ceramic tradition was distinct from Titus [phase] or Belcher [phase] in a number of ways. Certainly they had contacts with both these regions" (Kelley et al. 2010:26).

Belcher Ridged is one of the principal utility wares in Belcher phase sites on the Red River in north-western Louisiana and southwestern Arkansas (see Figure 6). This area is more than ca. 70 km north of the Sabine River sites where ridged pottery is relatively common. In Titus phase sites on the middle Sabine and in the Big Cypress Creek basin—west of Belcher phase communities and ca. 70 km or more northwest of the Toledo Bend Reservoir Caddo communities with ridged pottery—only between 0.2-2.2 percent of the decorated sherds in their ceramic assemblages are from ridged jars. It is suspected that these sherds are from vessels made either by Belcher phase or the aforementioned middle Sabine Caddo potters.

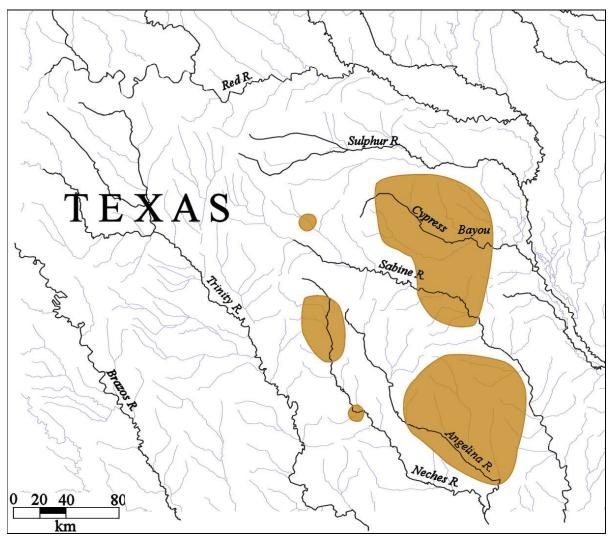


Figure 5. Caddo site clusters with high proportions (>60 percent of decorated ceramic assemblages) of brushed sherds in East Texas.

Other Utility Wares

Corn cob impressed

Corn cob impressed sherds (i.e., Anglin Corn Cob Impressed) have been identified in only five sites in the East Texas Caddo ceramic sherd database (see Table 1). These sites occur only in the upper Sabine, Sulphur, and Red River basins in the region (Figure 7). In three of the sites, the corn cob impressed sherds date after ca. A.D. 1550, while in the two other sites the corn cob impressed sherds are in ca. A.D. 1200-1400 ceramic assemblages.

Grooved

Utility ware jar sherds with grooved decorative elements (i.e., from Lindsey Grooved vessels, see Marceaux 2011) are distributed in two clusters of Caddo sites in the upper Neches and Angelina river basins (Figure 8). These sites all date after ca. A.D. 1680 to ca. A.D. 1750 and are historic Caddo sites associated

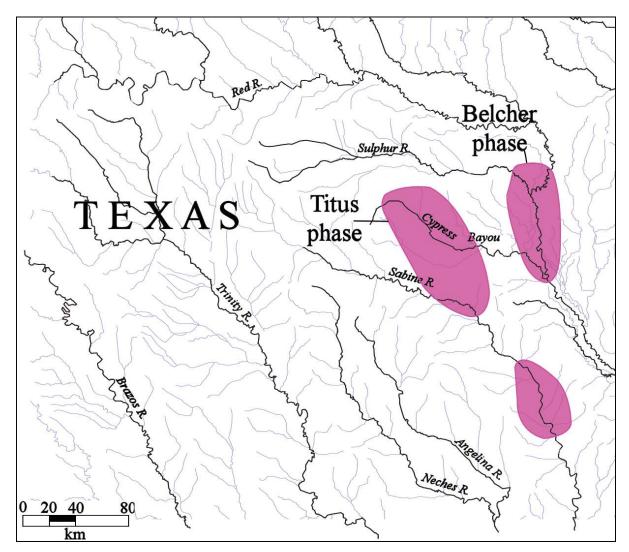


Figure 6. Distribution of sites where ridged ceramic sherds are present in East Texas, as well as the location of the Belcher phase and Titus phase sites with ridged ceramic sherds.

with the Allen phase (see Table 1). One grooved sherd from the Gilbert site (41RA13) in the upper Sabine River basin likely represents part of a vessel that was manufactured in one or the other of the two identified spatial clusters.

There are also a few grooved sherds from ca. A.D. 900-1300 contexts at three sites in the Neches, Red, and Sabine River basins, most notably at the George C. Davis site (41CE19). These grooved sherds are not related either stylistically or temporally with Lindsey Grooved wares, and are likely from Crenshaw Fluted vessels with deep vertical grooves or flutes (see Perttula and Selden 2015).

Lip Notched

The notching of the lips of vessels at the sole rim decoration is an apparently distinctive decorative method in a number of different Caddo communities of different ages in East Texas. The earliest assemblages (n=6), dating from ca. A.D. 900-1300, with lip notched vessels occur in the upper Red, upper and middle Sabine, and in the Angelina River basins (Figure 9).

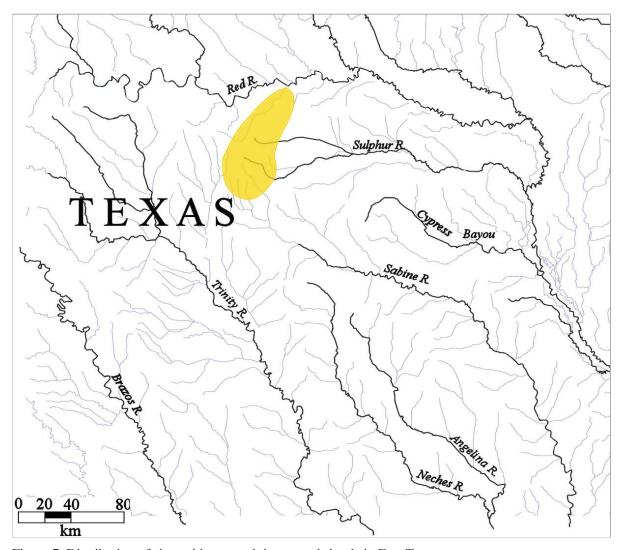


Figure 7. Distribution of sites with corn cob impressed sherds in East Texas.

Middle Caddo period communities where lip notched ceramics were made and eventually discarded (n=7) include the same previously mentioned assemblages, as well as sites in the Big Cypress Creek basin (see Figure 9). By post-A.D. 1400 times until the early 18th century, ceramic assemblages with lip notched vessels (n=10) occur more regularly in the upper Neches, middle Red River, middle Sabine, and the Angelina River basin (see Figure 9).

Neck Banded

Neck banded jars were a common utility ware in a number of ancestral Caddo communities occupied after ca. A.D. 1300 in East Texas (Figure 10), including both grog-bone and shell-tempered varieties. The highest proportions (23.6-79.6 percent of the decorated sherd assemblage) of neck banded sherds (shell-tempered) occur in ca. A.D. 1400-1680 McCurtain phase assemblages on the middle reaches of the Red River. Shell-tempered neck banded sherds (Nash Neck Banded) are also found in high percentages at other sites on the same age in other Red River communities (Figure 10) both upstream and downstream from the McCurtain phase sites; both grog/bone and shell-tempered neck banded sherds are found in these areas.

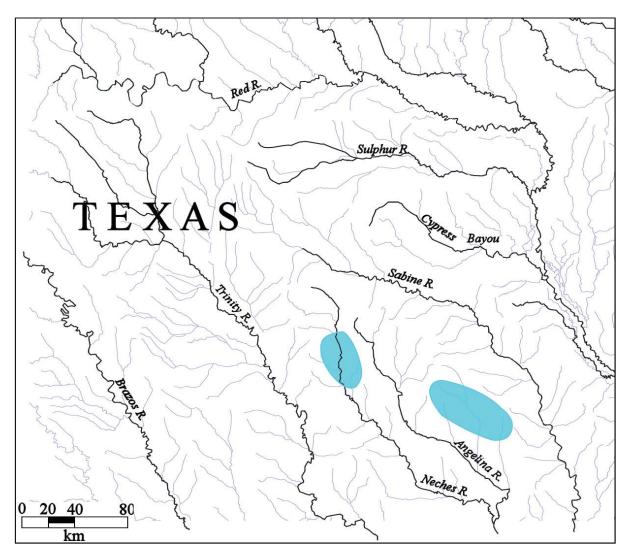


Figure 8. Distribution of East Texas Caddo sites with grooved sherds.

In other locales across East Texas, neck banded wares are almost exclusively grog/bone-tempered. These wares are found in sites in the upper Neches and upper Sabine River basins in Frankston (ca. A.D. 1400-1650) and Titus phase (ca. A.D. 1430-1680) contexts and in Titus phase ceramic assemblages in the Big Cypress Creek basin (see Figure 10). This ware has been classified as La Rue Neck Banded.

Spatial and Temporal Differences in Temper Use

The principal tempering materials used by East Texas Caddo potters from as early as ca. A.D. 850 were grog (crushed sherds) and burned bone. The use of grog temper occurs in East Texas Caddo assemblages in each of the river basins, irrespective of their age, but the common use of burned bone has distinct spatial and temporal distributions. So too does the use of burned mussel shell by Caddo potters, although its use is much more restrictive temporally and spatially than is burned bone (see Table 1).

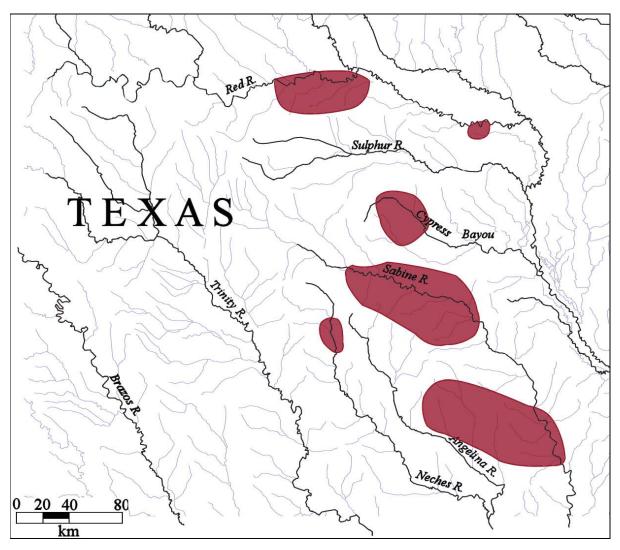


Figure 9. Distribution of Caddo site clusters with lip notched sherds in East Texas.

Bone-tempered ceramics

The use of burned animal bone for the temper of ceramic vessels is a distinctive characteristic of East Texas Caddo ceramic sherd assemblages, and most ceramic assemblages in the region have some bone-tempered sherds (see Table 1). However, sherd assemblages with high proportions (>40 percent of the sherd assemblage) of bone temper are concentrated in only a few locales across East Texas, most notably in the Toledo Bend Reservoir area along the middle Sabine River and in sites in the Angelina River basin (Figure 11). Bone-tempered sherds are not a notable feature of Caddo ceramic assemblages in the Neches, Big Cypress, Sulphur, or Red River basins.

Pre-A.D. 1400/1450 Caddo sites with a high proportion of bone temper are found only in a few areas in the middle Sabine River basin, including the Redwine site (41SM193) (see Table 1). Late Caddo (ca. A.D. 1400-1680) sites and assemblages with high proportions of bone temper are found in one site in the Trinity River basin (41HE70, Story 1965), and in several sites in the mid-Sabine and Angelina River basins (see Figure 11). In fact, these sites are part of a previously identified Late Caddo bone-tempered and brushed ceramic tradition (Perttula et al. 2011b:Figure 6-71). Historic Caddo sites (dating from ca. A.D. 1700-1830) with high percentages of bone temper use are known only in the upper and middle Sabine River basins, and in the lower Angelina River basin (see Figure 11).

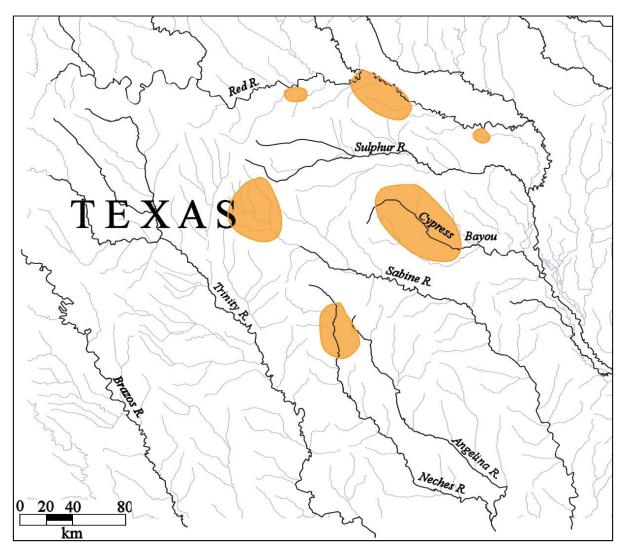


Figure 10. Distribution of areas of Caddo sites with high proportions (>5 percent of the decorated sherd assemblage) of neck banded sherds in East Texas.

Shell-tempered ceramics

Perttula et al. (2012e) have reviewed the age and distribution of shell-tempered ceramics in Caddo sites across the southern Caddo area. In general, shell-tempered ceramics were made by East Texas Caddo potters after ca. A.D. 1300, particularly in McCurtain phase sites along the middle reaches of the Red River and the lower Kiamichi River in southeastern Oklahoma (Figure 12; see also Selden et al. 2014:Figure 4). In East Texas McCurtain phase ceramic assemblages, the proportions of shell-tempered sherds ranges from 93-100 percent (see Table 1).

Caddo sites dating between ca. A.D. 1400-1680 with considerable amounts of shell-tempered ceramic sherds are found at just a few sites in the upper Sulphur and the mid-Red River (41BW716) (see Figure 12). By contrast, high proportions of shell-tempered sherds in ceramic assemblages are relatively common in post-A.D. 1700 Historic Caddo sites only in the upper Sabine, the Big Cypress Creek basin, and in two locales on the Red River, both upstream and downstream from the McCurtain phase sites (see Figure 12 and Table 1).

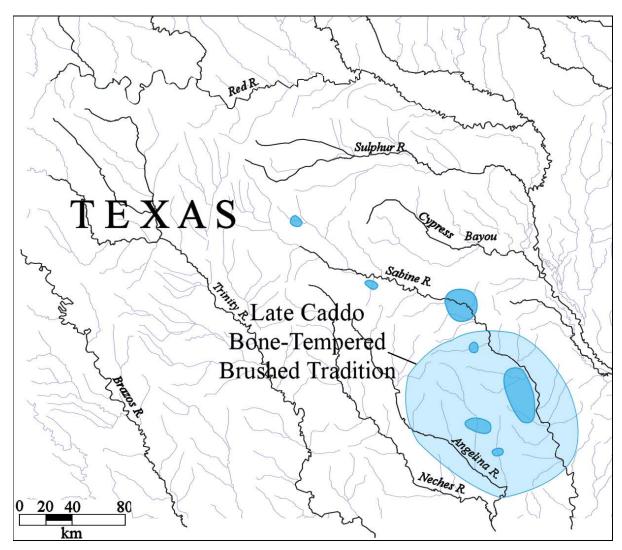


Figure 11. Clusters of Caddo sites with high proportions (>than 40 percent) of bone-tempered sherds in East Texas ceramic assemblages.

FUTURE PROSPECTS

The analytical and archaeological findings reported on in this article are based on a consideration of the East Texas Caddo ceramic sherd database, and represent only an initial set of stylistic attributes that have distinctive spatial and temporal distributions across East Texas. These findings barely plumb the depths of the East Texas Caddo ceramic sherd database, and further analyses are warranted; hopefully other ceramic assemblages can also be added to the database.

The next step will be to more formally and statistically assess the regional variation in Caddo ceramic assemblages. This should be based on a further delineation of temporal (i.e., to the smallest temporal interval possible given available chronological data) and spatial divisions in the character of Caddo ceramics (i.e., principally data on decorative methods and the use of different tempers) across East Texas sites, and then constructing networks of similarities between ceramic assemblages from these sites (cf. Peeples and Roberts 2013:3003-3004) that can be used to assess the strength of cultural relationships among Caddo communities in the region through time and across space. These postulated relationships should then be explored to try to determine the underlying reasons for the existence of such relationships, including factors such as the

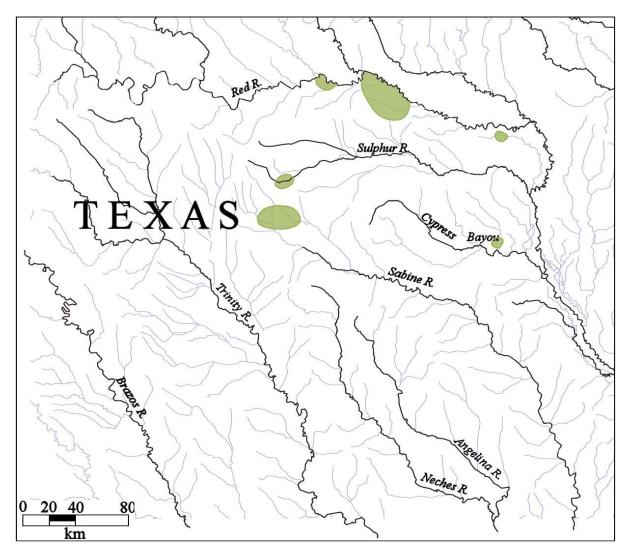


Figure 12. Clusters of Caddo sites with high proportions of shell-tempered sherds in East Texas ceramic assemblages.

frequency of interaction and direct contact between communities, trade and exchange of ceramic vessels, population movement, and similarities in the organization of ceramic vessel production. The results of past and current instrumental neutron activation analysis (INAA) and petrographic analysis of Caddo Area ceramics, including East Texas (where there is a robust INAA database) should also be explored as a means to corroborate production locales (cf. Selden et al. 2014), establish the chemical and paste characteristics of local fine ware and utility ware ceramics in assemblages, and evaluate the possible movement of ceramic vessels between different Caddo communities in East Texas and the broader Caddo world.

Finally, in conjunction with a database on 2D/3D-scanned Caddo ceramic vessels from East Texas sites, the East Texas Caddo ceramic sherd database should be made part of a digital database where comprehensive mathematical and quantitative analyses of morphological attributes and decorative elements on sherds and vessels can be conducted (e.g., Smith et al. 2014). Queries to such a combined database of vessels and sherds should lead to better understandings of regional Caddo ceramic typologies and their spatial and temporal underpinnings.

REFERENCES CITED

Anderson, K. M., K. Gilmore, O. F. McCormick III, and E. P. Morenon

Archaeological Investigations at Lake Palestine, Texas. Contributions in Anthropology No. 11. Department of Anthropology, Southern Methodist University, Dallas.

Barnhart, E., B. Dixon, S. Kotter, M. Nash, K. Reese-Taylor, E. Skokan, and R. Taylor

Data Recovery Excavations at Site 41TT372 and 41TT550 in the Tankersley and Hayes Creek Watersheds, Monticello B-2 Surface Mine, Titus County, Texas. Document No. 940608. Espey Huston & Associates, Inc., Austin.

Bell, M.

The Alex Justiss Site. A Caddoan Cemetery in Titus County, Texas. Publications in Archaeology No. 21. Highway Design Division, Texas Department of Highways and Public Transportation, Austin.

Benham, B. L., H. L. Miller, and J. V Sciscenti

Archaeological Research in the Toledo Bend Reservoir. Archaeology Research Program, Southern Methodist University, Dallas.

Brewington, R. L., J. E. Dockall, and H. J. Shafer

Archaeology of 41MX5: A Late Prehistoric Caddoan Hamlet in Morris County, Texas. Reports of Investigations No. 1. Center for Environmental Archaeology, Texas A&M University, College Station.

Bruseth, J. E. and T. K. Perttula

- Archaeological Research at Lake Fork Reservoir: Excavations at the Howle Site and Site Testing. Archaeology Research Program, Southern Methodist University, Dallas.
- Prehistoric Settlement Patterns at Lake Fork Reservoir. Texas Antiquities Permit Series, Report No. 2. Texas Antiquities Committee and Southern Methodist University, Austin and Dallas.
- Archeological Investigations at the Hudnall-Pirtle Site (41RK4): An Early Caddo Mound Center in Northeast Texas. Caddo Archeological Journal 15:57-158.

Campbell, J. A.

2001 Addendum I to Phase I Archaeological Investigations for the Proposed Longview Transmission Line Project, Harrison, Upshur, and Gregg Counties. Burns & McDonnell, Kansas City.

Cliff, M. B. and T. K. Perttula

2002 Results of National Register Investigations Conducted on Site 41PN175, Panola County, Texas. Report No. 32. Archeological Studies Program, Environmental Affairs Division, Texas Department of Transportation, Austin.

Cliff, M. B., S. M. Hunt, M. M. Green, R. Proctor, F. B. Largent, Jr., and W. J. Autin

Geomorphological Investigations and Inventory of Cultural Resources along and near the Bowie County Levee, Bowie County, Texas: 1996. Miscellaneous Report of Investigations No. 139. Geo-Marine, Inc., Plano.

Cliff, M. B., E. C. Sills, T. K. Perttula, and P. Dering

2004 National Register Testing of Sites 41HE14, 41HE139, and 41HE343 within Proposed FM 3506 Right of Way, Henderson County, Texas. Report No. 60. Archeological Studies Program, Texas Department of Transportation, Austin.

Clark, J. W. and J. E. Ivey

Archaeological and Historical Investigations at Martin Lake, Rusk and Panola Counties, Texas. Research Report 32. Texas Archeological Survey, Austin.

Corbin, J. E. and D. C. Kisling

1983 The Adolphus Sterne Home: Preliminary Archaeological Investigations of a Mid-Nineteenth Century Plantation in Nacogdoches County, Texas. Papers in Anthropology No. 4. Stephen F. Austin State University, Nacogdoches.

Corbin, J. E., H. A. Brown, M. G. Canavan, and S. Toups

1990 Mission Dolores de los Ais (41SA25): San Augustine County Texas. Archeological Investigations, Stephen F. Austin State University, Nacogdoches

Creel, D. G.

1979 Archeological Investigations at the George C. Davis Site, Cherokee County, Texas, Summer 1978. Texas Antiquities Permit Series No. 1. Texas A&M University, College Station.

Davis, E. M., W. A. Davis, J. R. Gipson, and B. Golden

2010 Archeological Investigations at Lake O' The Pines, Marion and Upshur Counties, Texas, 1957-1959. Archival Series 4. Texas Archeological Research Laboratory, The University of Texas at Austin.

Davis, W. A. and H. R. Horn

The Zavonian Springs Site: An Archaic-Neo-American Site in McGee Bend Reservoir, San Augustine County, Texas. *Bulletin of the Texas Archeological Society* 35:113-150.

Dixon, B., S. Kotter, E. Skokan, M. Nash, R. Rogers, and E. Barnhart

1995 Archaeological Testing of Site 41TT672 and Geomorphological Exploration of Tankersley and Dragoo Creek Drainages, Titus County, Texas. Document No. 950565. Espey, Huston & Associates, Inc., Austin.

Dockall, J. E. and R. C. Fields

National Register Testing of Three Sites in the Sabine Mine's South Hallsville No. 1 Mine-Rusk Permit, Rusk County, Texas. Report of Investigations No. 162. Prewitt and Associates, Inc., Austin.

Dockall, J., S. Katauskas, and R. Fields

National Register Testing of Four Sites in the Sabine Mine's Area M, Harrison County, Texas. Reports of Investigations No. 157. Prewitt and Associates, Inc., Austin.

Doehner, K. and R. E. Larson

1978 Archaeological Research at Cooper Lake, Northeast Texas, 1974-75. Research Report No. 108. Archaeology Research Program, Southern Methodist University, Dallas.

Doehner, K., D. Peter, and S. A. Skinner

1978 Evaluation of the Archaeology at the Proposed Cooper Lake. Research Report No. 114. Archaeology Research Program, Southern Methodist University, Dallas.

Duffield, L. F.

1961 The Limerick Site at Iron Bridge Reservoir, Rains County, Texas. *Bulletin of the Texas Archeological Society* 30:51-116.

Duffield, L. F. and E. B. Jelks

1961 The Pearson Site: A Historic Indian Site at Iron Bridge Reservoir, Rains County, Texas. Archaeology Series No. 4. Department of Anthropology, The University of Texas at Austin.

Fields, R. C.

- 1978 Report on the 1977 Investigations at the George C. Davis Site, Caddoan Mounds State Historic Site, Cherokee County, Texas. Texas Archeological Research Laboratory, The University of Texas at Austin.
- 1995 Analysis of Native-Made Ceramics. In *The Deshazo Site*, *Nacogdoches County. Texas*, *Volume 2: Artifacts of Native Manufacture*, edited by D. A. Story, pp. 173-232. Studies in Archeology 21. Texas Archeological Research Laboratory The University of Texas at Austin.

- Fields, R. C. and E. F. Gadus (editors)
- 2012 Archeology of the Nadaco Caddo: The View from the Pine Tree Mound Site (41HS15), Harrison County, Texas. 2 Vols. Reports of Investigations No. 164. Prewitt and Associates, Inc., Austin.
- Fields, R. C. and J. P. Thurmond
- The George C. Davis Site, Cherokee County, Texas: Spring 1980 Archeological Investigations. Report of Investigations No. 8. Prewitt and Associates, Inc., Austin.
- Fields, R. C., E. F. Gadus, and L. W. Klement
- 1994a The Peerless Bottoms Site: A Late Caddoan Component at Cooper Lake, Hopkins County, Texas. Bul*letin of the Texas Archeological Society* 65:55-114.
- Fields, R. C., E. F. Gadus, L. W. Klement, and K. M. Gardner
- 1994b Excavations at the Spider Knoll Site, Cooper Lake Project, Delta County, Texas. Reports of Investigations No. 96. Prewitt and Associates, Inc., Austin.
- Fields, R. C., E. F. Gadus, L. W. Klement, C. B. Bousman, and J. B. McLerran
- Excavations at the Tick, Spike, Johns Creek, and Peerless Bottoms Sites, Cooper Lake Project, Delta & Hopkins Counties, Texas. Report of Investigations No. 91. Prewitt and Associates, Inc., Austin.
- Fields, R. C., V. L. Hatfield, D. Burden, E. F. Gadus, M. C. Wilder, and K. W. Kibler
- Testing and Data recovery Excavations at 11 Native American Archeological Sites along the U.S. Highway 271 Mount Pleasant Relief Route, Titus County, Texas. 2 Vols. Reports of Investigations No. 168. Prewitt and Associates, Inc., Austin.
- Flynn, P.
- 1976 A Study of Red-Filmed Pottery from the Clement Site (Mc-8), McCurtain County, Oklahoma. Bulletin of the Oklahoma Anthropological Society 25:127-134.
- Gadus, E. F., R. C. Fields, and C. B. Bousman
- Archeological Investigations at 41DT11, 41DT21, 41DT50, 41DT54, and 41DT63 at Cooper Lake, Delta County, Texas. Reports of Investigations No. 86. Prewitt and Associates, Inc., Austin.
- Gadus, E. F., R. C. Fields, J. K. McWilliams, J. Dockall, and M. C. Wilder
- National Register Testing of Seven Prehistoric Sites in the Sabine Mine's Area Q, Harrison County, Texas. Reports of Investigations, Number 147. Prewitt and Associates, Inc., Austin.
- Gadus, E. F., J. K. McWilliams, and R. C. Fields
- 2002 Data Recovery Excavations at the McGuire's Garden Site (41FT425), Jewett Mine, Freestone County, Texas. Reports of Investigations No. 134. Prewitt and Associates, Inc., Austin.
- Galan, V., R. Rogers, T. K. Perttula, and E. S. Switek
- National Register Testing of Seven Sites in the Monticello B-2 Surface Mine, Titus County, Texas. Document No. 971085. Espey, Huston & Associates, Inc., Austin.
- Gilmore, K.
- 1986 French-Indian Interaction at an Early Eighteenth Century Post: The Roseborough Lake Site, Bowie County, Texas. Contributions in Archaeology 3. Institute of Applied Sciences, North Texas State University, Denton.
- Goode, G. T., T. K. Perttula, L. L. Bush, S. Marceaux, L. Schniebs, and J. Todd
- Excavations at the Early Caddo Period Mound Pond Site (41HS12) in Harrison County, Texas. MS on file, Center for Regional Heritage Research, Stephen F. Austin State University, Nacogdoches.
- Griffith, T. B., R. C. Fields, S. L. Katauskas, and A. E. Dase
- Archeological and Historical Resources Surveys of 2,144 Acres in the Proposed Marshall Mine, Harrison and Panola Counties, Texas. Reports of Investigations No. 163. Prewitt and Associates, Inc., Austin.

Harris, R. K., I. M. Harris, J. C. Blaine, and J. Blaine

1965 A Preliminary Archeological and Documentary Study of the Womack Site, Lamar County, Texas. *Bulletin of the Texas Archeological Society* 36:287-365.

Hart, J. P.

An Analysis of the Aboriginal Ceramics from the Washington Square Mound Site, Nacogdoches County, Texas. Master's thesis, Department of Anthropology, Northeast Louisiana University, Monroe.

Haskins, P. and M. Walters

2001 Archaeological Investigations of an Oil Well Pad Disturbance at the Tom Moore Site (41PN149), Panola County. *Journal of Northeast Texas Archaeology* 14:37-61.

Heartfield, Price, and Greene, Inc.

1988 Data Recovery at 41HS74, Harrison County, Texas. Heartfield, Price, and Greene, Inc., Monroe.

Hunt, S. M., F. B. Largent, Jr., and M. B. Cliff

1996 Cultural Resources Evaluation of the Pilgrim's Pride Property South of Big Cypress Creek, Camp County, Texas. Miscellaneous Report of Investigations No. 118. Geo-Marine, Inc., Plano.

Hyatt, R. D. and K. Doehner

1975 Archaeological Research at Cooper Reservoir, Northeast Texas, 1973. Contributions in Anthropology No. 15. Department of Anthropology, Southern Methodist University, Dallas.

Hyatt, R. D., B. H. Butler, and H. P. Mosca, III

1974 Archaeological Research at Cooper Lake 1970-1972. Contributions in Anthropology No. 12. Department of Anthropology, Southern Methodist University, Dallas.

Jackson, M. K., T. Middlebrook, G. Avery, H. Shafer, and B. Meissner

Trade and Cultural Interaction along El Camino Real de los Tejas During the Spanish Colonial and Republic Periods in Nacogdoches County, Texas. 2 Vols. Nine Flags Museum, Nacogdoches.

Jelks, E. B.

1965 The Archeology of McGee Bend Reservoir, Texas. Ph.D. dissertation, Department of Anthropology, The University of Texas at Austin.

Jelks, E. B. and C. D. Tunnell

1959 The Harroun Site, A Fulton Aspect Component of the Caddoan Area, Upshur County, Texas. Archaeology Series No. 2. Department of Anthropology, The University of Texas at Austin.

Johnson, L., Jr.

- 1961 An Archeological Survey of Blackburn Crossing Reservoir on the Upper Neches River. *Bulletin of the Texas Archeological Society* 31:213-238.
- The Yarbrough and Miller Sites of Northeastern Texas, with a Preliminary Definition of the LaHarpe Aspect. *Bulletin of the Texas Archeological Society* 32:141-284.

Jones, B. C.

- 1957 The Grace Creek Sites, Gregg County, Texas. Bulletin of the Texas Archeological Society 28:198-231.
- 1968 The Kinsloe Focus: A Study of Seven Historic Caddoan Sites in Northeast Texas. Master's thesis, Department of Anthropology, University of Oklahoma, Norman.

Jurney, D. H.

2000 Passport in Time Archaeological Investigations at the Hargrove Lake Site (41HO150), Houston County, Texas. U.S. Forest Service, Lufkin.

Jurney, D. H., J. Bohlin, S. E. Linder Linsley, S. C. Caran, and D. R. Pedler

1993 Archaeological Survey of Cooper Lake, Delivery Order Number 7, 1989. Cultural Resources Studies for Cooper Lake, Hopkins and Delta Counties, Texas. Archaeology Research Program, Southern Methodist University, Dallas.

Kelley, D. B.

The Burnitt Site: A Late Caddoan Occupation in the Uplands of the Sabine River Basin of Louisiana. Coastal Environments, Inc., Baton Rouge.

Kelley, D. B., D. G. Hunter, K. M. Roberts, S. L. Scott, and B. S. Haley

2010 The Burnitt Site (16SA204): A Late Caddoan Occupation in the Uplands of the Sabine River Basin. Louisiana Archaeology 31:4-33.

Kenmotsu, N. A.

2005 Investigations at the Salt Well Slough Site (41RR204), a Salt Making Site in Red River County, Texas. Archeological Reports Series, No. 4. Texas Historical Commission, Austin.

Kleinschmidt, U. K. W.

1982 Review and Analysis of the A. C. Saunders Site, 41AN19, Anderson County, Texas. Master's thesis, Department of Anthropology, The University of Texas at Austin.

Krieger, A. D.

- 1941 An Analytical System for East Texas Pottery. Southeastern Archaeological Conference Newsletter 2(4):7-
- Culture Complexes and Chronology in Northern Texas, with Extensions of Puebloan Datings to the Mississippi Valley. Publication No. 4640. The University of Texas, Austin.
- 2000 The Pottery of the Sanders Farm. In The 1931 Excavations at the Sanders Site, Lamar County, Texas: Notes on the Fieldwork, Human Osteology, and Ceramics, by A. T. Jackson, M. S. Goldstein, and A. D. Krieger, pp. 131-144. Archival Series 2. Texas Archeological Research Laboratory, The University of Texas at Austin.

Largent, F. B., Jr., D. Beene, M. B. Cliff, and S. Hunt

Cultural Resources Testing of Two Sites within the White Oak Creek Wildlife Management Area (WOC-MA), Bowie and Titus Counties, Texas. White Oak Creek Wildlife Management Area Archaeological Technical Series, Report of Investigations No. 6. Geo-Marine, Inc., Plano.

Lorrain, D. and N. Hoffrichter

Archeological Survey and Excavation at Pat Mayse Reservoir, Texas. Archaeological Salvage Project, Southern Methodist University, Dallas.

Mahoney, R., with contributions by C. Crawford, R. Mauldin, L. Nordt, T. K. Perttula, and S. Reyna

Camp Maxey III, Archaeological Testing of 23 Prehistoric Sites, Lamar County, Texas. Archaeological Survey Report No. 314. Center for Archaeological Research, The University of Texas at San Antonio.

Mallouf, R. J.

1976 Archeological Investigations at Proposed Big Pine Lake, 1974-1975: Lamar and Red River Counties, Texas. Archeological Survey Report No. 18. Office of the State Archeologist, Texas Historical Commission, Austin.

Marceaux, P. S.

The Archaeology and Ethnohistory of the Hasinai Caddo: Material Culture and the Course of European Contact. Ph.D. dissertation, Department of Anthropology, The University of Texas at Austin.

McClurkan, B. B., W. T. Field, and J. N. Woodall

Excavations in Toledo Bend Reservoir, 1964-65. Papers of the Texas Archeological Salvage Project No. 8. Texas Archeological Salvage Project, The University of Texas at Austin.

McDonald, A. J.

1972 An Archeological Survey of the Martin Lake Area, Rusk and Panola Counties, Texas. Research Report No. 14. Texas Archeological Salvage Project, The University of Texas at Austin.

McGregor, D. E., M. M. Green, D. H. Jurney, W. A. Martin, R. W. Moir, and J. W. Saunders

1996 Archaeological Investigations at Cooper Lake, Delivery Orders Numbers 2, 3 & 4, 1987. 2 Vols. Archaeology Research Program, Southern Methodist University, Dallas.

Middlebrook, T. A.

1994 An Update of Archaeological Investigations at the Tyson Site. *Journal of Northeast Texas Archaeology* 3:1-36.

Mills, B. J., J. M. Roberts Jr., J. J. Clark, W. R. Haas Jr., D. L. Huntley, M. A. Peeples, L. Borck, S. C. Ryan, M. A. Trowbridge, and R. L. Breiger

2013 The dynamics of social networks in the late prehispanic U.S. Southwest. In *New Approaches in Regional Network Analysis*, edited by C. Knappett and R. Rivers, pp. 185-206. Oxford University Press, Oxford.

Miroir, M. E., R. K. Harris, J. C. Blaine, and J. McVay

1973 Bernard de la Harpe and the Nassonite Post. Bulletin of the Texas Archeological Society 44:113-167.

Nash, M. A., S. M. Kotter, and K. V. Reese-Taylor

1995 National Register Testing of Ten Sites in the Monticello B-2 Surface Mine, Titus County, Texas. Document No. 930529. Espey, Huston & Associates, Inc., Plano.

Nash, M. A., T. K. Perttula, and L. W. Ellis

2012 National Register of Historic Places Eligibility Testing of Site 41SM404 within TxDOT's Tyler District, Smith County, Texas. Document No. 110055. Atkins, Austin.

Nelson, B. and T. K. Perttula

1993 Site 41UR136, a Titus Phase Site in the Little Cypress Creek Basin. *Caddoan Archeology Newsletter* 3(4):11-16.

2003a Archeological Investigations of the Underwood Site (41CP230): A Titus Phase Settlement along Big Cypress Creek in Camp County, Texas. *Journal of Northeast Texas Archaeology* 17:1-61.

2003b Archeological Survey along the Lake Bob Sandlin Shoreline, Camp, Franklin, and Titus Counties, Texas. Report of Investigations No. 46. Archeological & Environmental Consultants, LLC, Austin.

2006 Archaeological Investigations at the New Hope Site (41FK107) at Lake Bob Sandlin, Franklin County, Texas. *Journal of Northeast Texas Archaeology* 25:26-37.

Nelson, B., M. Crabb, and T. K. Perttula

2004 The Crabb Site (41TT650), a Prehistoric Caddo Site on Tankersley Creek, Titus County, Texas. *Journal of Northeast Texas Archaeology* 19:1-21.

Nelson, B., M. Turner, and T. K. Perttula

1996 Archeological Investigations at the Griffin Mound Site: A Middle Caddoan Site in Upshur County, Texas. The Cache, Collected Papers on Texas Archeology 3:49-66. Office of the State Archeologist, Texas Historical Commission, Austin.

Nichols, P., M. Parsons, M. D. Freeman, L. Banks, D. Shanabrook, and B. Rader

1997 Test Excavations at Proposed Lake Gilmer, Upshur County, Texas. Horizon Environmental Services, Inc., Austin.

Parsons, M.

2011 Mitigation Phase Archeological Investigations at Lake Gilmer, Upshur County, Texas. MS on file, Archeology Division, Texas Historical Commission, Austin.

- Parsons, M. L., J. E. Bruseth, J. Bagur, S. E. Goldborer, and C. McCrocklin
- 2002 Finding Sha'chahdinnih (Timber Hill): The Last Village of the Kadohadacho in the Caddo Homeland. Archeological Reports Series No. 3. Texas Historical Commission, Austin.

Peeples, M. A. and J. M. Roberts Jr.

2013 To binarize or not to binarize: relational data and the construction of archaeological networks. Journal of Archaeological Science 40:3001-3010.

Perttula, T. K.

- 1998 Caddo Ceramics from the Middle Caddoan Period Knight's Bluff Site (41CS14), Cass County, Texas. Caddoan Archeology 8(4):11-19.
- 1999 (Editor) The Hurricane Hill Site (41HP106): The Archaeology of a Late Archaic/Early Ceramic and Early-Middle Caddoan Settlement in Northeast Texas. 2 Vols. Special Publication No. 4. Friends of Northeast Texas Archaeology, Pittsburg and Austin.
- The Caddoan Ceramics from the Gray's Pasture Site (41HS524), Harrison County, Texas. Journal of 2000 Northeast Texas Archaeology 13:1-38.
- 2002a Caddo Ceramics from 41HS835, Harrison County, Texas. In A Phase I Cultural Resources Survey of the Blocker-Crossroads WSC Water Line Project in Central Harrison County, Texas, by W. E. Moore, pp. AII 1-13. Contract Report No. 103. Brazos Valley Research Associates, Bryan.
- 2002b (Editor) Archeological Investigations at the Proposed Lake Naconiche, Nacogdoches County, Texas. 2 Vols. Report of Investigations No. 42. Archeological and Environmental Consultants, LLC, Austin.
- 2005a The M. W. Burks Site (41WD52), A Late Caddo Hamlet in Wood County, Texas. Journal of Northeast Texas Archaeology 23:1-27.
- 2005b The Cranfill Site (41BW171), a Prehistoric Caddo Site in the Red River Valley, Bowie County, Texas. *Journal of Northeast Texas Archaeology* 22:1-37.
- 2005c 1938-1939 WPA Excavations at the Hatchel Site (41BW3) on the Red River in Bowie County, Texas. Southeastern Archaeology 24(2):180-198.
- 2005d (Editor) Archeological Investigations at the Pilgrim's Pride Site (41CP304), a Titus Phase Community in the Big Cypress Creek Basin, Camp County, Texas. 2 Vols. Report of Investigations No. 30. Archeological & Environmental Consultants, LLC, Austin.
- 2008a Analysis of the Historic Caddo Ceramics from 41NA223 in Downtown Nacogdoches, Nacogdoches County, Texas. *Journal of Northeast Texas Archaeology* 28:35-50.
- 2008b (Editor) Lake Naconiche Archeology, Nacogdoches County, Texas: Results of the Data Recovery Excavations at Five Prehistoric Archeological Sites. 2 Vols. Report of Investigations No. 60. Archeological & Environmental Consultants, LLC, Austin.
- 2008c The Archeology of the Roitsch Site (41RR16), an Early to Historic Caddo Period Village on the Red River in Northeast Texas. In Collected Papers from Past Texas Archeological Society Summer Field Schools, edited by T. K. Perttula, pp. 313-628. Special Publication No. 5. Texas Archeological Society, San Antonio.
- 2008d Archeological Survey of the Roitsch Farm and Adjoining Lands, 1991 and 1992 Texas Archeological Society Field School, Red River County, Texas. In Collected Papers from Past Texas Archeological Society Summer Field Schools, edited by T. K. Perttula, pp. 173-312. Special Publication No. 5. Texas Archeological Society, San Antonio.
- 2009a Frankston Phase Ceramics from the Alcoa # 1 (41AN87) Site, Mound Prairie Creek, Anderson County, Texas. Journal of Northeast Texas Archaeology 29:23-44.
- 2009b The Ceramics from a Late Caddo Site on Mud Creek in Cherokee County, Texas. Journal of Northeast Texas Archaeology 29:45-52.
- 2009c Late Caddo Ceramics from 41HE337 in Henderson County, Texas. Journal of Northeast Texas Archaeology 29:53-57.

- 2009d Ceramic Vessel Sherds from the Kah-Hah-Ko-Wha Site (41CE354), an Allen Phase Component in Northwestern Cherokee County, Texas. Journal of Northeast Texas Archaeology 29:59-79.
- 2009e The Archaeology of the 16th and 17th Century Caddo in the Post Oak Savannah of Northeast Texas: The Tuinier Farm (41HP237), R. A. Watkins (41HP238), and Anglin (41HP240) Sites in the Stouts Creek Basin, Hopkins County, Texas. Journal of Northeast Texas Archaeology 30:1-132.
- 2009f Analysis of the Caddo Archeological Materials from the 1985 Texas Archeological Society Field School at the Washington Square Mound Site, Nacogdoches County, Texas. Bulletin of the Texas Archeological *Society* 80:145-193.
- 2009g The Decorated Ceramic Sherds, Plain Rims, and Clay Pipe Sherds from the Stallings Site (41LR297), Lamar County, Texas. MS on file.
- 2010a Documentation of Caddo Ceramic Vessel Sherds from the Shelby Site (41CP71) in the Vernon Holcomb Collection, Camp County, Texas. Journal of Northeast Texas Archaeology 33:25-29.
- 2010b Analysis of the Prehistoric Caddo Ceramics from 41LR351, Lamar County, Texas. Journal of Northeast Texas Archaeology 33:69-91.
- 2010c Analysis of Caddo Sherds from Sites in Shelby County, Texas. Ms on file.
- 2011a A Radiocarbon Date from a Middle Caddo Period Habitation Site on Hickory Creek, Houston County, Texas. Caddo Archeology Journal 21:147-156.
- 2011b Another Look at the Grace Creek #1 Site in Gregg County, Texas, as Seen Through Ceramic Analysis. Journal of Northeast Texas Archaeology 35:11-46.
- 2011c (assembler) Archaeological and Archaeogeophysical Investigations at an Early Caddo Mound Center in the Sabine River Basin of East Texas, Special Publication No. 15. Friends of Northeast Texas Archaeology, Austin and Pittsburg.
- Analysis of Ceramic Sherds from the Mid-18th Century Gilbert Site on Lake Fork Creek, Rains County, Texas. Journal of Northeast Texas Archaeology 37:1-22.
- 2013a The Sam D. Carpenter Bottom Site (41CP495) in the Big Cypress Creek Basin, Camp County, Texas. Journal of Northeast Texas Archaeology 42:1-21.
- 2013b The McMinn Ranch Site (41CP72) in the Dry Creek Valley, Camp County, Texas. Journal of Northeast Texas Archaeology 42:23-32.
- 2013c Analysis of the Prehistoric Artifact Assemblage of Ceramic and Lithic Artifacts from 41LR351, Lamar County, Texas. Journal of Northeast Texas Archaeology 39:7-41.
- 2013d The Tom Hanks Site (41CP239): A Late Caddo, Titus Phase Mound Site in the Big Cypress Creek Basin, Camp County, Texas. Journal of Northeast Texas Archaeology 41:17-26.
- 2013e The Linebarger Site on Dry Creek, Camp County, Texas. Journal of Northeast Texas Archaeology 40:31-
- 2013f Analysis of Surface Collections from Areas A and B at the Sam Roberts Site (41CP8) on Prairie Creek, Camp County, Texas. Journal of Northeast Texas Archaeology 40:39-46.
- 2013g The Sam D. Carpenter Garden Plot Site (41CP496), Camp County, Texas. Journal of Northeast Texas Archaeology 40:47-52.
- 2013h The Analysis of the Aboriginal Ceramic Sherds Recovered from the Keystone Pipeline Project in Eastern Texas. MS on file, SWCA, Inc., Austin.
- 2013i Caddo Ceramics in East Texas. Bulletin of the Texas Archeological Society 84:181-212.
- 2014a Caddo Ceramics from Mound Deposits at the Shelby Mound Site (41CP71) on Greasy Creek, Camp County, Texas. Journal of Northeast Texas Archaeology 46:7-43.
- 2014b Archaeological Studies of the Hatchel Site (41BW3) on the Red River in Bowie County, Texas. Special Publication No. 23. Friends of Northeast Texas Archaeology, Austin and Pittsburg.
- 2014c The Mitchell Site (41BW4): An Ancestral Caddo Settlement and Cemetery on McKinney Bayou, Bowie County, Texas. Special Publication No. 32. Friends of Northeast Texas Archaeology, Austin and Pittsburg.

- 2014d The Caddo Archaeology of the Musgano Site (41RK19) in the Sabine River Basin of East Texas. Special Publication No. 28. Friends of Northeast Texas Archaeology, Austin and Pittsburg.
- 2014e The Eli Moores Site, a 17th to early 18th Century Caddo Site on the Red River, Bowie County, Texas. Special Publication No. 31. Friends of Northeast Texas Archaeology, Austin and Pittsburg.
- 2014f The Hale and Keith Mounds in the Big Cypress Creek Basin in East Texas. Special Publication No. 33. Friends of Northeast Texas Archaeology, Austin and Pittsburg.
- 2014g Aboriginal Ceramic Vessel and Pipe Sherds from the Murvaul Creek Site (41PN175), Panola County, Texas. MS on file, Versar-Geo-Marine, Inc., Plano.
- 2014h The Caddo Ceramic and Lithic Assemblage from the Robert Griffin Site (41SY41), Shelby County, Texas. Research Report No. 1. Center for Regional Heritage Research, Stephen F. Austin State University, Nacogdoches.
- 2014i The Caddo Ceramic Assemblage from the Buddy Hancock Site (41SY45), Shelby County, Texas. Research Report No. 2. Center for Regional Heritage Research, Stephen F. Austin State University, Nacogdoches.
- 2015a The Caddo Ceramic Assemblage from the Hardin A Site (41GG69) on the Sabine River in Gregg County, Texas. *Journal of Northeast Texas Archaeology* 51, this volume.
- 2015b The Harling Site (41FN1), An Ancestral Caddo Mound Site on the Red River in Fannin County, Texas. *Journal of Northeast Texas Archaeology* 51, this volume.
- 2015c The Womack Site (41LR1), an Ancestral Caddo Settlement on the Red River in Lamar County, Texas. Journal of Northeast Texas Archaeology 52, in press.
- 2015d A Titus Phase Midden Mound at the Earl Jones Farm (41WD3) in the Lake Fork Creek Basin, Wood County, Texas. Journal of Northeast Texas Archaeology 53, in press.
- 2015e The L. L. Winterbauer Site (41WD6), Wood County, Texas. Journal of Northeast Texas Archaeology 53, in press.
- 2015f The A. C. Gibson Site (41WD1), a Middle Caddo Period Component on the Sabine River in Wood County, Texas. Journal of Northeast Texas Archaeology 53, in press.

Perttula, T. K. and L. W. Ellis

The Hickory Hill Site (41CP408): Archeological Investigations at a Middle Caddo Site in the Little Cypress Creek Basin in East Texas. Document No. 120055. Atkins Group, Austin.

Perttula, T. K. and K. K. Gilmore

Archaeological Survey along Mill Race Creek and Tributaries, Wood County, Texas: 1987-1988. Contributions in Archaeology No. 6. Institute of Applied Sciences, University of North Texas, Denton.

Perttula, T. K. and T. Middlebrook

Prehistoric Caddo Ceramics from the Henry Lake Site (41CE324), Cherokee County, Texas. Journal of Northeast Texas Archaeology 29:9-21.

Perttula, T. K. and B. Nelson

- 1997 41HS574, The Coleman Farm Site on Starkey Creek. Journal of Northeast Texas Archaeology 10:52-57.
- Archeological Survey Investigations of Selected Parts of the Walker Creek Project Area for Pilgrim's Pride Corporation, Camp County, Texas. Report of Investigations No. 22. Archeological and Environmental Consultants, Austin.
- Additional Archeological Survey and Shovel Testing Investigations in the Walker Creek Complex Project Area for Pilgrim's Pride Corporation, Camp County, Texas. Report of Investigations No. 23. Archeological and Environmental Consultants, LLC, Austin.
- 2000a Phase II Archeological Survey Investigations of the City of Tyler-Lake Palestine WTP Project, Smith County, Texas. Report of Investigations No. 41. Archeological and Environmental Consultants, Austin.
- 2000b Archeological Investigations at 41CE299, Double Creek Wastewater Treatment Plant, and along Ragsdale Creek, Cherokee County, Texas. Report of Investigations No. 36. Archeological & Environmental Consultants, LLC, Austin.

- 2001 Archeological Test Excavations at the Prestonwood (41SM272) and Broadway (41SM273) Sites along the City of Tyler-Lake Palestine WTP Project, Smith County, Texas. Report of Investigations No. 43. Archeological and Environmental Consultants, LLC, Austin.
- 2002a An Archeological Survey of Harrison Bayou Lease Lands at the Longhorn Army Ammunition Plant, Harrison County, Texas. Report of Investigations No. 12. Archeological and Environmental Consultants, Austin
- 2002b Archeological Survey of Lake Bob Sandlin State Park, Titus County, Texas. Report of Investigations No. 48. Archeological and Environmental Consultants, LLC, Austin.
- 2003a The Nawi haia ina Site (41RK170): Archeological Investigations in the City of Henderson's Southside Wastewater Treatment Plant, Rusk County, Texas. Report of Investigations No. 51. Archeological & Environmental Consultants, LLC, Austin.
- 2003b Archeological Investigations of Village Areas at the Hatchel Site (41BW3), Bowie County, Texas. Report of Investigations No. 58. Archeological & Environmental Consultants, LLC, Austin.
- 2004a Archeological Investigations at the Shelby Site (41CP71) on Greasy Creek, Camp County, Texas. Special Publication No. 5. Friends of Northeast Texas Archaeology, Pittsburg and Austin.
- 2004b Woodland and Caddo Archeology at the Broadway or Kanduts'ah Kuhnihdahahdisa' Site (41SM273) on the City of Tyler-Lake Palestine WTP Project, Smith County, Texas. Report of Investigations No. 50. Archeological & Environmental Consultants, LLC, Austin.
- 2006a Archaeological Investigations at the Polk Estates Site (41CP245), Camp County, Texas. *Journal of Northeast Texas Archaeology* 24:1-83.
- 2006b Test Excavations at Three Caddo Sites at Mission Tejas State Park, Houston County, Texas. Report of Investigations No. 76. Archeological & Environmental Consultants, LLC, Austin.
- 2007a Archeological Survey Investigations and Test Excavations at 41CE354 at the North and South Lake areas of the H.R.C. Cherokee Tree Farm, L. P. Project, Cherokee County, Texas. Report of Investigations No. 80. Archeological & Environmental Consultants, LLC, Austin.
- 2007b Archeological Investigations in 2007 at Mission Tejas State Park in Houston County, Texas. Report of Investigations No. 85. Archeological & Environmental Consultants, LLC, Austin.
- 2009 Archeological Survey of 361.3 Acres of the H.R.C. Cherokee Tree Farm, L. P. Project in the Flat Creek Valley, Cherokee County, Texas. Report of Investigations No. 98. Archeological & Environmental Consultants, LLC, Austin.
- 2012a The Caddo Ceramic Assemblage from the New Hope Site (41FK107), Franklin County, Texas. *Journal of Northeast Texas Archaeology* 38:45-71.
- 2012b The Wa'akas Site (41CP490) at Lake Bob Sandlin, Camp County, Texas. *Journal of Northeast Texas Archaeology* 38:73-83.
- Two Middle Caddo Period Habitation Sites and Cemeteries in the Sabine River Basin, Gregg County, Texas. Special Publication No. 27. Friends of Northeast Texas Archaeology, Pittsburg and Austin.
- 2014 Additional Artifact Collections from the Gardener Site (41CP55), Camp County, Texas. *Journal of Northeast Texas Archaeology* 46:73-79.

Perttula, T. K. and R. Z. Selden Jr.

- 2014 Ceramic Sherds from the Morse Mounds Site (41SY27). Research Report No. 3. Center for Regional Heritage Research, Stephen F. Austin State University, Nacogdoches.
- 2015 Ancestral Caddo Ceramics in East Texas. Journal of Northeast Texas Archaeology 48:9-58.

Perttula, T. K. and D. L. Sherman

2009 Data Recovery Investigations at the Ear Spool Site (41TT653), Titus County, Texas. Document No. 070205. PBS&J, Austin.

Perttula, T. K. and B. D. Skiles

2014 The Steck Site (41WD529), a Titus Phase Settlement in the Lake Fork Creek Drainage Basin, Wood County, Texas. *Journal of Northeast Texas Archaeology* 48:1-8.

Perttula, T. K. and M. Thacker

Analysis of New Artifact Collections from Archaic to Ancestral Caddo Sites in the Saline Creek Basin in Northern Smith County, Texas. Journal of Northeast Texas Archaeology 43:1-25.

Perttula, T. K. and C. P. Walker

The History of Archaeological Investigations and Geophysical Survey at the Jamestown Mound Site (41SM54), an Archaeological Conservancy Preserve in Smith County, Texas. Archeological & Environmental Consultants, LLC and Archaeo-Geophysical Associates, LLC, Austin.

Perttula, T. K. and M. Walters

2012 Caddo Sites in the Saline Creek Basin in Northern Smith County, Texas. Journal of Northeast Texas Archaeology 36:47-63.

Perttula, T. K., L. L. Bush, L. Schniebs, T. Middlebrook, and P. S. Marceaux

2010c An Early Historic Caddo Farmstead at the Henry M. Site (41NA60) in Nacogdoches County, Texas. Stephen F. Austin State University Press, Nacogdoches.

Perttula, T. K., D. B. Kelley, and R. A. Ricklis (assemblers and editors)

2011b Archeological Investigations at the Lang Pasture Site (41AN38) in the Upper Neches River Basin of East Texas. Report No. 129. Texas Department of Transportation, Archeological Studies Program, Environmental Affairs Division, Austin.

Perttula, T. K., B. Nelson, and P. Haskins

2012c Additional Lake Bob Sandlin Sites with Documented Collections of Prehistoric Lithic and Ceramic Artifacts. Journal of Northeast Texas Archaeology 38:35-44.

Perttula, T. K., B. Nelson, and R. Z. Selden, Jr.

2014a The Gardener Site (41CP55): A Late Caddo Settlement on Big Cypress Creek in East Texas. Journal of Northeast Texas Archaeology 44:1-11.

Perttula, T. K., B. Nelson, and M. Walters

The South Lilly #4 Site (41UR279), Upshur County, Texas. Journal of Northeast Texas Archaeology 19:22-60.

2011a Archaeological Sites Along King Creek in Western Nacogdoches County, in East Texas. Journal of Northeast Texas Archaeology 34:69-77.

2011c Archeological Survey Investigations to Identify 17th-early 19th Century Caddo Sites along El Camino Real de los Tejas National Historic Trail in East Texas. Report of Investigations No. 108. Archeological & Environmental Consultants, LLC, Austin.

2012a The Buckner Dam Site (41CE339) and Four Other Caddo Sites on Gum Creek in the Upper Neches River Basin, Cherokee County, Texas. Journal of Northeast Texas Archaeology 36:65-75.

2013b Archaeological Investigations at the Pine Creek Site, an Allen Phase Settlement on Flat Creek in Northwestern Cherokee County, Texas. Journal of Northeast Texas Archaeology 40:1-18.

2014b Renewed Archaeological Investigations at the Sanders Site (41LR2), Lamar County, Texas. Journal of Northeast Texas Archaeology 47:25-30.

Perttula, T. K., B. Nelson, M. Walters, and L. Schniebs

Archaeological Investigations of the Lang Pasture (41AN38) Midden Deposits on private property west of the SH 155 Right-of-Way, Anderson County, Texas. Caddo Archeology Journal 16:27-36.

Perttula, T. K., B. Nelson, M. Walters, and R. Z. Selden Jr.

The Sanders Site (41LR2): A Middle to Historic Caddo Settlement and Mound Center on the Red River in Lamar County, Texas. Journal of Northeast Texas Archaeology 50, in press.

Perttula, T. K., R. Z. Selden, Jr., and B. Nelson

2013a Analysis of the Ceramic Sherds from Area C at the Ware Acres Site (41GG31), Gregg County, Texas. Journal of Northeast Texas Archaeology 41:57-79.

Perttula, T. K., B. D. Skiles, and B. C. Yates

- 1993a The Carlisle Site (41WD46), a Middle Caddoan Occupation on the Sabine River, Wood County, Texas. *Notes on Northeast Texas Archaeology* 1:34-62.
- 1993b The Goldsmith Site (41WD208): Investigations of the Titus Phase in the Upper Sabine River Basin, Northeast Texas. *Bulletin of the Texas Archeological Society* 61:139-191.

Perttula, T. K., M. B. Trubitt, and J. S. Girard

2012e The Use of Shell-Tempered Pottery in the Caddo Area of the Southeastern United States. *Southeastern Archaeology* 30(2):242-267.

Perttula, T. K., M. Walters, and B. Nelson

- 2010a Documenting Caddo Ceramic Sherd and Lithic Collections from Prehistoric Sites at Lake Bob Sandlin. *Journal of Northeast Texas Archaeology* 33:31-39.
- 2010b Further Investigations of a Prehistoric Caddo Habitation Site in the White Oak Creek Basin of Northeast Texas: The James Owens Site (41TT769). *Caddo Archeology Journal* 20:53-76.
- 2012b The Younger Site (41MR6), Marion County, Texas. Journal of Northeast Texas Archaeology 38:1-20.
- 2012d Archeological Investigations at the Pace McDonald Site (41AN51): A Middle Caddo Mound Center in the Neches River Basin in East Texas. Special Publication No. 21. Friends of Northeast Texas Archaeology, Pittsburg and Austin.

Perttula, T. K., B. Young, and P. S. Marceaux

2009 Caddo Ceramics from an Early 18th Century Spanish Mission in East Texas: Mission San Jose de los Nasonis (41RK200). *Journal of Northeast Texas Archaeology* 29:81-89.

Prikryl, D. J.

2008 The 1991 and 1992 Texas Archeological Society Field School Excavations at the Fasken Site (41RR14), Red River County, Texas. In *Collected Papers from Past Texas Archeological Society Summer Field Schools*, edited by T. K. Perttula, pp. 125-171. Special Publication No. 5. Texas Archeological Society, San Antonio.

Robinson, D. G.

1997 Cultural Resource Investigations at the Ducks Unlimited Marsh (DUM) Project, North Toledo Bend Reservoir, Shelby County, Texas. Report 97-3. Cultural Resource Program, Texas Parks and Wildlife Department, Austin.

Rogers, R. and T. K. Perttula

2004 The Oak Hill Village (41RK214), Rusk County, Texas. Document No. 030083. PBS&J, Austin.

Rogers, R., M. B. Cliff, T. K. Perttula, G. Rutenberg, S. Victor, P. Dering, and M. Malainey

2003 Excavations at the Alex Justiss Site, 41TT13, Titus County, Texas. Report No. 36. Archeological Studies Program, Texas Department of Transportation, Austin.

Rogers, R., E. Foster, K. Reese-Taylor, G. Rutenberg, M. Nash, J. Hageman, and D. Jurney

1994 National Register Testing at Eight Archaeological Sites within the Oak Hill 2,280-Acre Study Area, Rusk County, Texas. Document No. 930169. Espey, Huston & Associates, Inc., Austin.

Scurlock, J. D.

1962 The Culpepper Site, a Late Fulton Aspect Site in Northeast Texas. *Bulletin of the Texas Archeological Society* 32:285-316.

Selden, R. Z. Jr. and T. K. Perttula

2014 Archaeological Sites on the Sabine National Forest, Sabine and Shelby Counties, Texas. Research Report No. 7. Center for Regional Heritage Research, Stephen F. Austin State University, Nacogdoches.

Selden, R. Z. Jr., T. K. Perttula, and D. L. Carlson

2014 INAA and the provenance of shell-tempered sherds in the ancestral Caddo region. *Journal of Archaeological Science* 47:113-120.

Shafer, H. J.

Archeological Investigations at the Attaway Site, Henderson County, Texas. Bulletin of the Texas Archeological Society 52:147-179.

Sherman, D. L.

- 2001 NRHP Eligibility Testing (41RK107, 41RK240, 41RK242, 41RK243, 41RK276, and 41RK286) and Additional Testing (41RK243) Investigations within the Oak Hill DIII Mine, Permit No. 46, Rusk County, Texas. Document No. 000237. PBS&J, Austin.
- National Register Testing of Site 41CP408: A Middle Caddoan Farmstead, Camp County, Texas. Document No. 040031. PBS&J, Austin.

Skinner, S. A., R. K. Harris, and K. M. Anderson (editors)

Archaeological Investigations at the Sam Kaufman Site, Red River County, Texas. Contributions in Anthropology No. 5. Department of Anthropology, Southern Methodist University, Dallas.

Smith, N. G., A. Karasik, T. Narayanan, E. S. Olson, U. Smilanksy, and T. E. Levy

The Pottery Informatics Query Database: A New Method for Mathematic and Quantitative Analyses of Large Regional Ceramic Datasets. Journal of Archaeological Method and Theory 21(1):212-250.

Stokes, J. and J. Woodring

1981 Native-Made Artifacts of Clay. In Archeological Investigations at the George C. Davis Site, Cherokee County, Texas: Summers of 1979 and 1980, edited by D. A. Story, pp. 135-238. Occasional Paper No. 1. Texas Archeological Research Laboratory, The University of Texas at Austin.

Story, D. A.

1965 The Archeology of Cedar Creek Reservoir, Henderson and Kaufman Counties, Texas. Bulletin of the *Texas Archeological Society* 36:163-257.

Story, D. A., B. Barber, E. Cobb, H. Cobb, R. Coleman, K. Gilmore, R. K. Harris, and N. Hoffrichter

Pottery Vessels. In "The Gilbert Site: A Norteno Focus Site in Northeast Texas," edited by E. B. Jelks. Bulletin of the Texas Archeological Society 37:112-187.

Suhm, D. A. and E. B. Jelks (editors)

Handbook of Texas Archeology: Type Descriptions. Special Publication No. 1, Texas Archeological Society, and Bulletin No. 4, Texas Memorial Museum, Austin. Reprinted in 2009, Gustav's Library, Davenport, Iowa.

Sundermeyer, S. A., J. T. Penman, and T. K. Perttula

Integrated Cultural Resources Investigations for the Bowie County Levee Realignment Project, Bowie County, Texas, and Little River County, Arkansas. Miscellaneous Reports, Report of Investigations No. 29. LopezGarcia Group, Dallas.

Thurmond, J. P.

Archeology of the Cypress Creek Drainage Basin, Northeastern Texas and Northwestern Louisiana. Studies in Archeology 5. Texas Archeological Research Laboratory, The University of Texas at Austin.

Thurmond, J. P. and U. Kleinschmidt

Report on the Fall 1978 Investigations at the George C. Davis Site, Caddoan Mounds State Historic Site, Cherokee County, Texas. Texas Archeological Research Laboratory, The University of Texas at Austin.

Turner, R. L. and J. E. Smith II

The Harold Williams Site (41CP10) and the Texas Archeological Society Field School of 1967. Bulletin of the Texas Archeological Society 73:1-68.

Walker, C. P. and T. K. Perttula

Archaeogeophysics and Archaeological Investigations at a Historic Caddo Site Along El Camino Real de los Tejas: The J. T. King Site (41NA15) in Nacogdoches County, Texas. Archaeo-Geophysical Associates, LLC and Archeological & Environmental Consultants, LLC, Austin.

Walters, M.

2003 The Wolf Site (41SM195), Smith County, Texas. Journal of Northeast Texas Archaeology 18:1-21.

2006 The Lake Clear (41SM243) Site and Crotalus horridus atricaudatus. Caddoan Archeology Journal 15:5-41.

2009 The Henry Chapman Site (41SM56). Journal of Northeast Texas Archaeology 31:11-35.

Walters, M., with contributions from L. G. Cecil, L. S. Cummings, J. P. Dering, J. R. Ferguson, M. D. Glascock, T. K. Perttula, L. Schniebs, H. J. Shafer, J. Todd, and C. P. Walker

2008 Life on Jackson Creek, Smith County, Texas: Archeological Investigations of a 14th Century Caddo Domicile at the Leaning Rock Site (41SM325). Caddo Archeology Journal 17:1-114.

Walters, M. and P. Haskins

1998 Archaeological Investigations at the Redwine Site (41SM193), Smith County, Texas. *Journal of Northeast Texas Archaeology* 11:1-38.

2000 The Bryan Hardy Site (41SM55), Smith County, Texas. Journal of Northeast Texas Archaeology 12:1-26.

Walters, M. and T. K. Perttula

2012 Certain Caddo Sites on Stone Chimney Creek, Cherokee County, Texas. *Journal of Northeast Texas Archaeology* 37:37-88.

Walters, M., B. Boyd, B. Nelson, T. K. Perttula, and L. Schniebs

The James Owens Site (41TT769) in the Sulphur River Basin of Northeast Texas. *Caddoan Archeology Journal* 13(1):16-34.

Webb, C. H., F. E. Murphey, W. G. Ellis, and H. R. Green

1969 The Resch Site, 41HS16, Harrison County, Texas. Bulletin of the Texas Archeological Society 40:3-106.

Woodall, J. N.

1969 Archeological Excavations in the Toledo Bend Reservoir, 1966. Contributions in Anthropology No. 3. Department of Anthropology, Southern Methodist University, Dallas.

Wormser, A. J.

1991 *Test Excavations at the Jodie Bender Site*, 41HS11, Harrison County, Texas. Texas State Department of Highways and Public Transportation, Highway Design Division, Austin.