

SPATIAL DATA ANALYSIS OF ARTIFACTS REDEPOSITED BY COASTAL EROSION: A CASE STUDY OF MCFADDIN BEACH, TEXAS

VOLUME II: APPENDICES

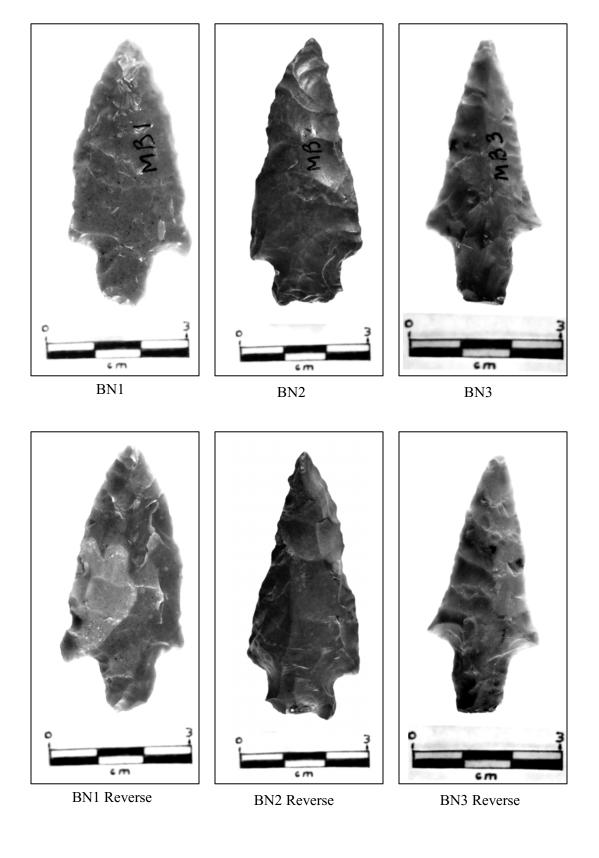


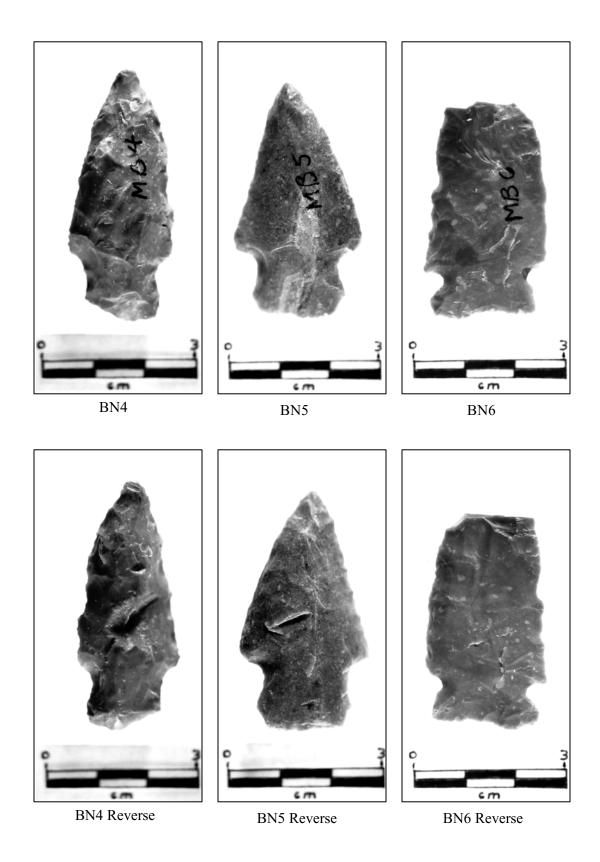
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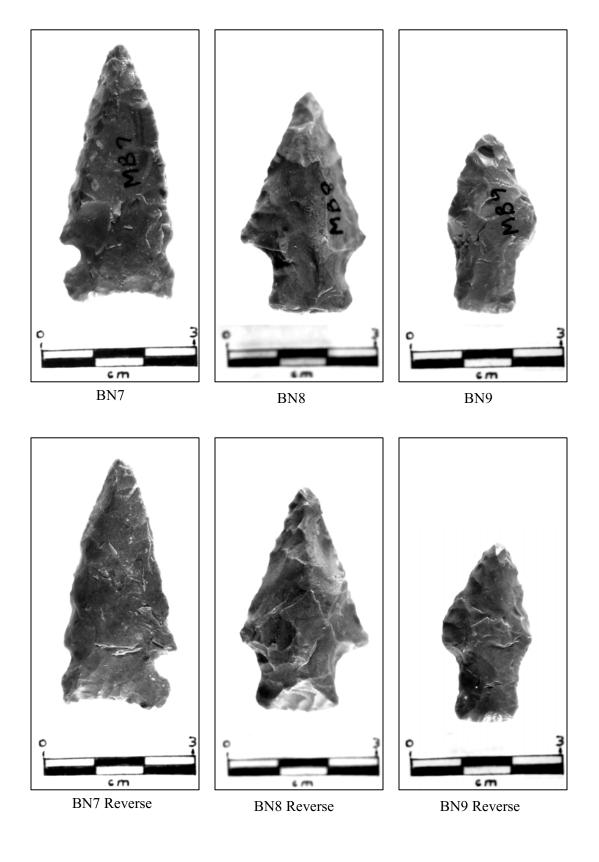
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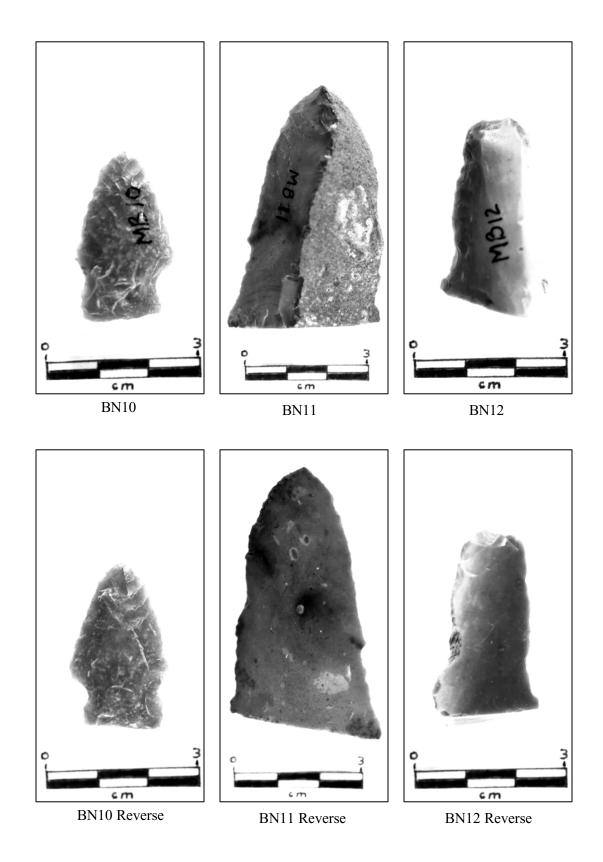
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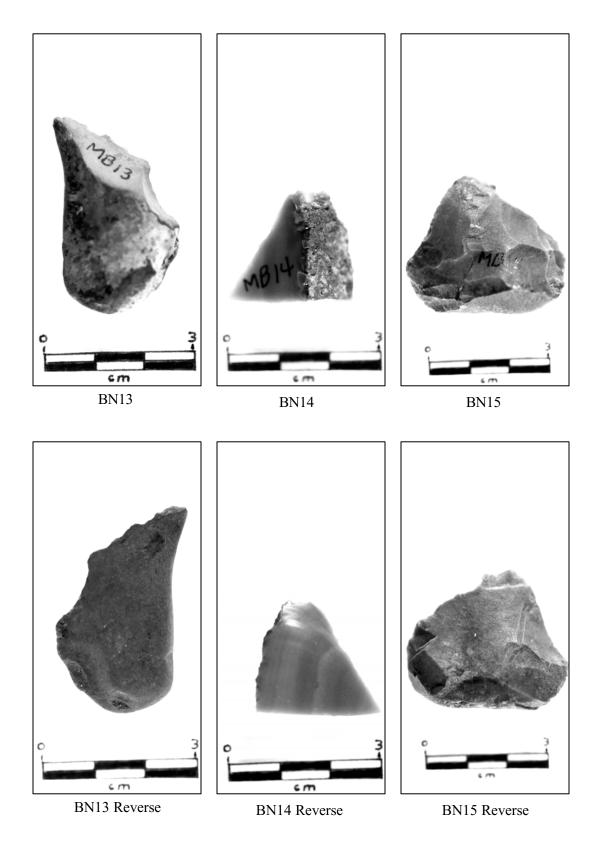
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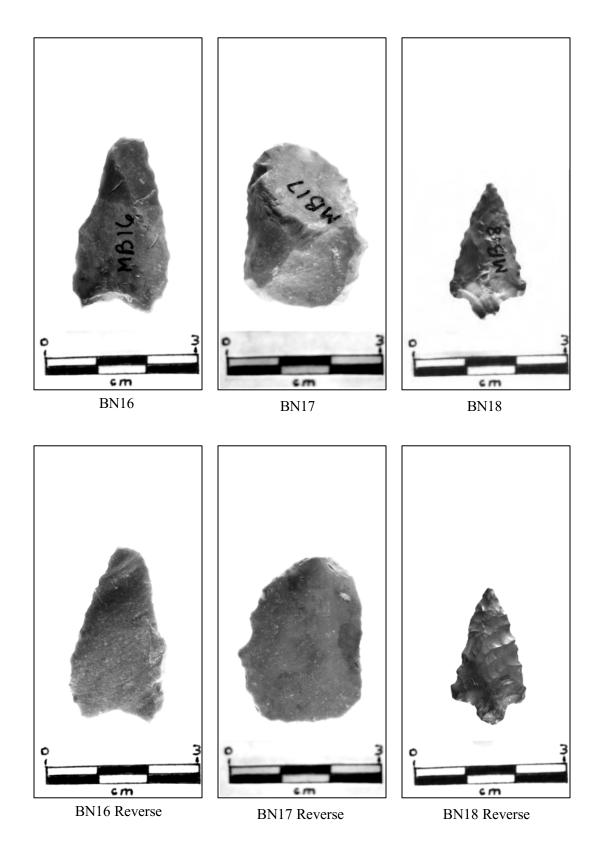


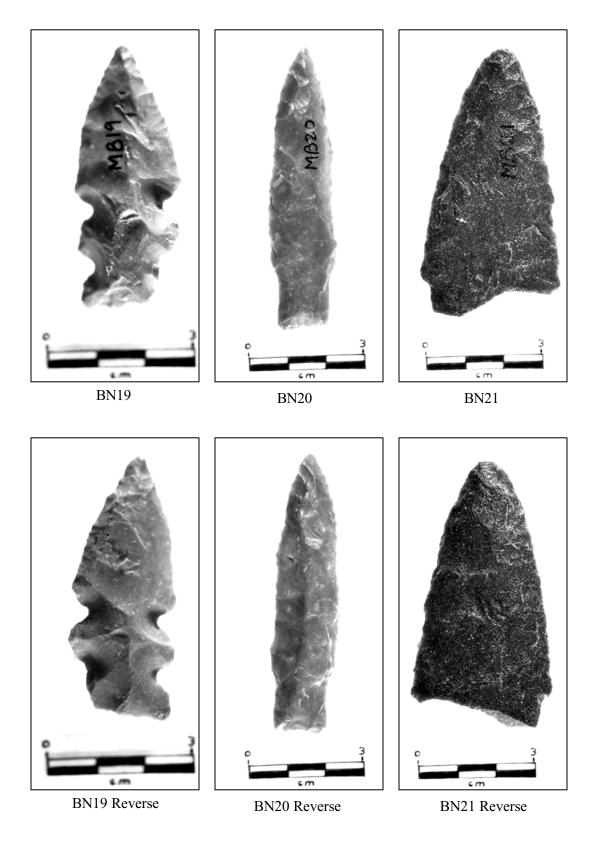


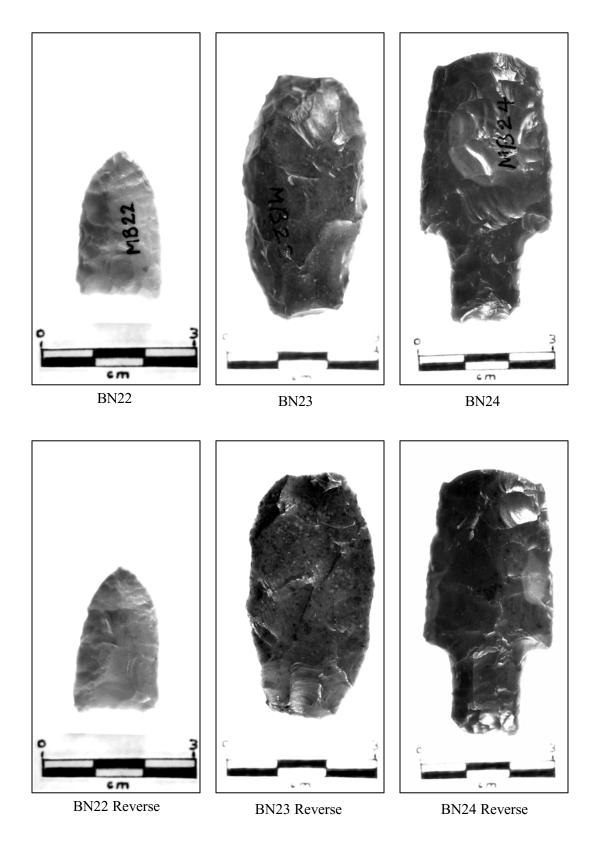


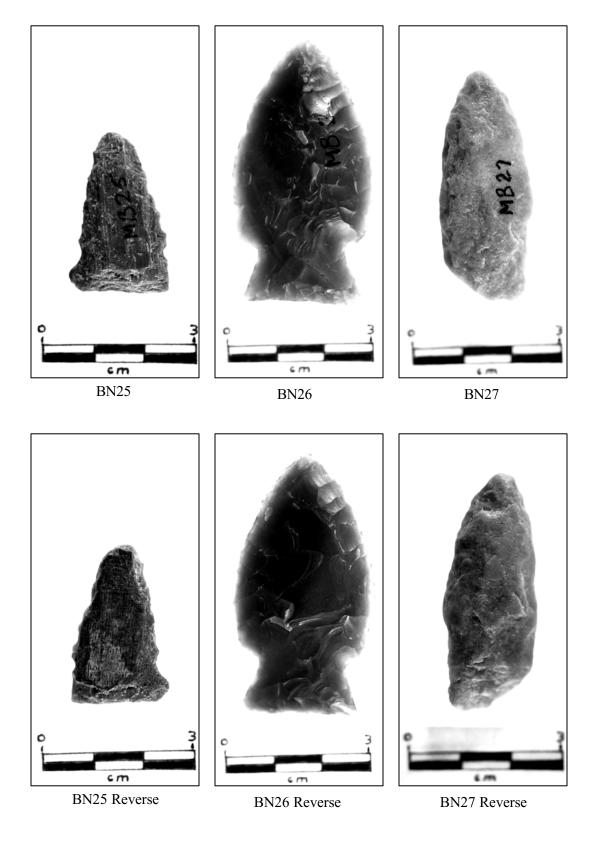


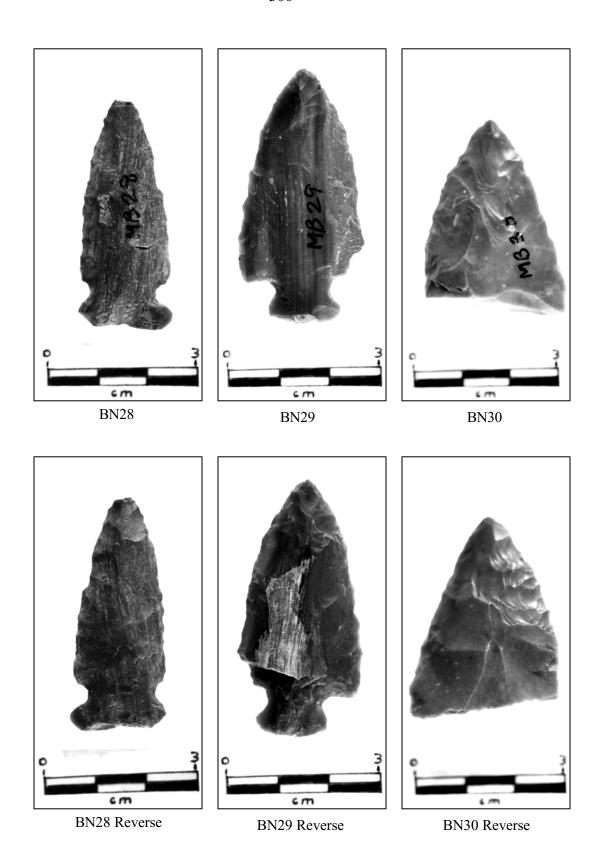


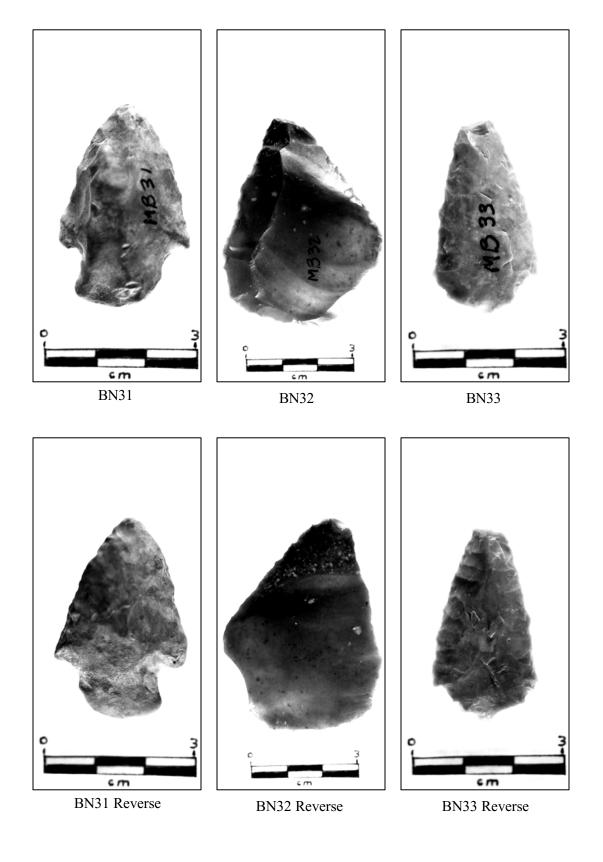


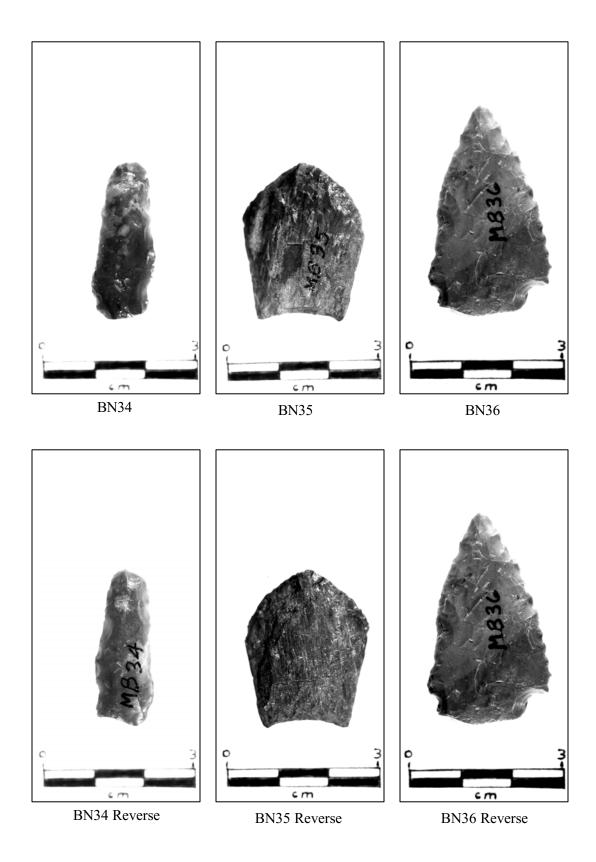


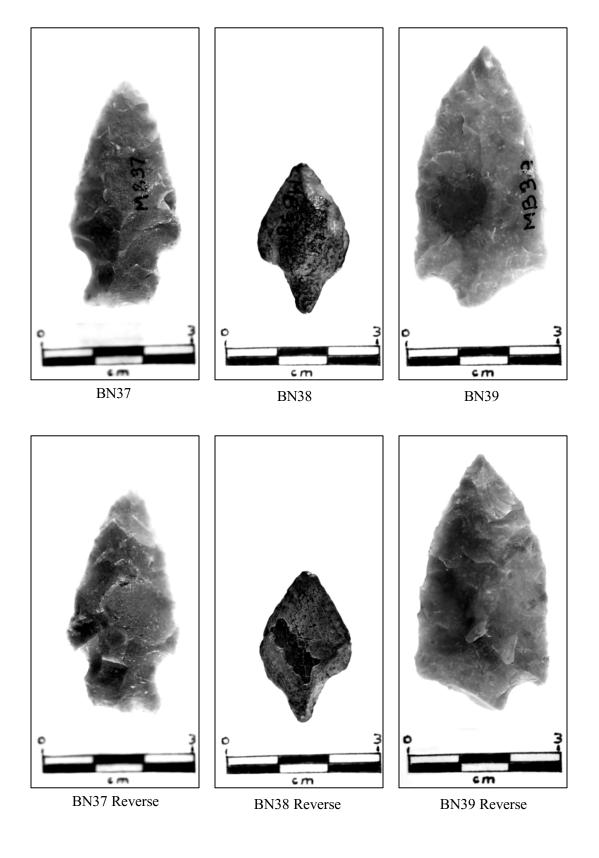


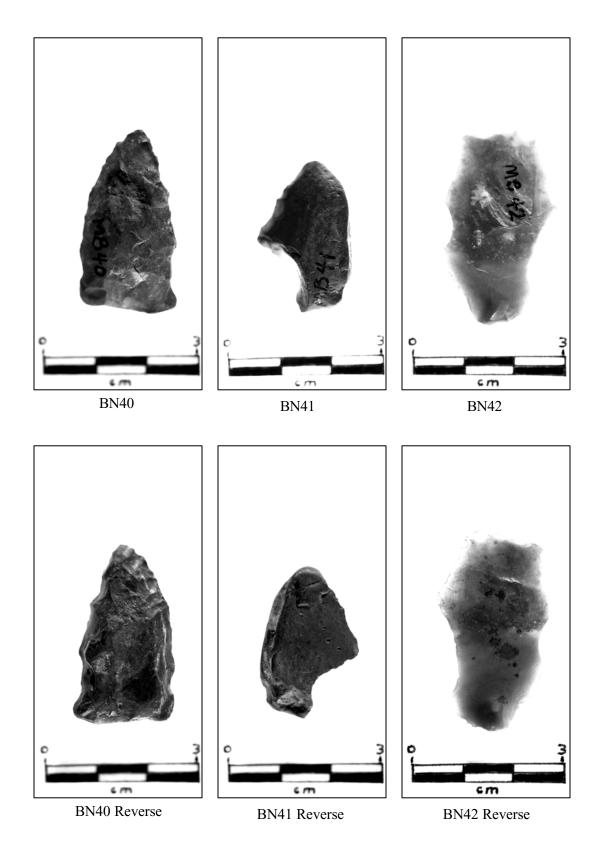


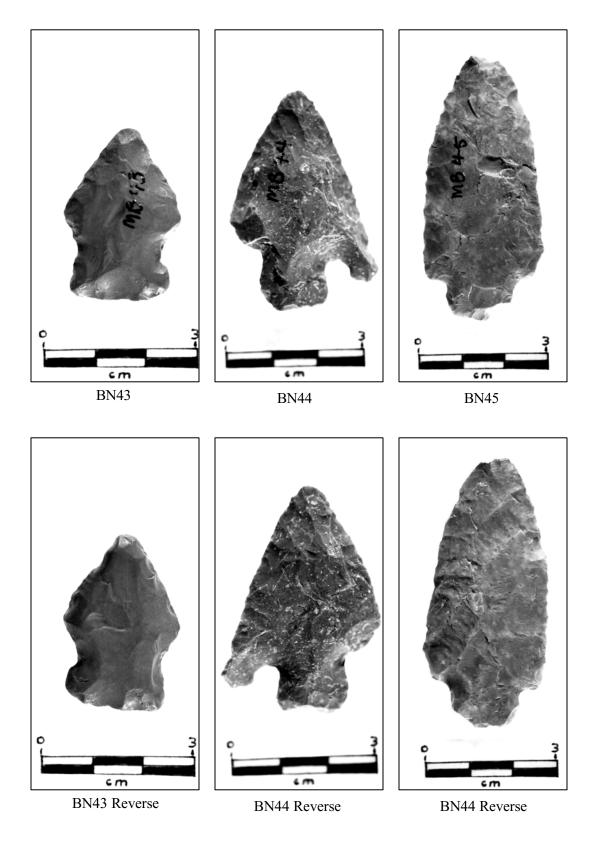


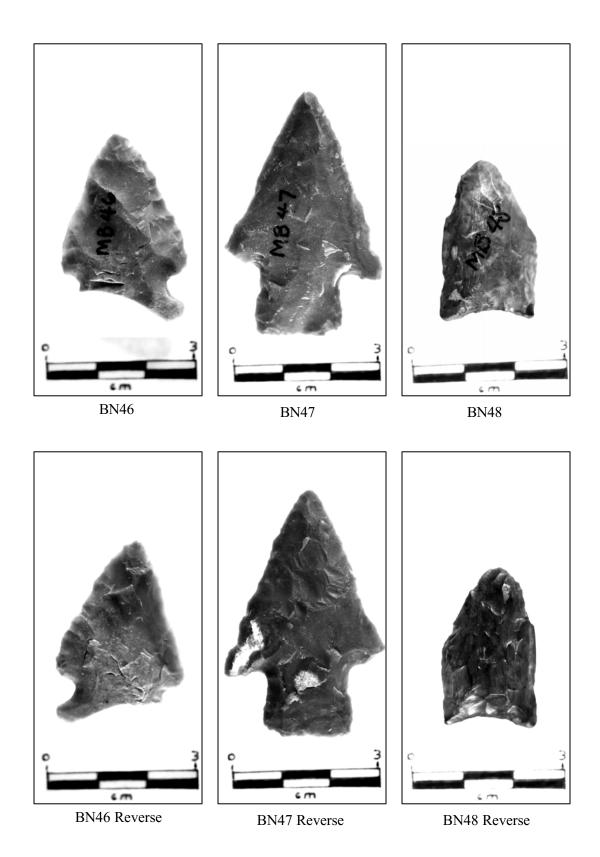


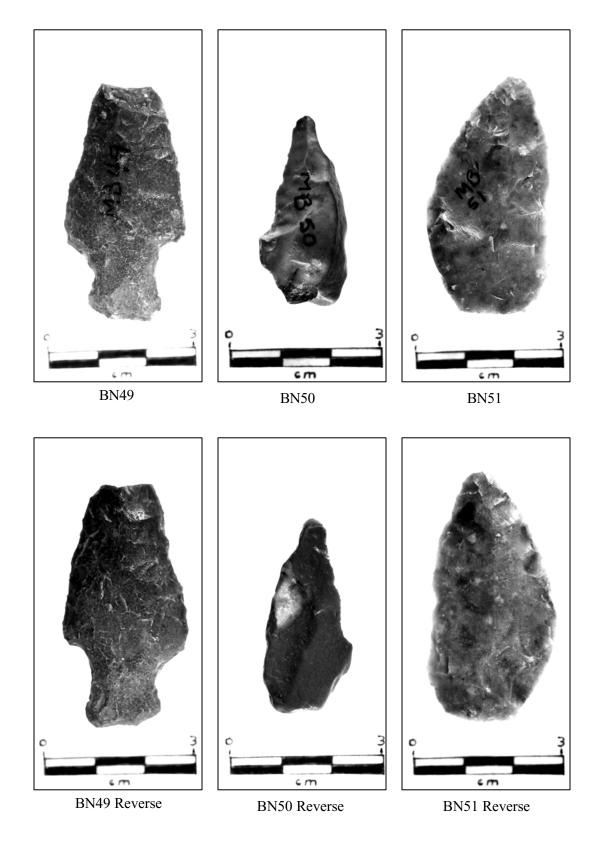


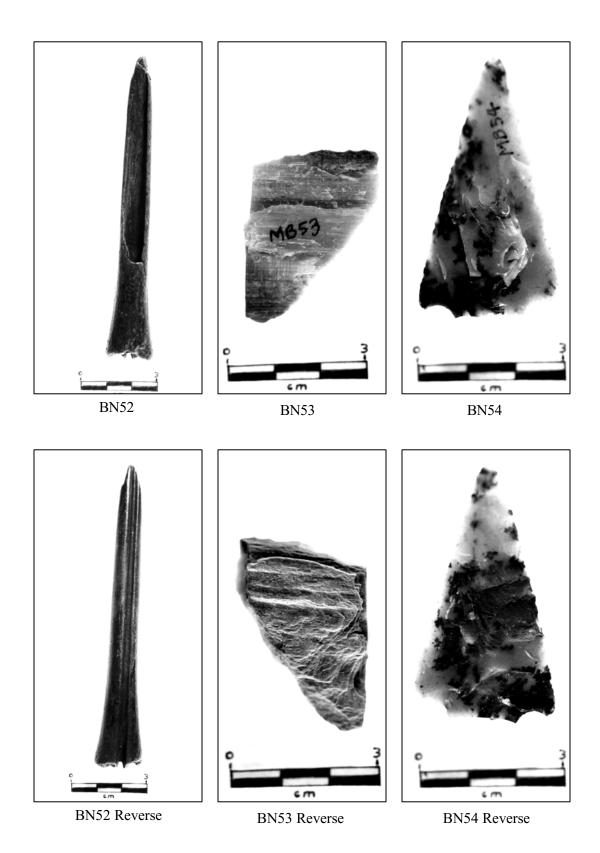


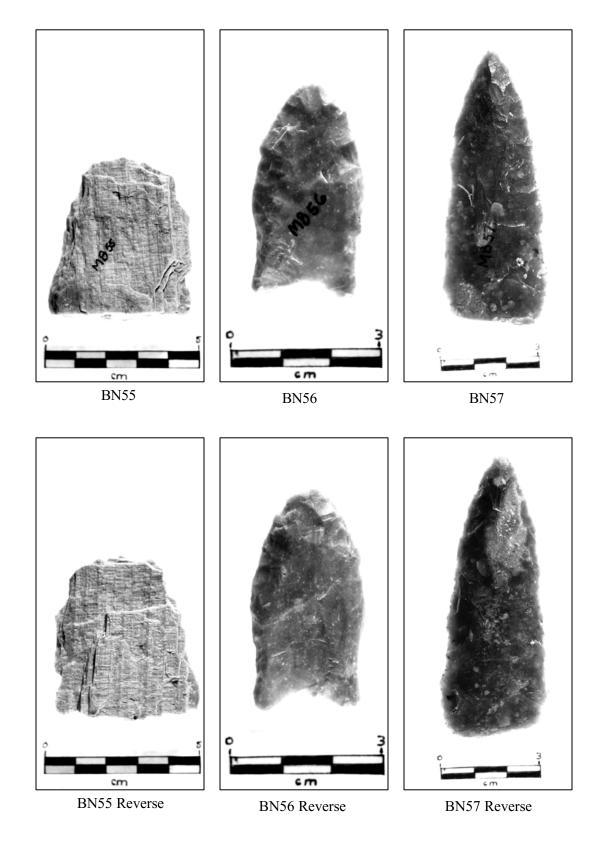


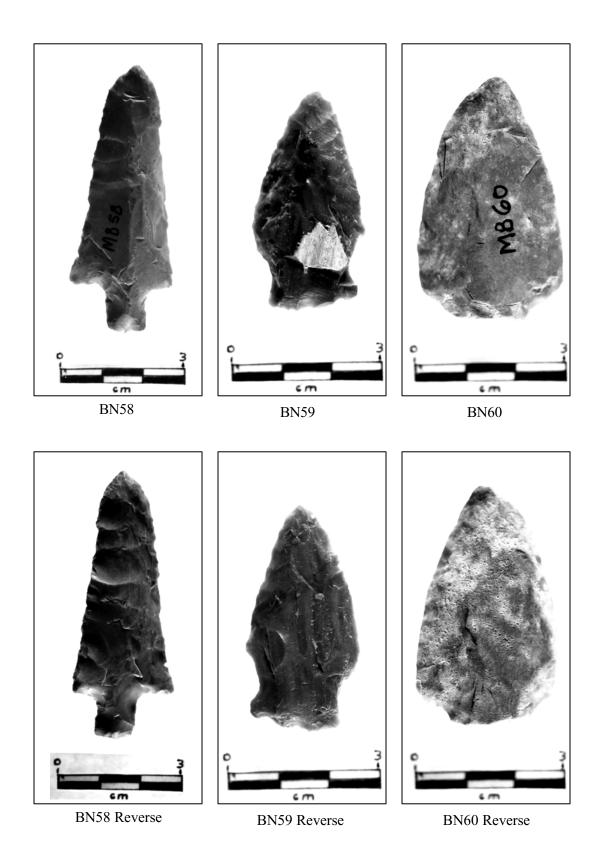


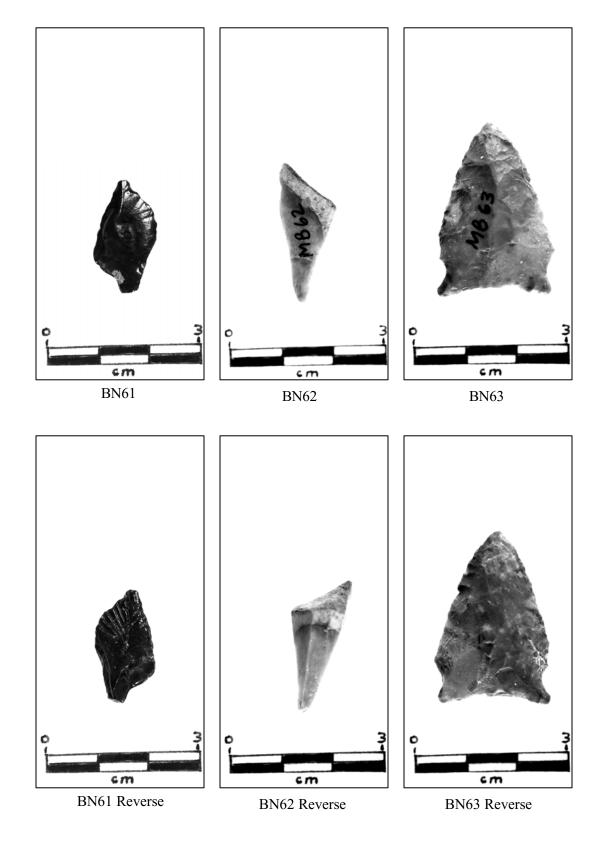


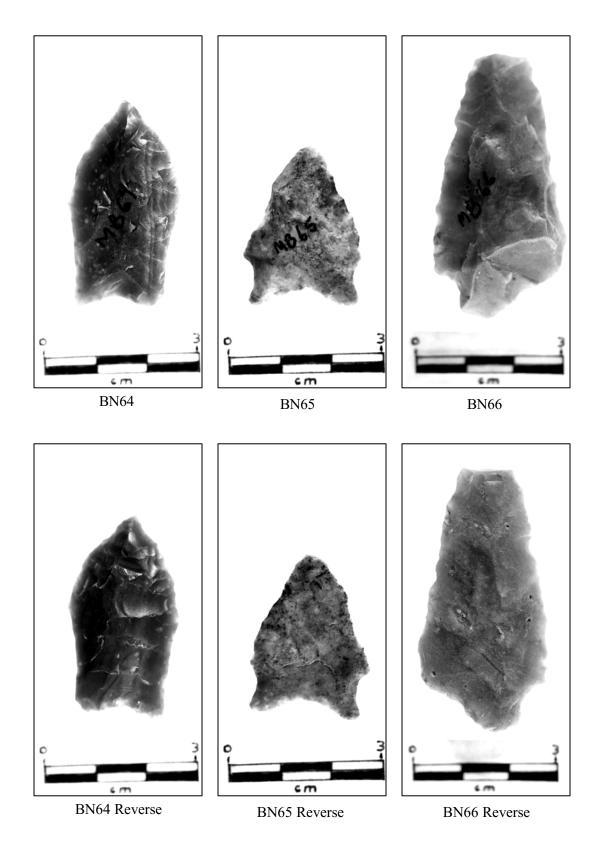


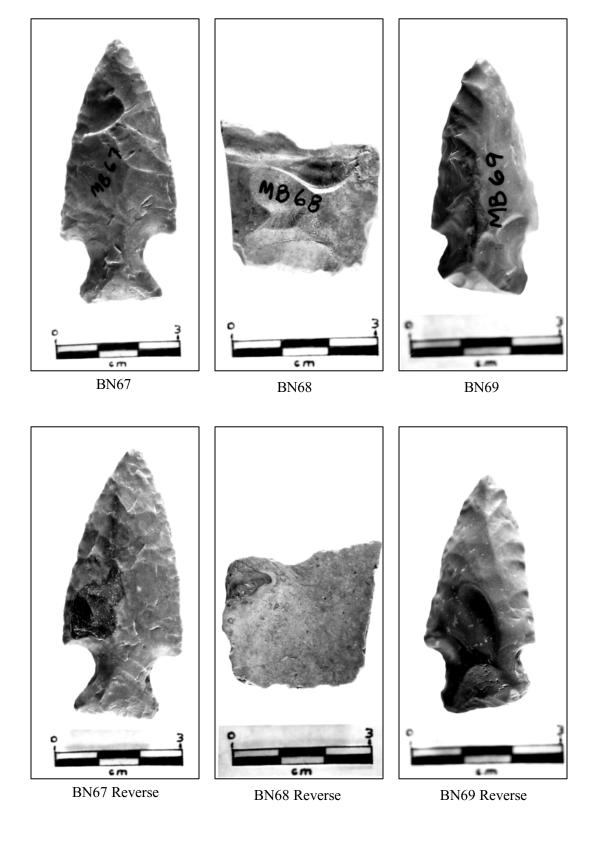


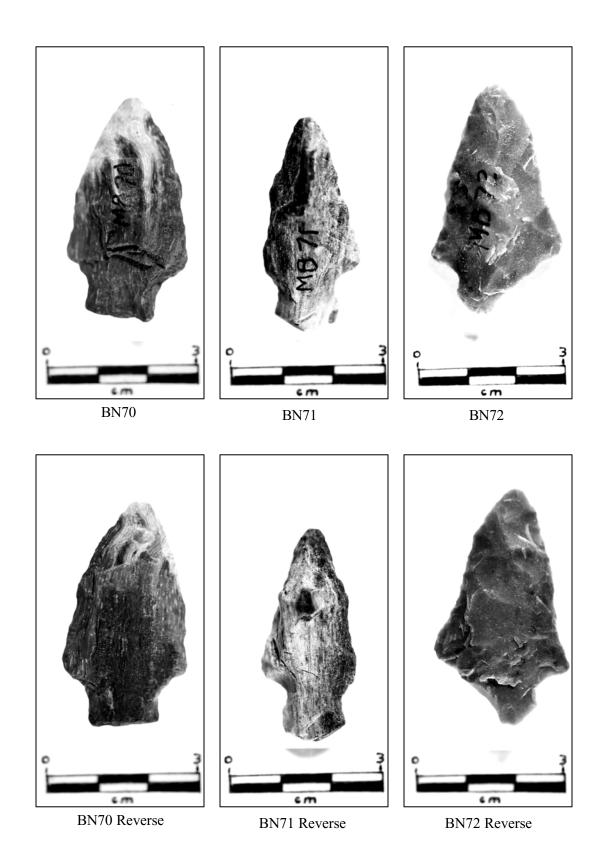


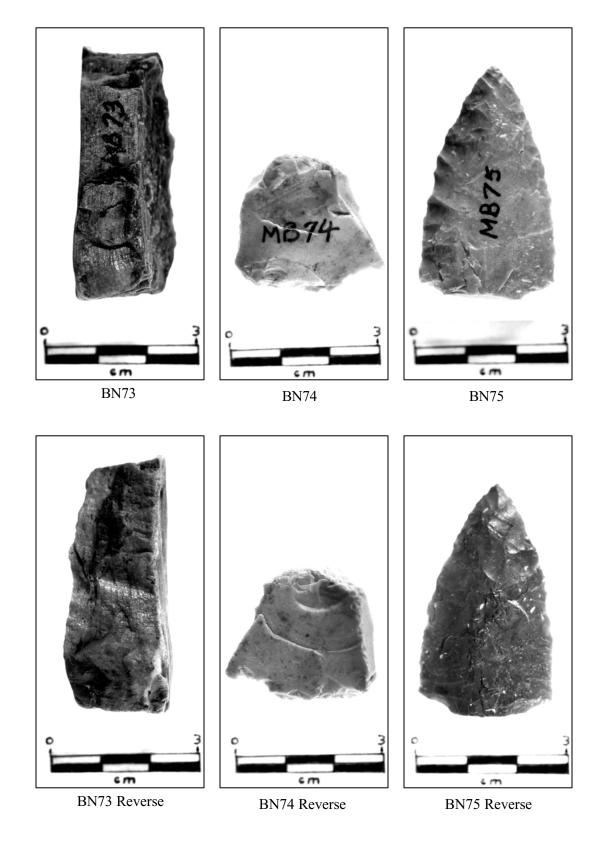


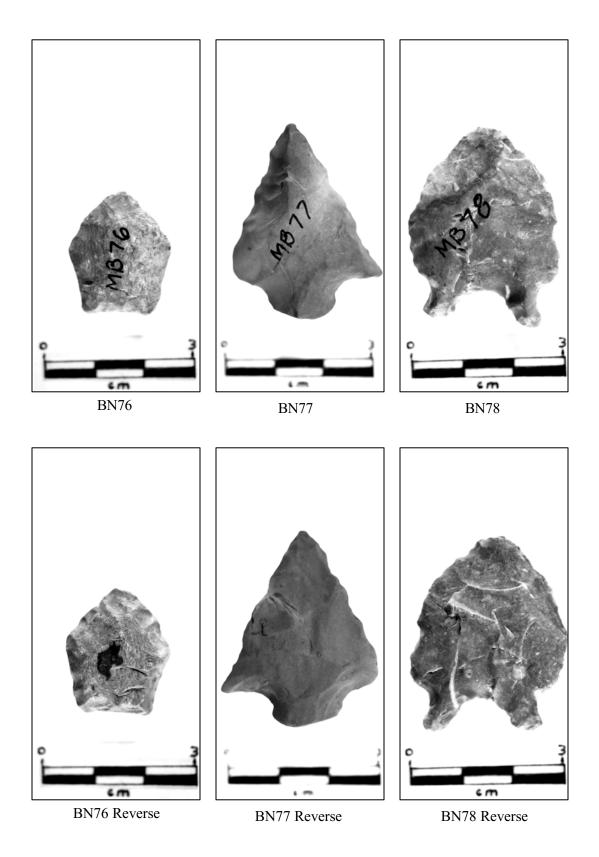


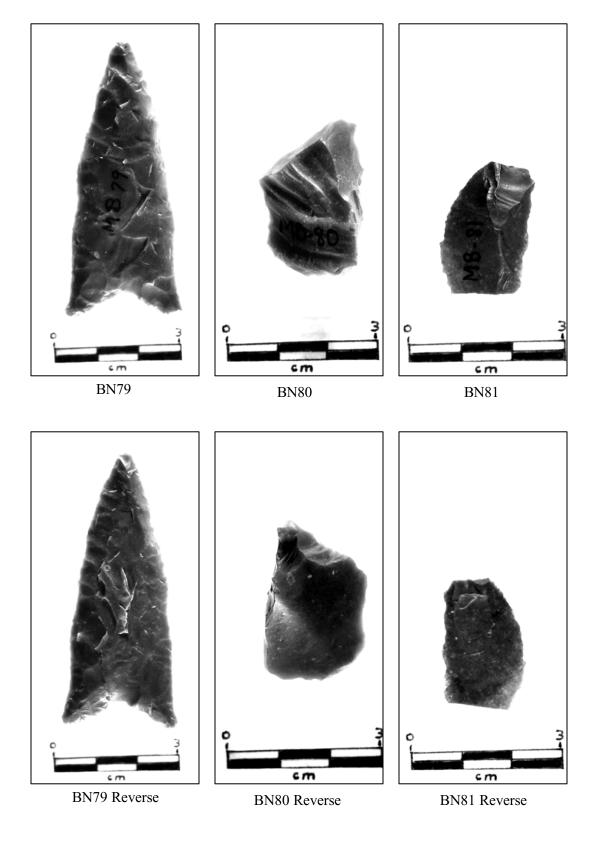


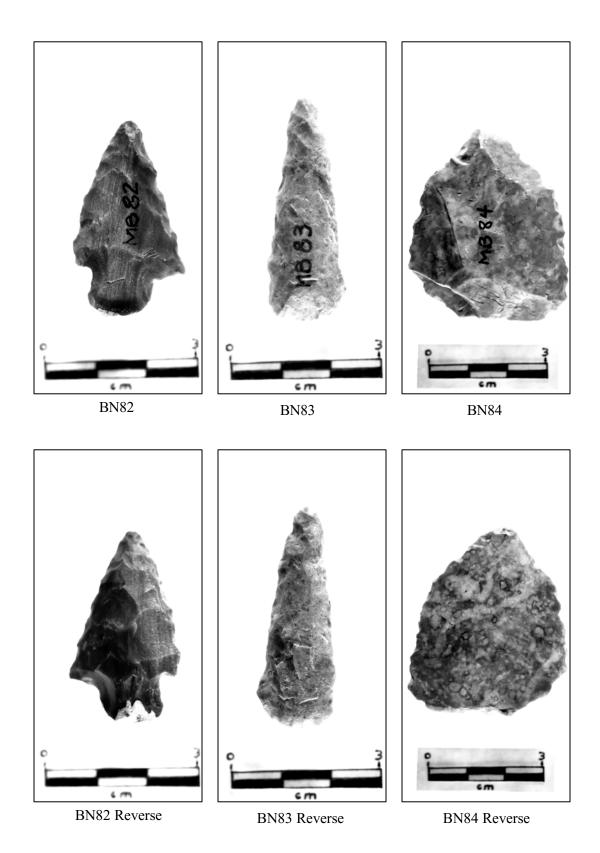


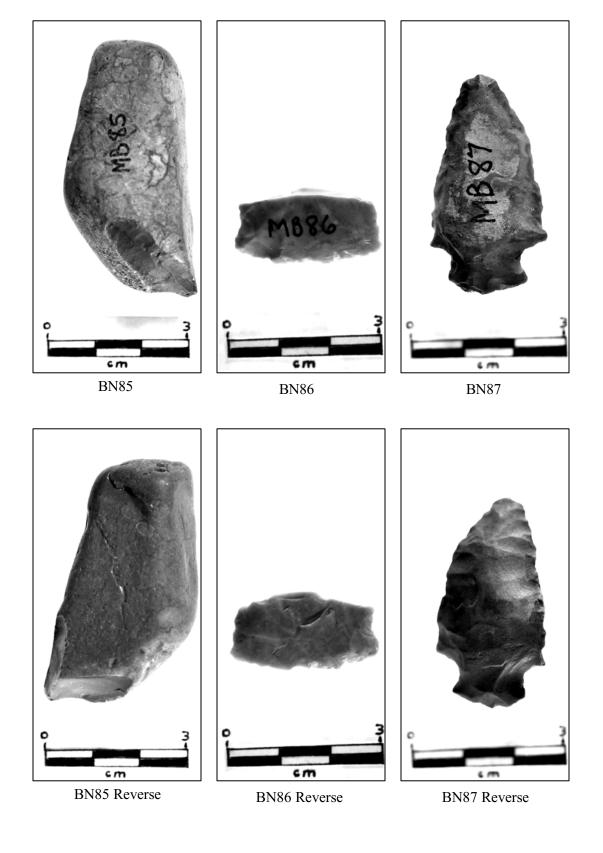


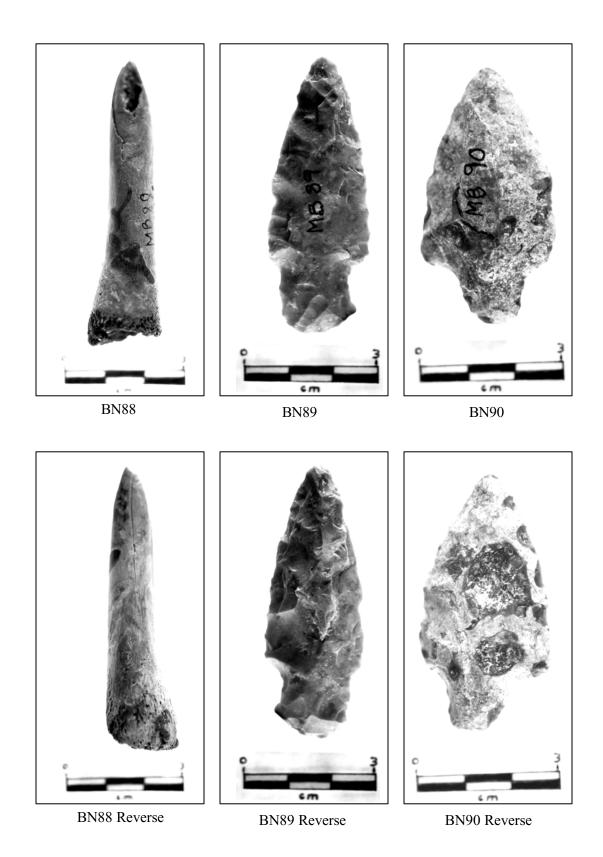


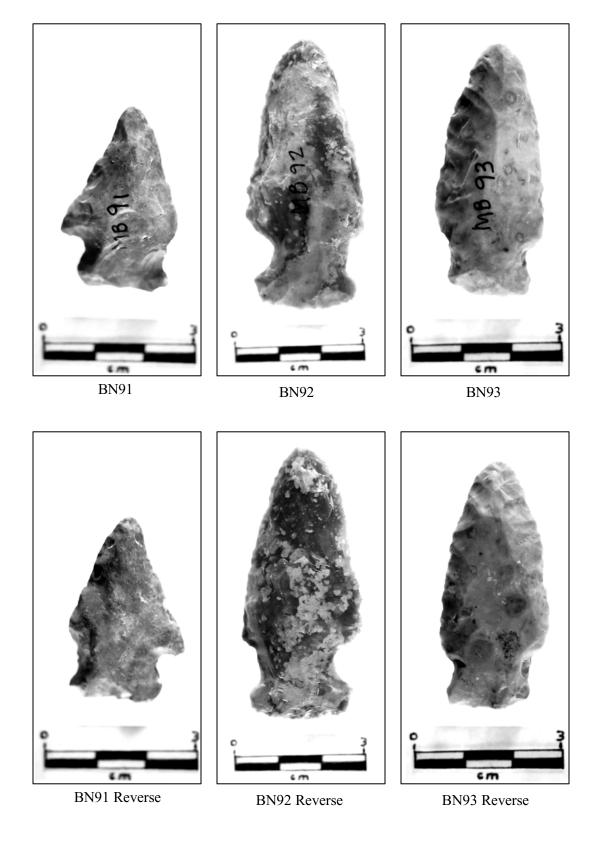


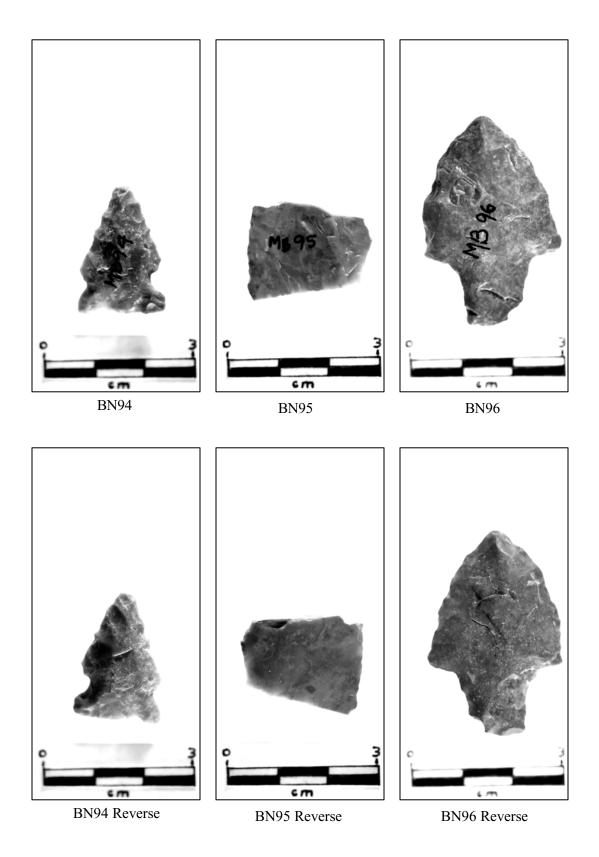


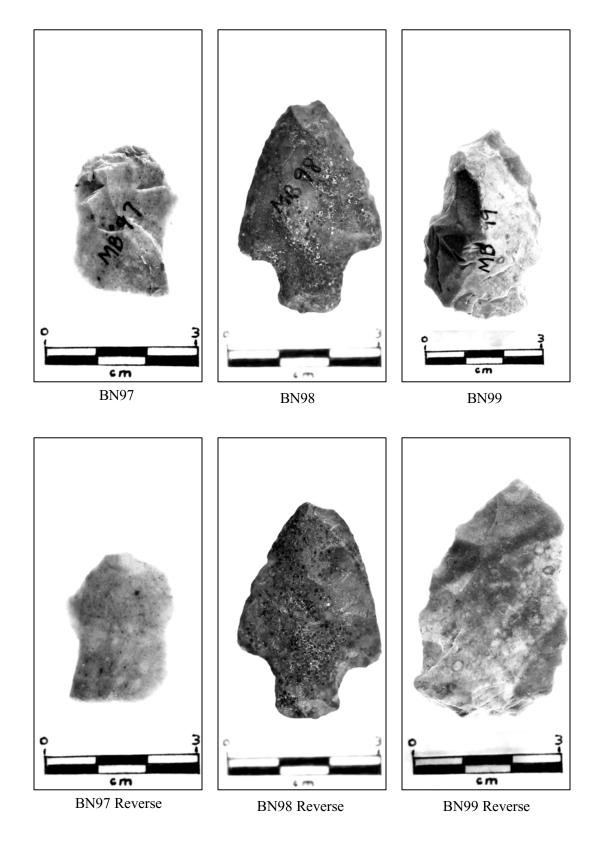


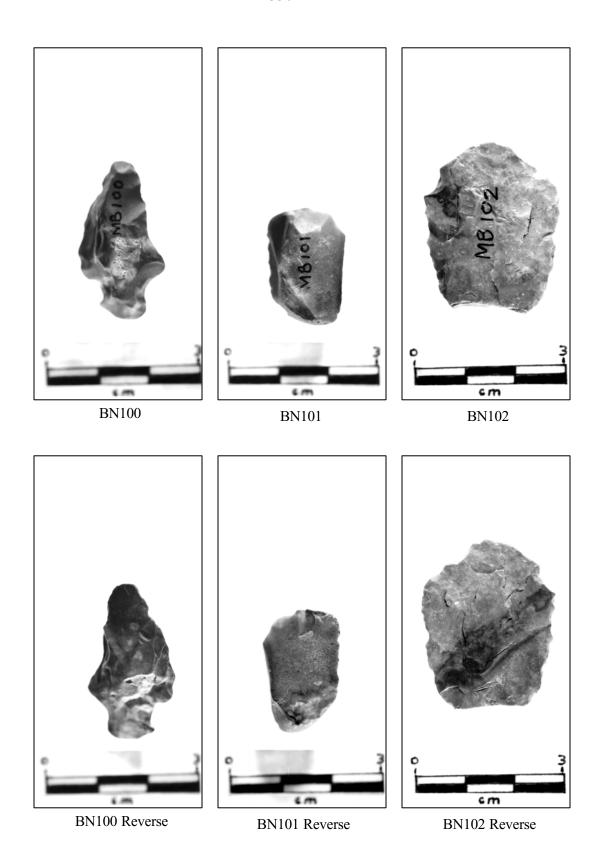


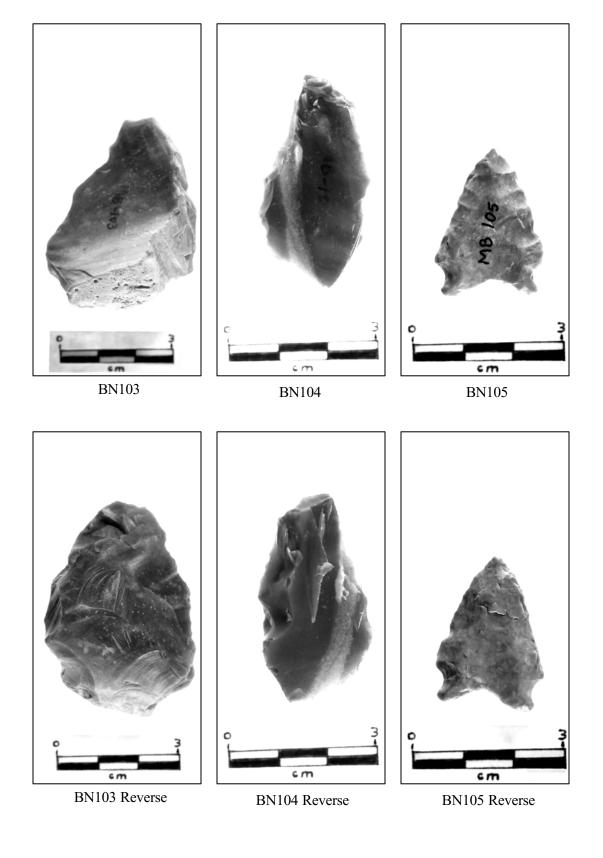


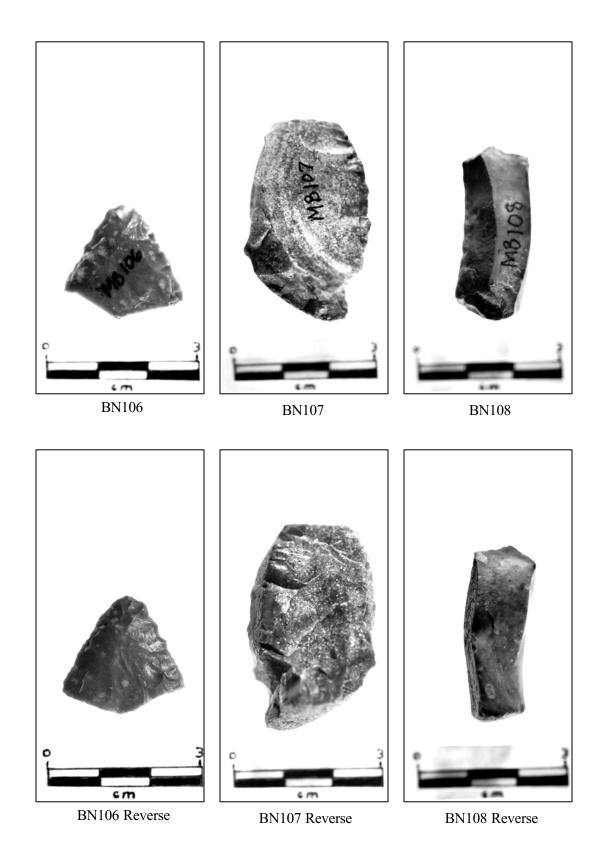


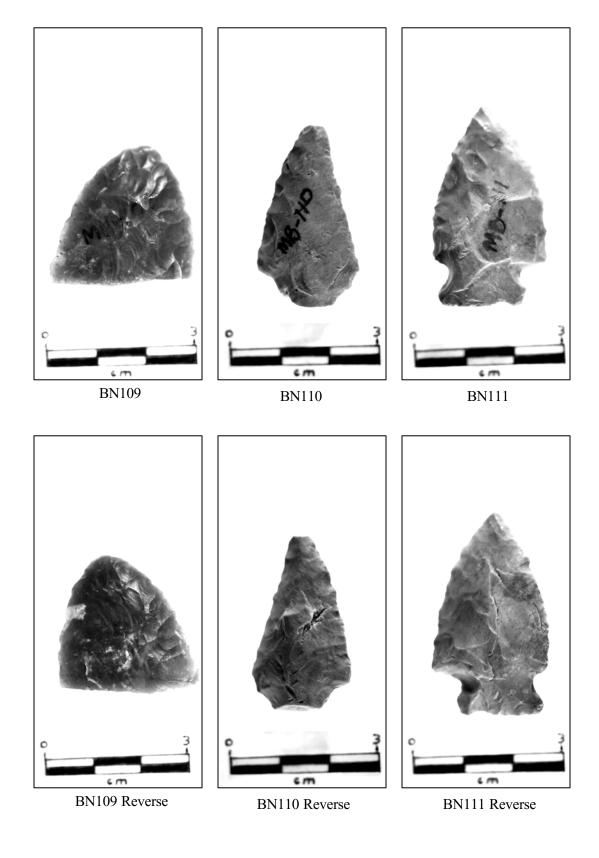


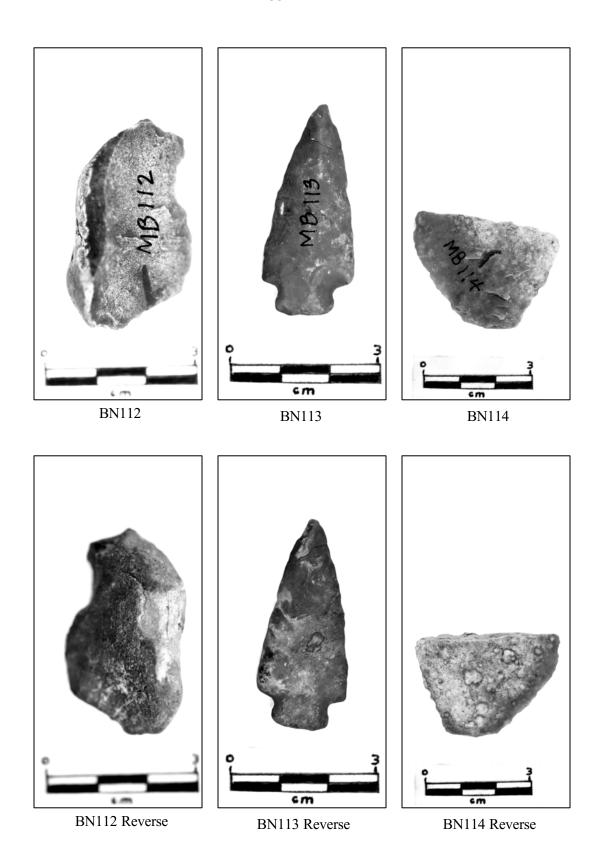


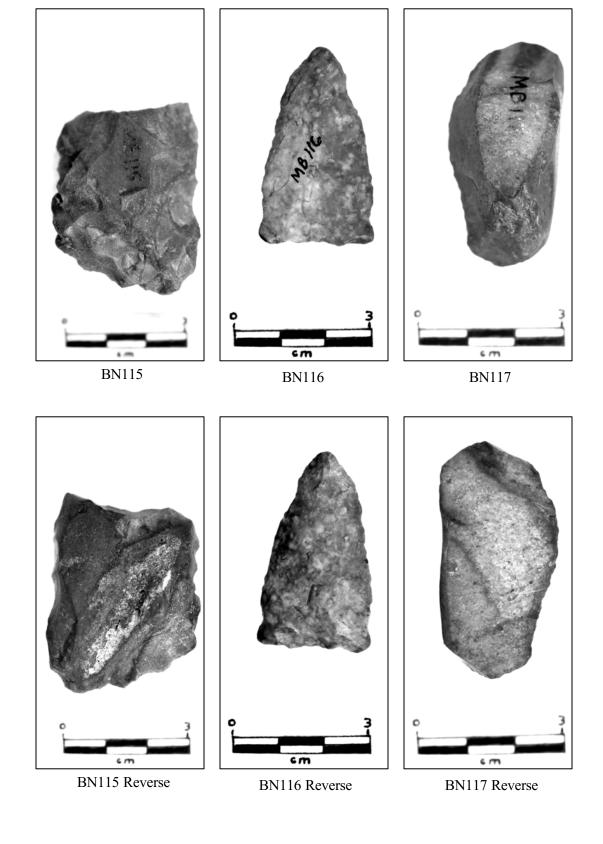


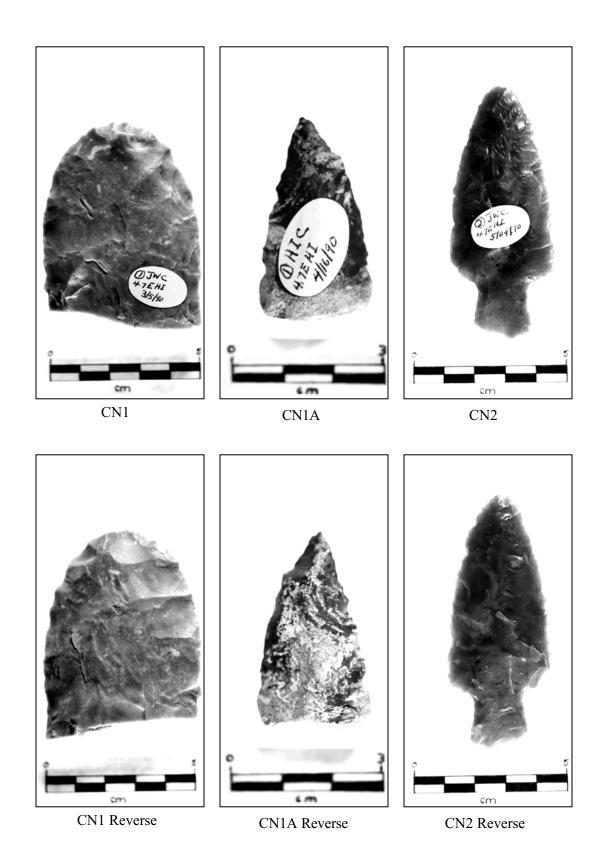


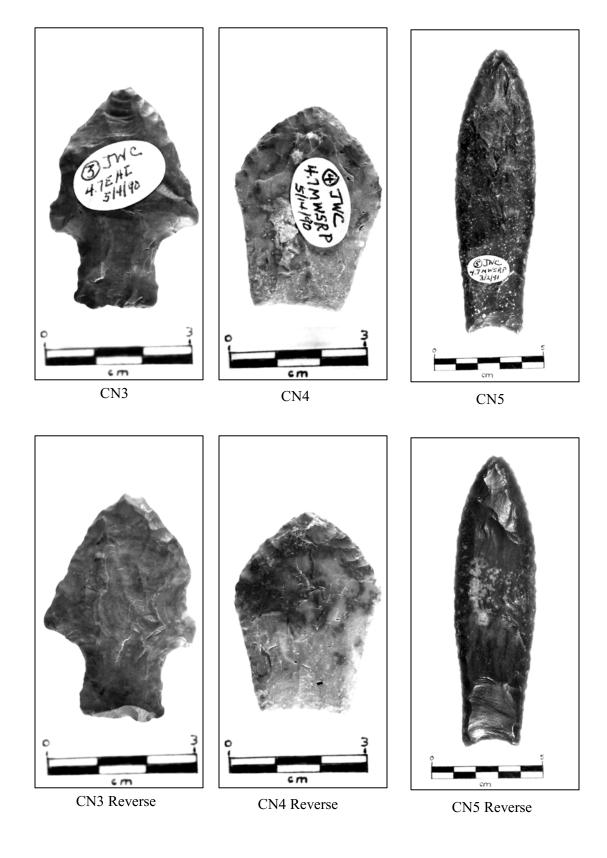


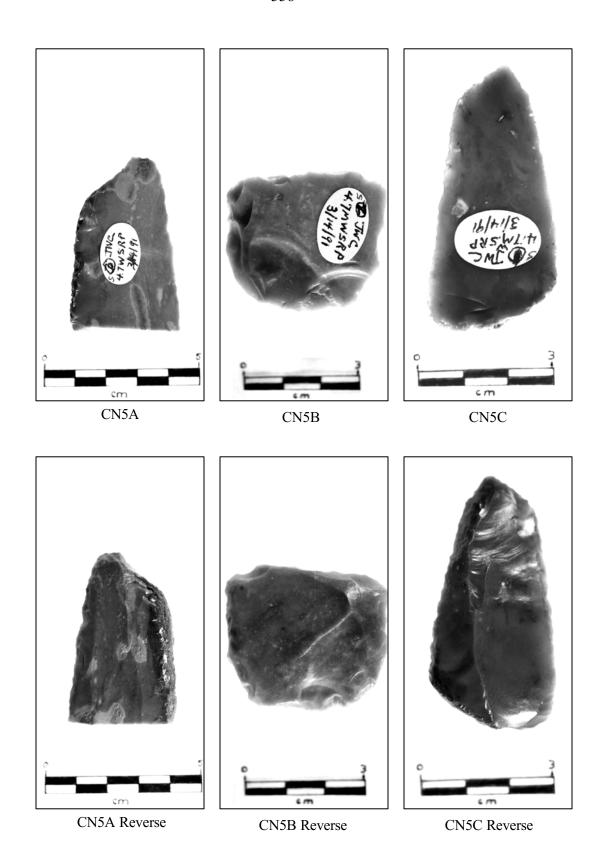


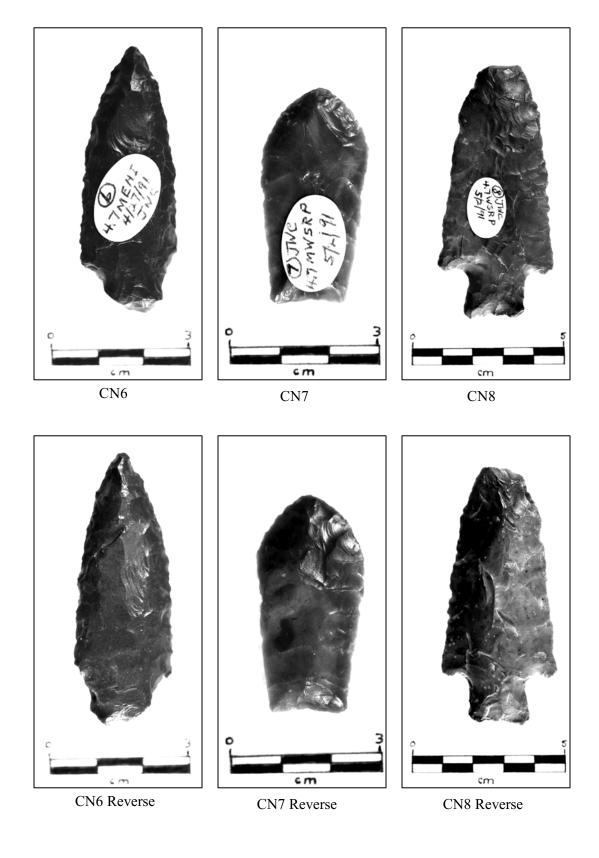


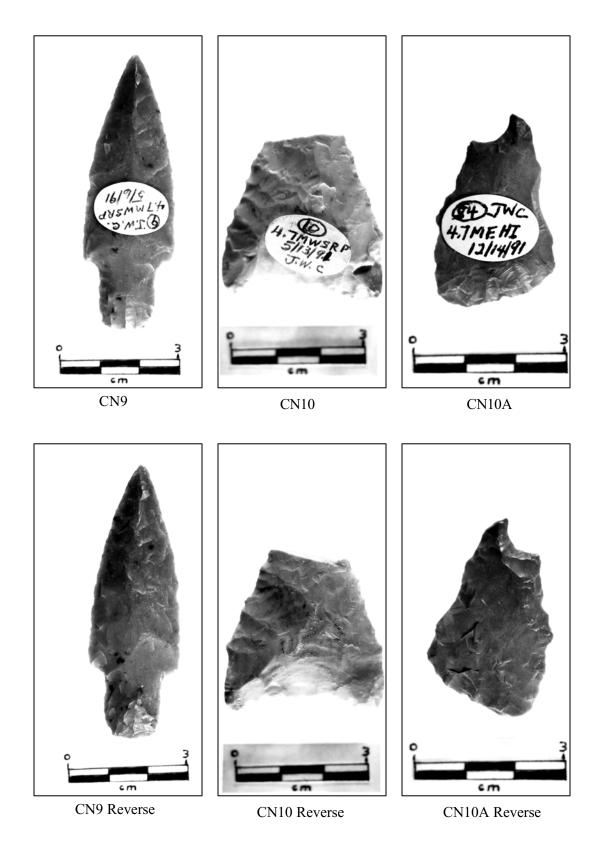


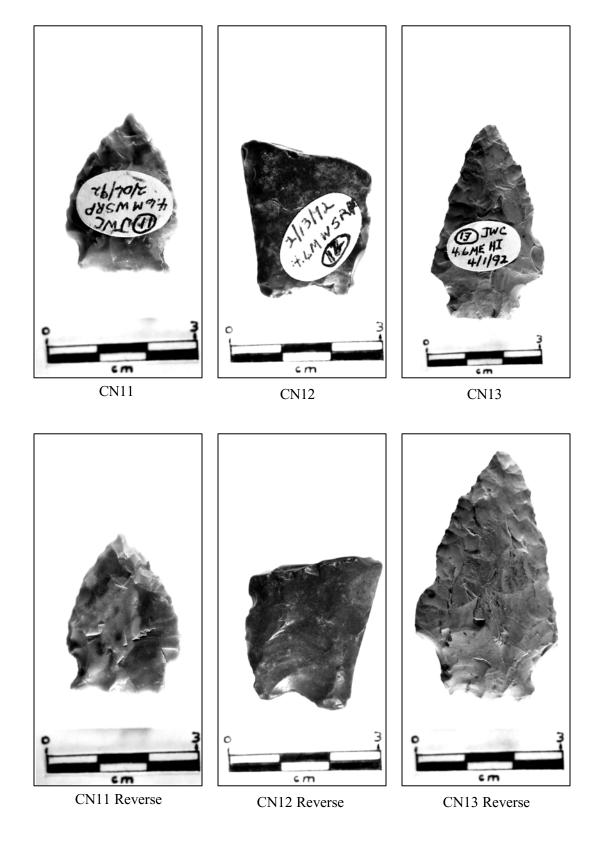


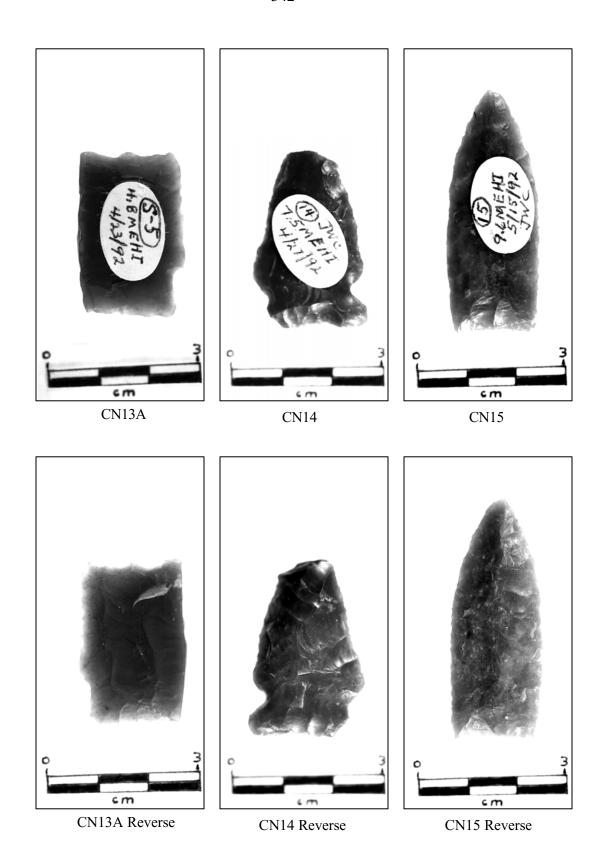


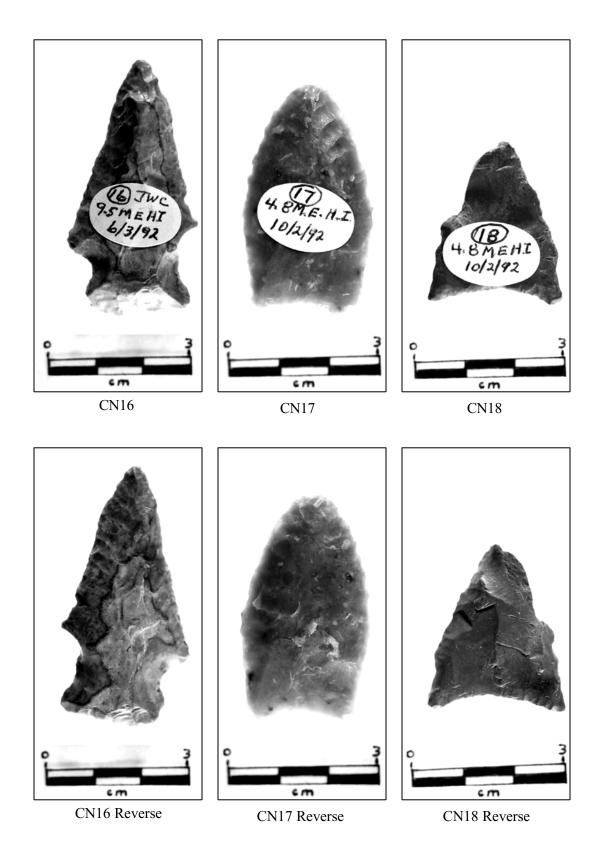


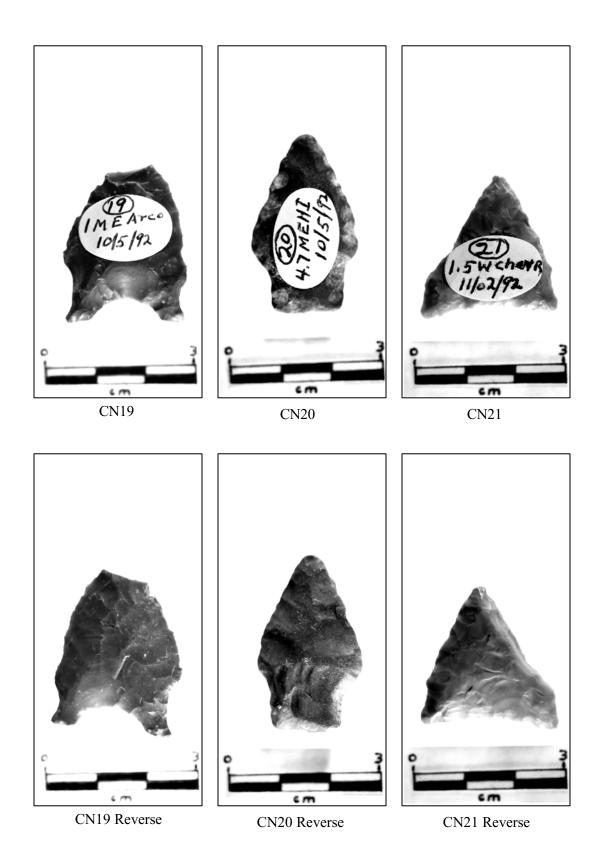


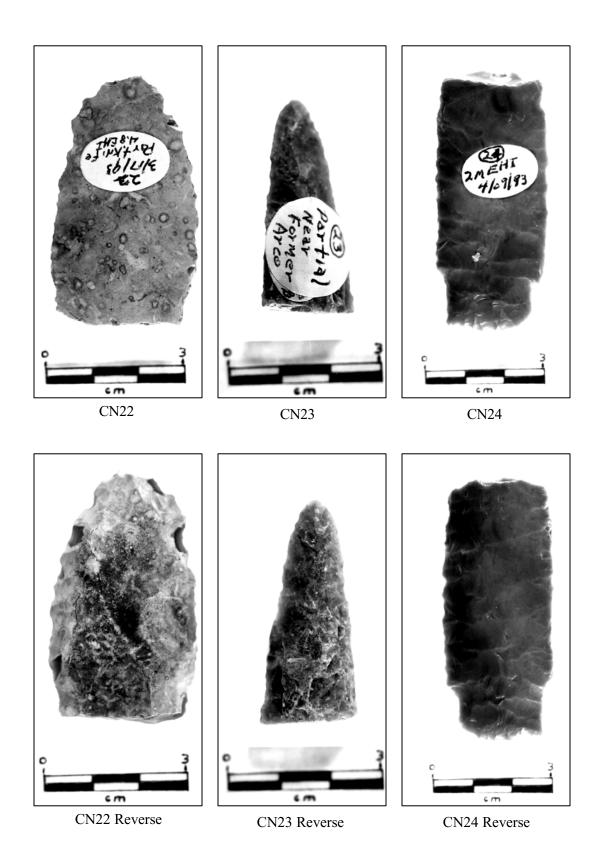


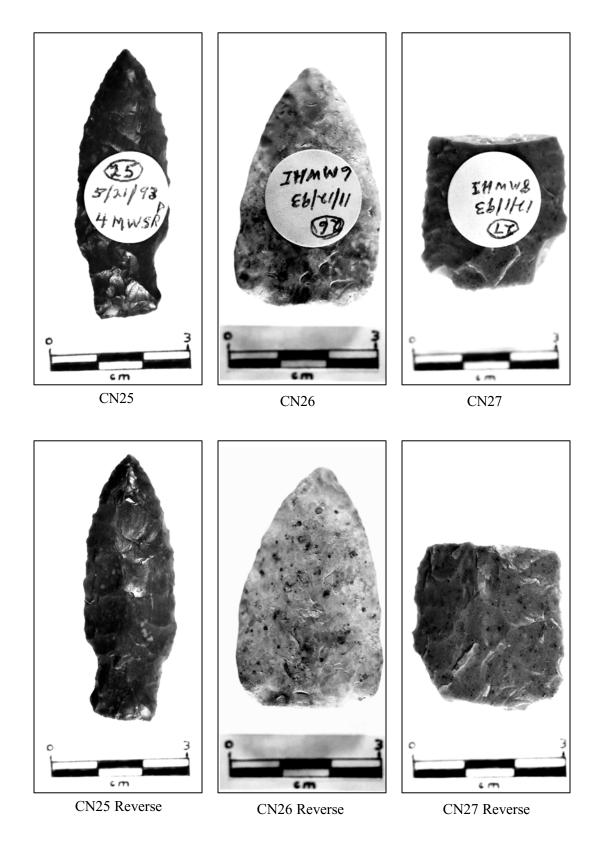


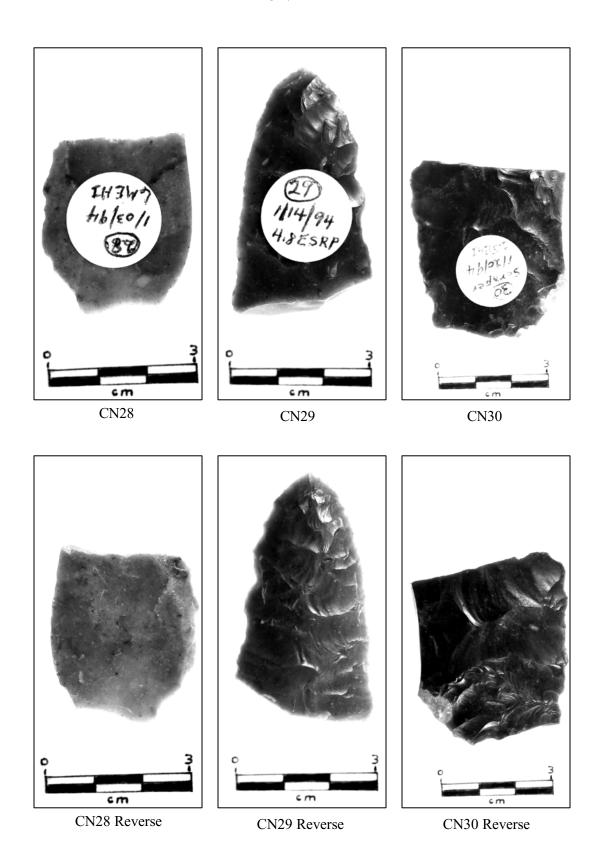


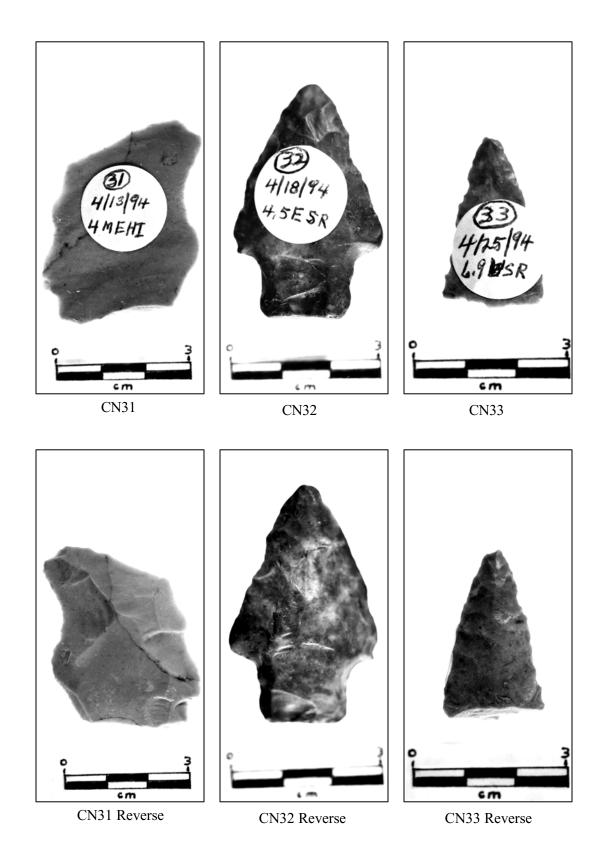


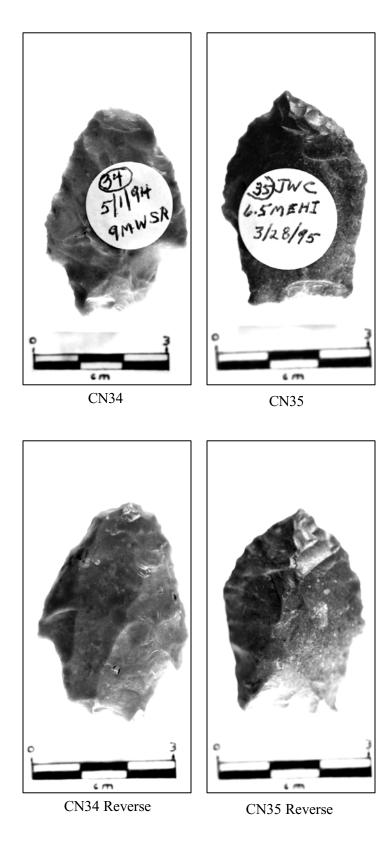


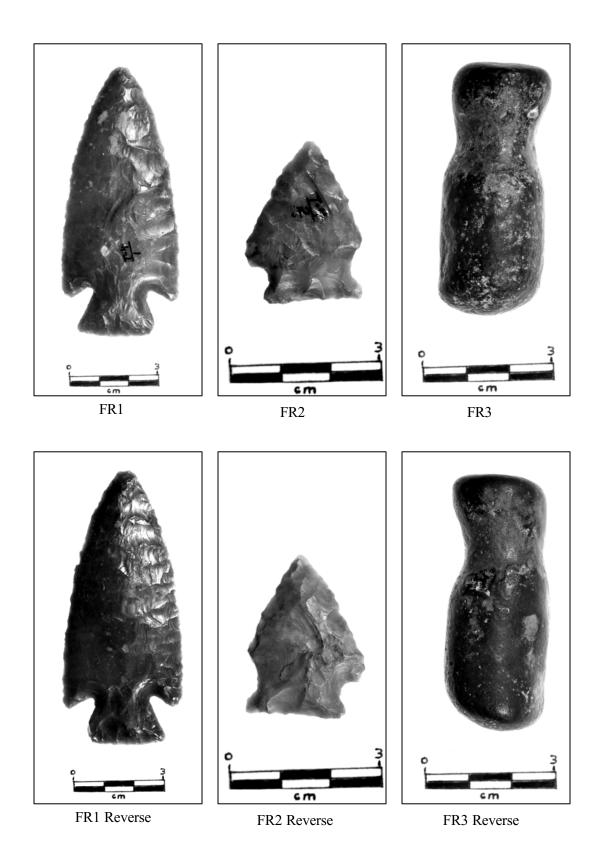


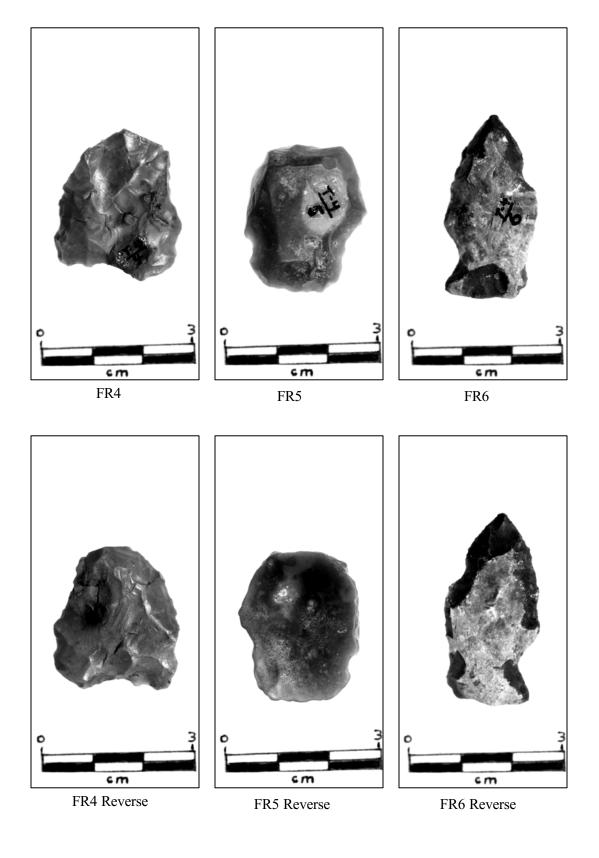


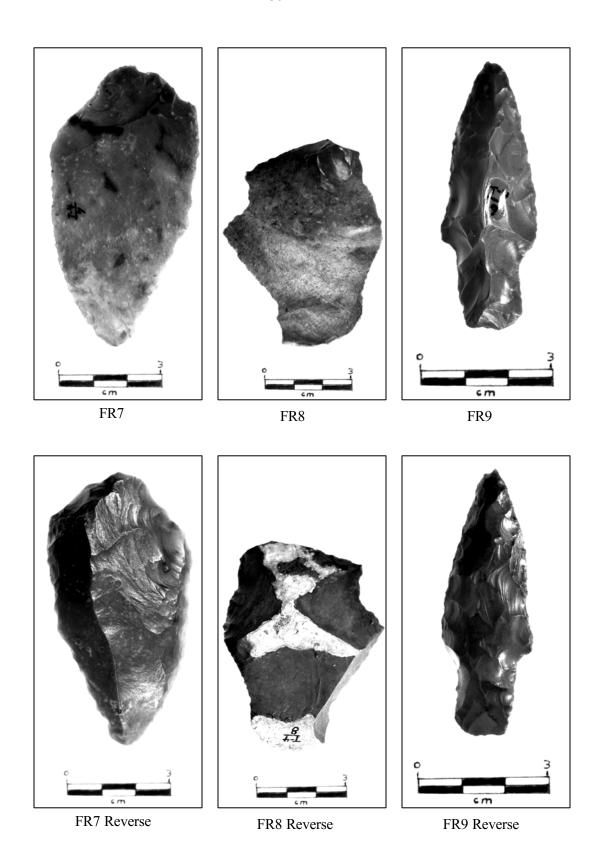


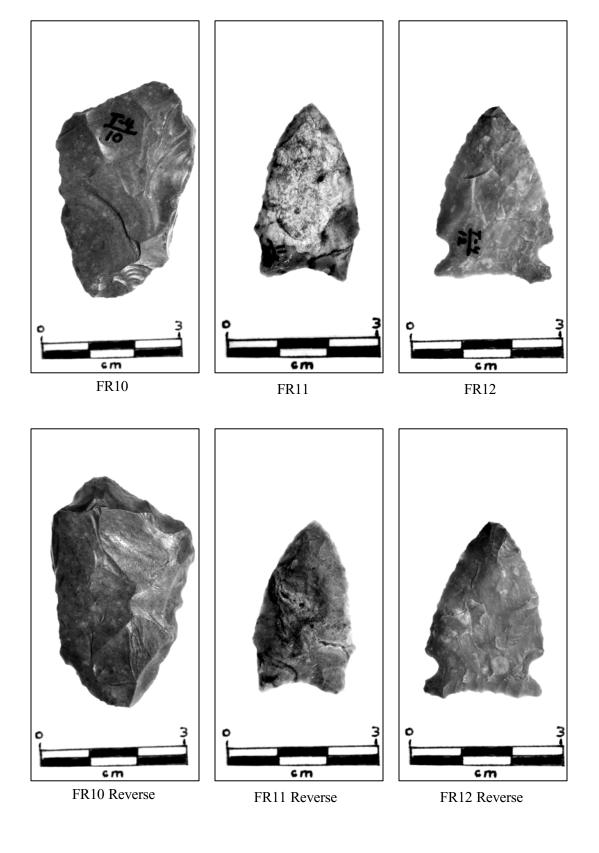


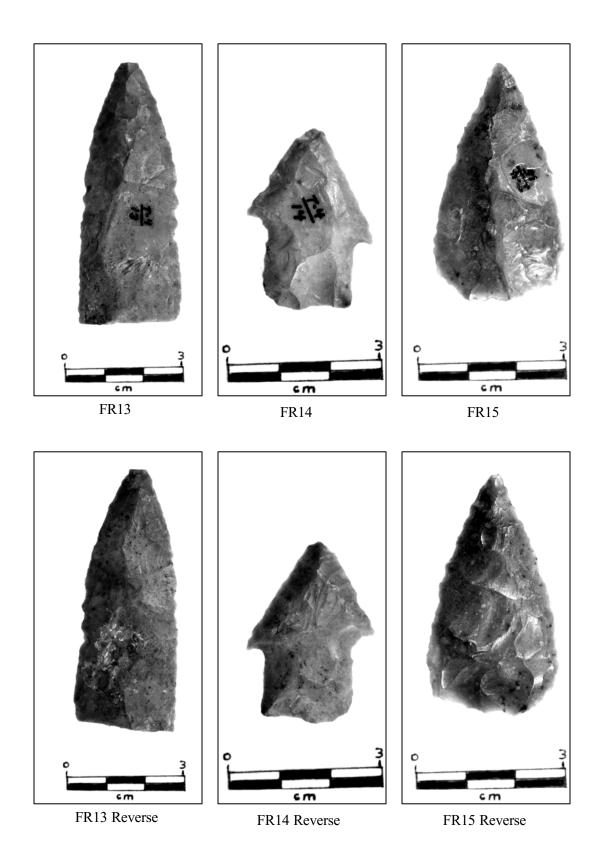


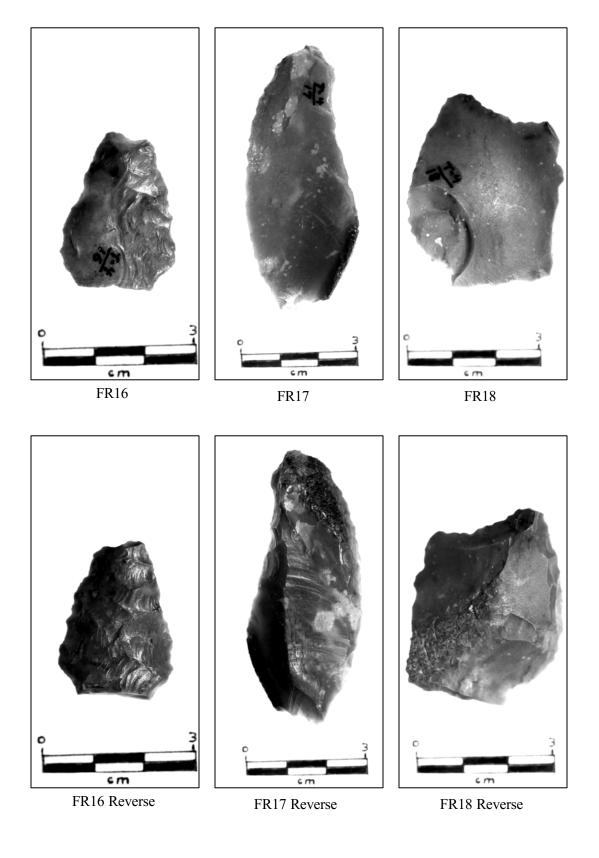


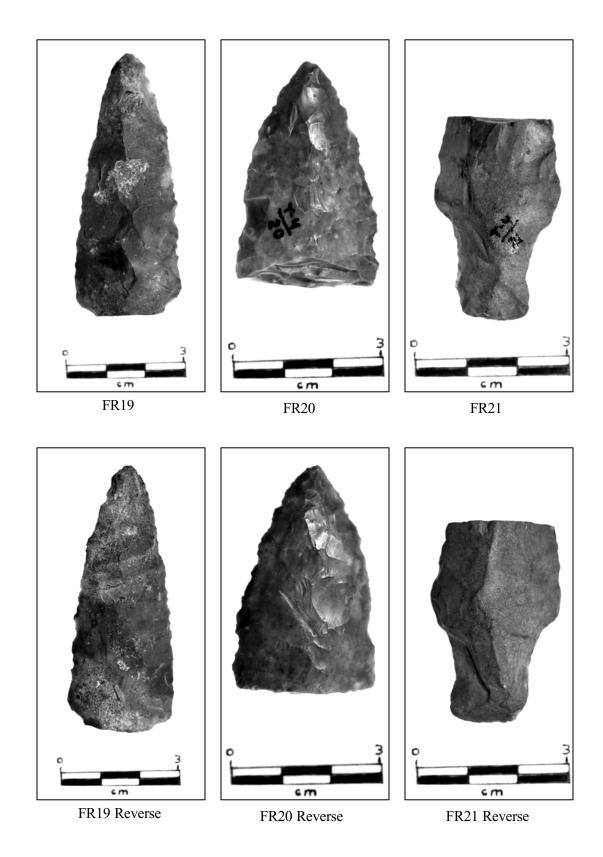


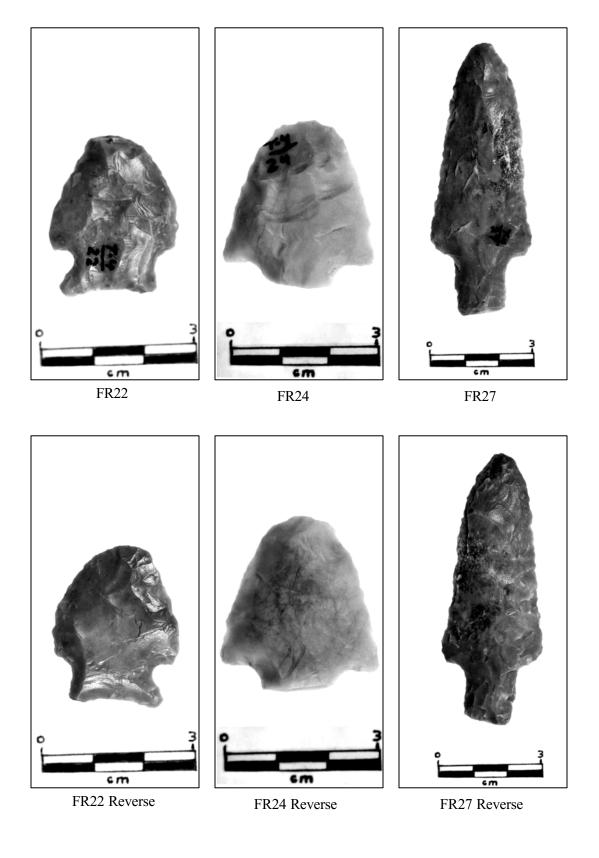


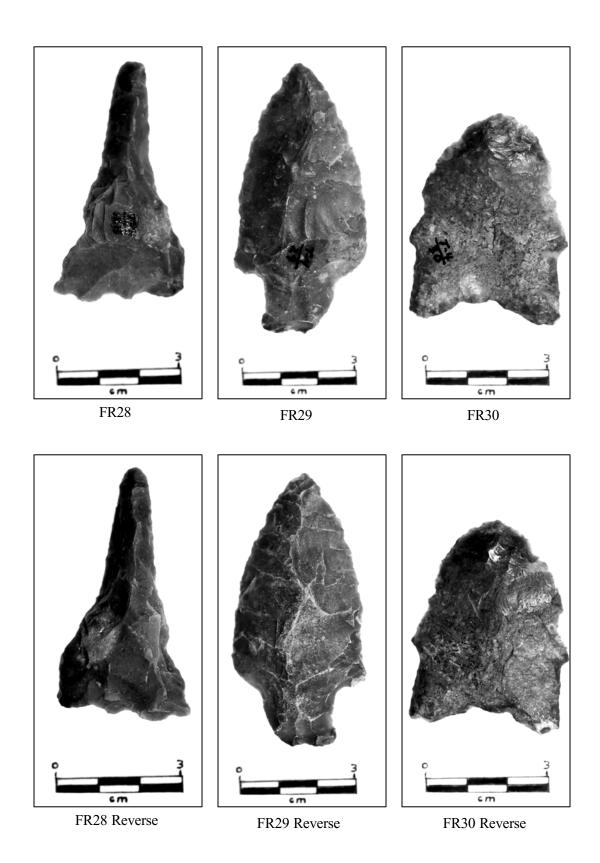


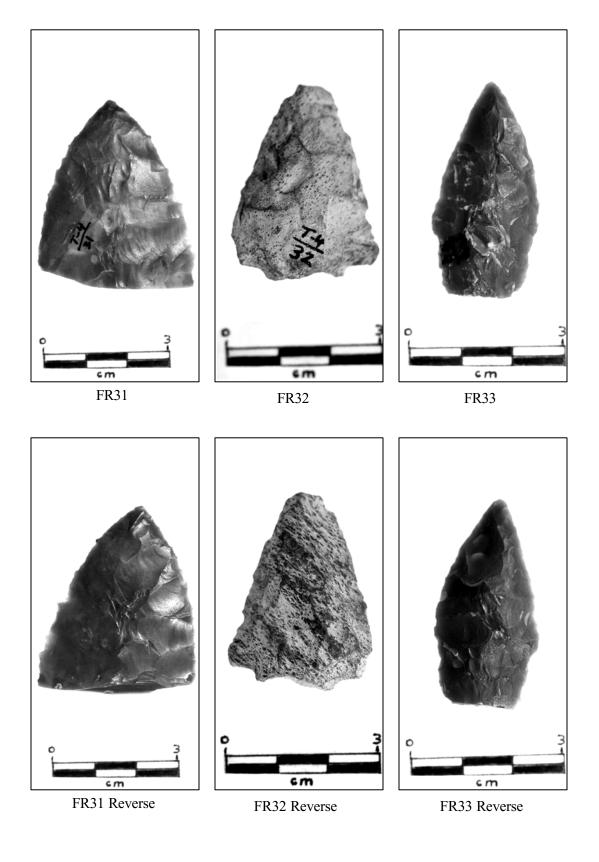


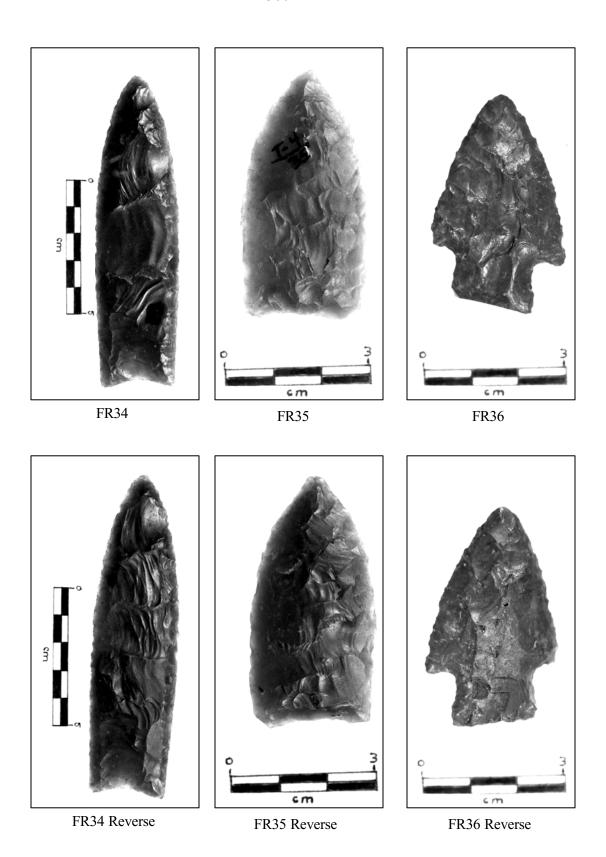


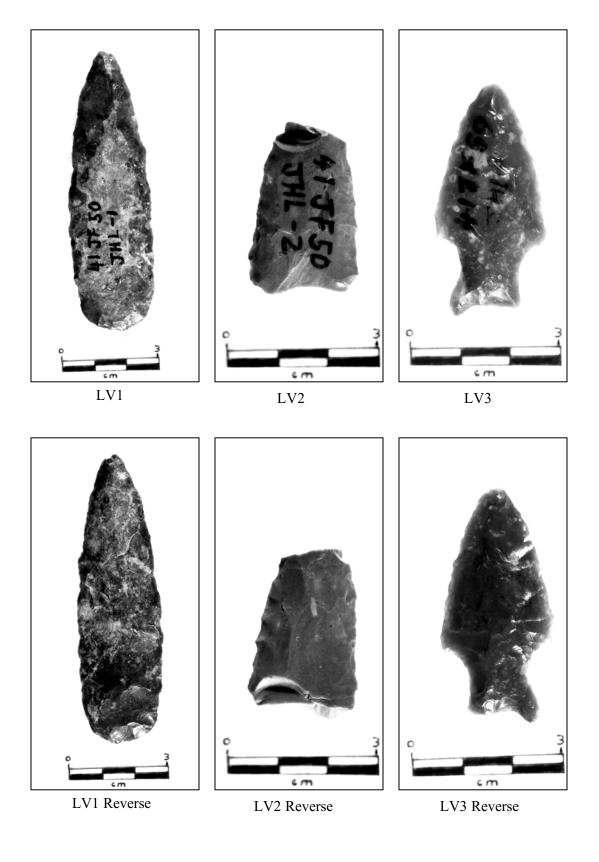


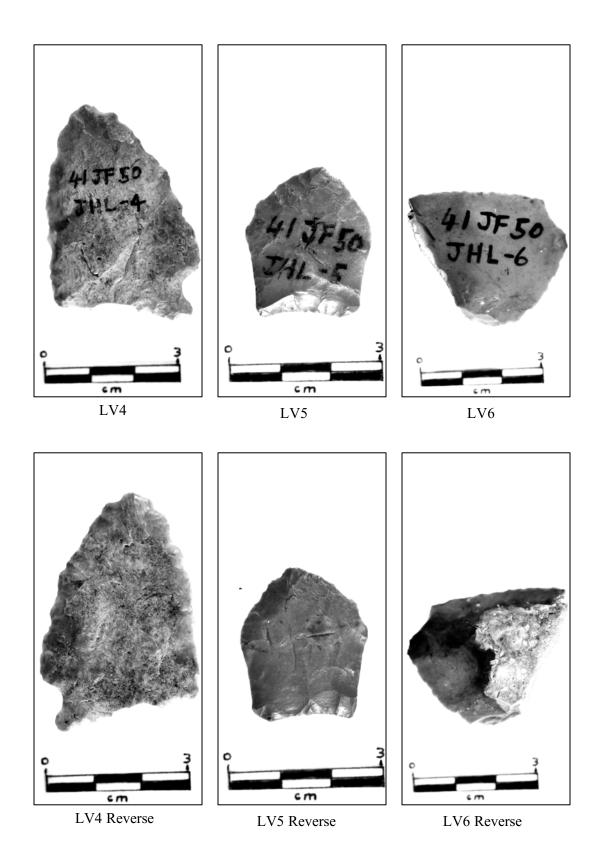


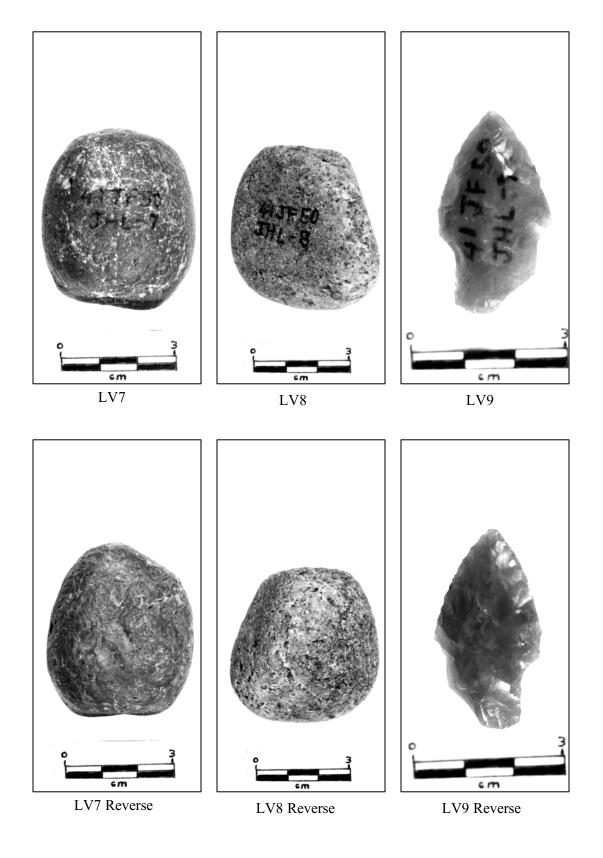


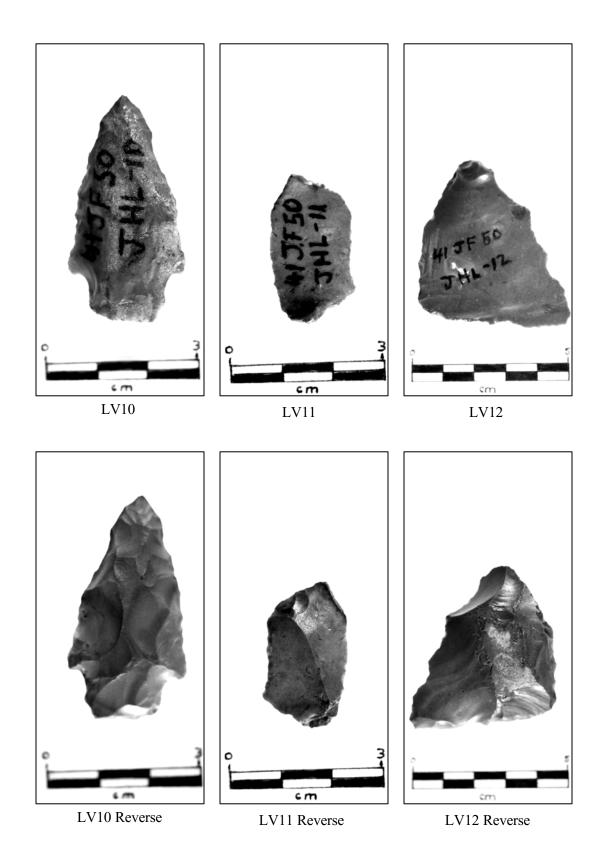


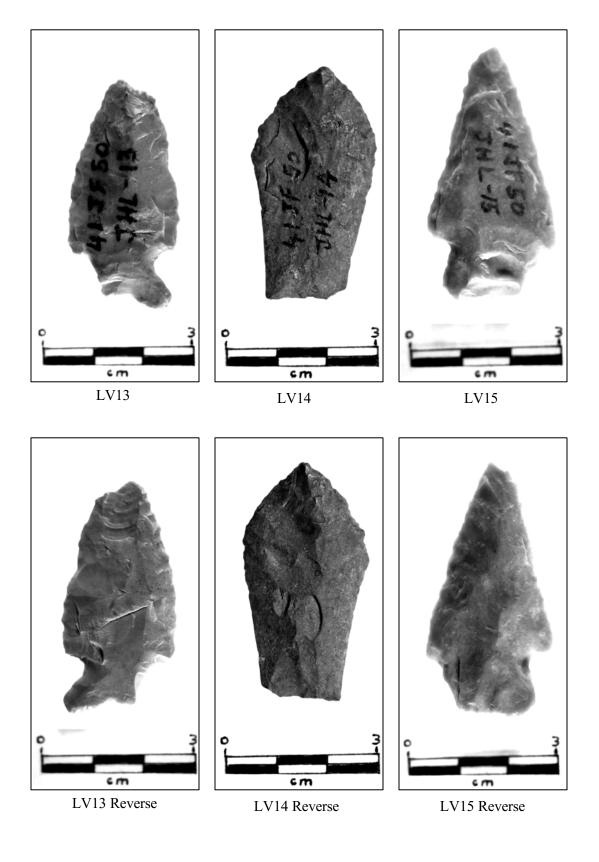


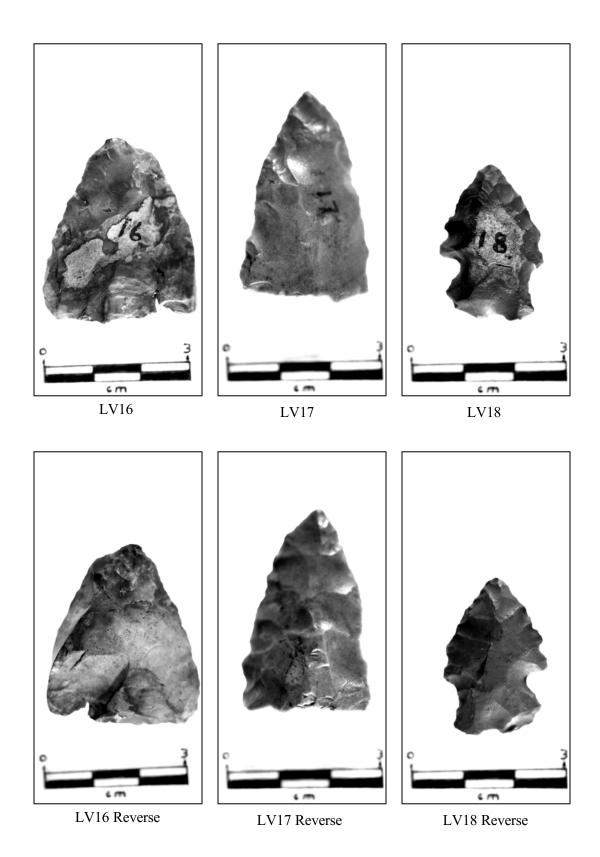


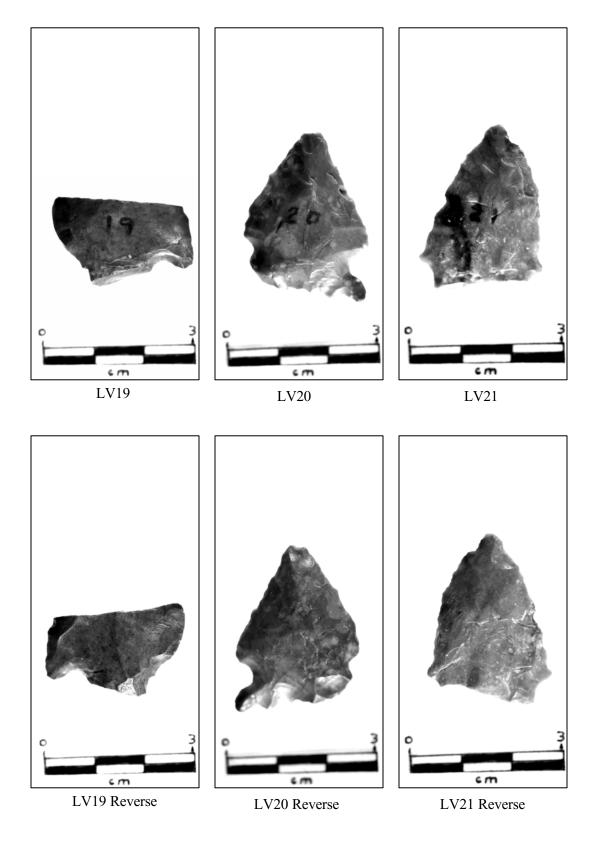


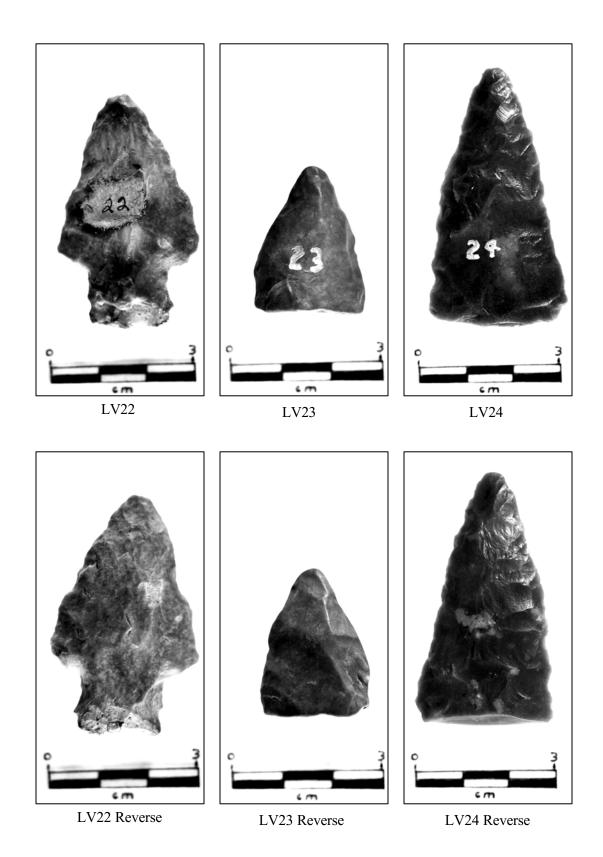


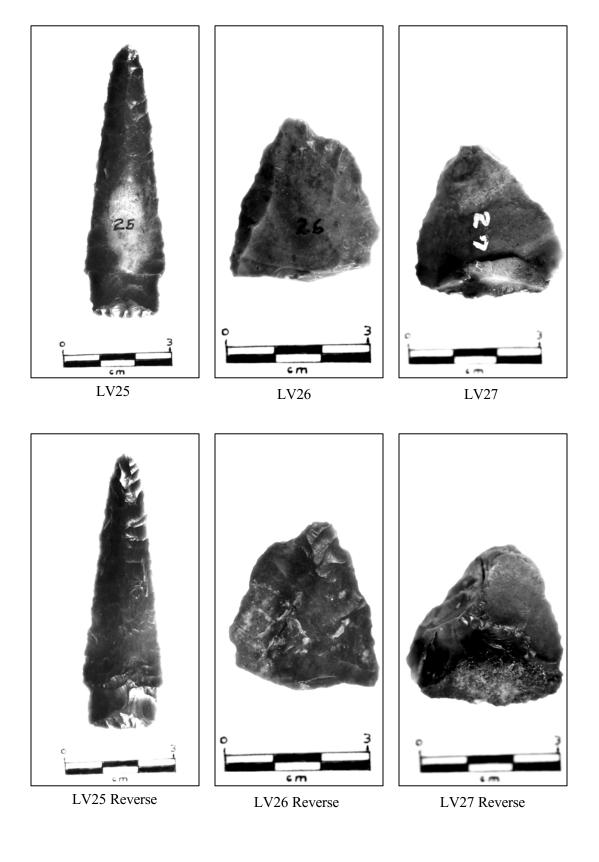


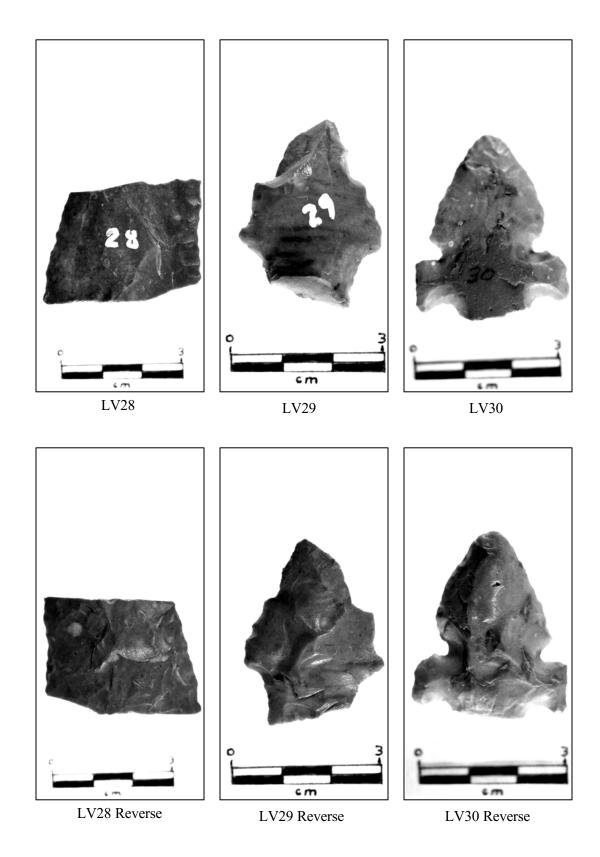


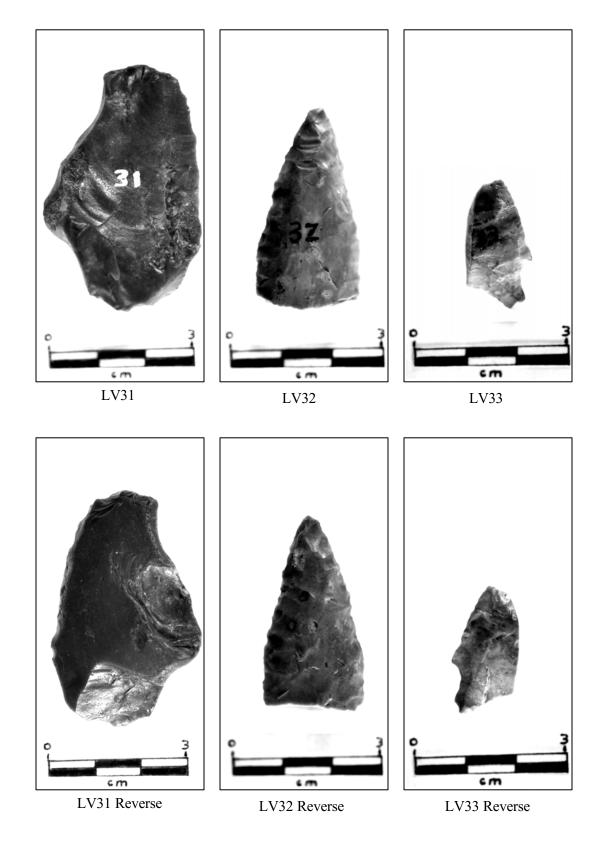


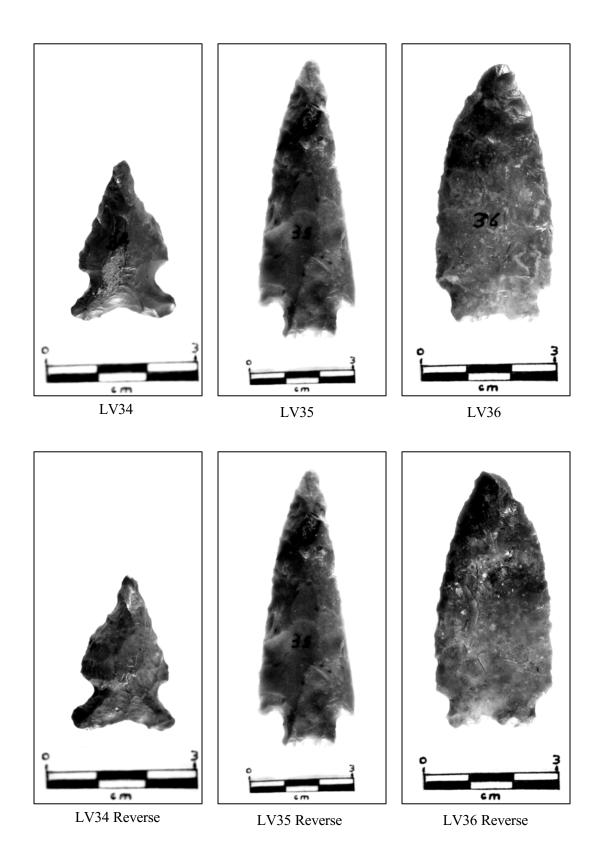


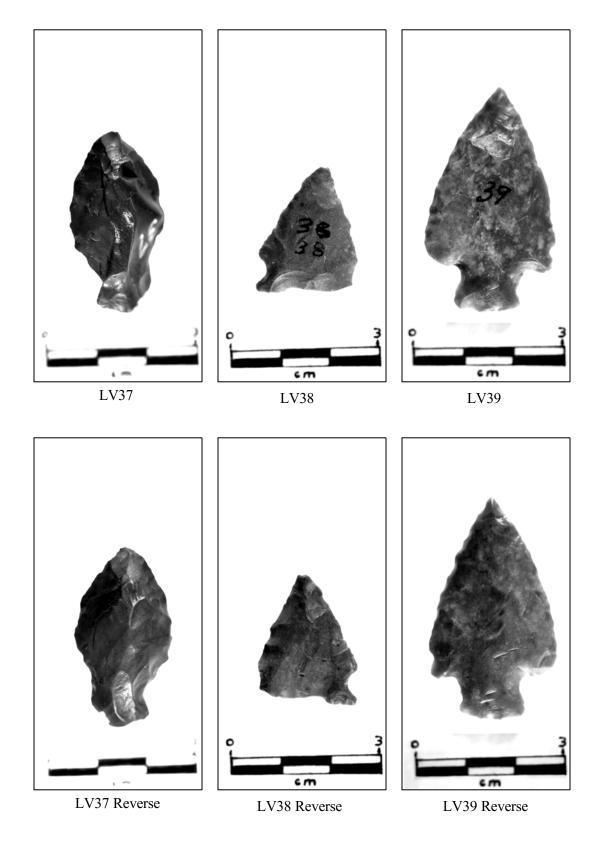


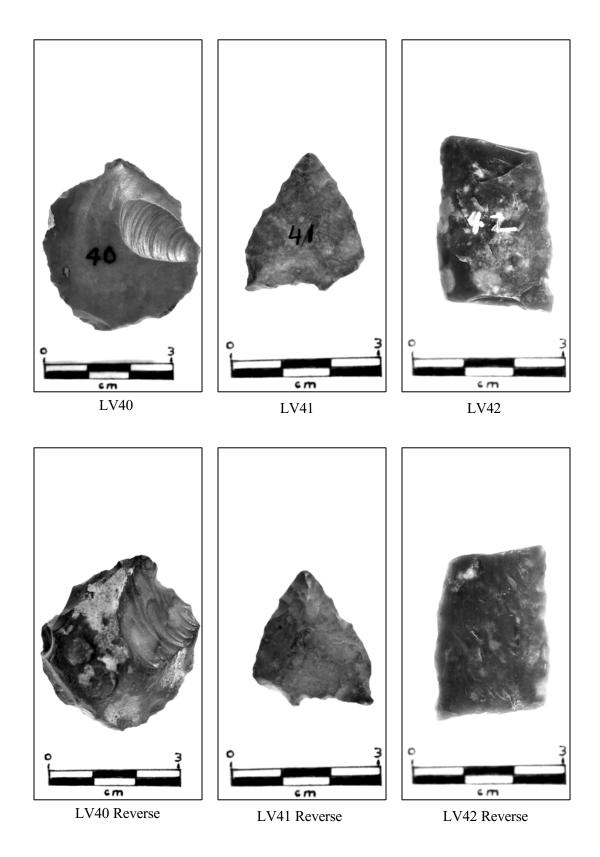


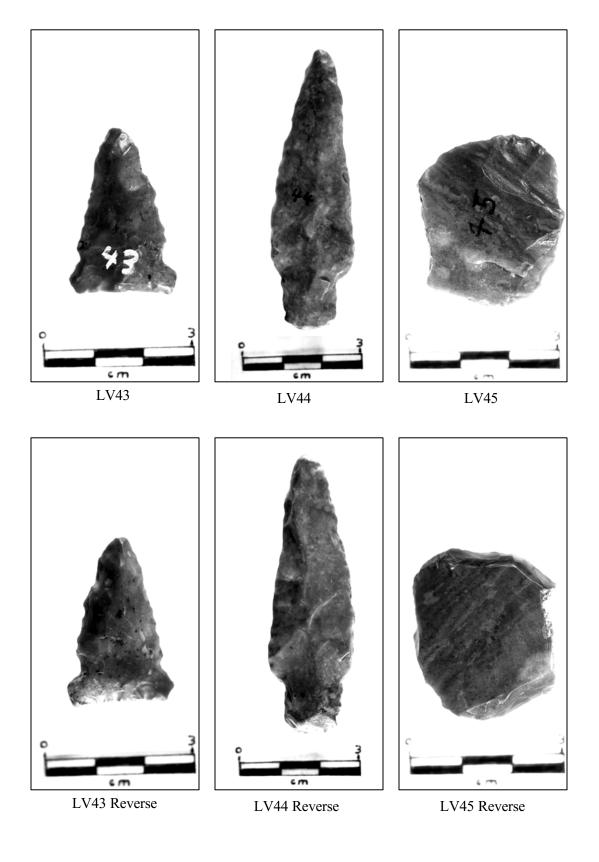


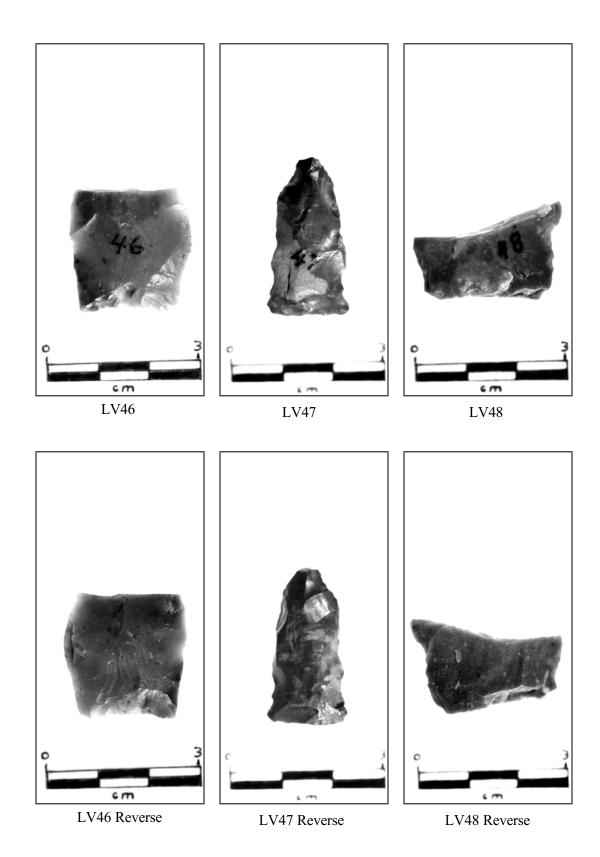


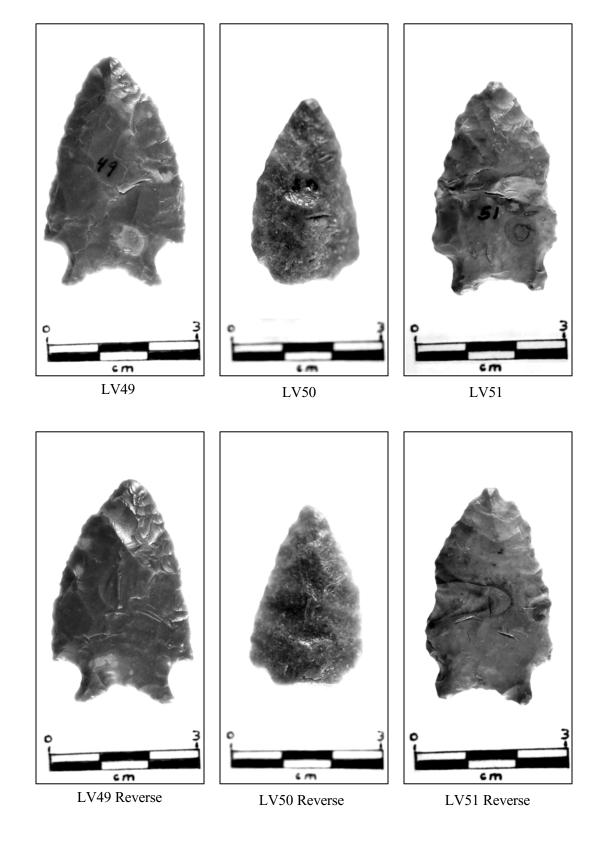


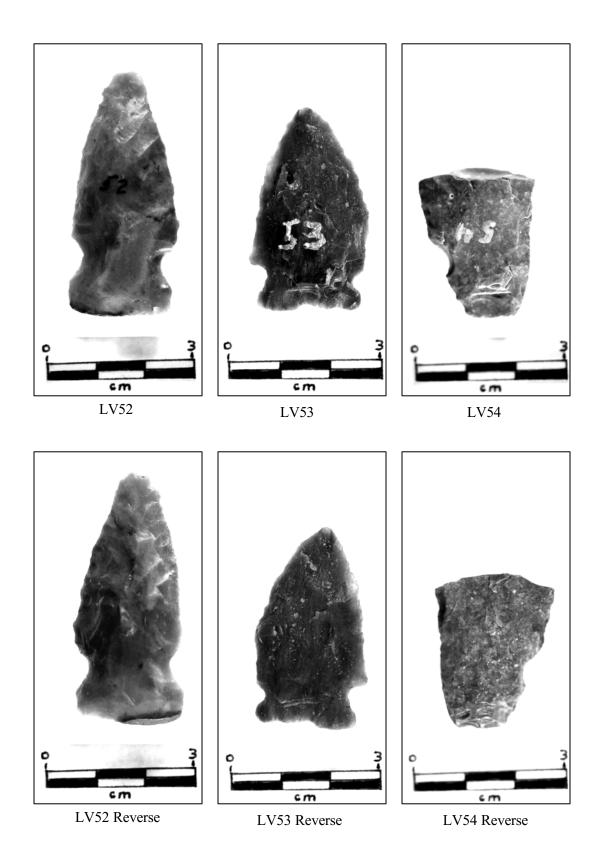


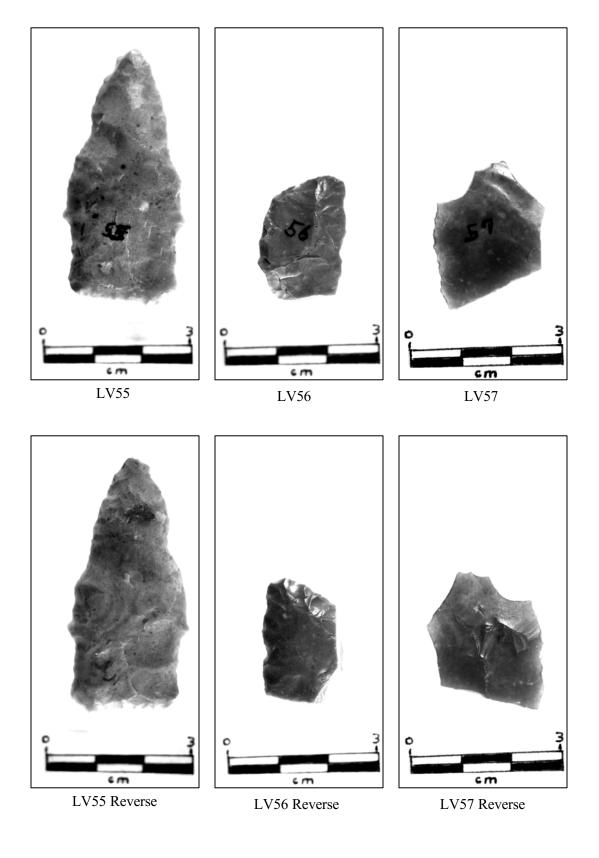


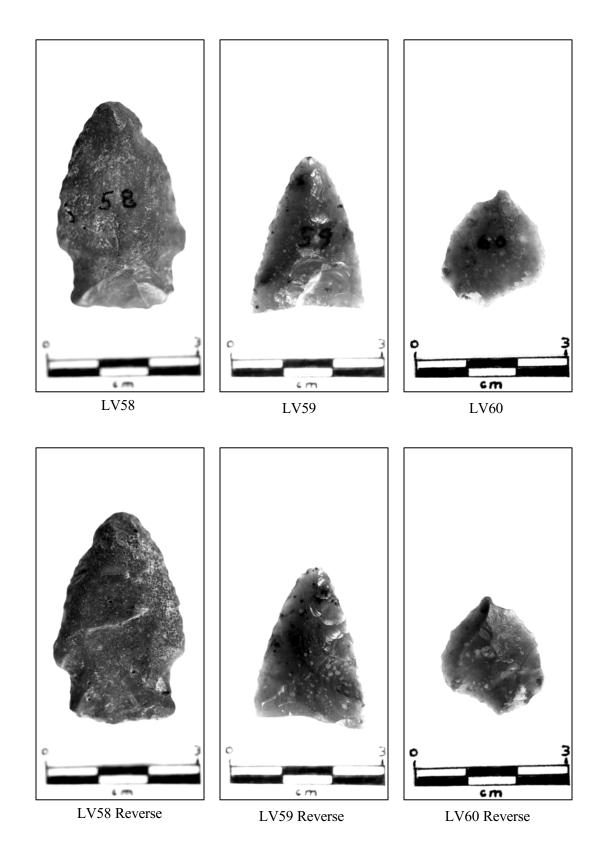


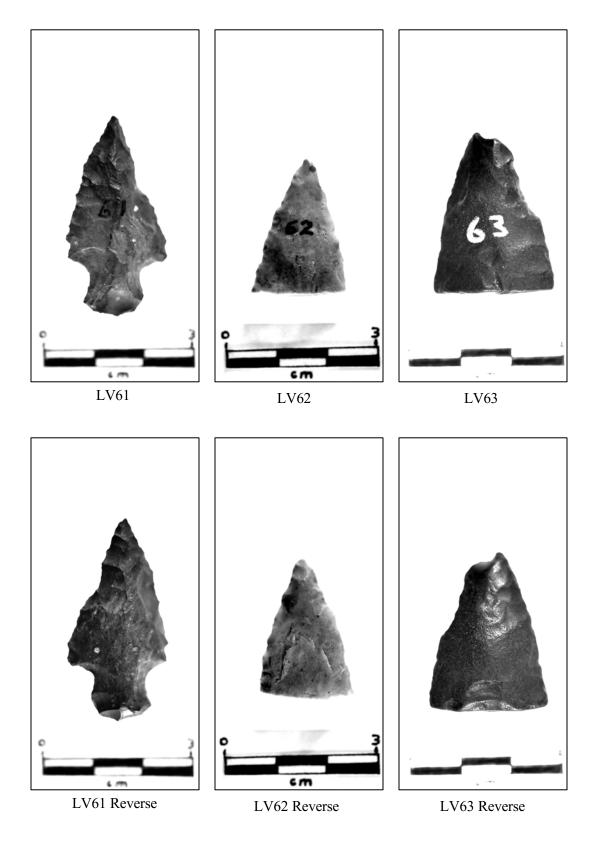


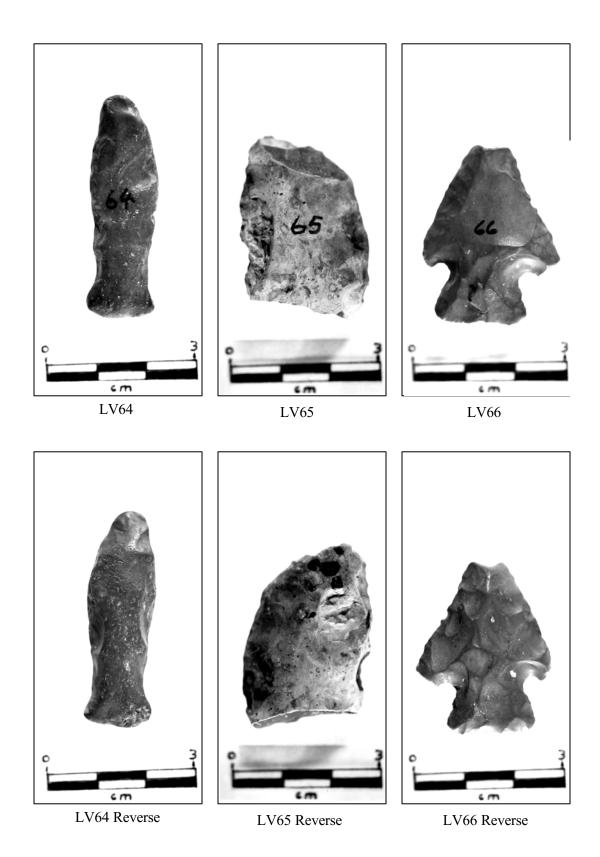


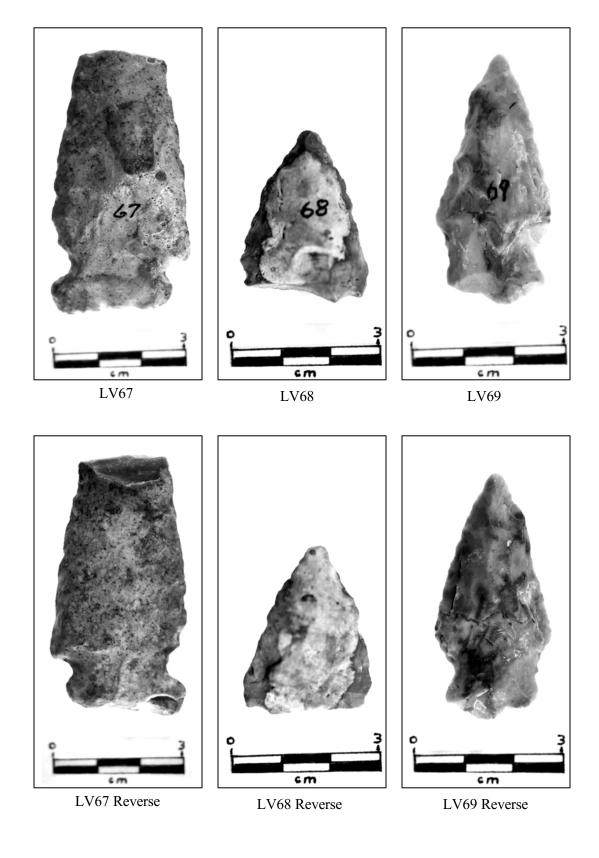


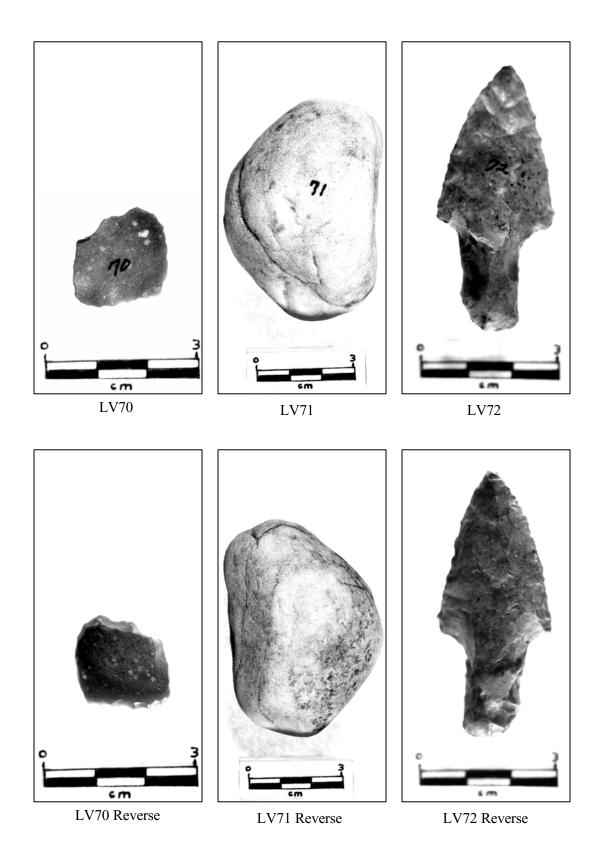


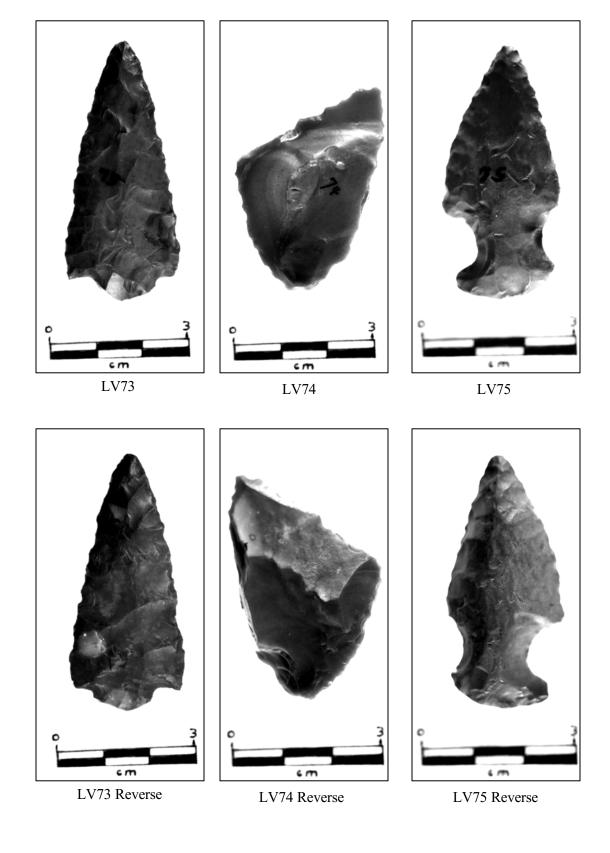


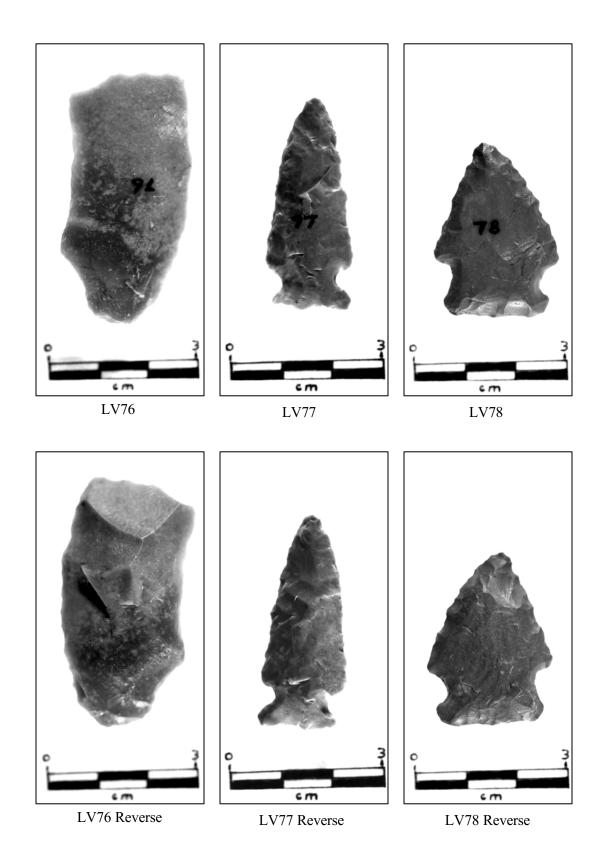


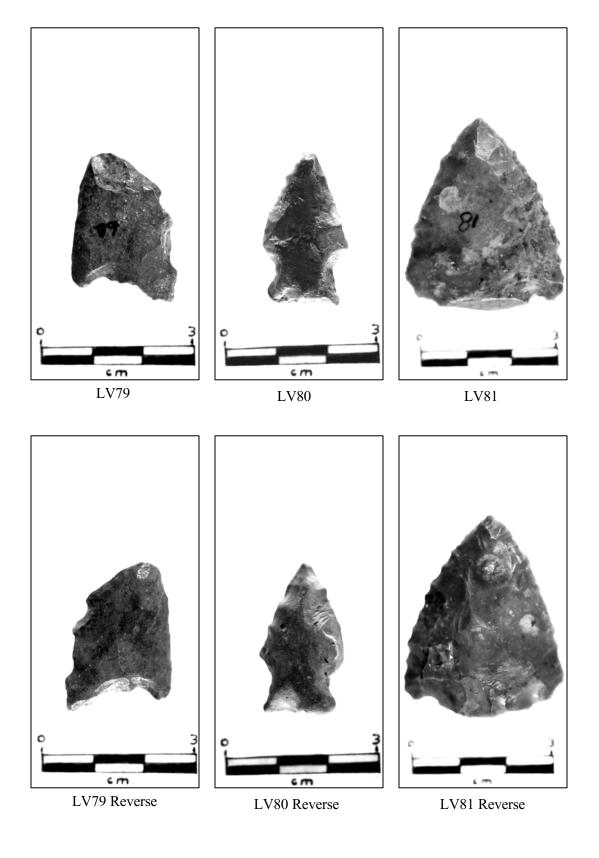


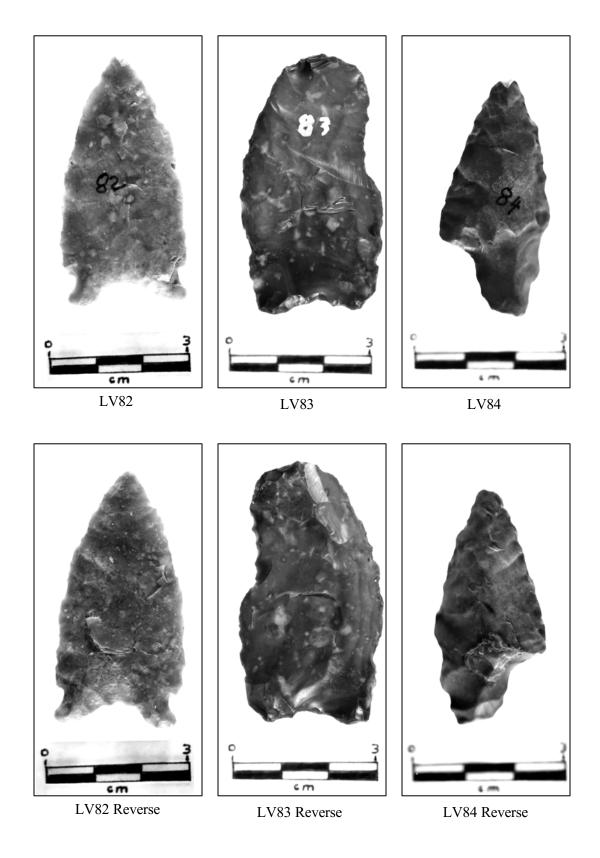


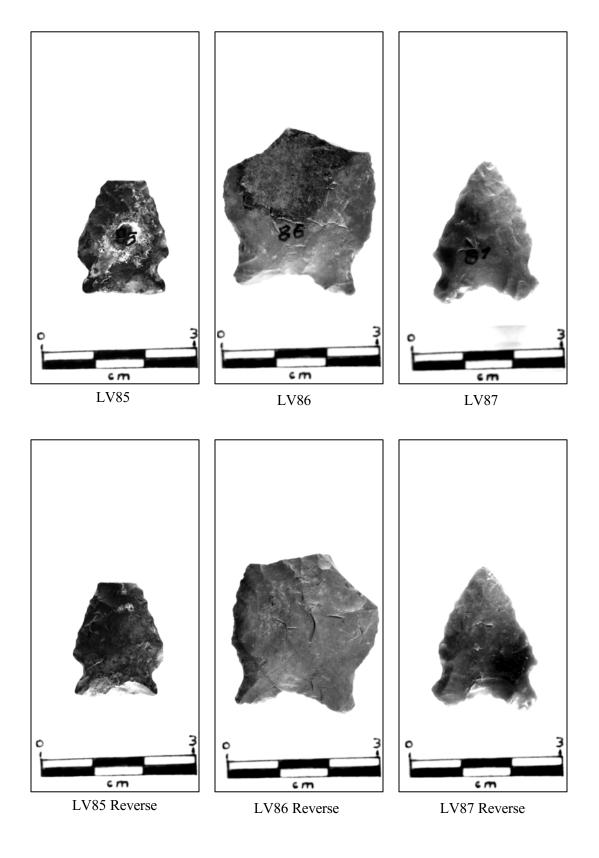


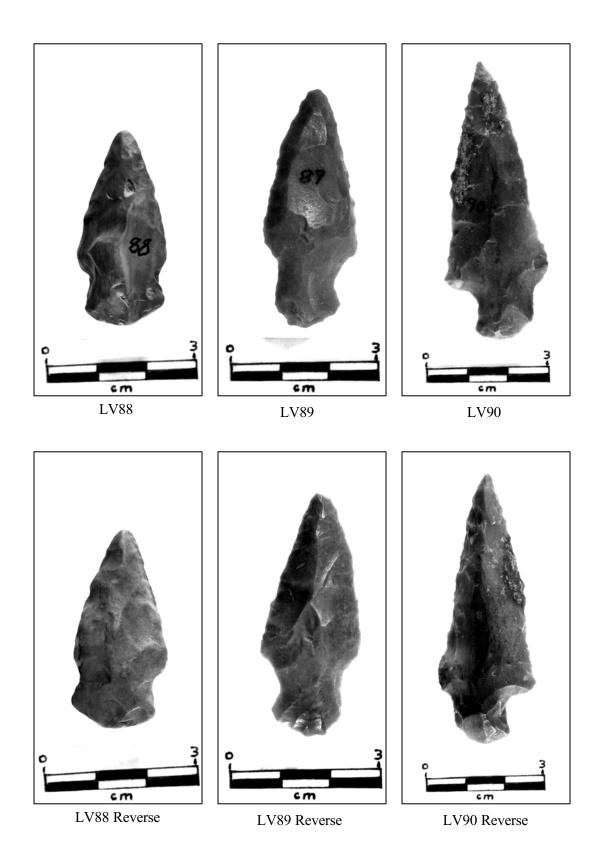


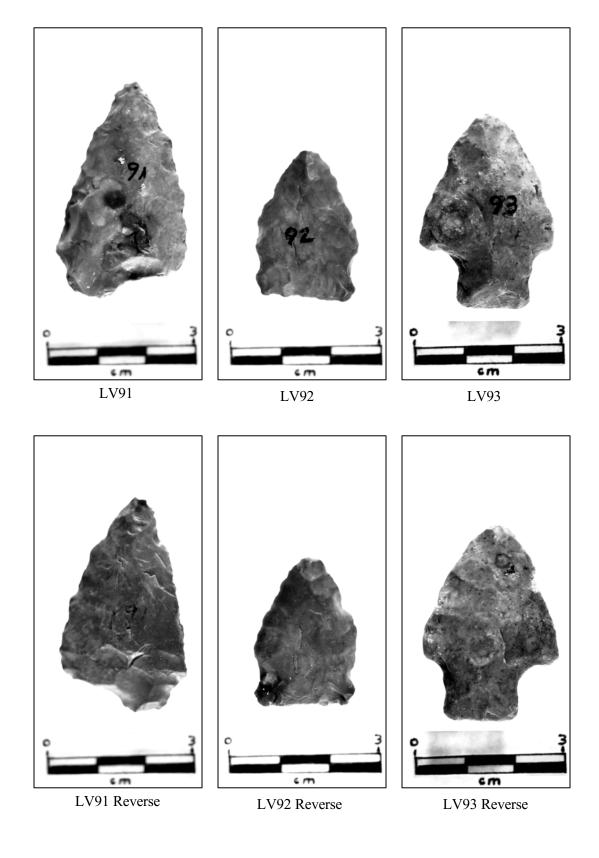


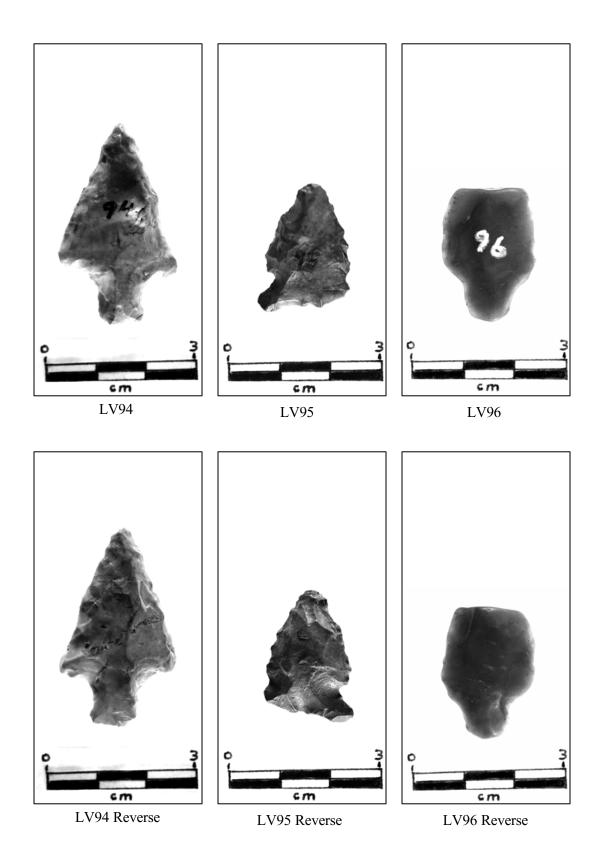


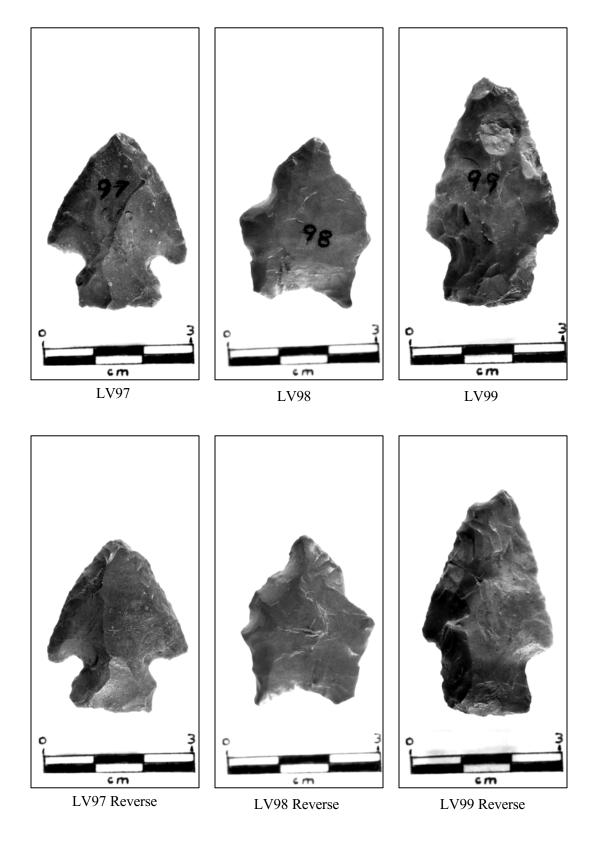


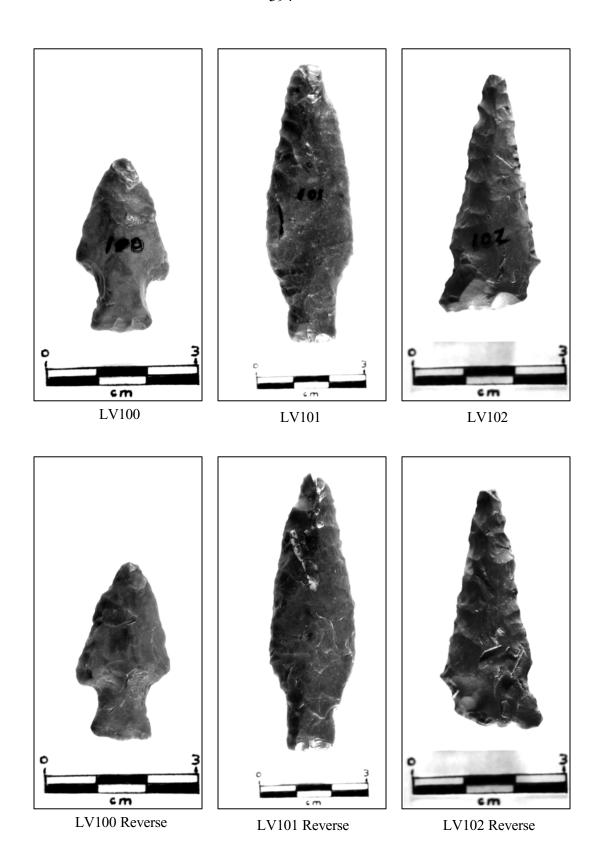


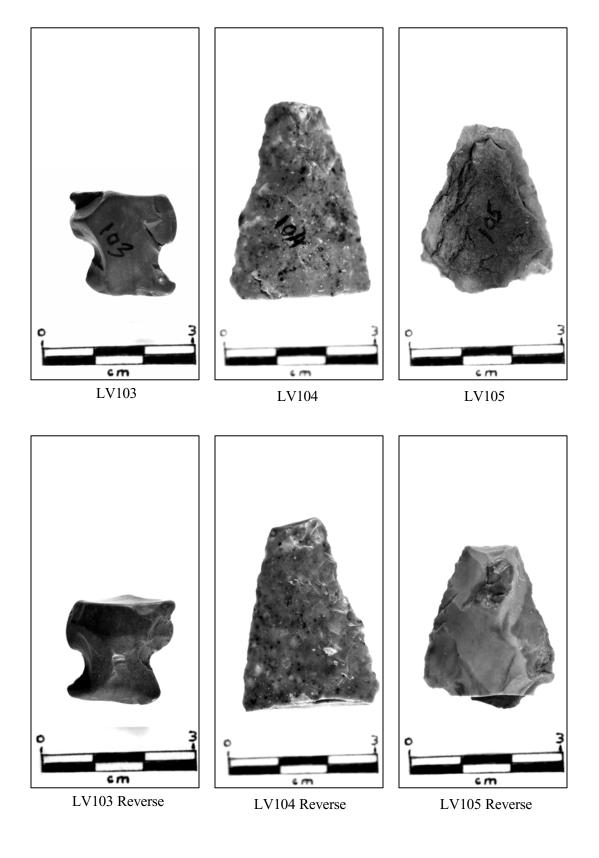


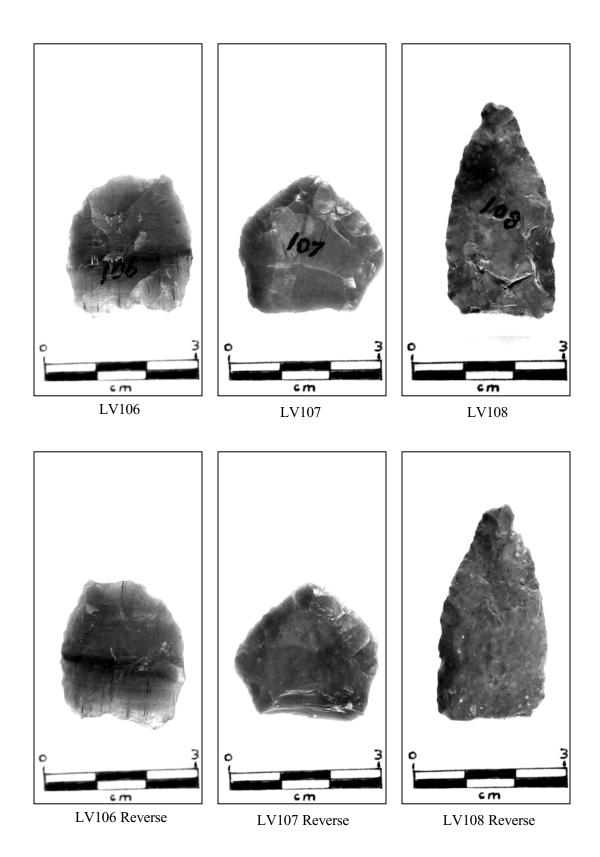


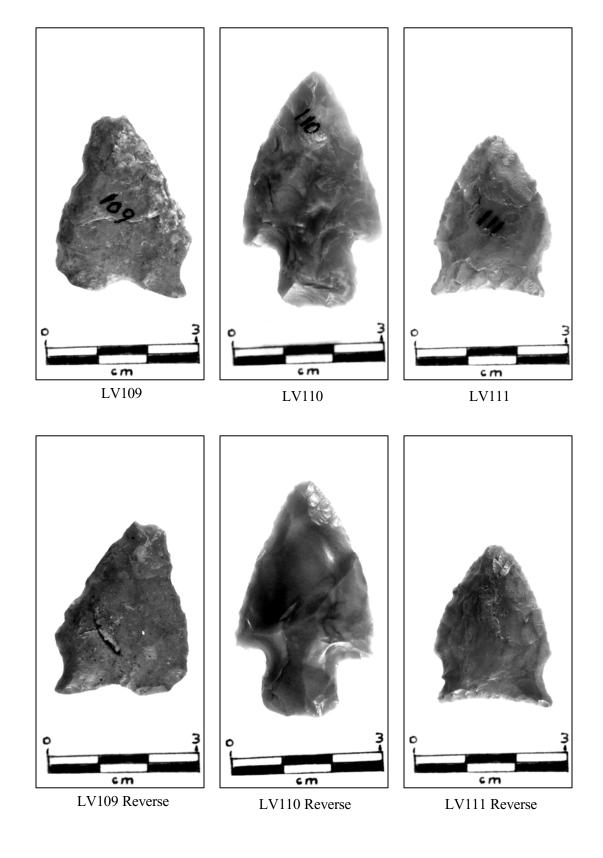


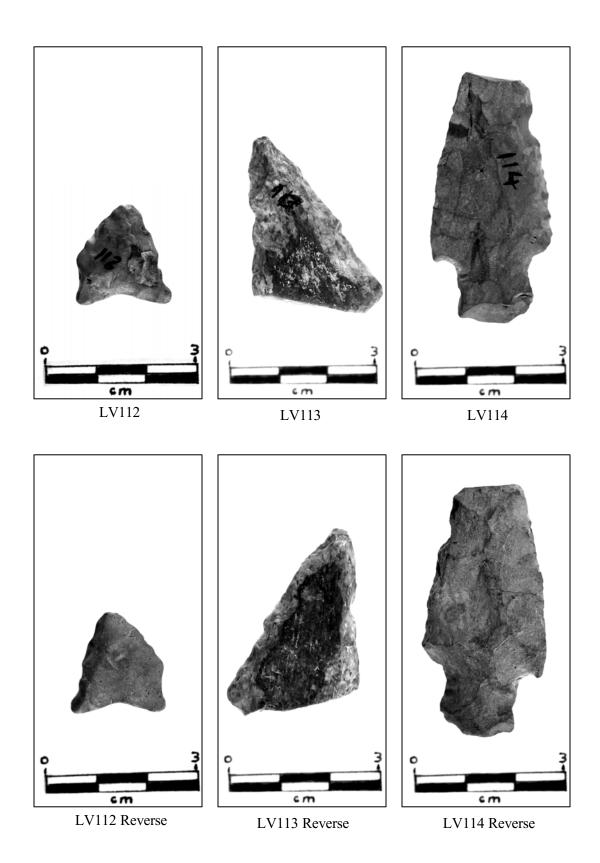


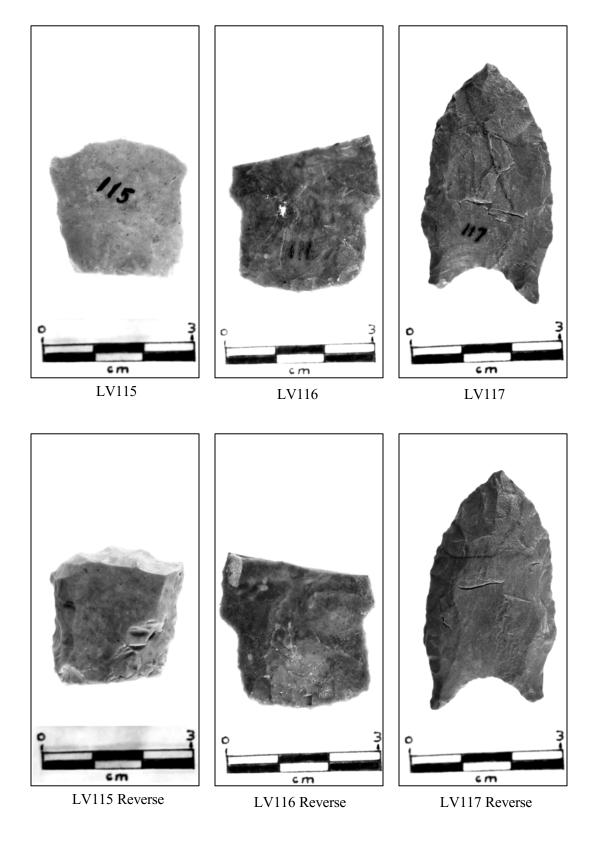


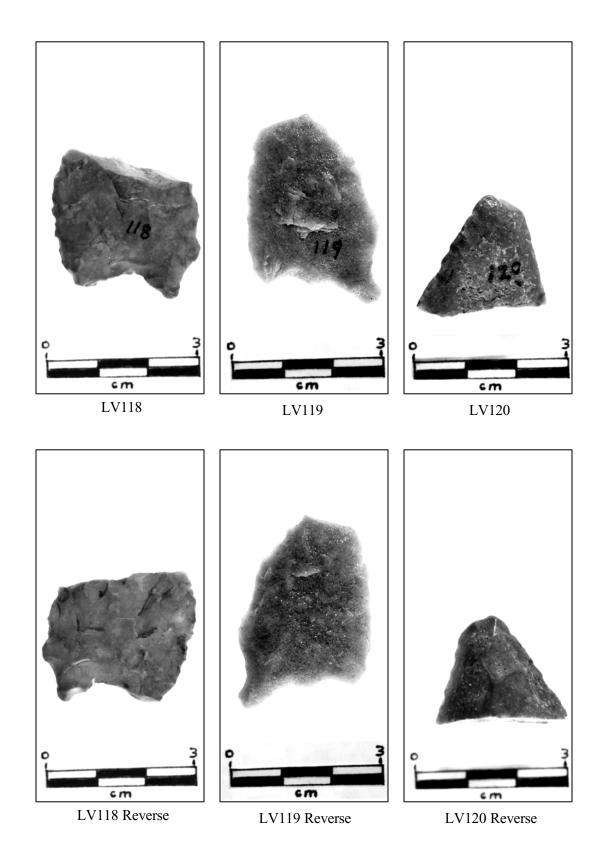


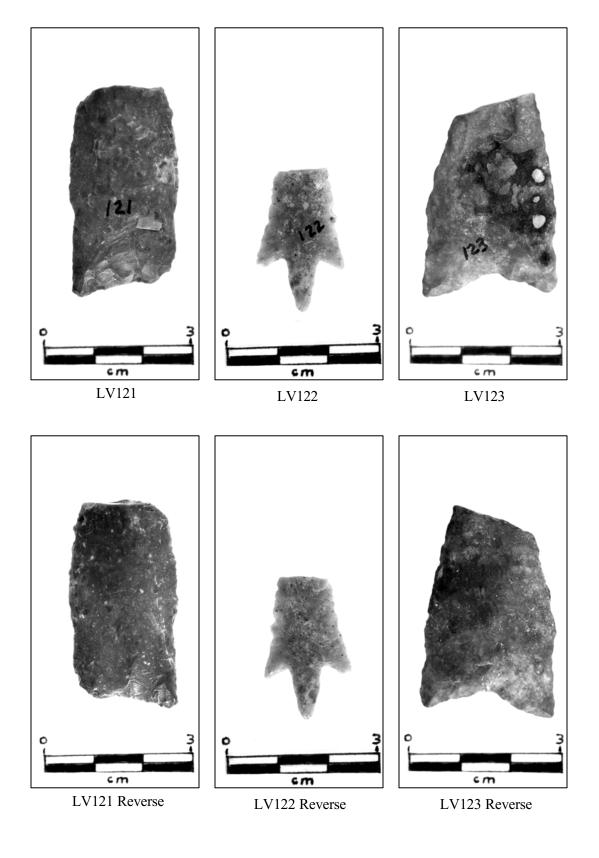


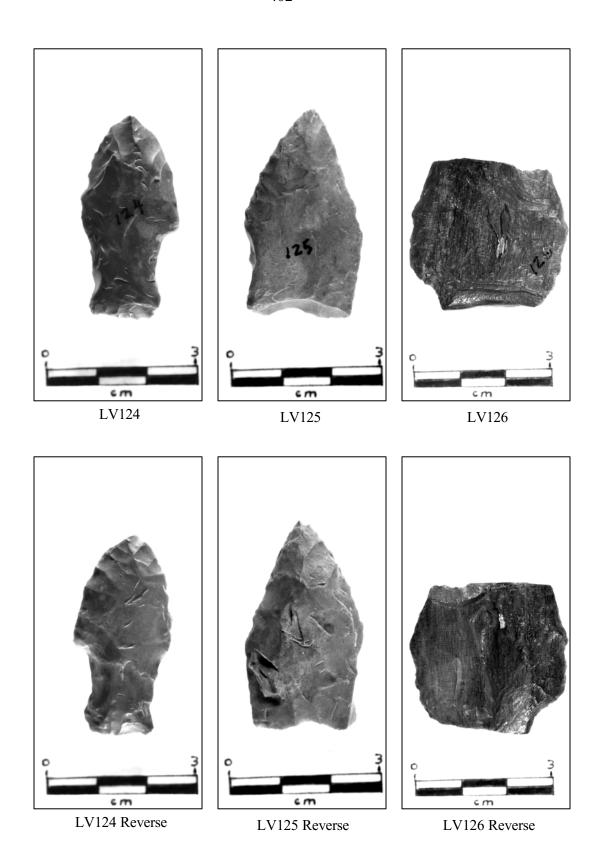


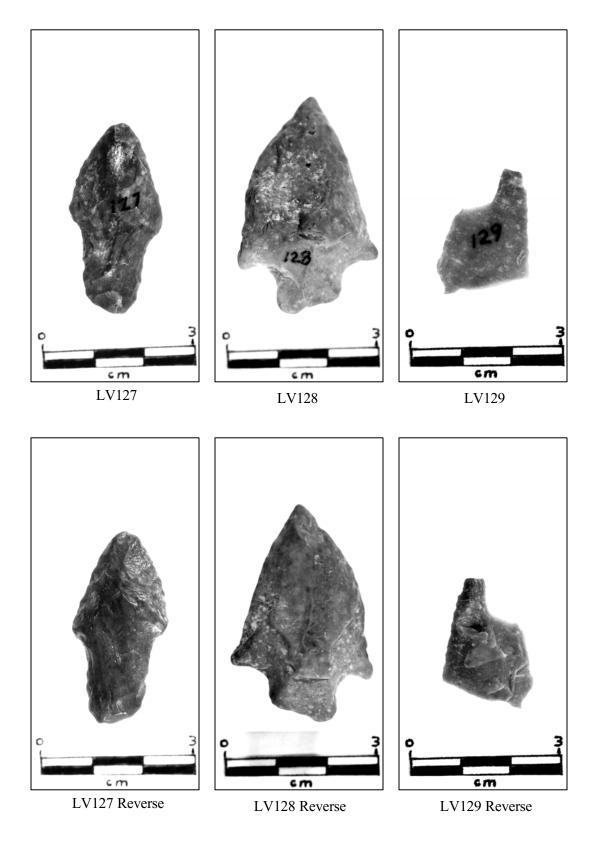


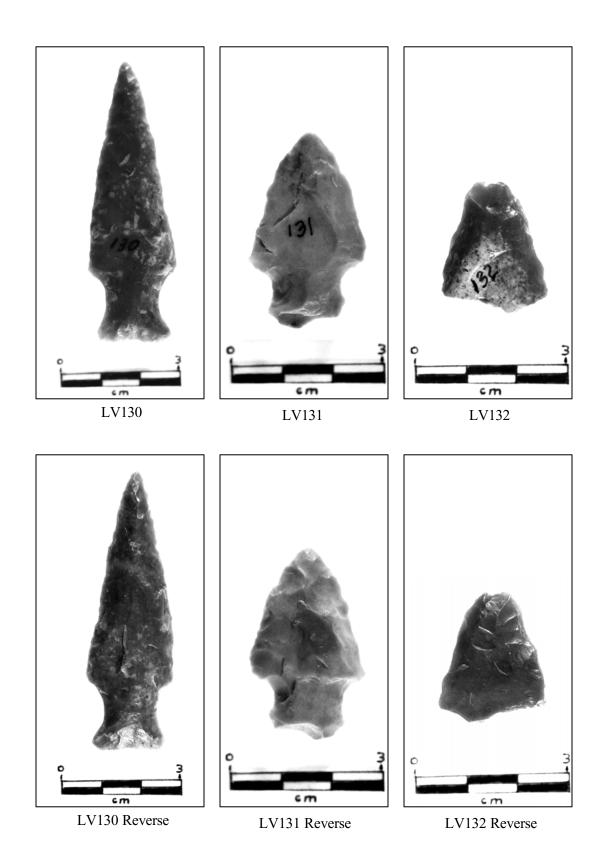


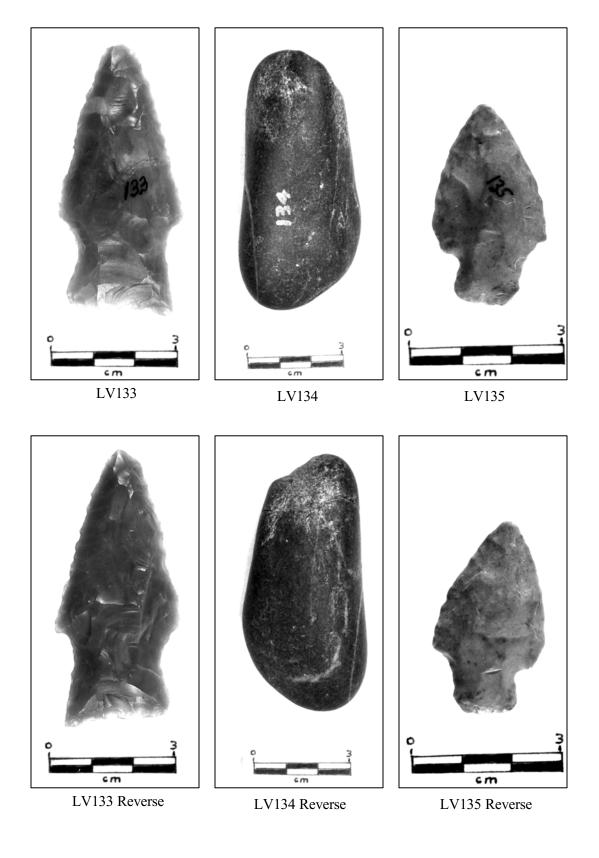


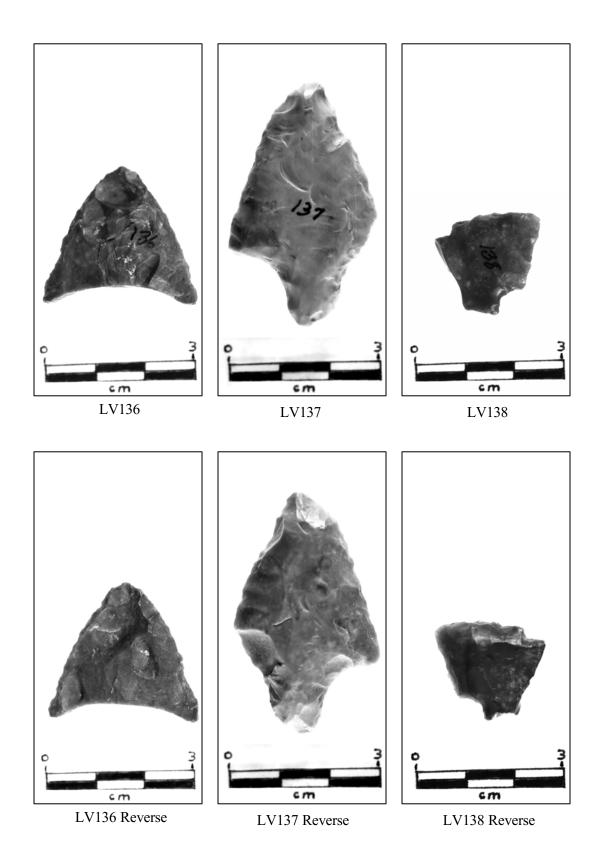


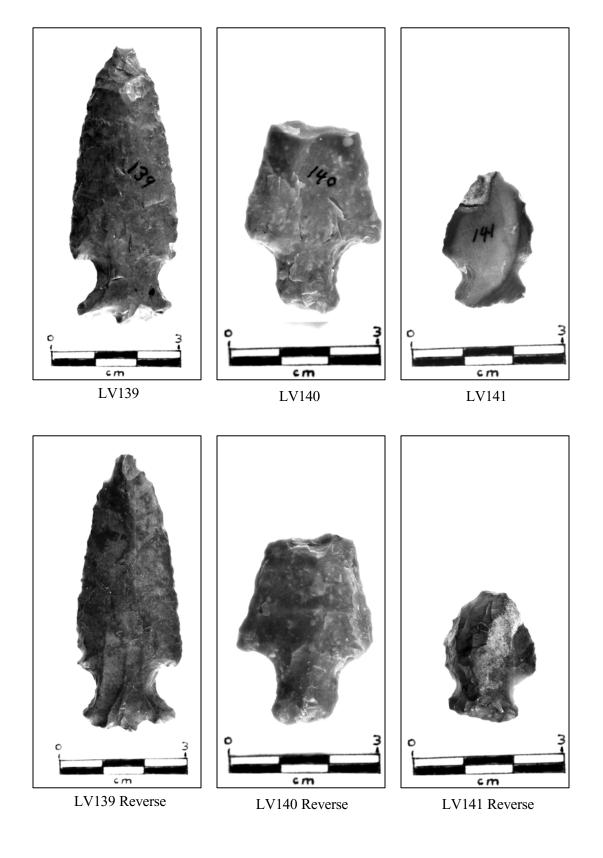


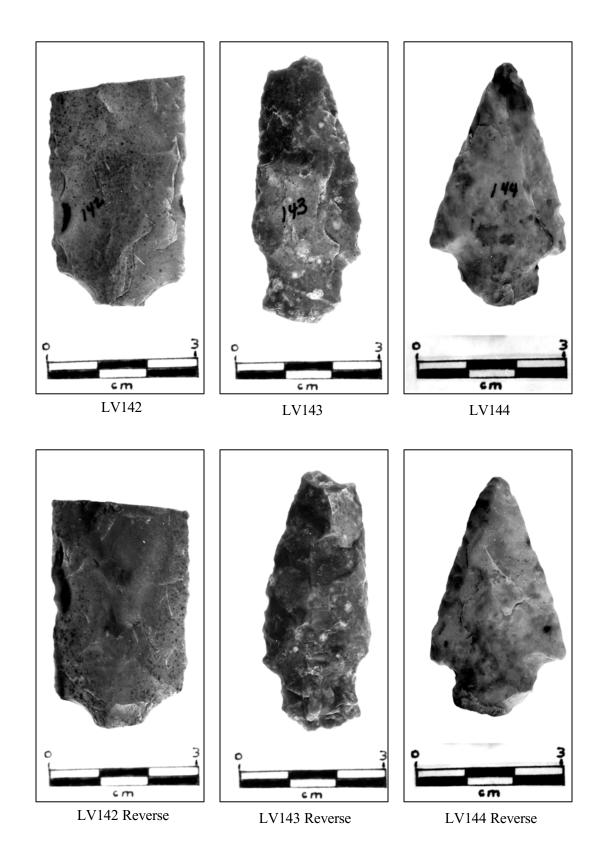


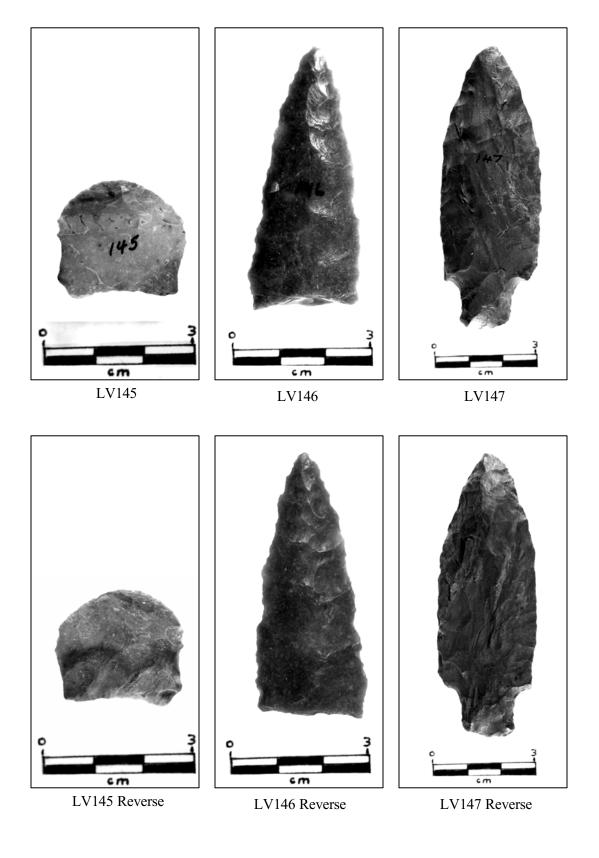


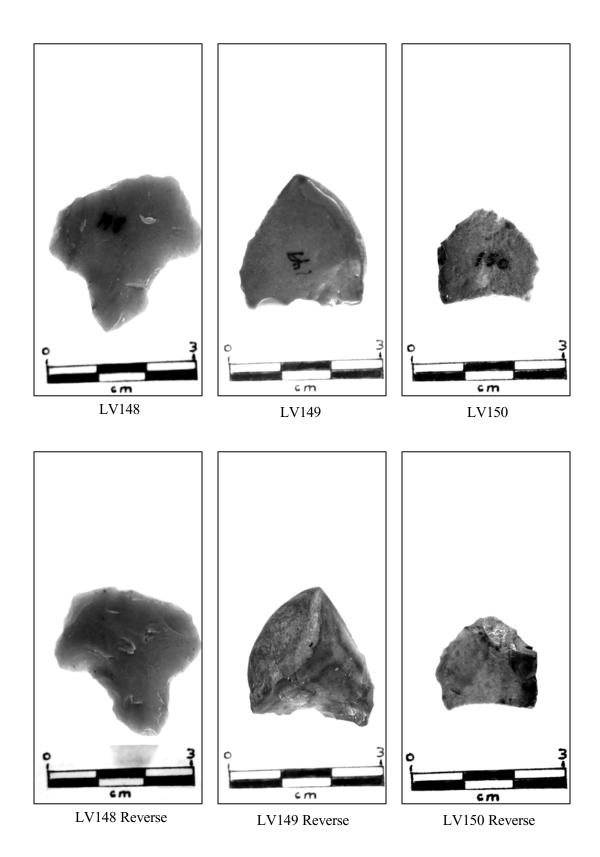


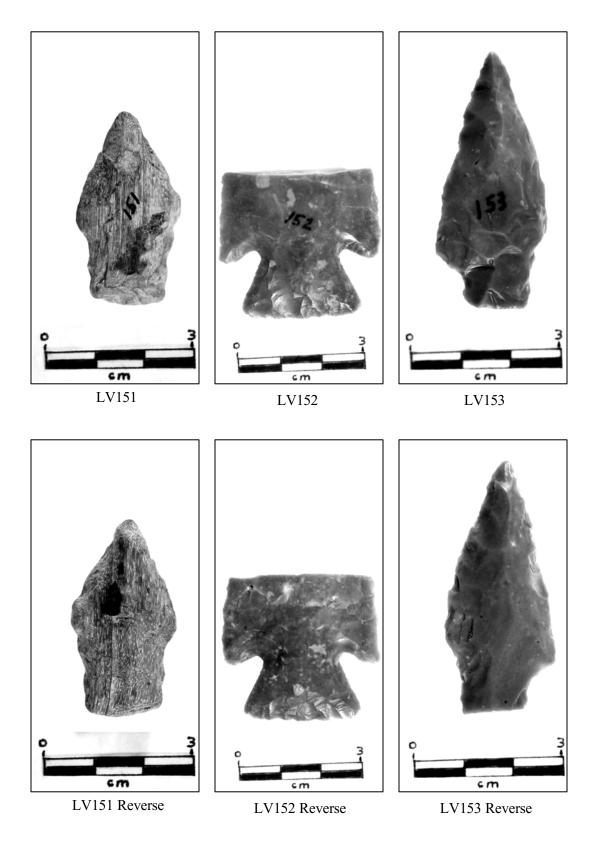


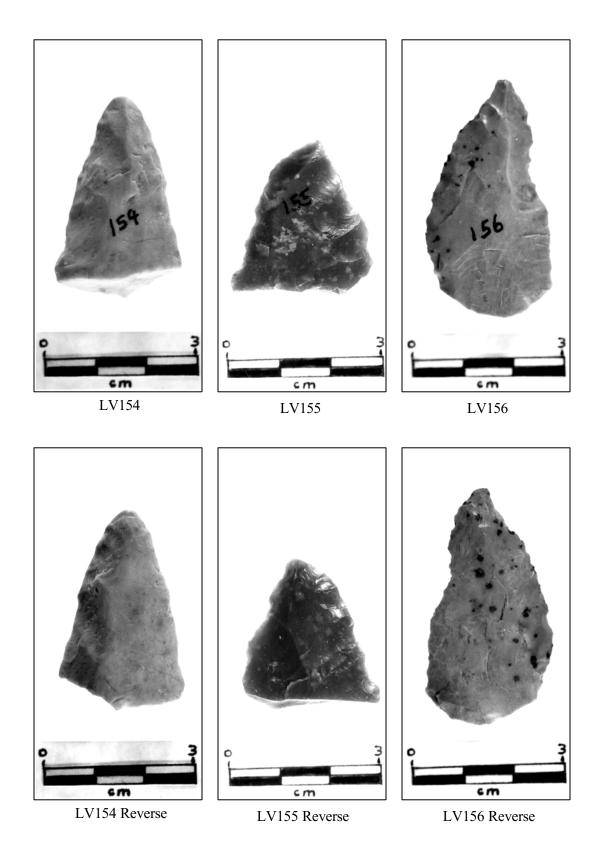


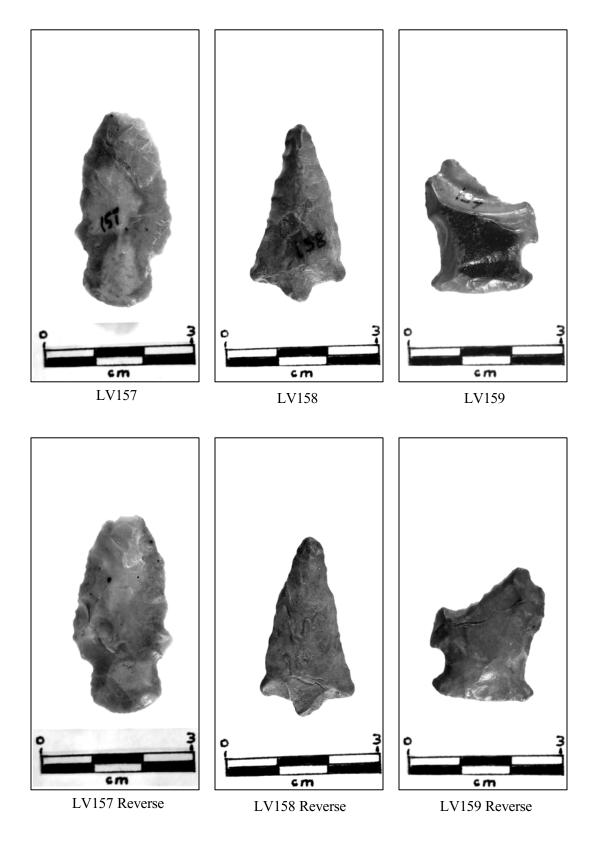


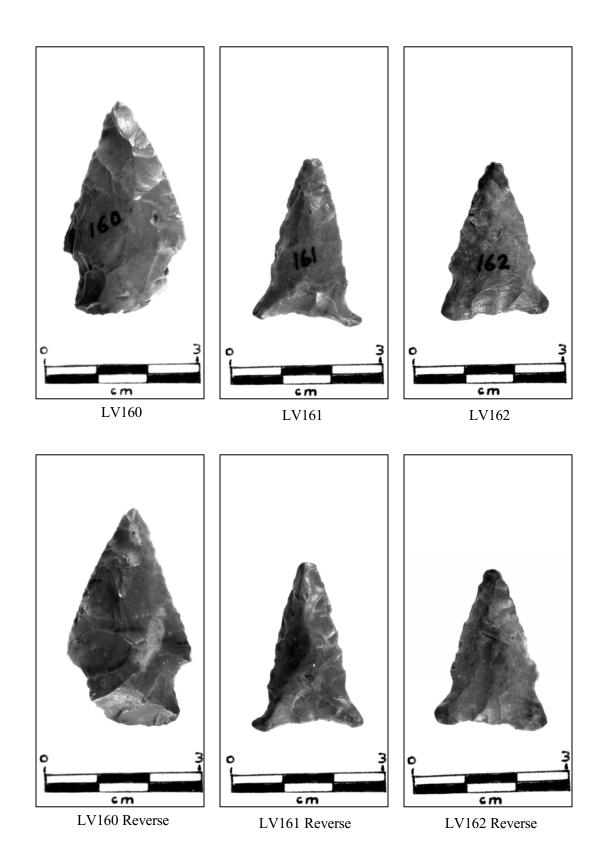


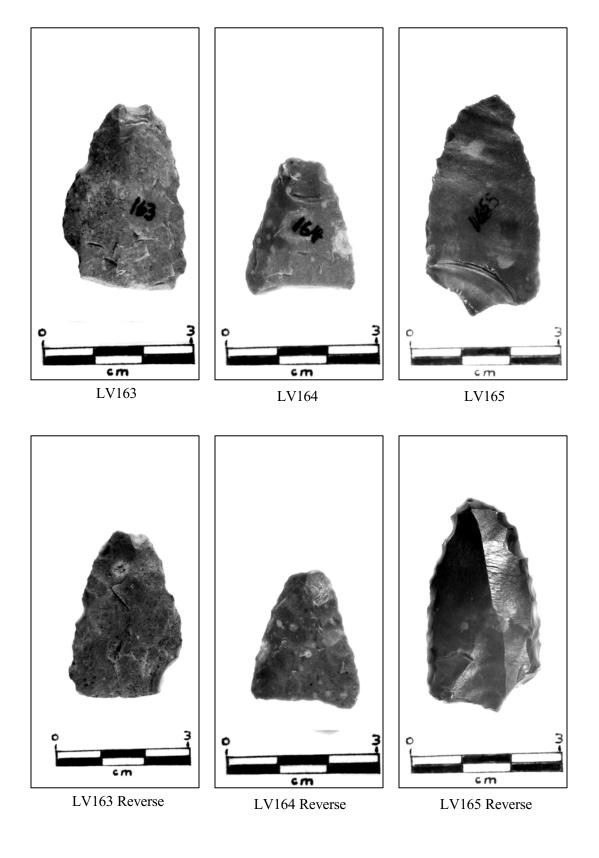


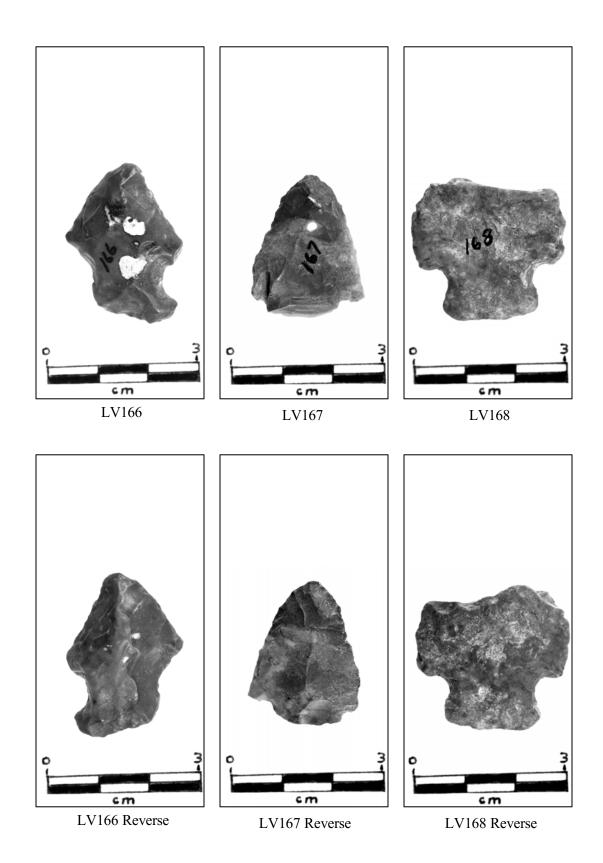


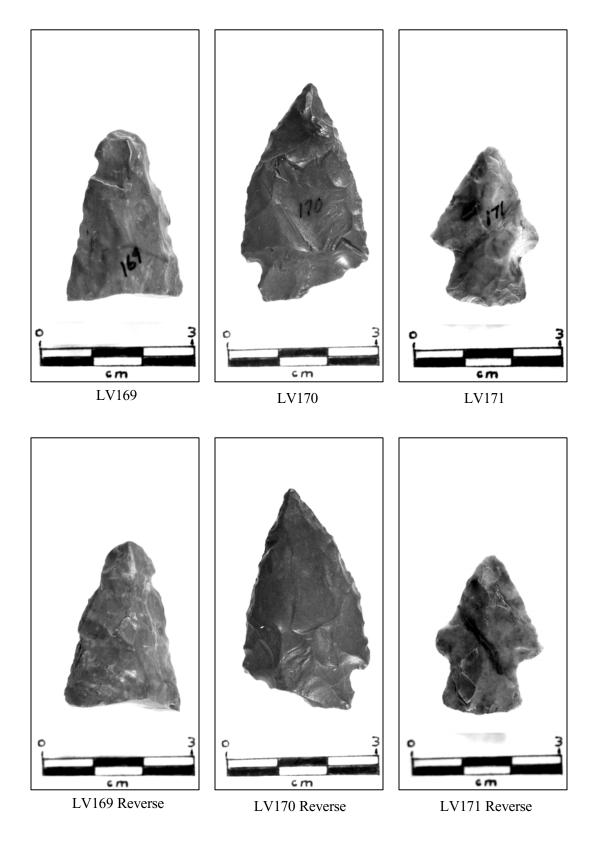


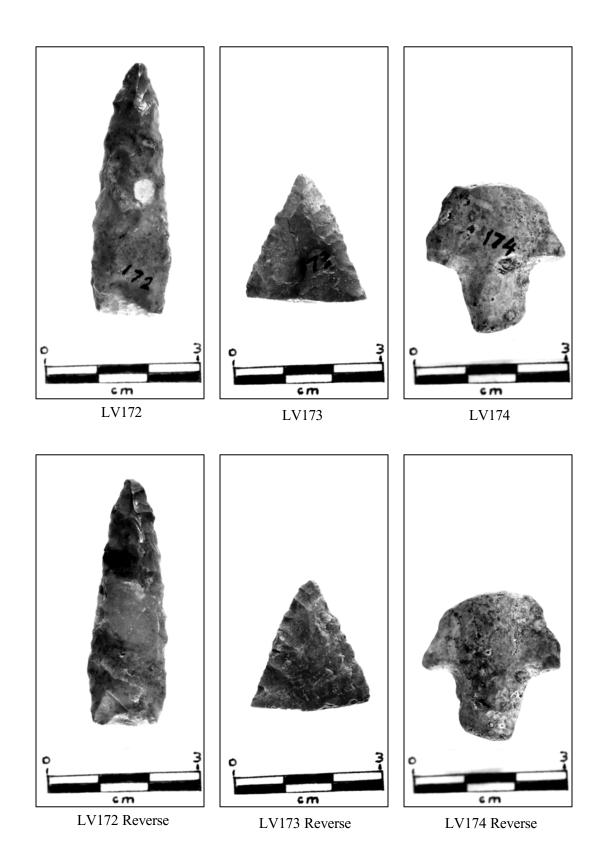


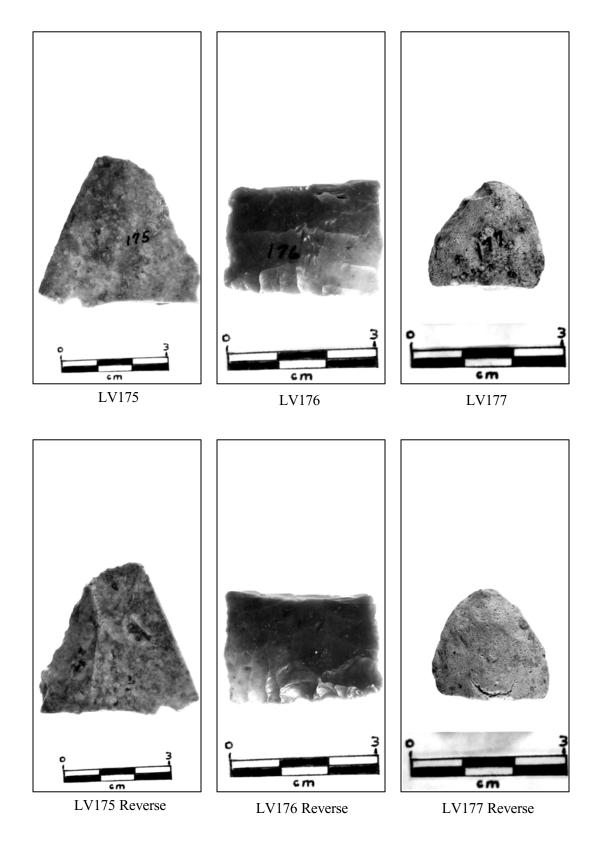


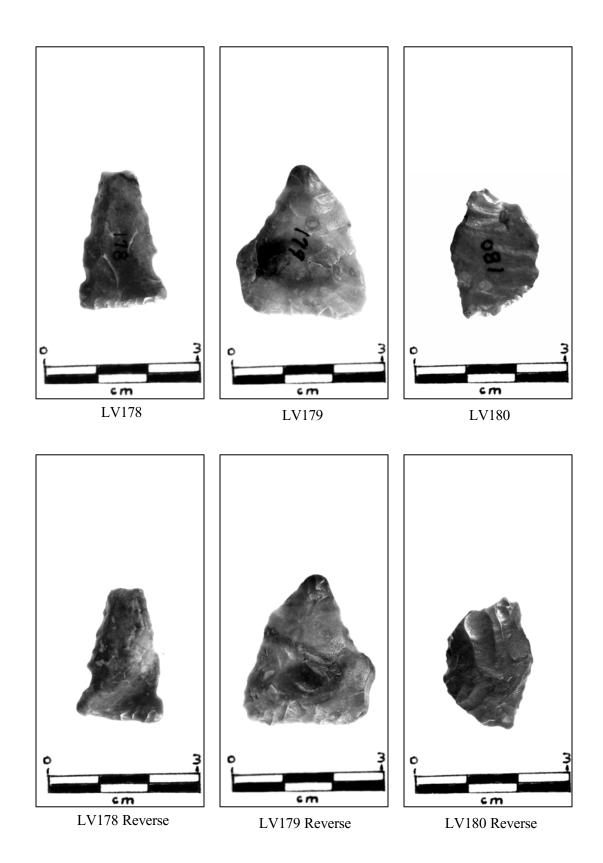


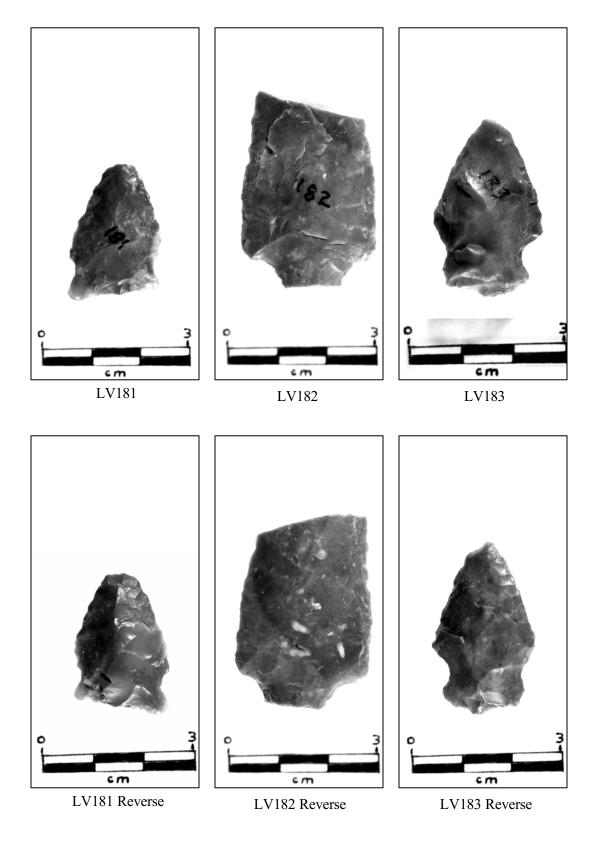


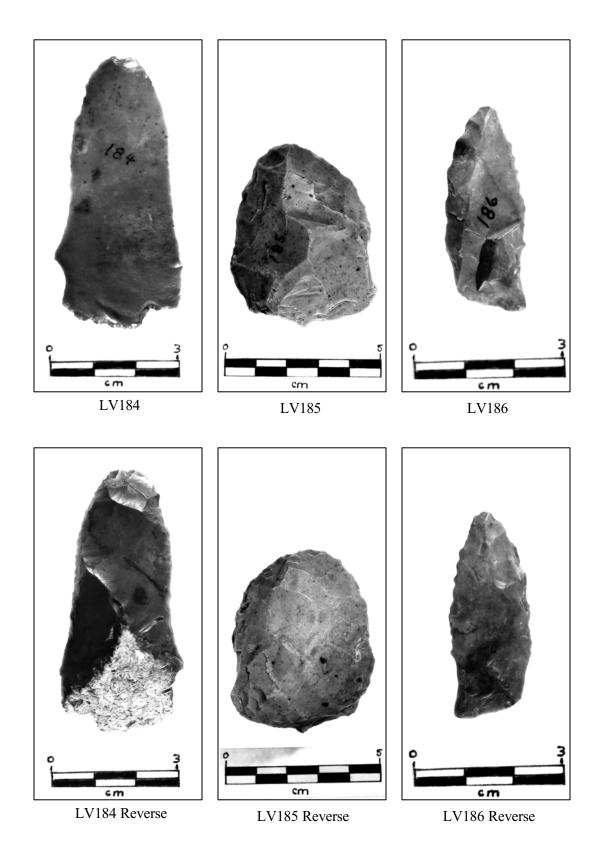


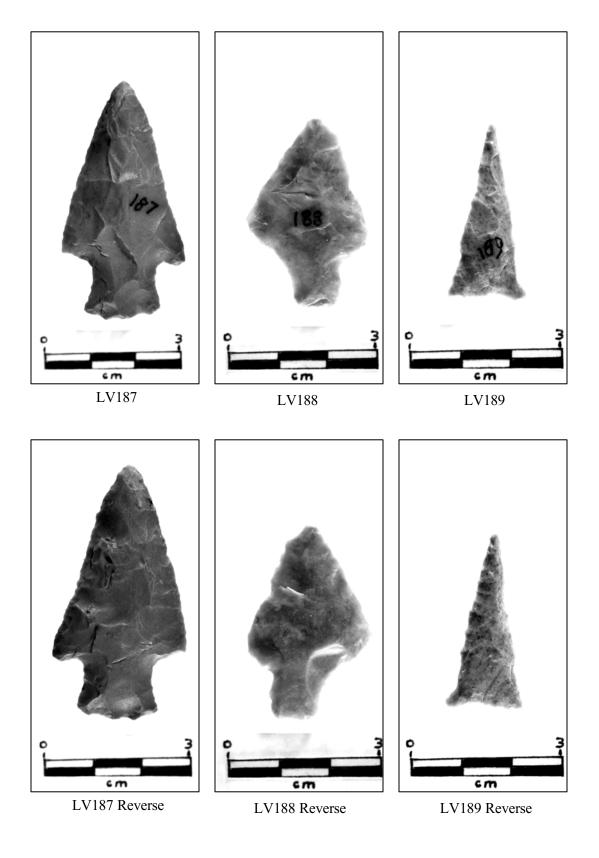


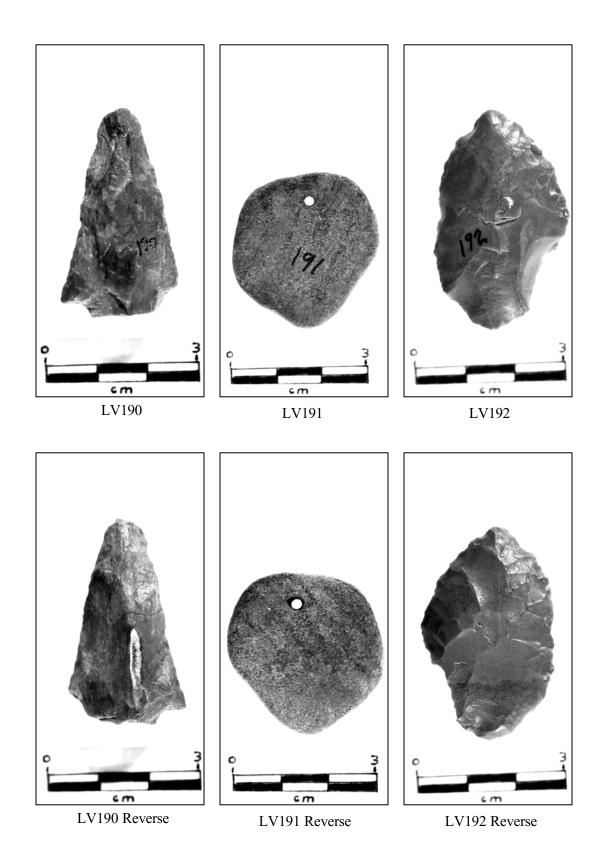


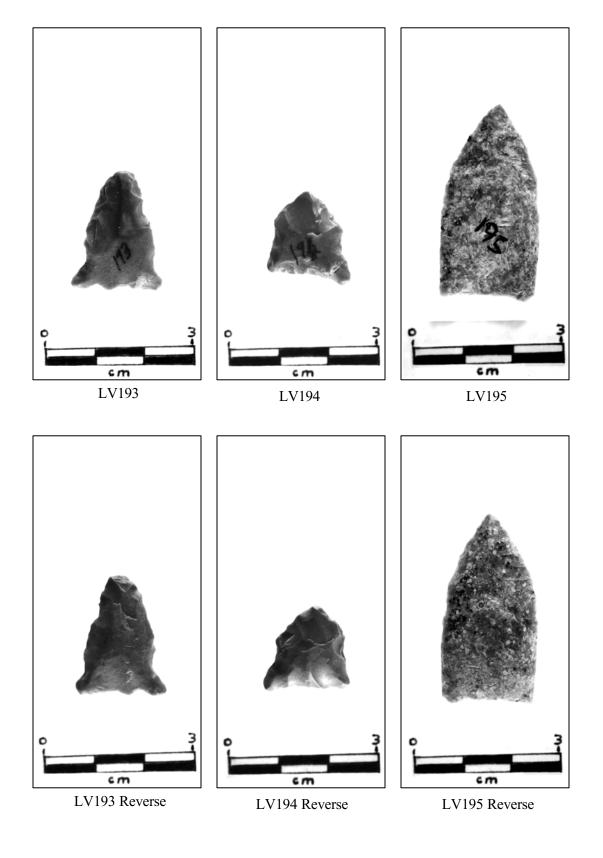


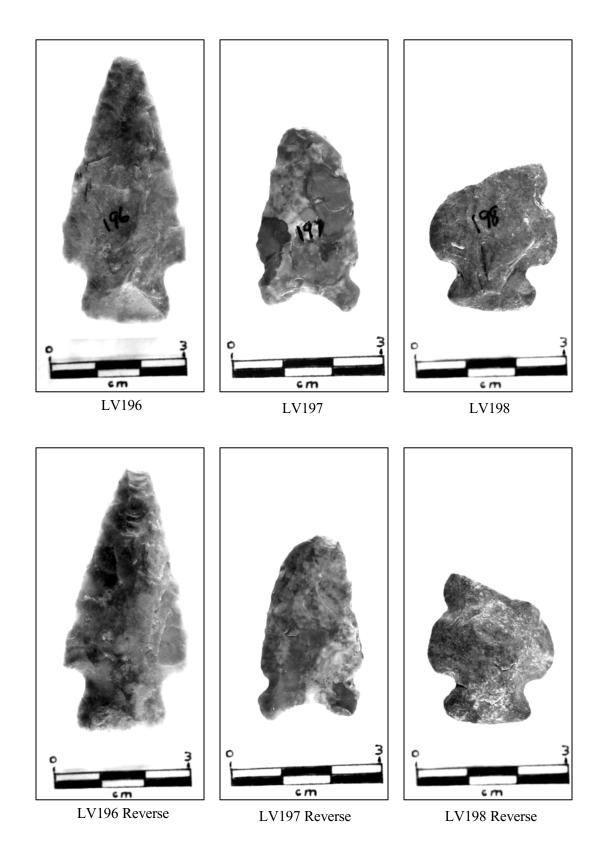


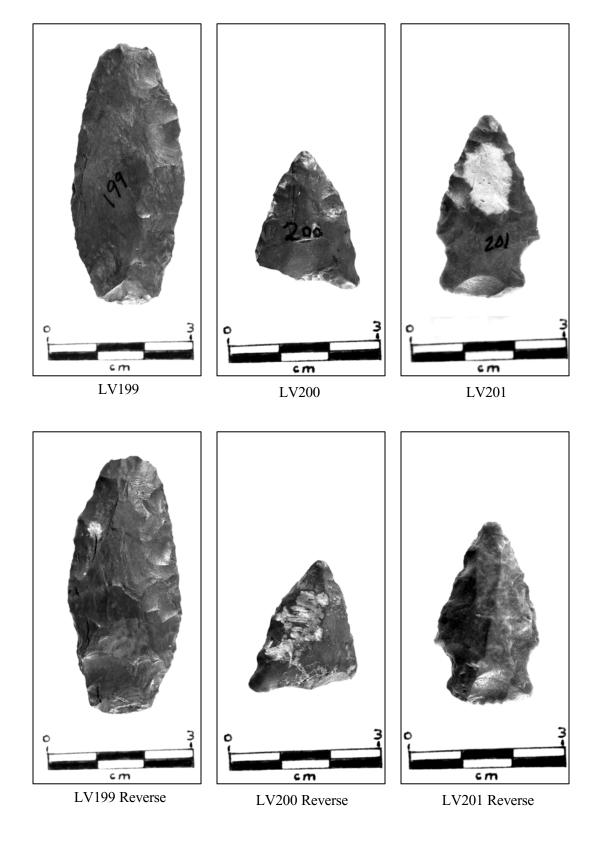


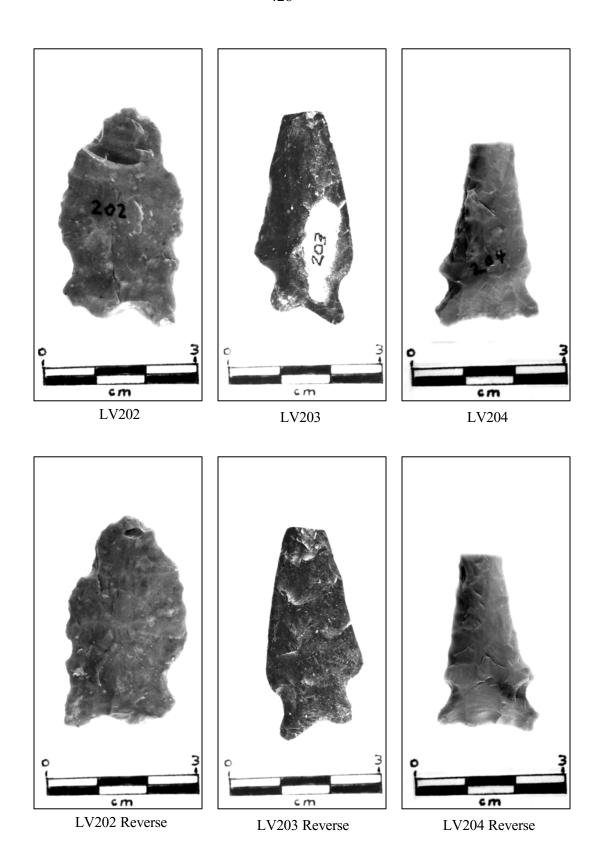


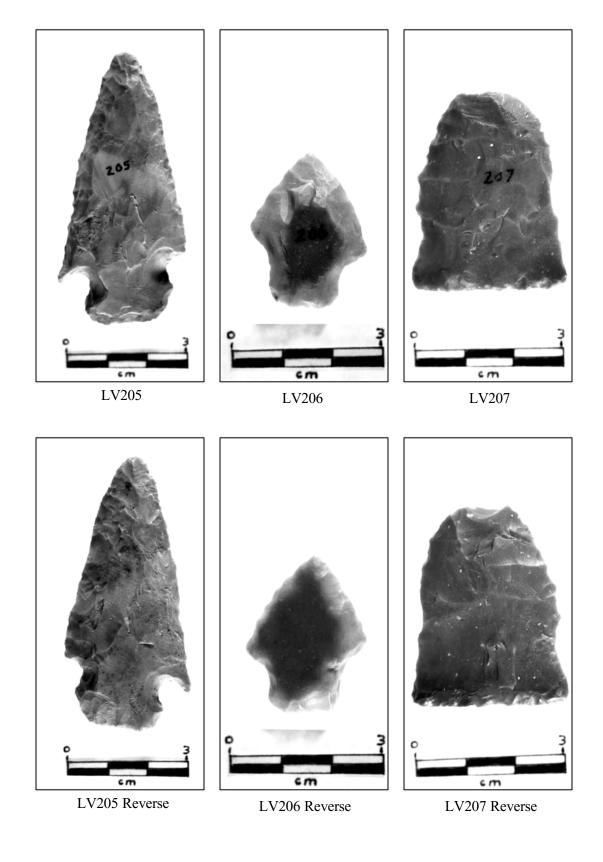


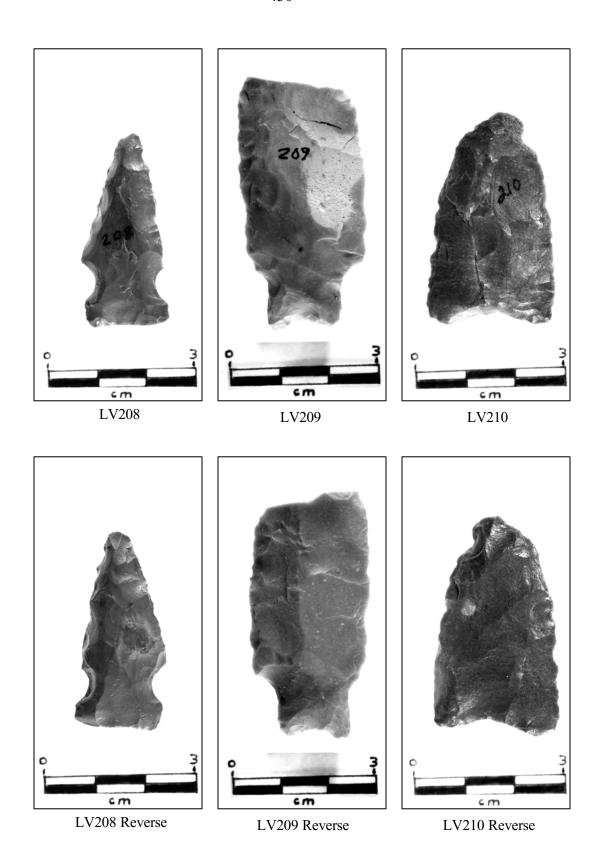


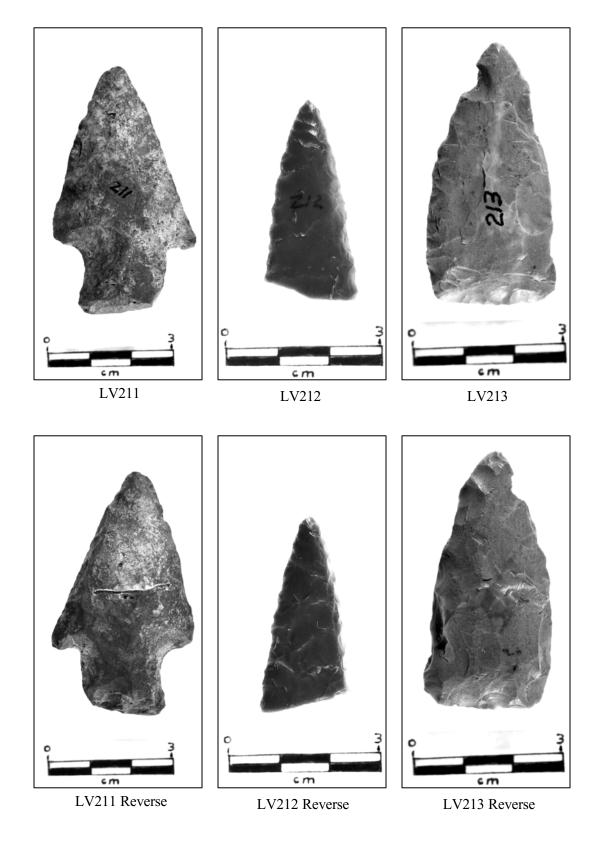


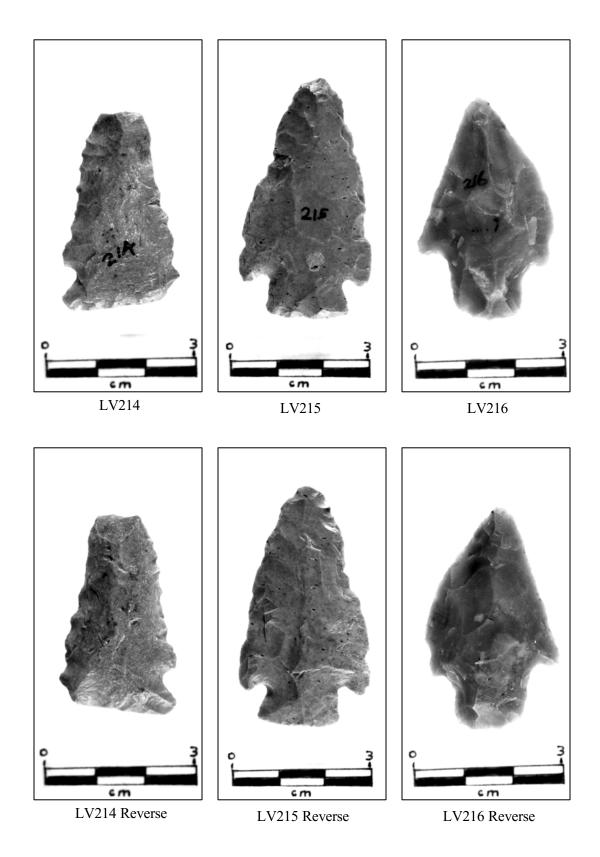


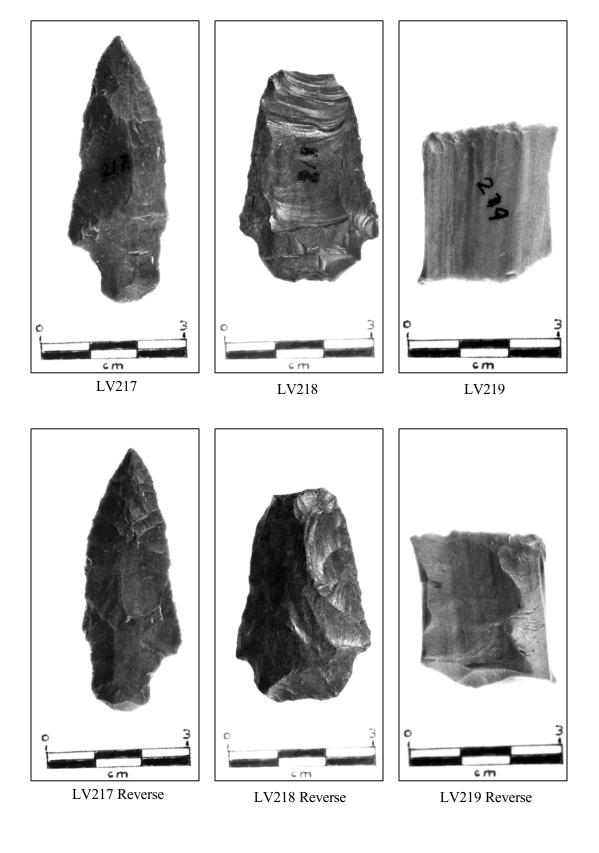


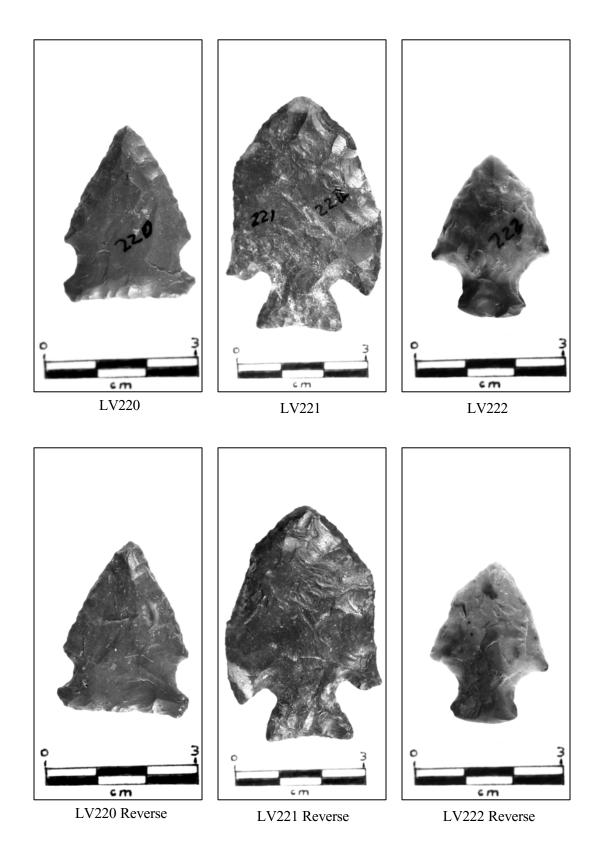


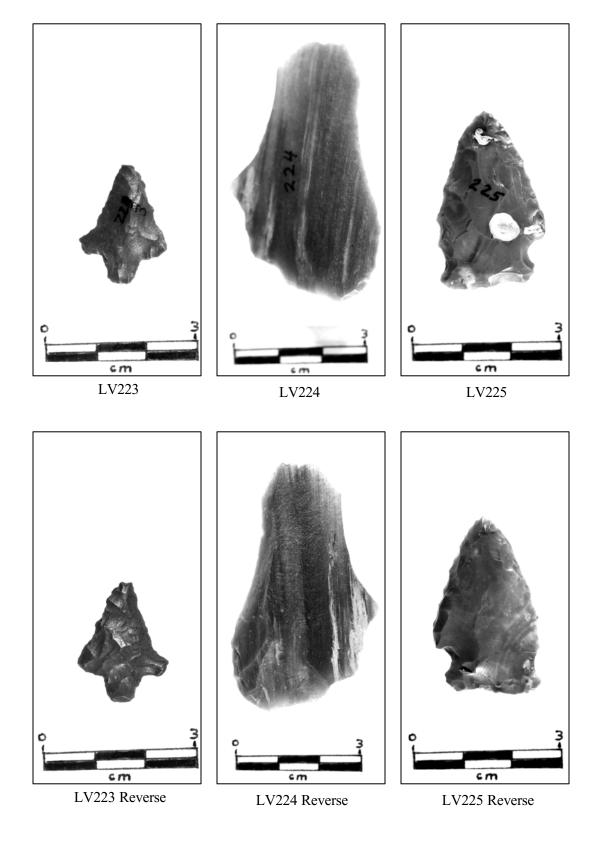


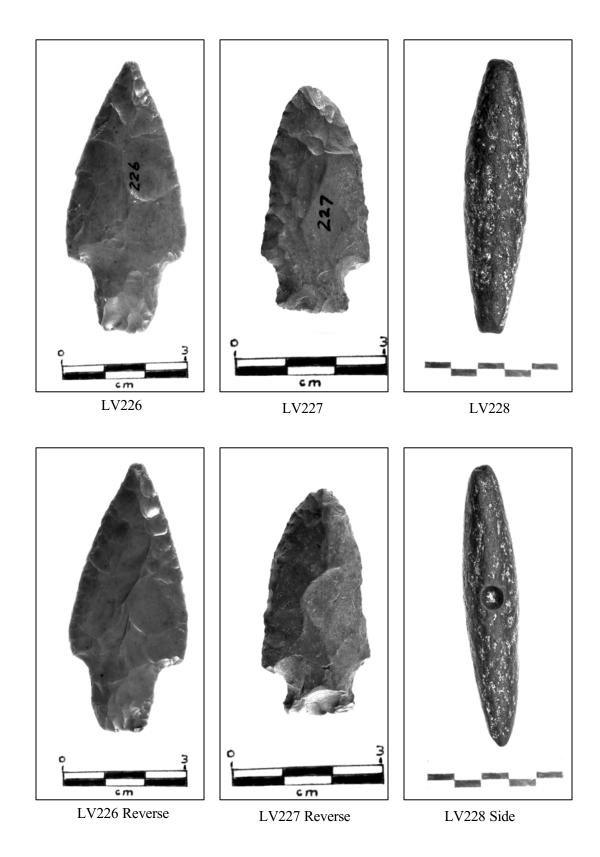


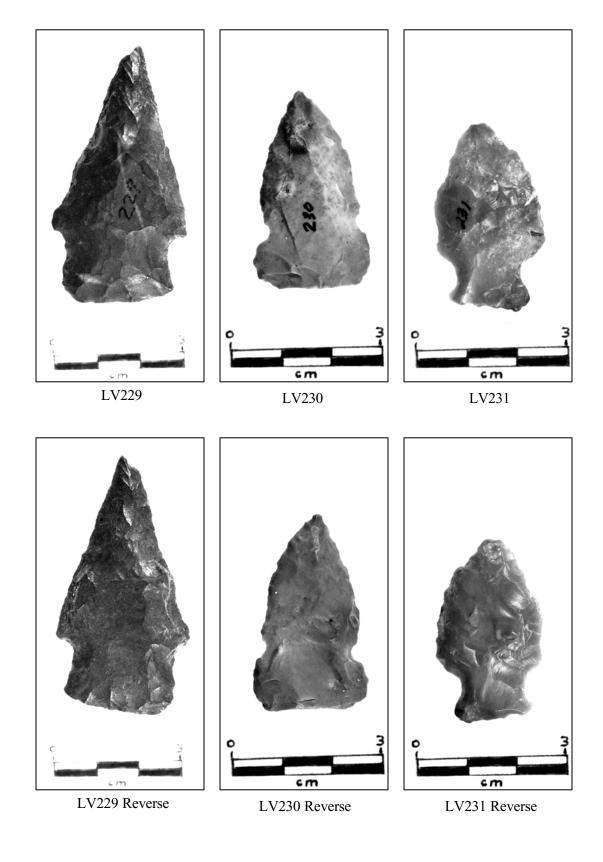


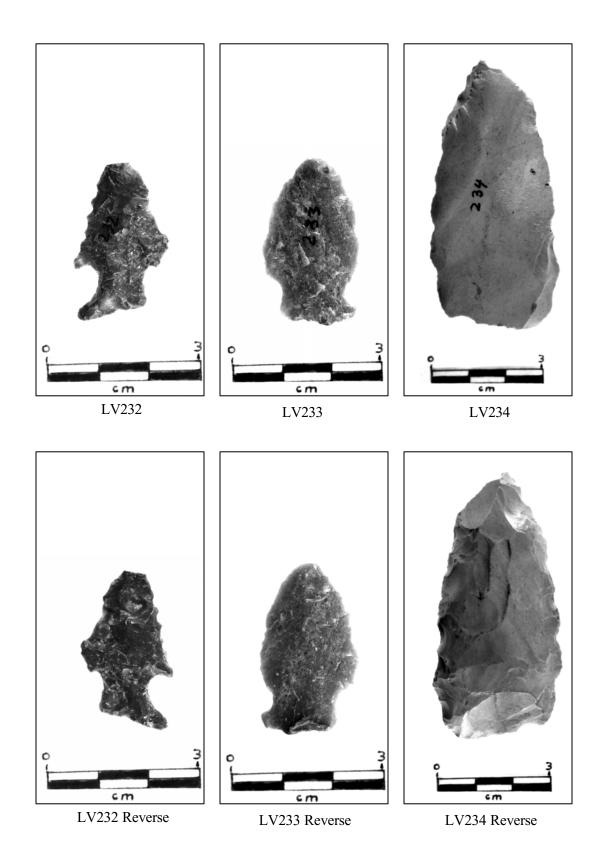


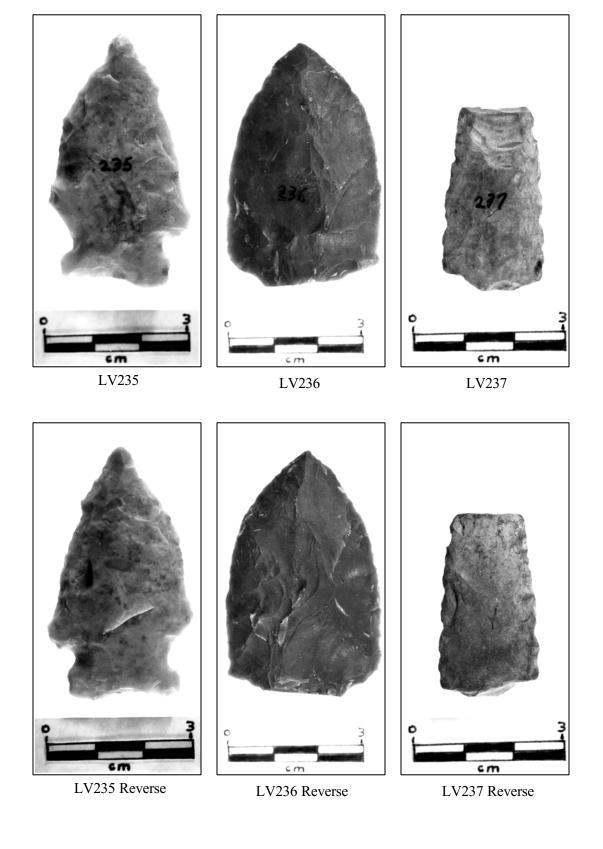


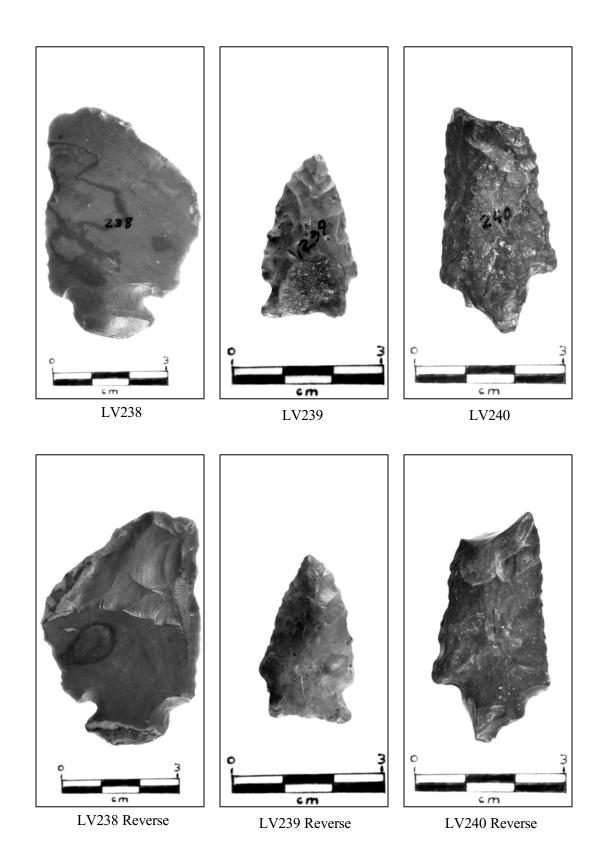


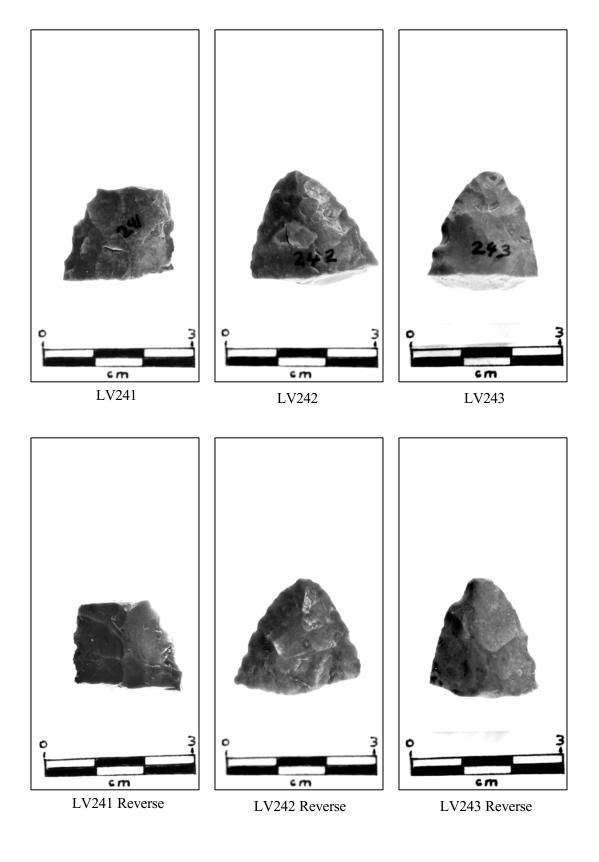


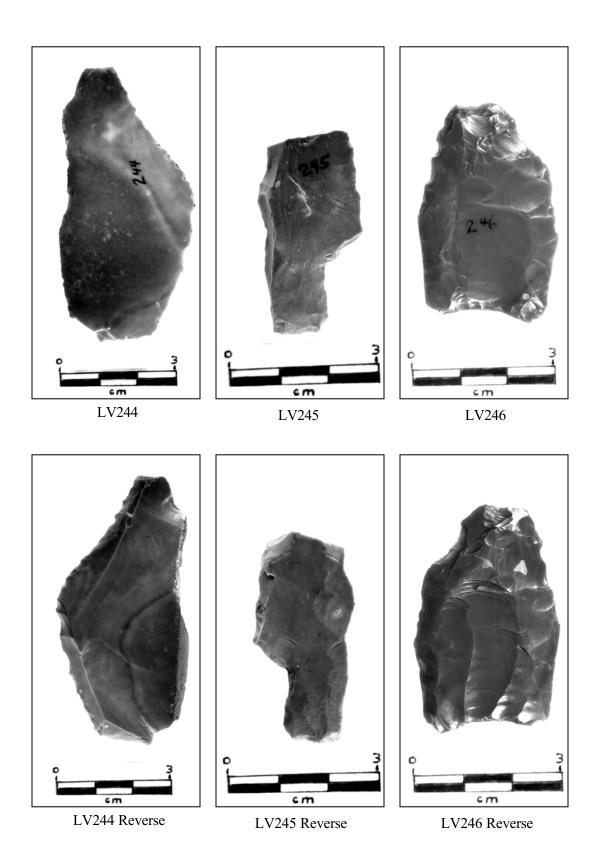


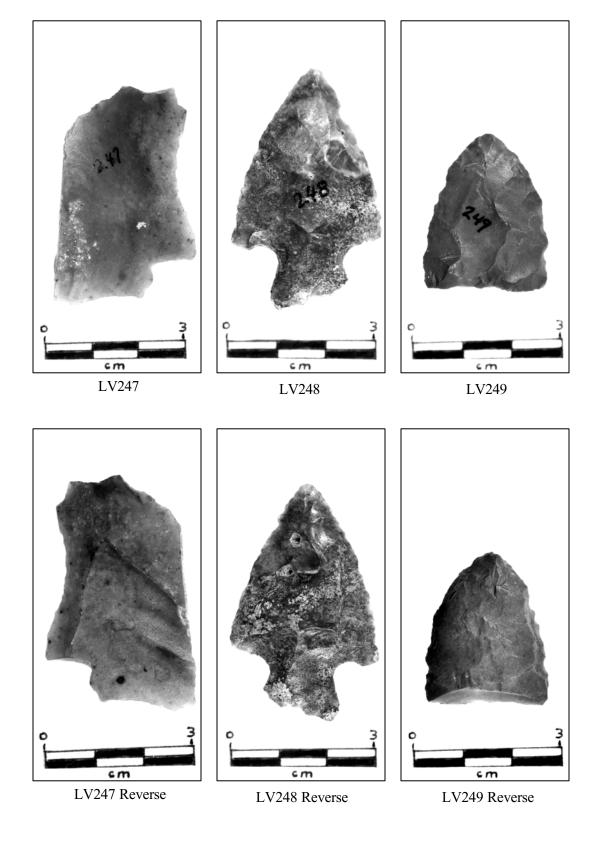


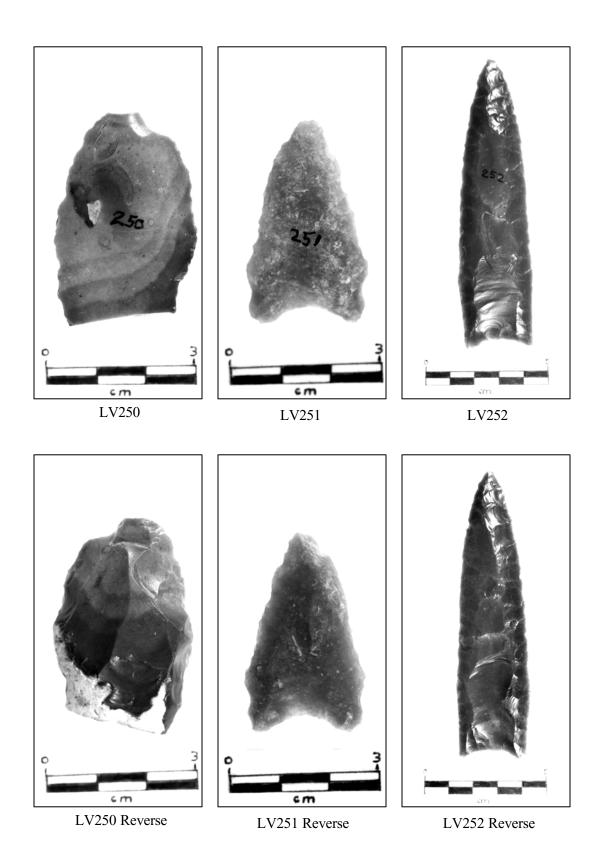


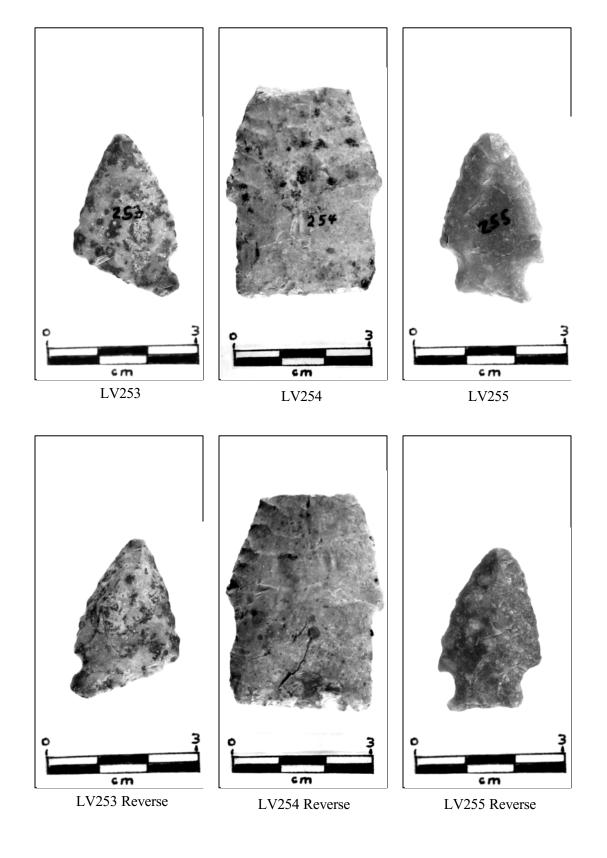


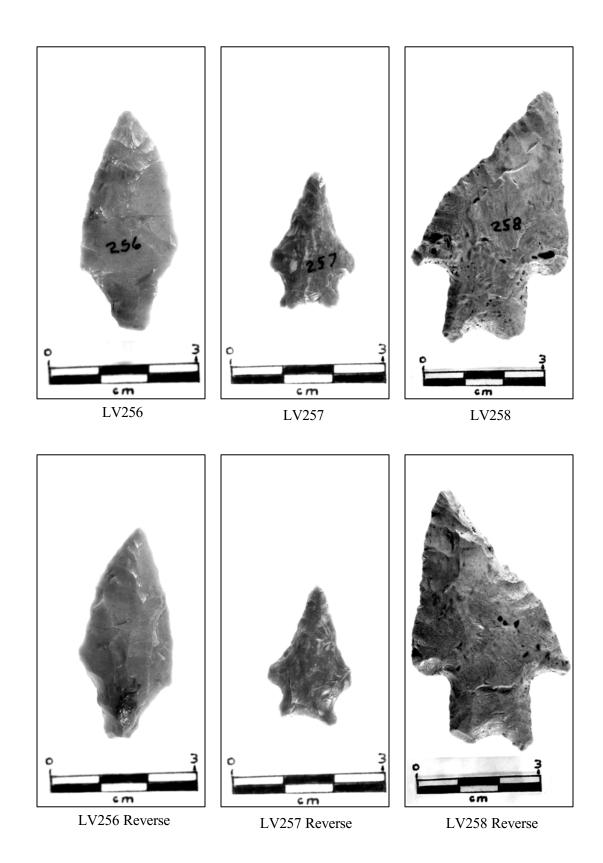


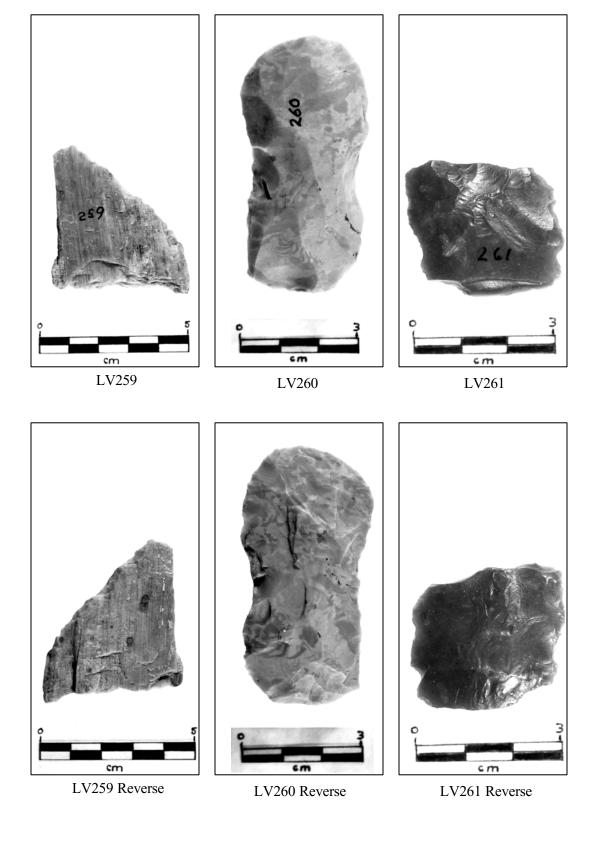


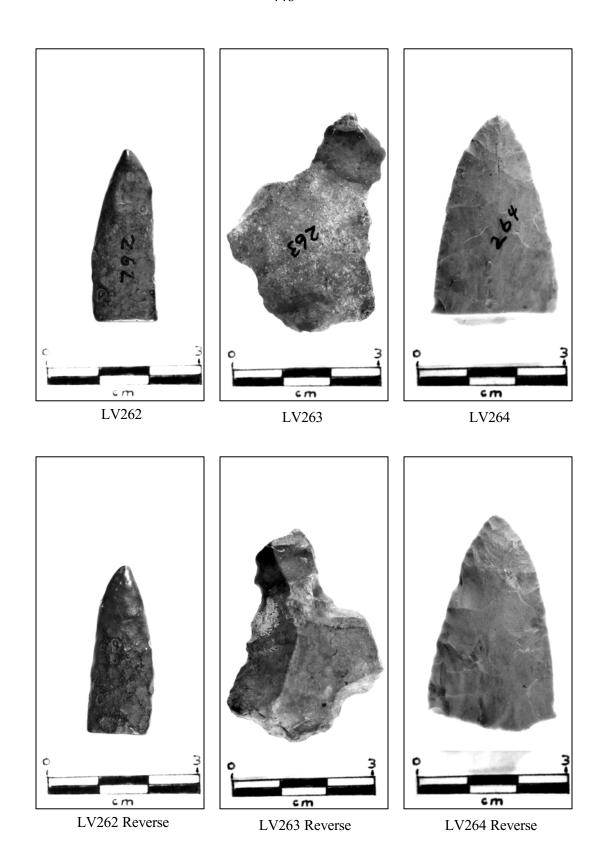


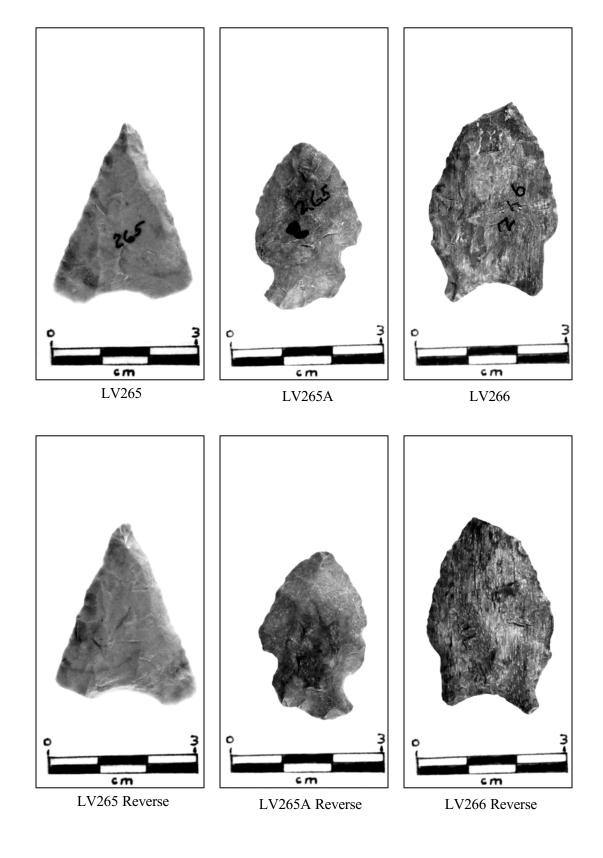


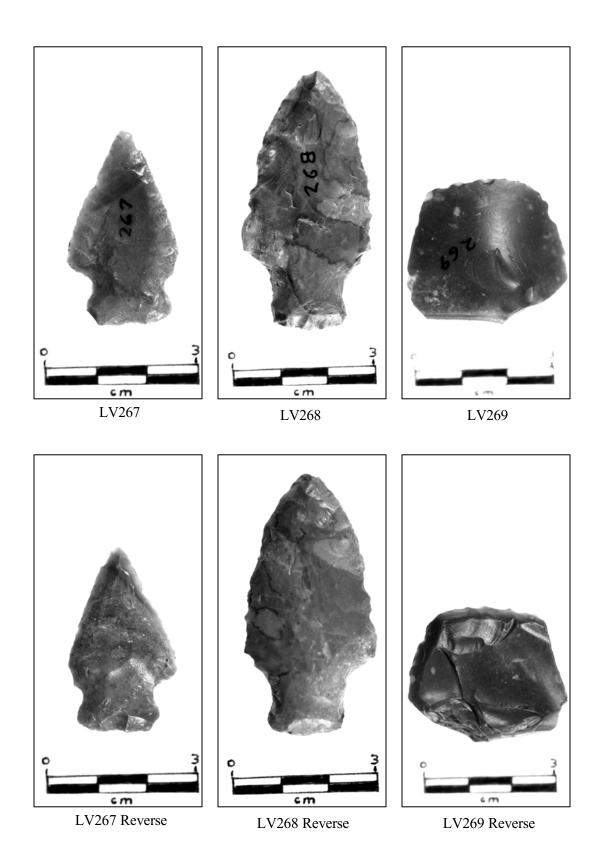


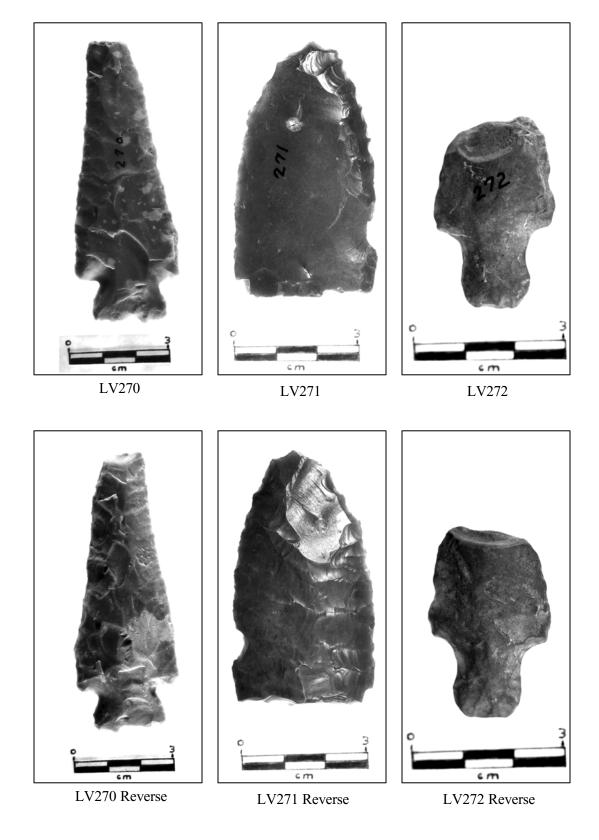


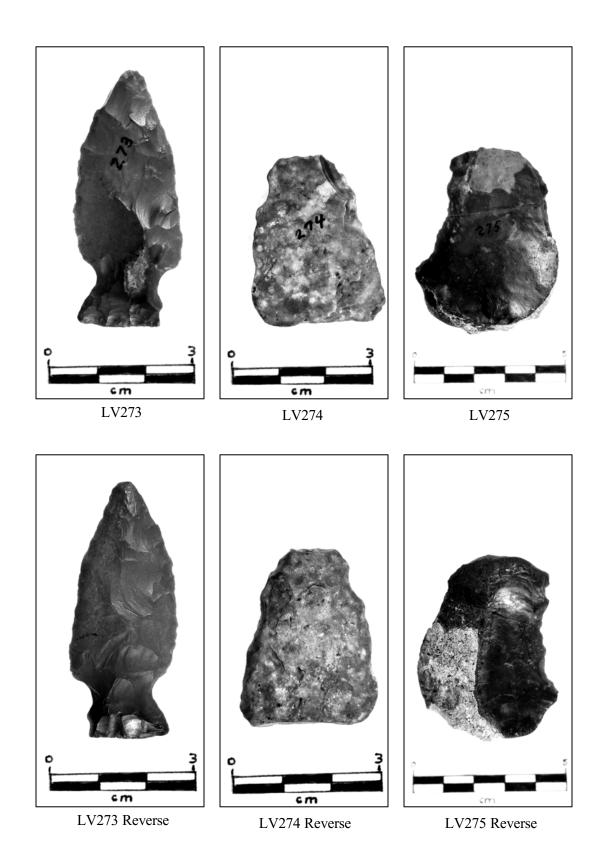


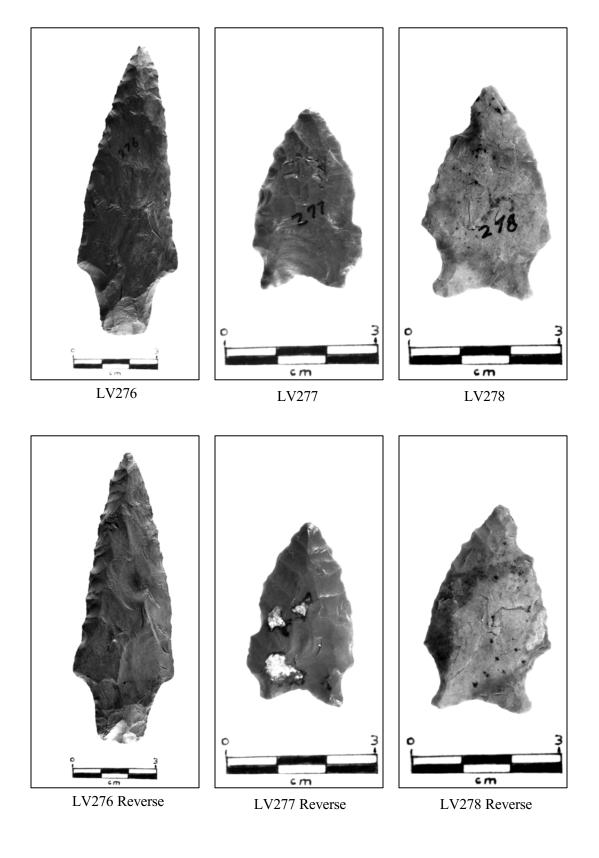


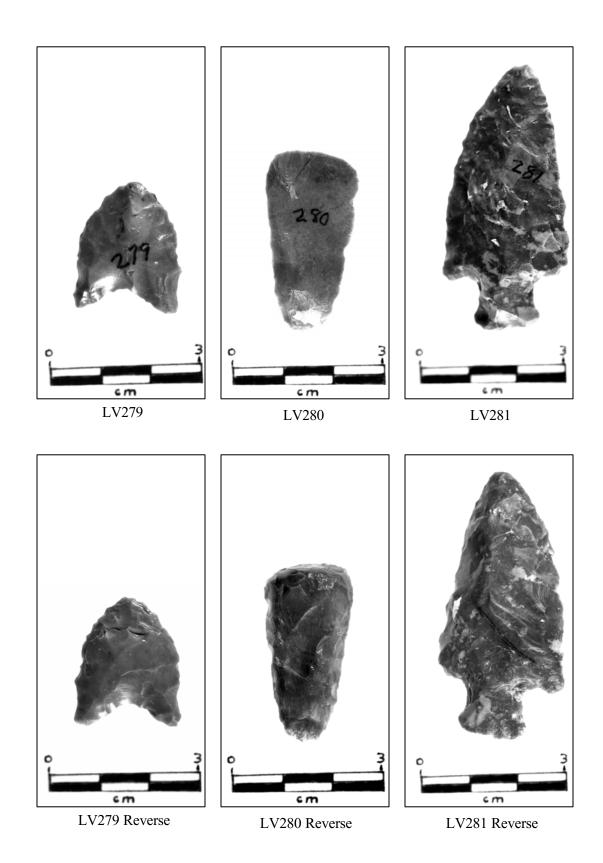


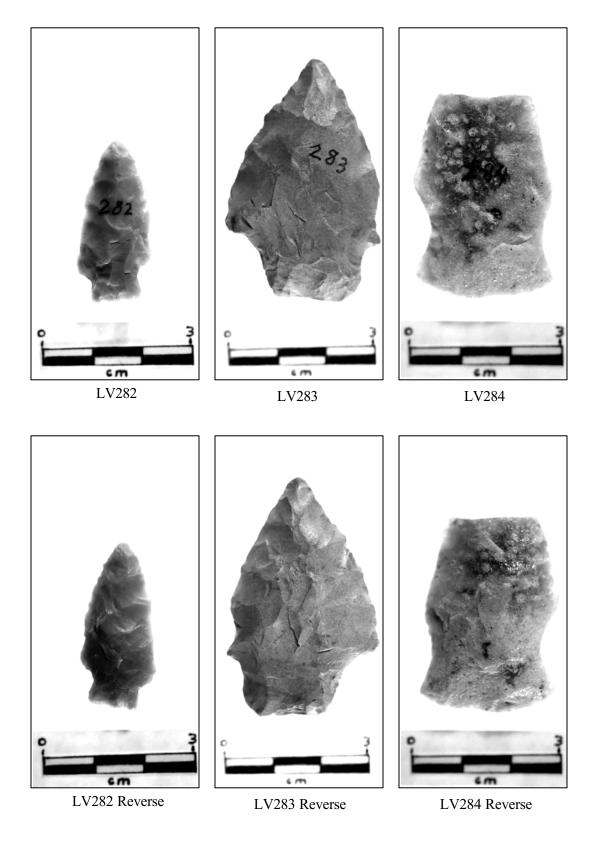


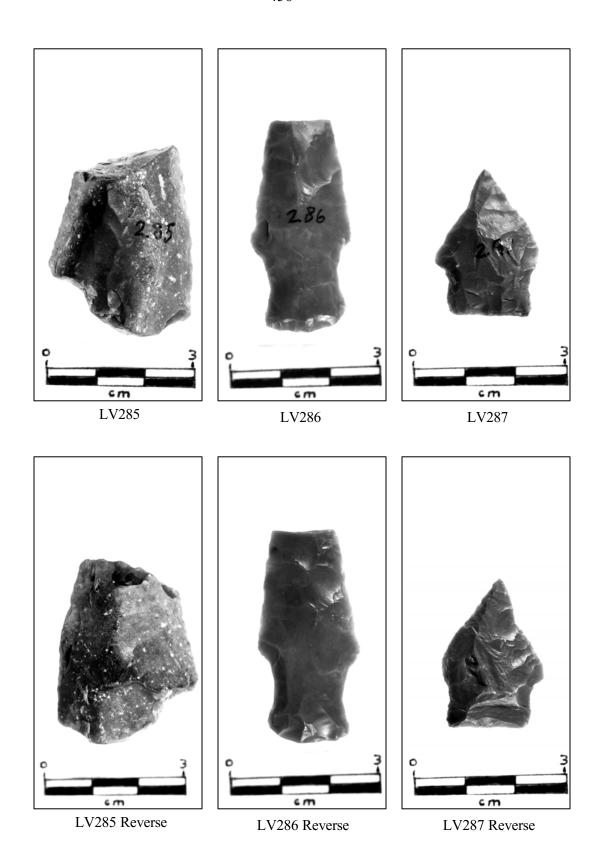


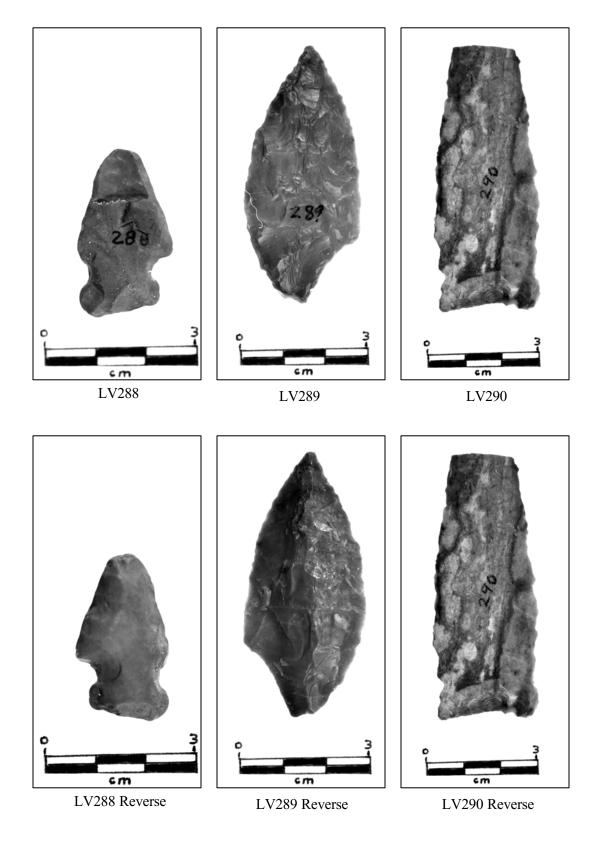


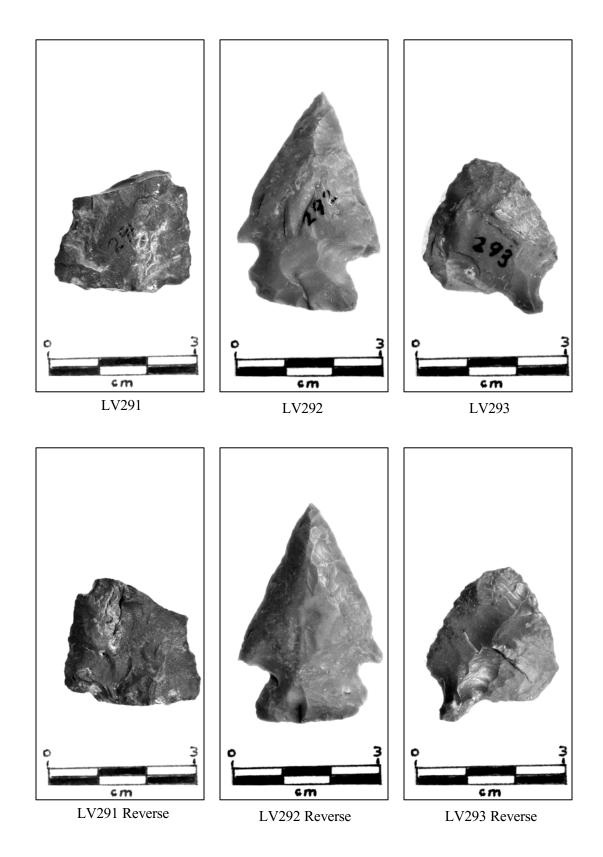


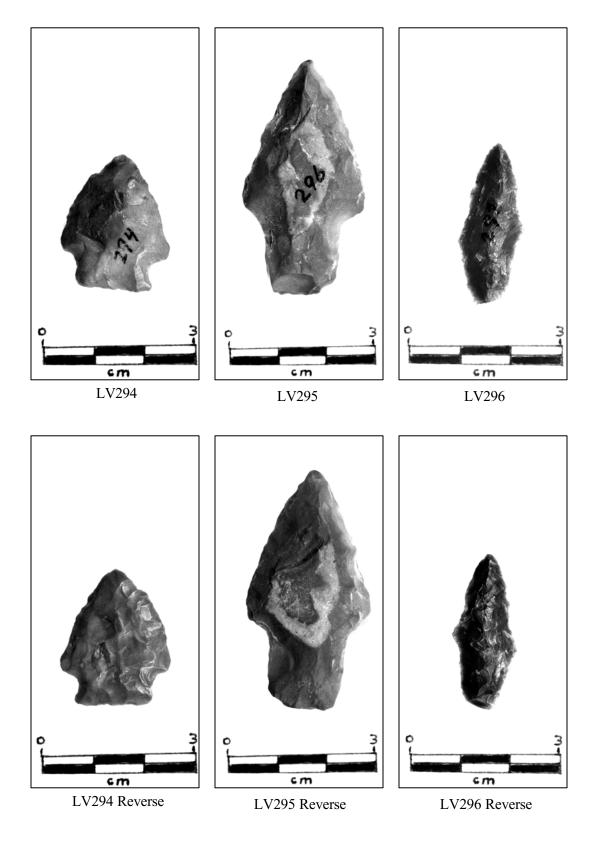


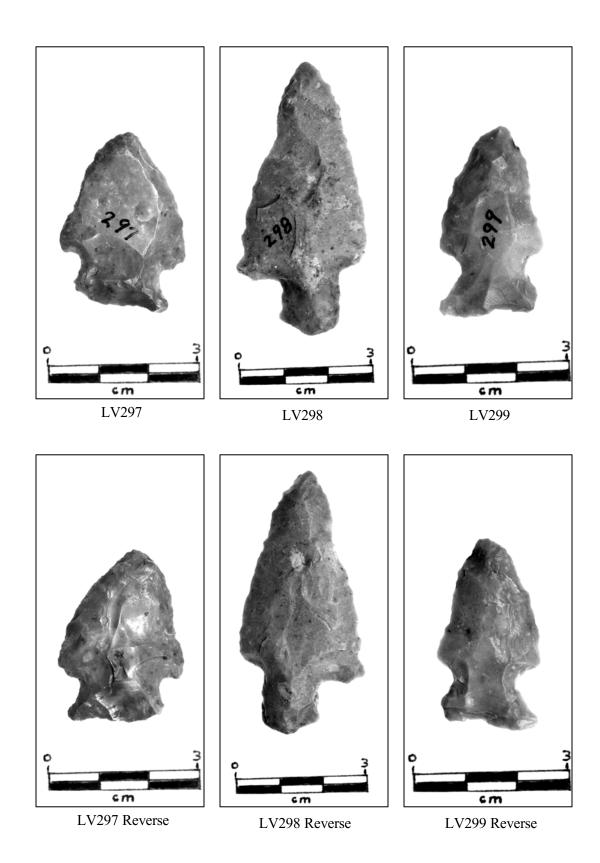


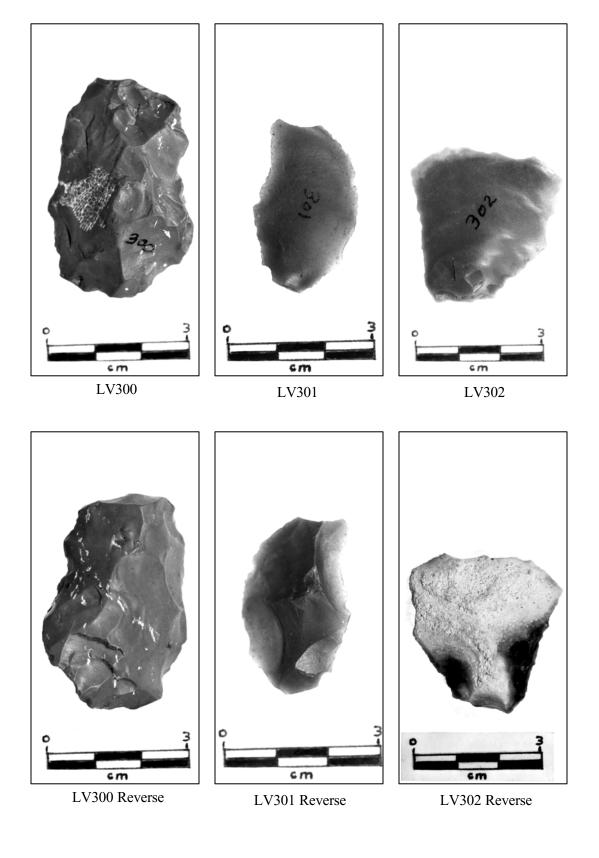


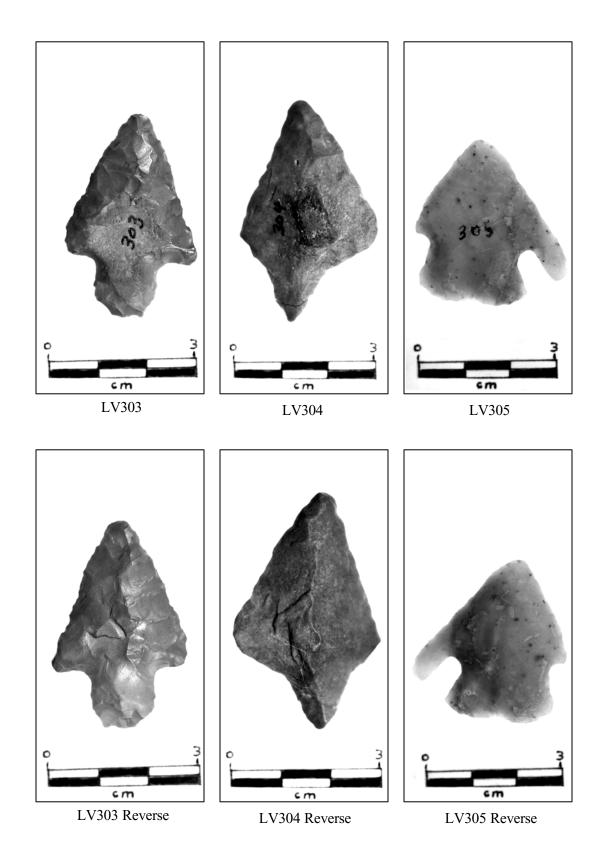


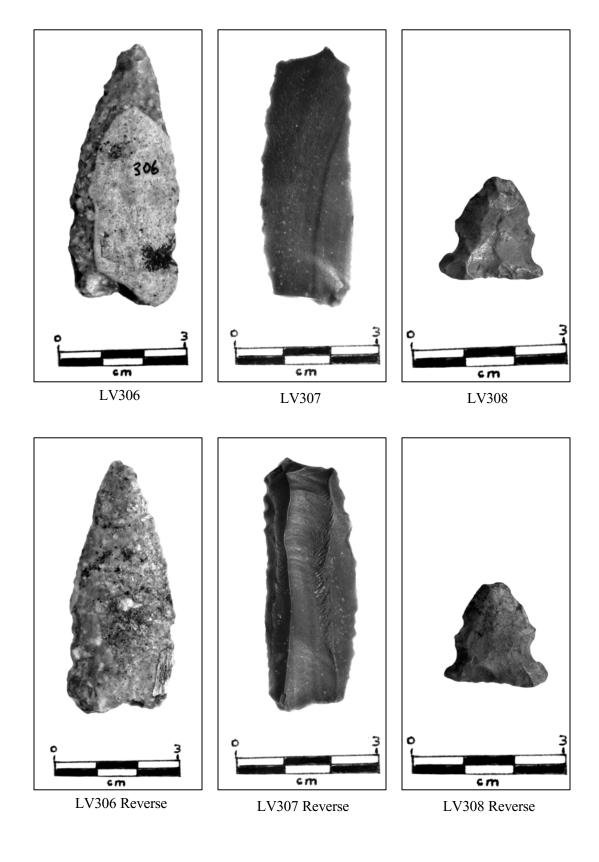


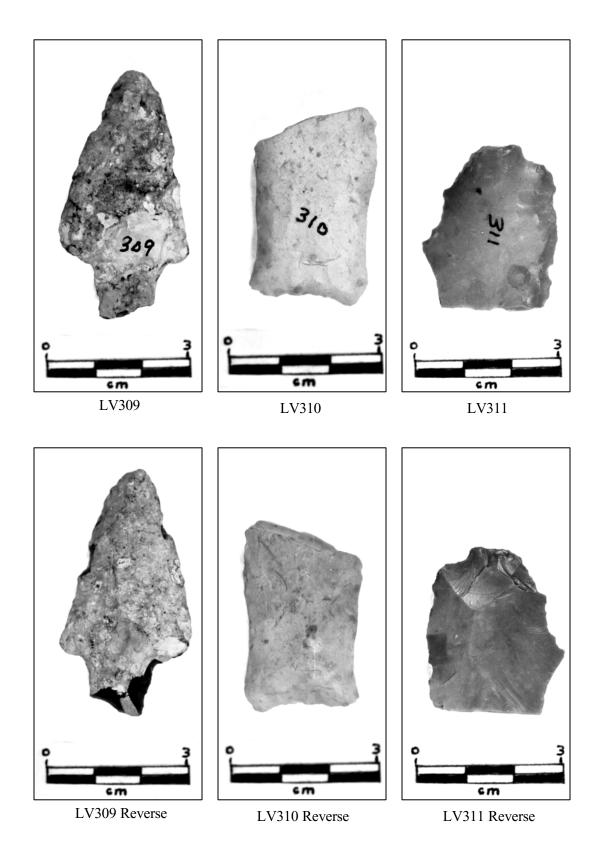


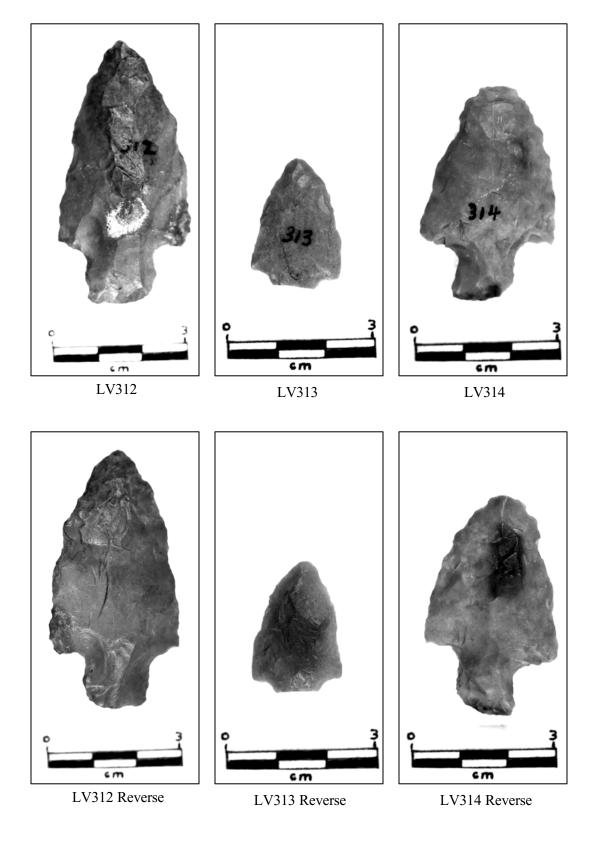


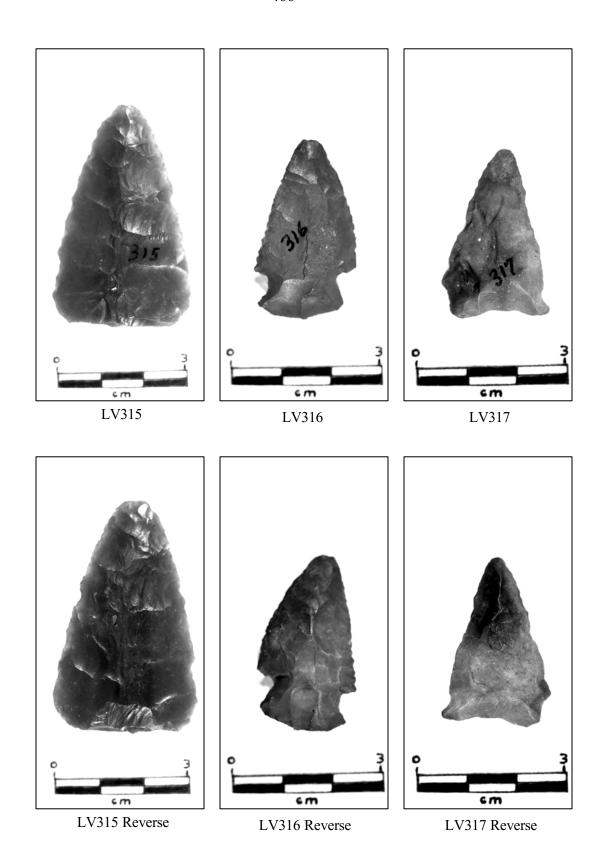


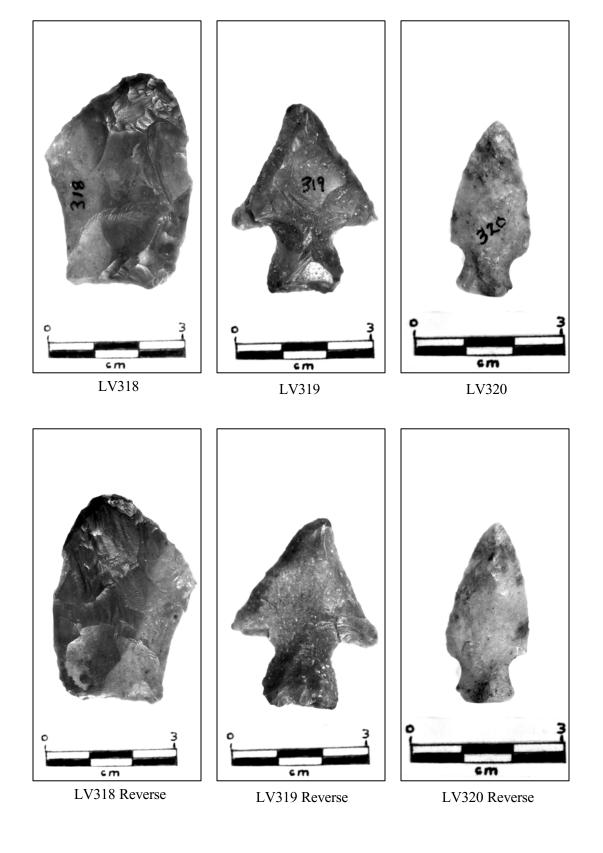


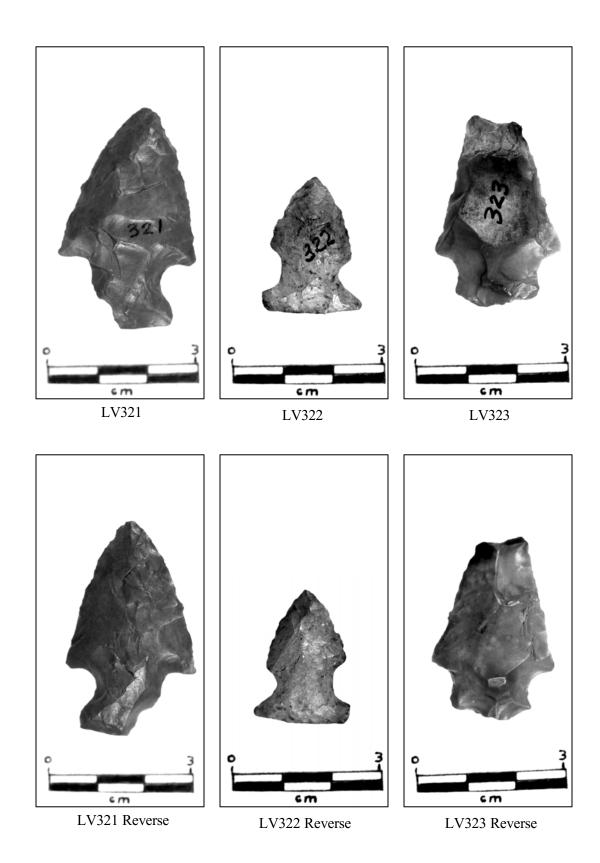


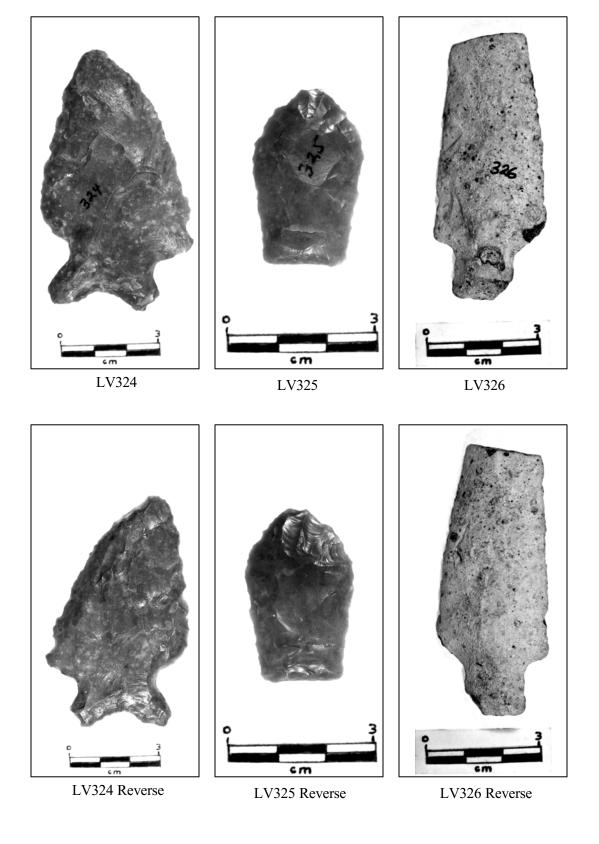


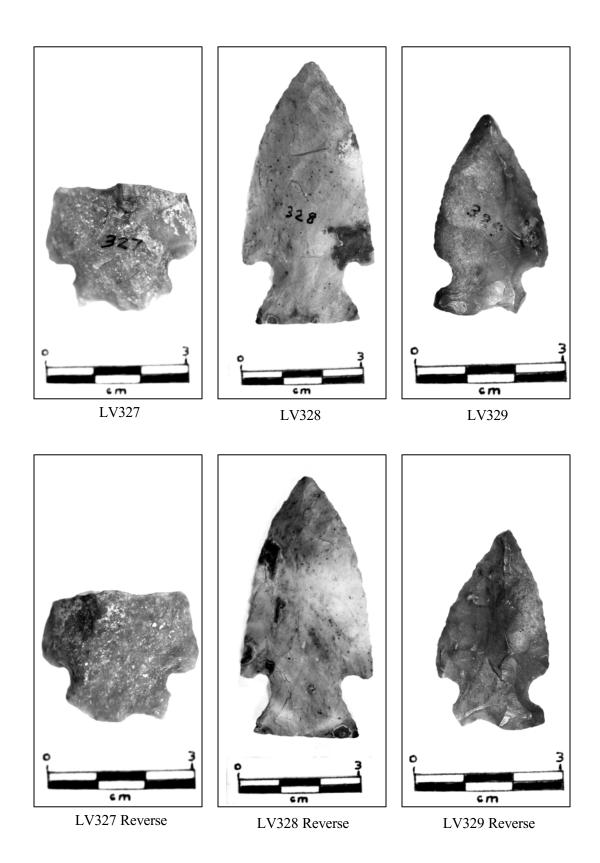


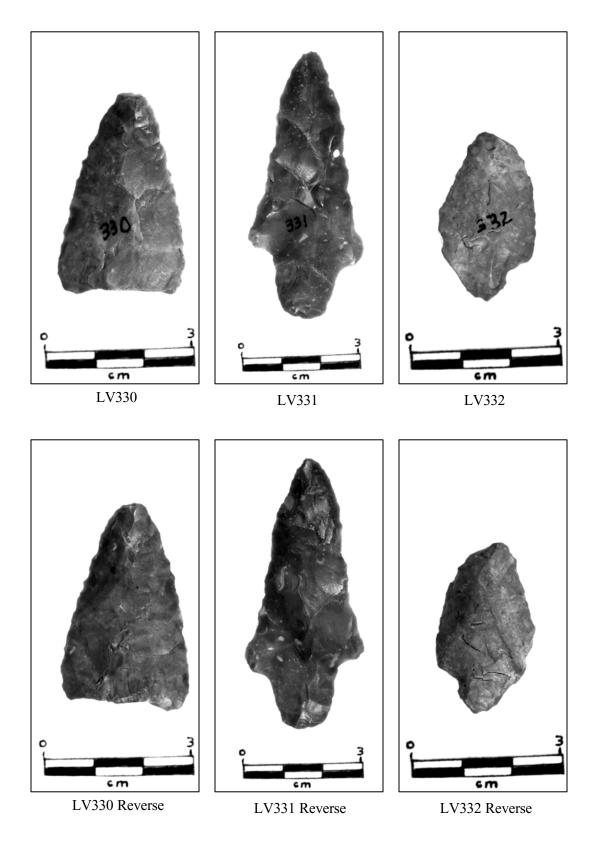


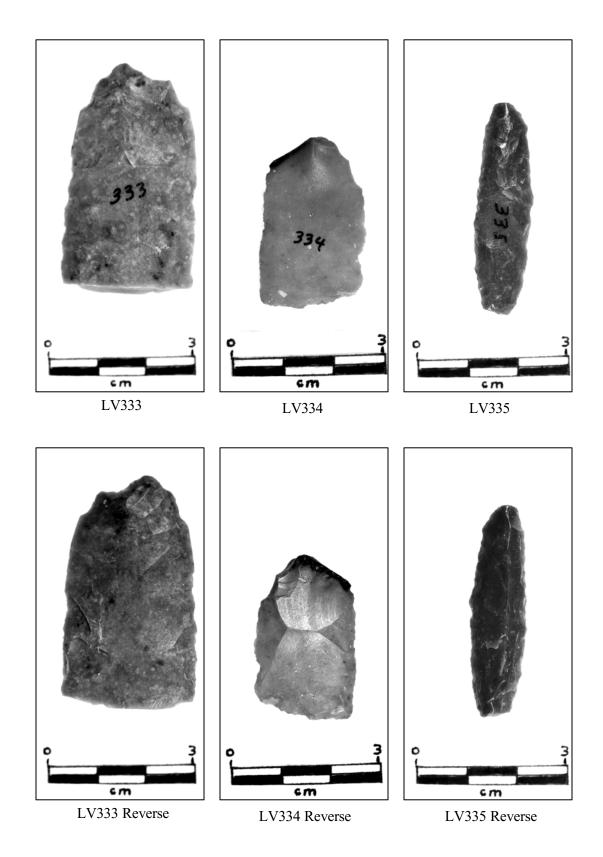


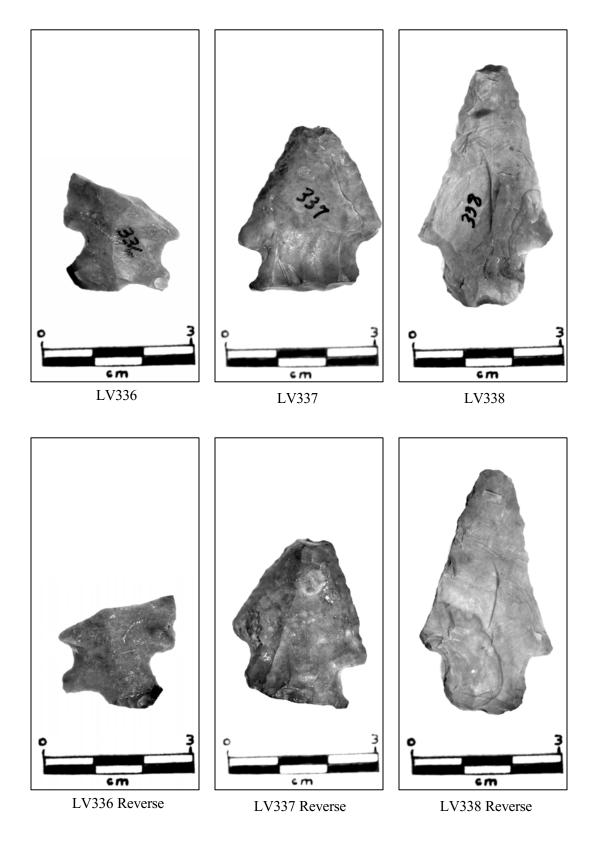


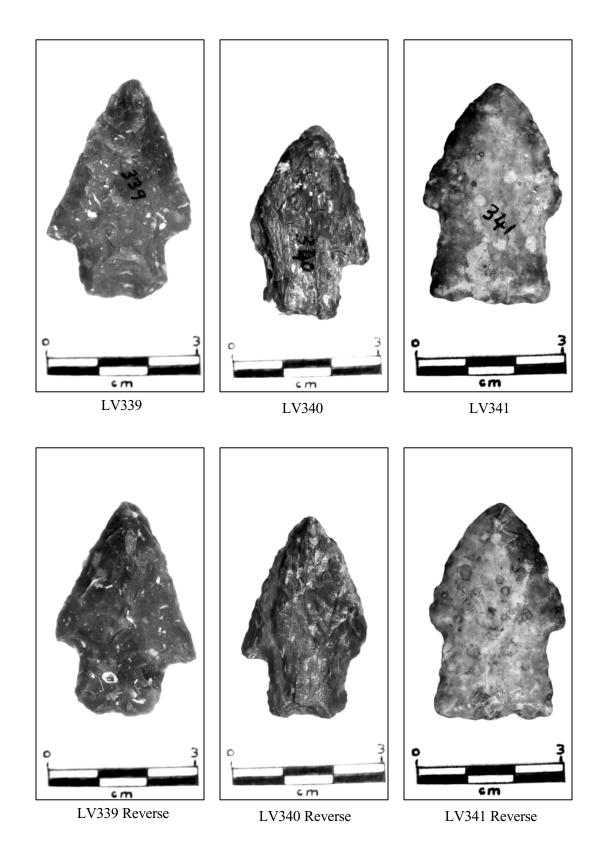


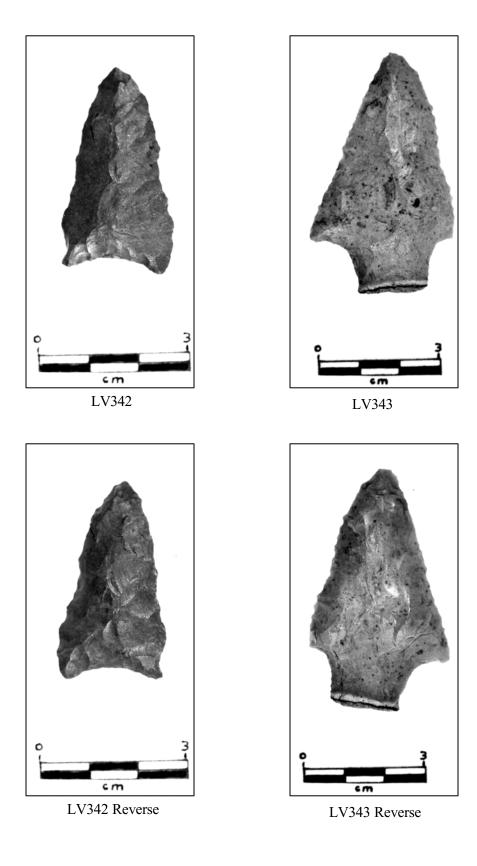


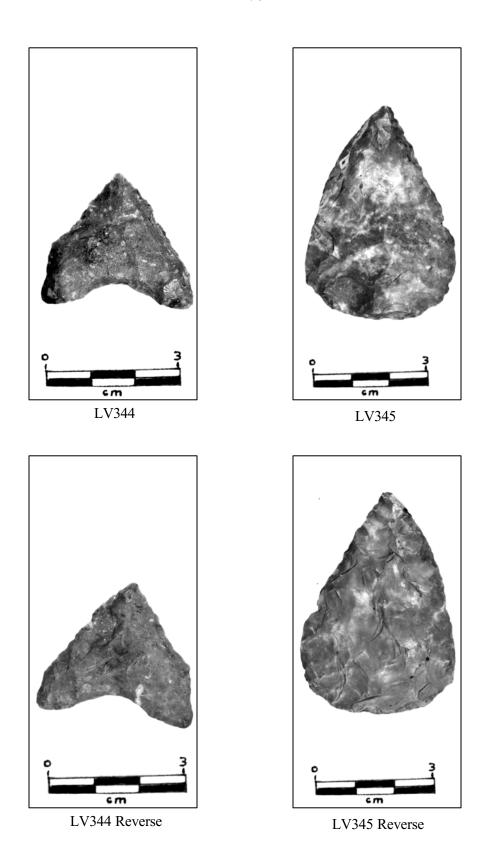


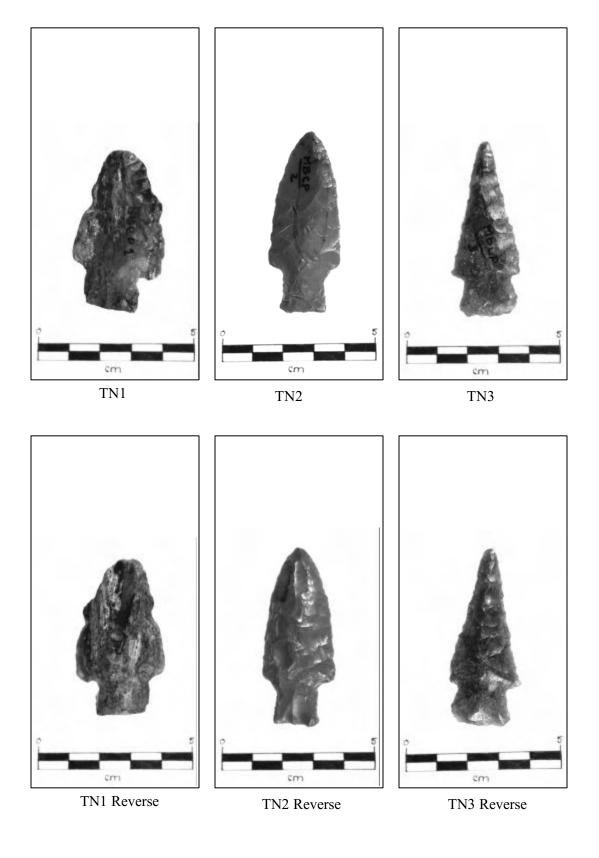


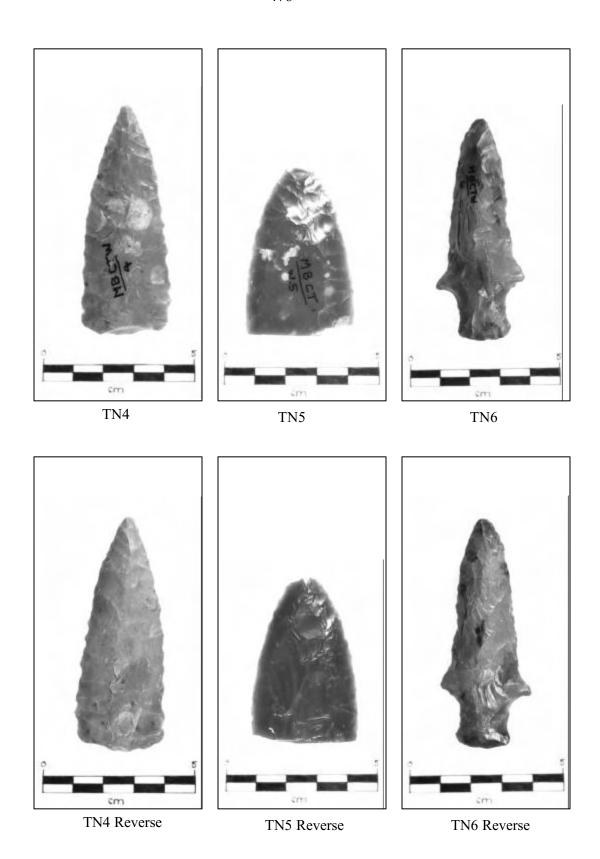


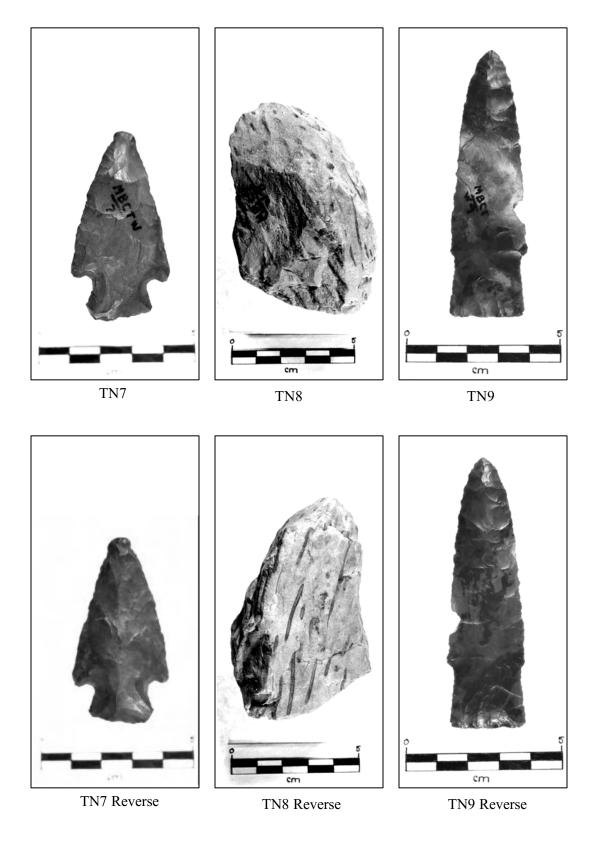


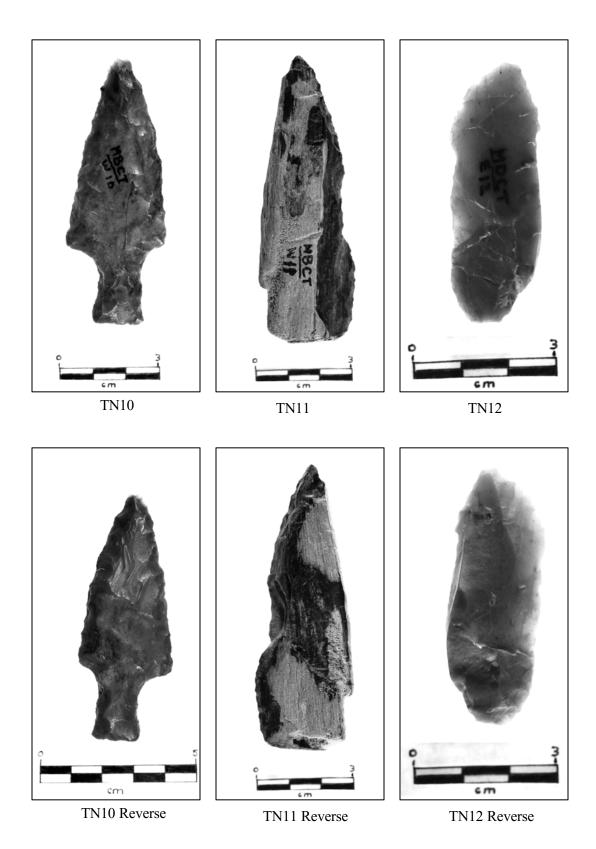


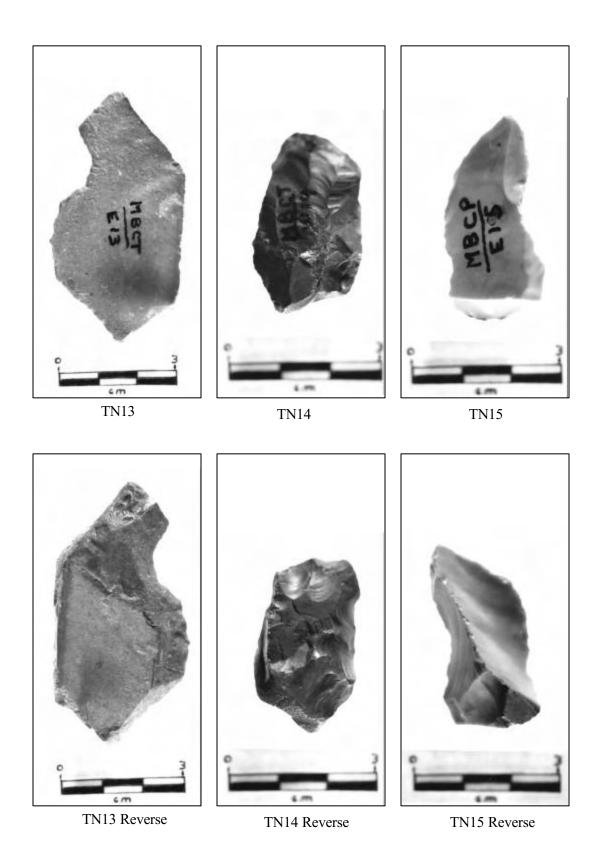


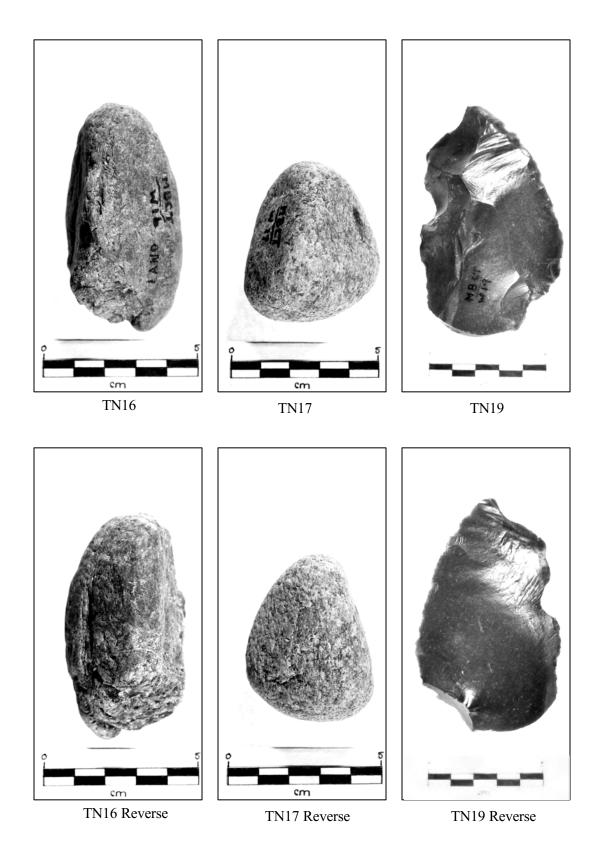


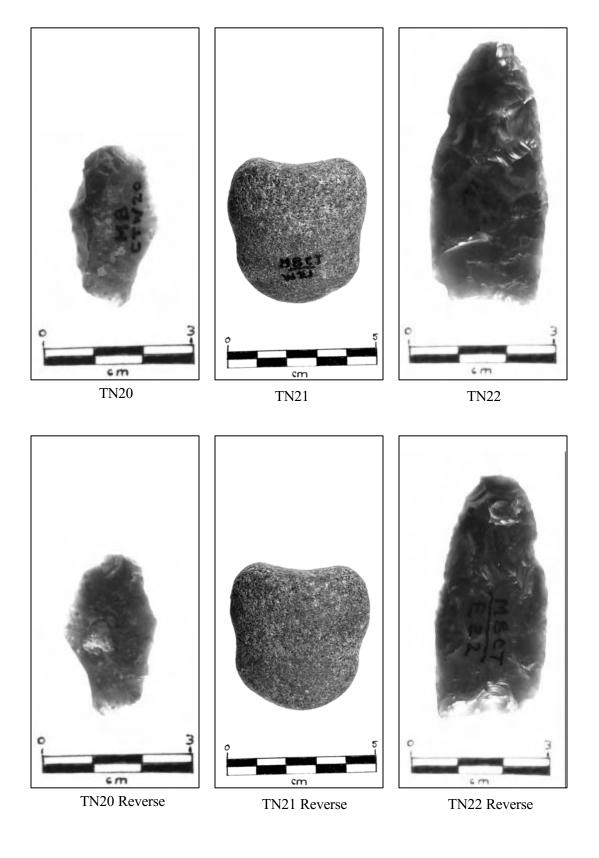


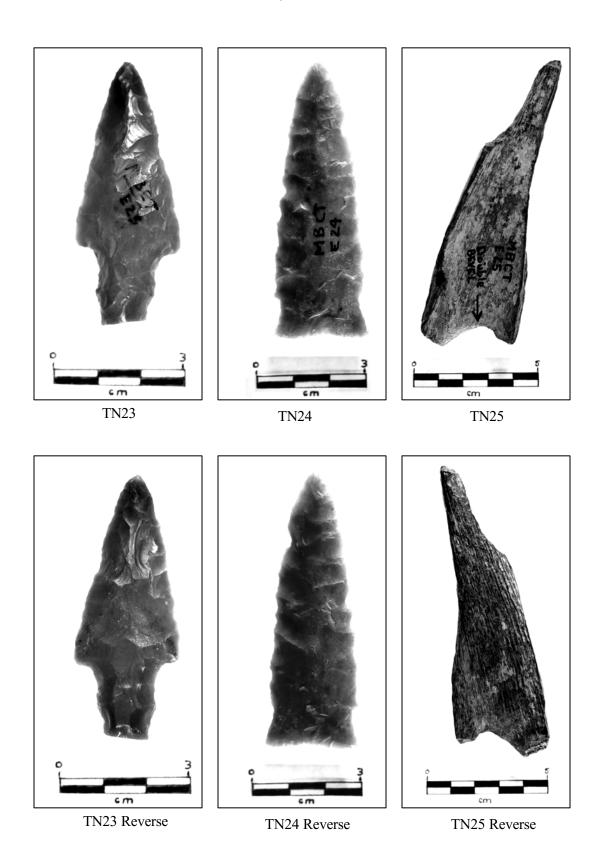


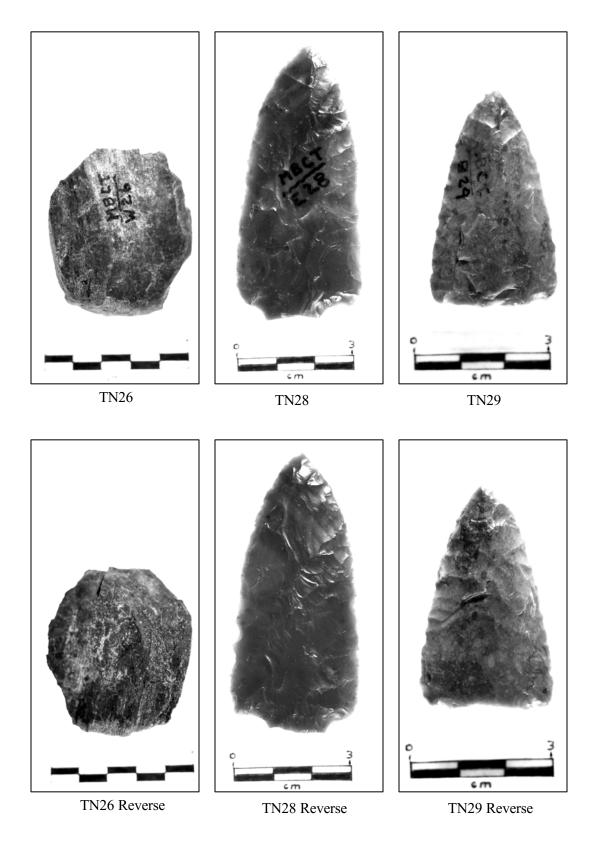


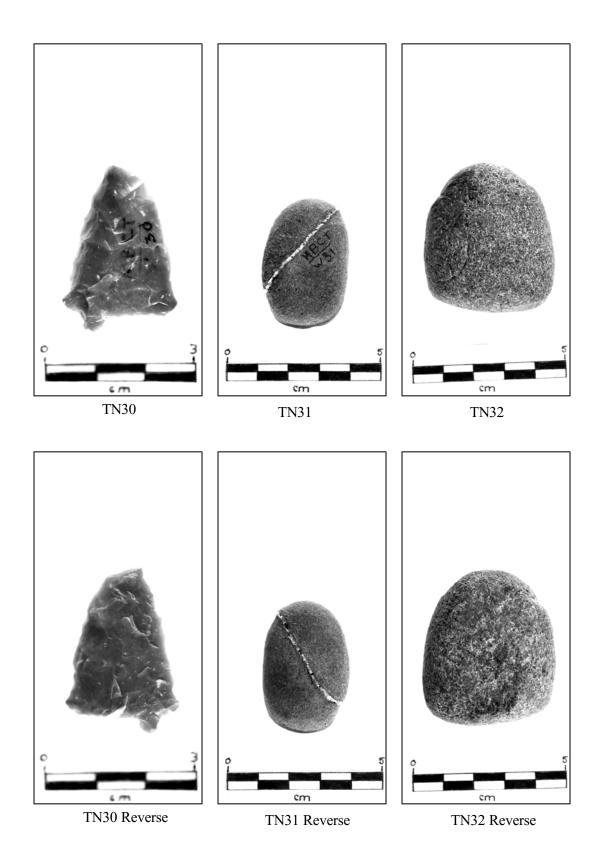


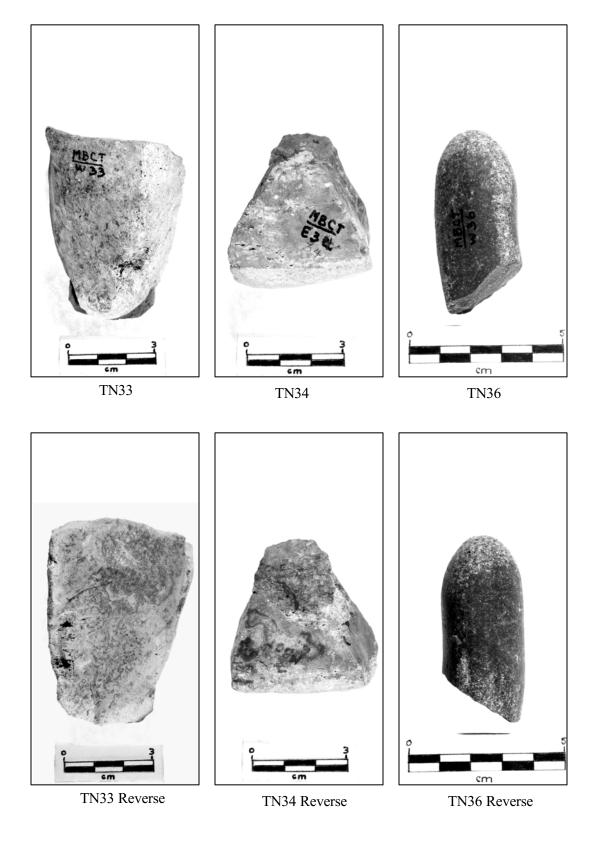


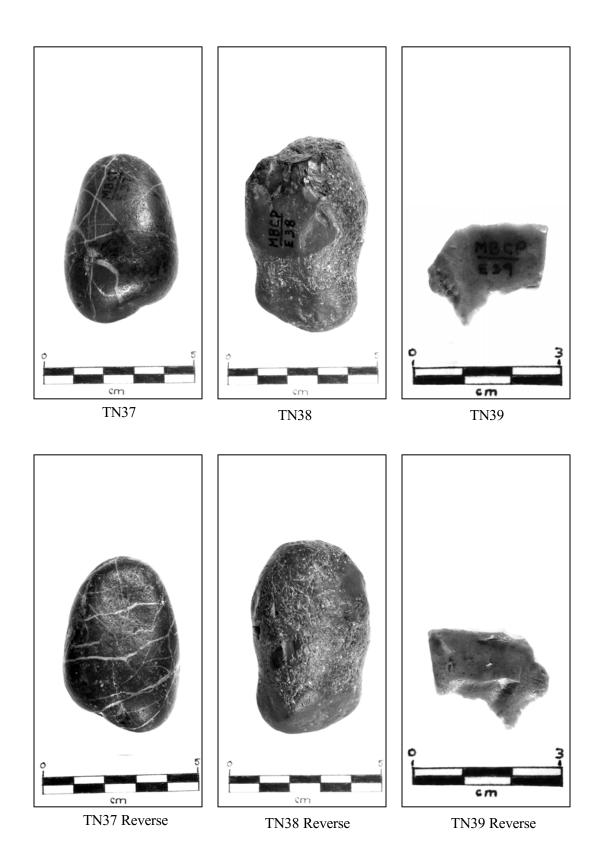


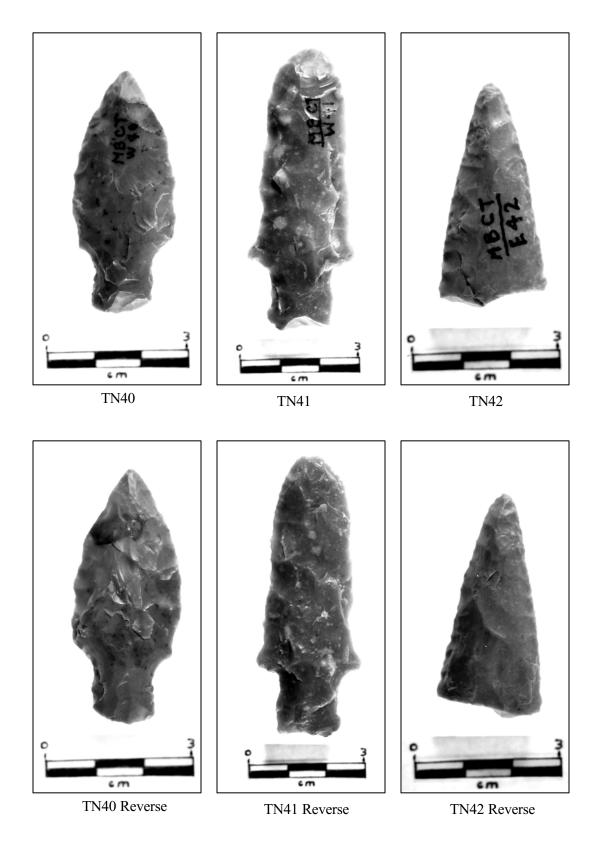


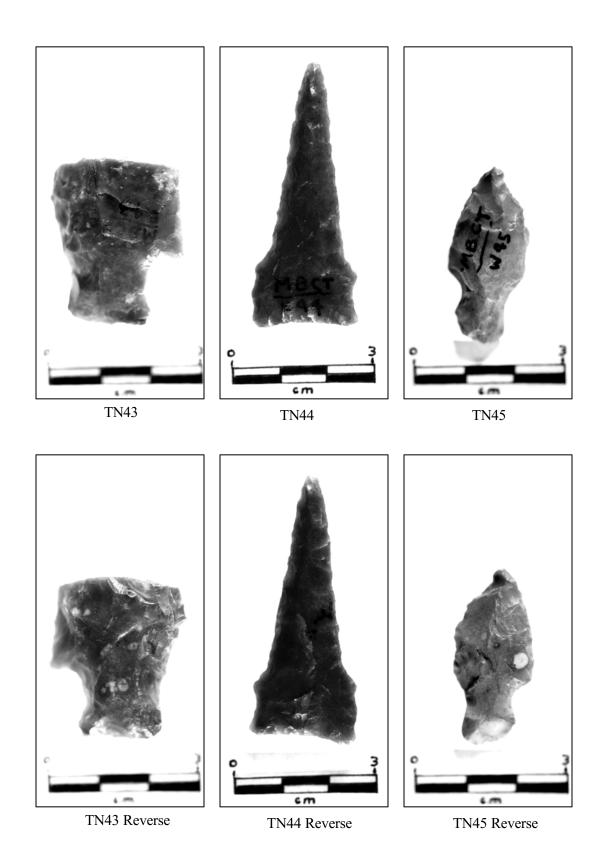


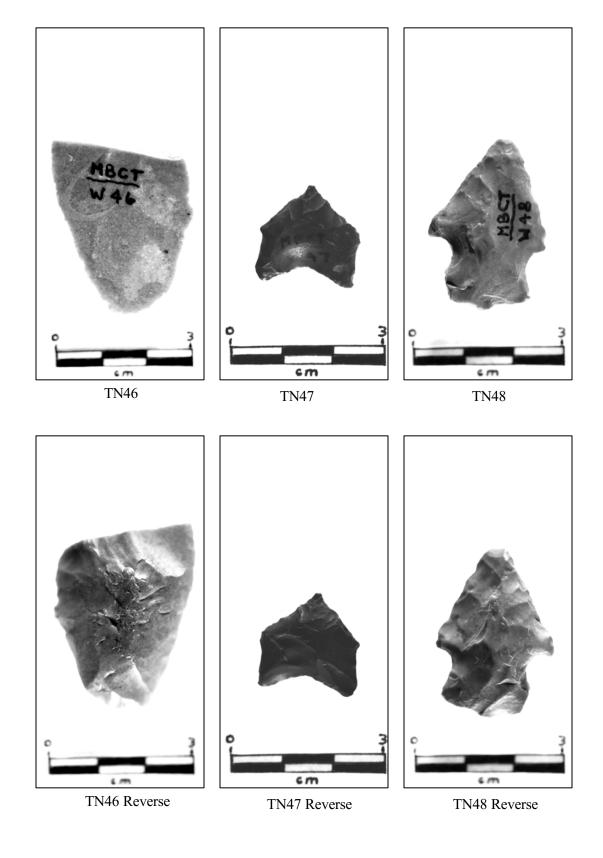


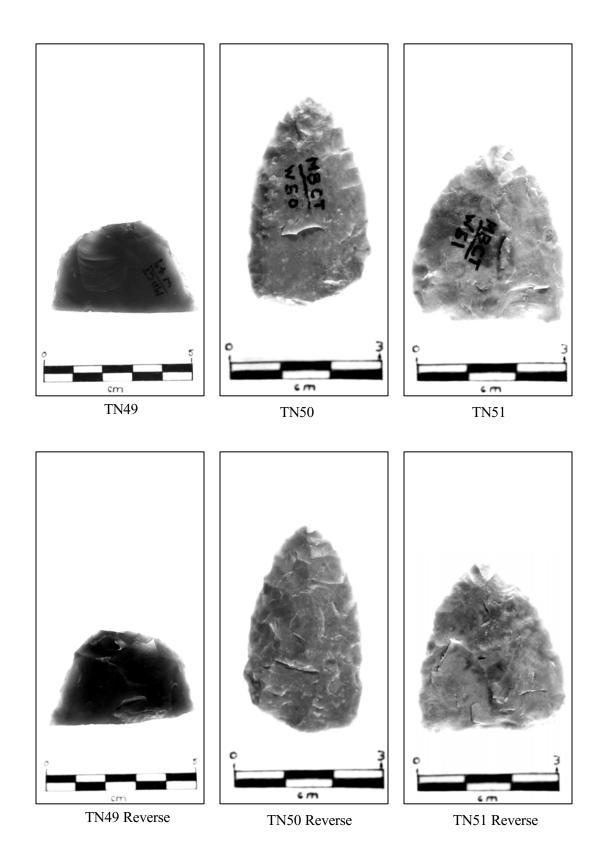


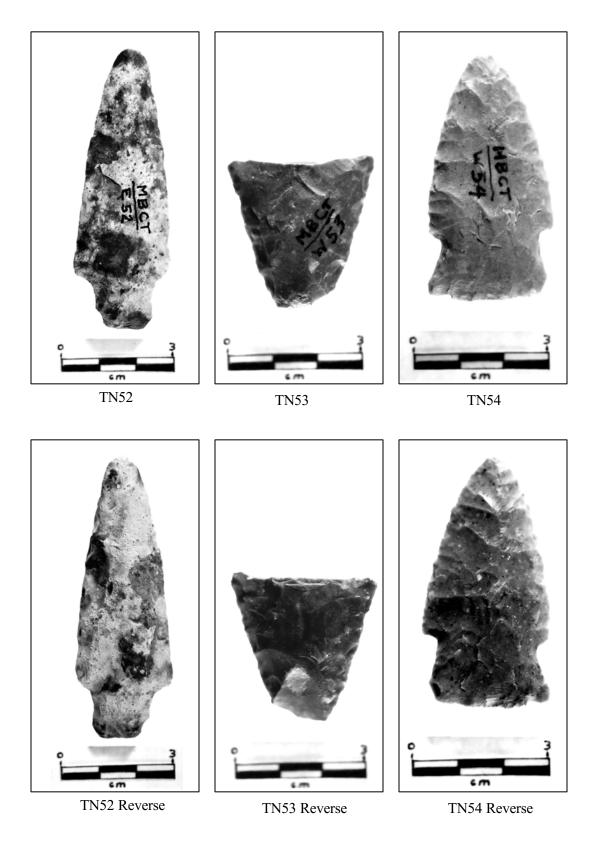


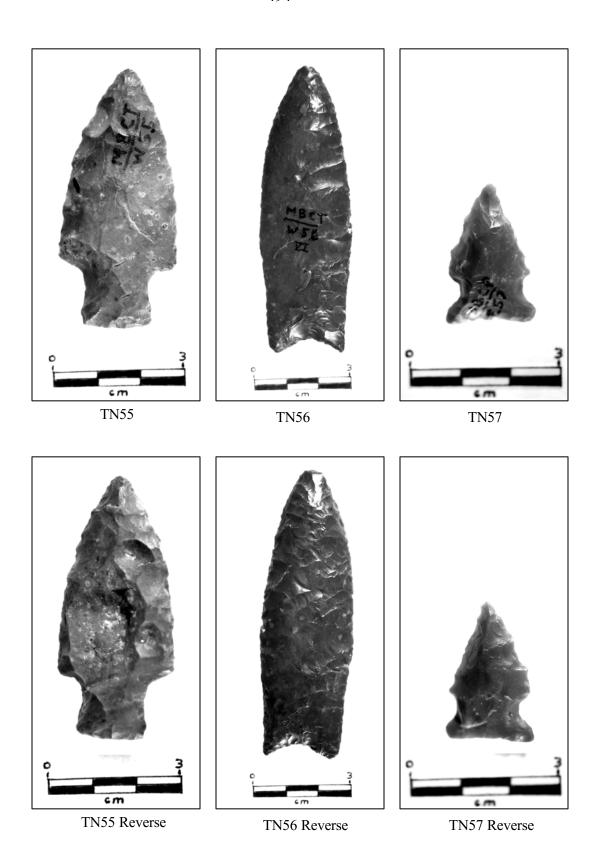


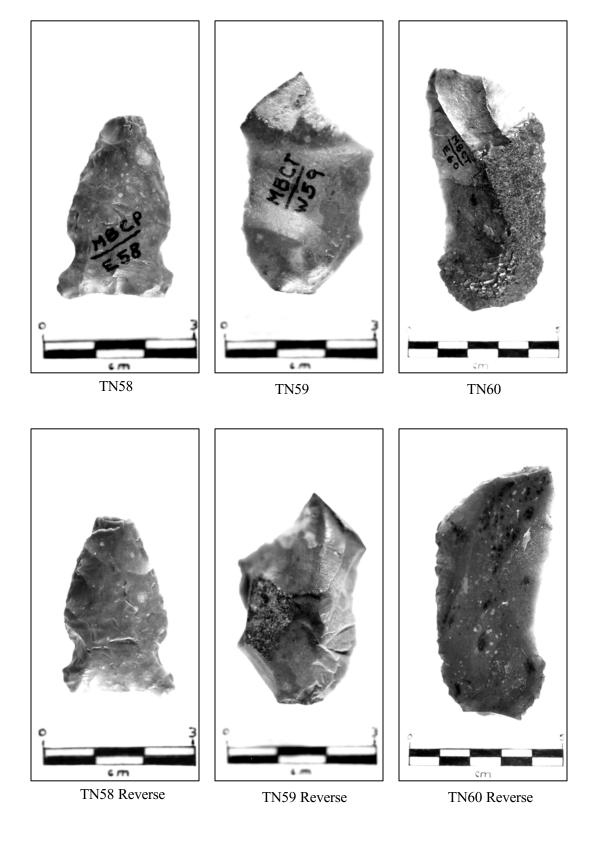


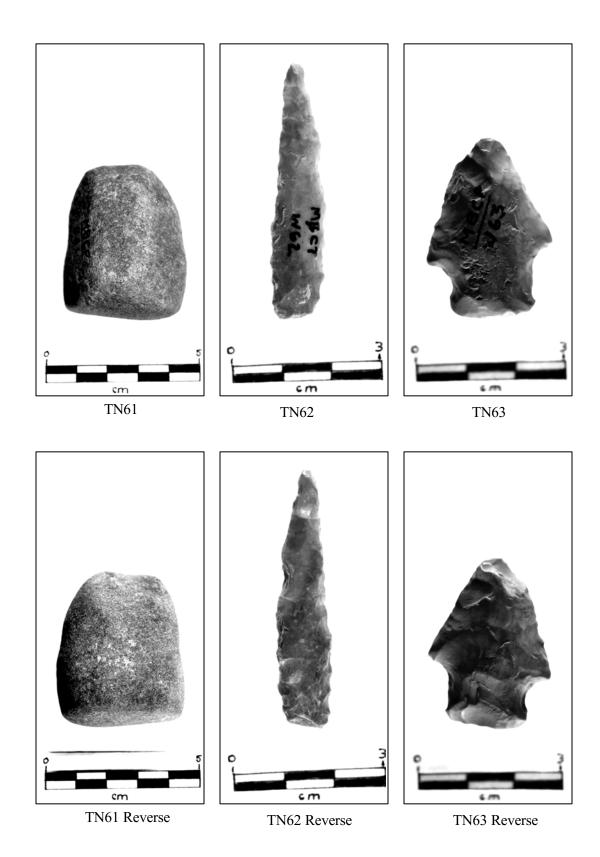


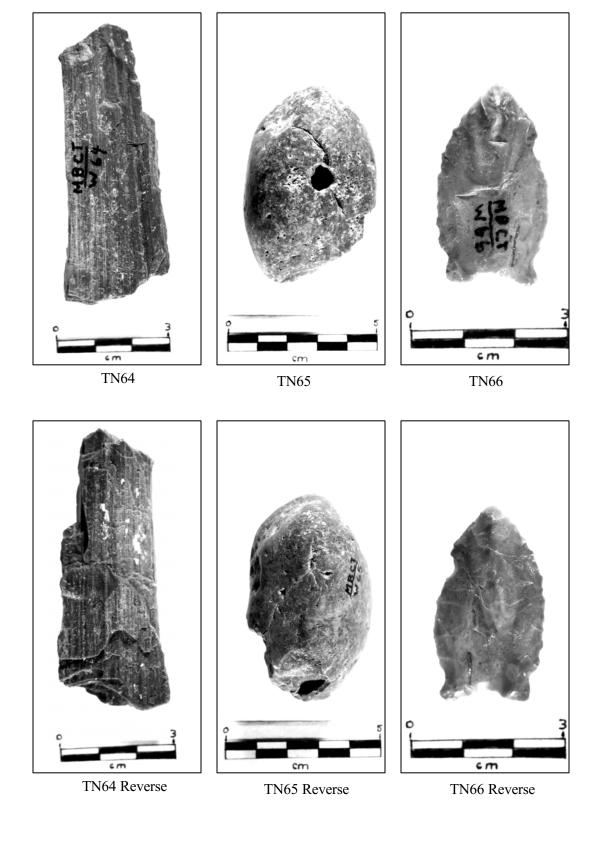


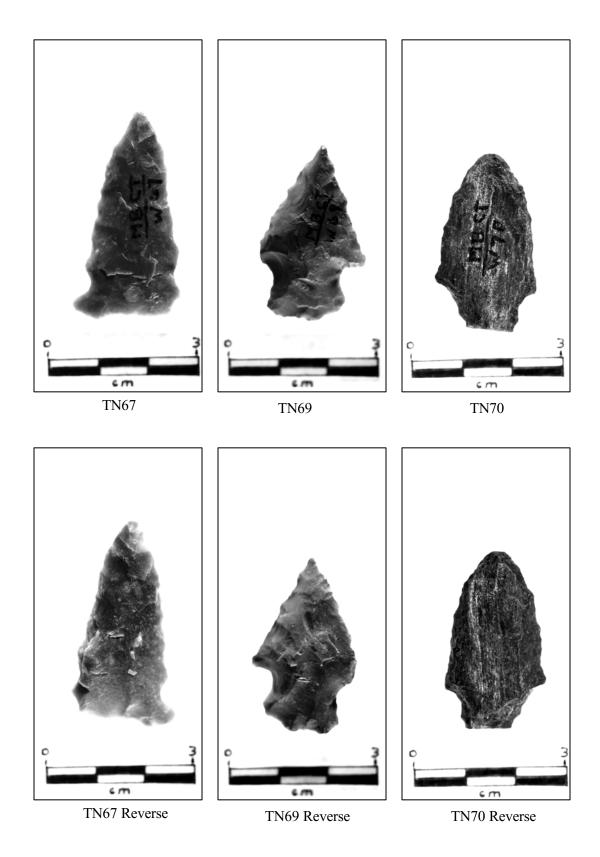


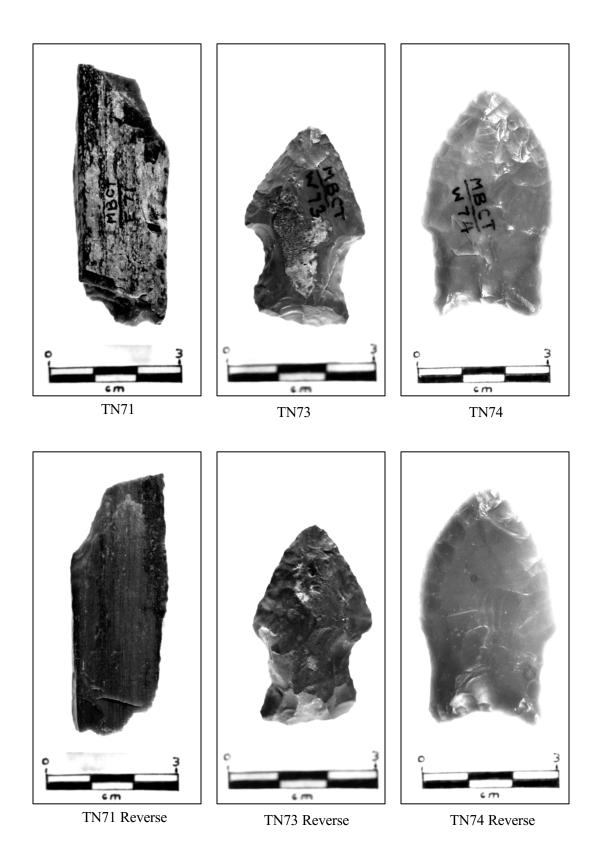


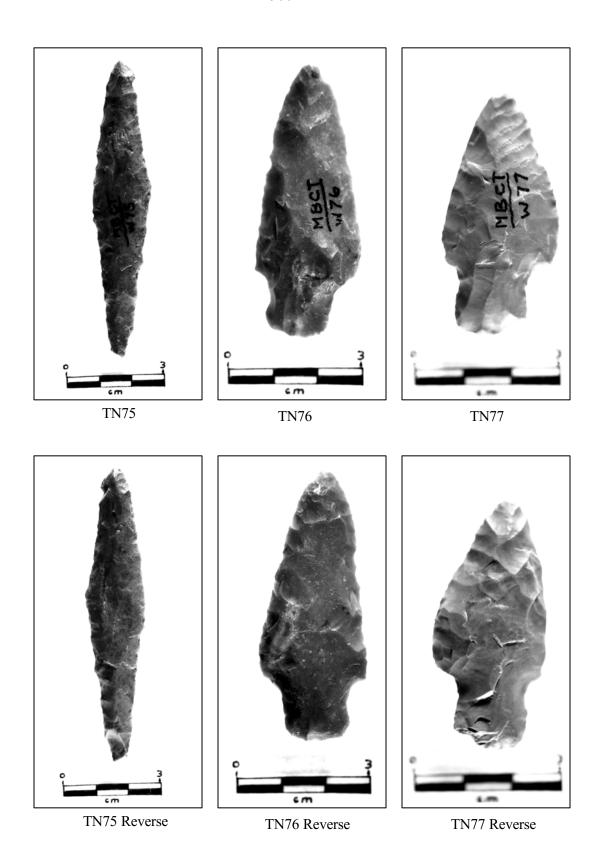


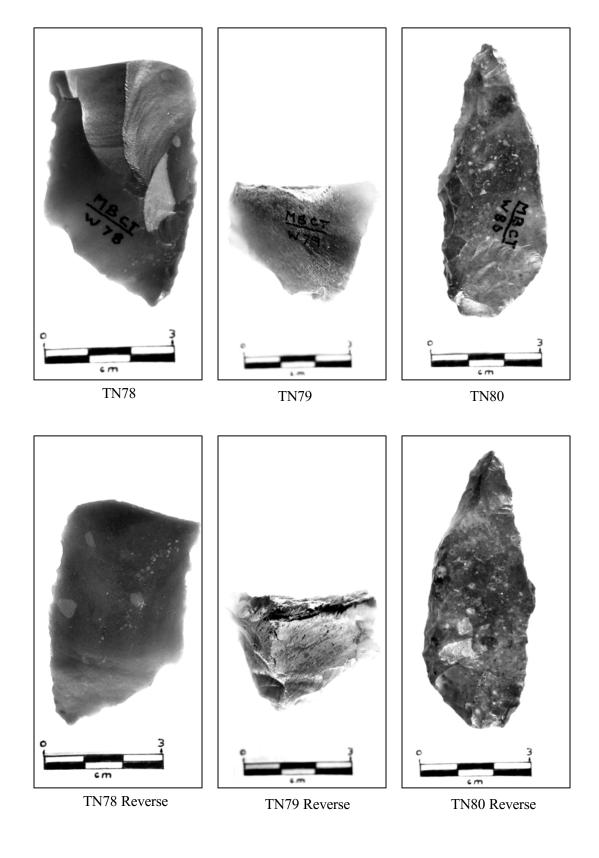


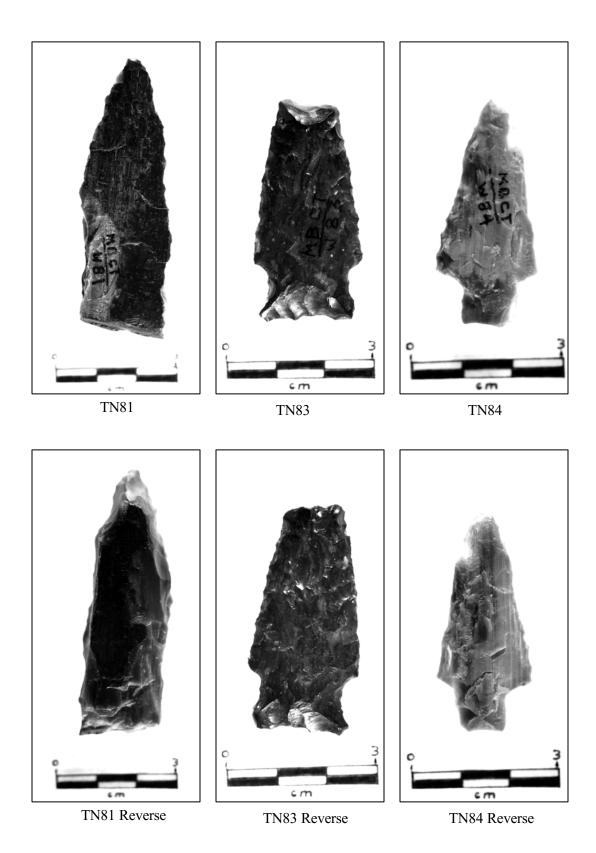


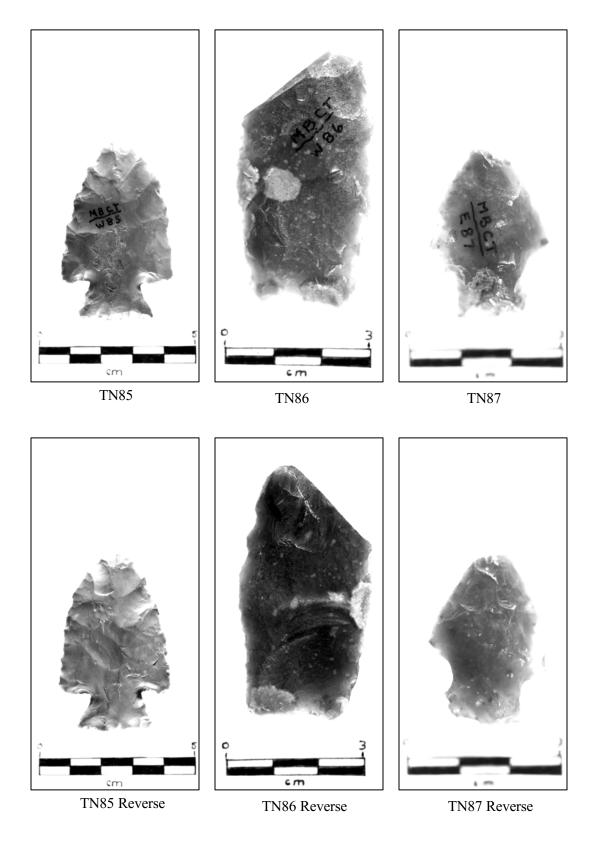


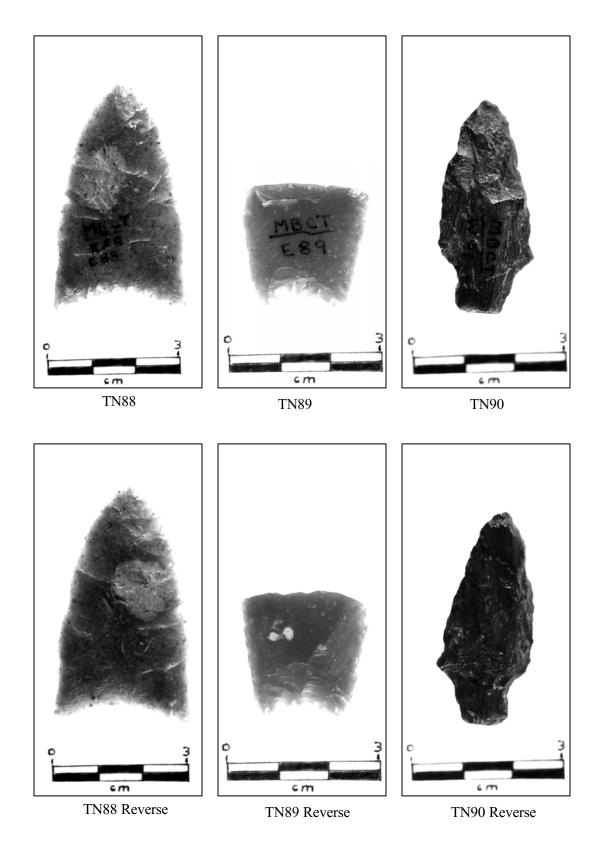


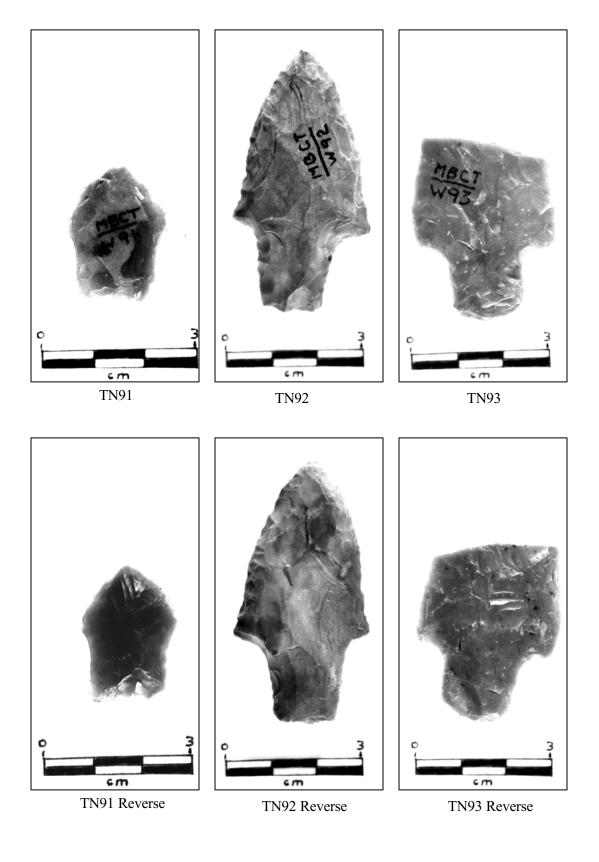


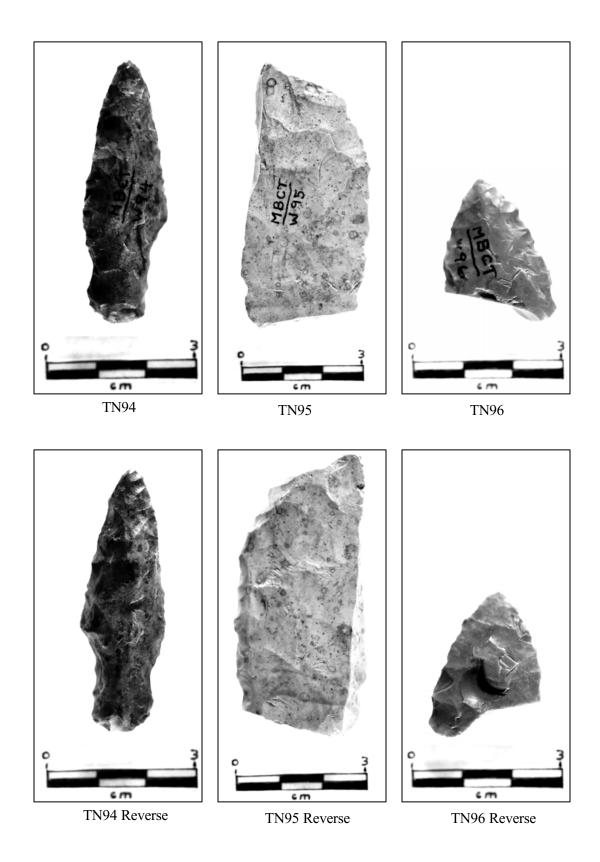


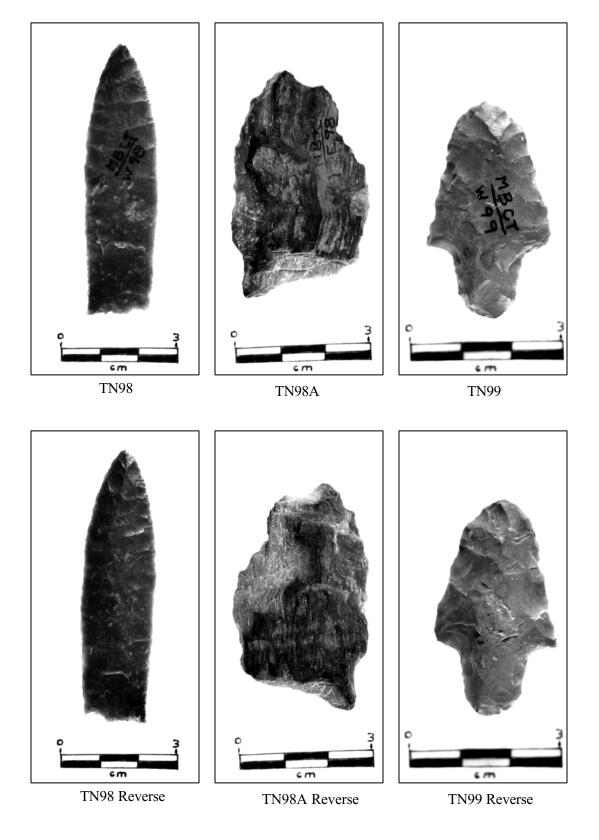


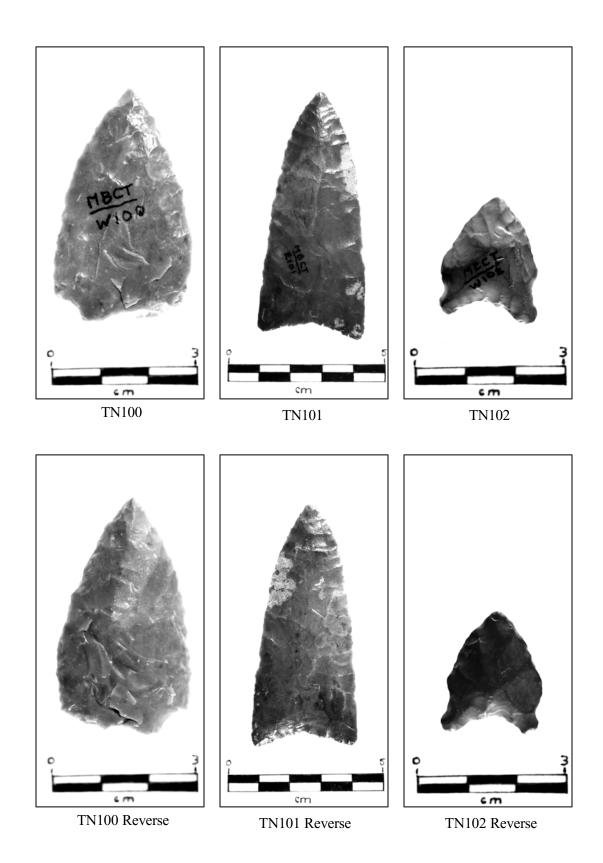


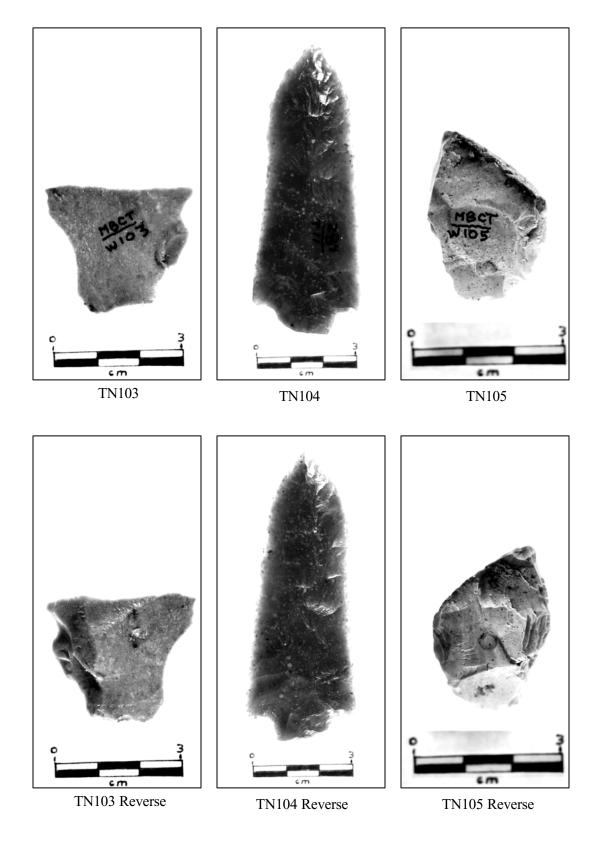


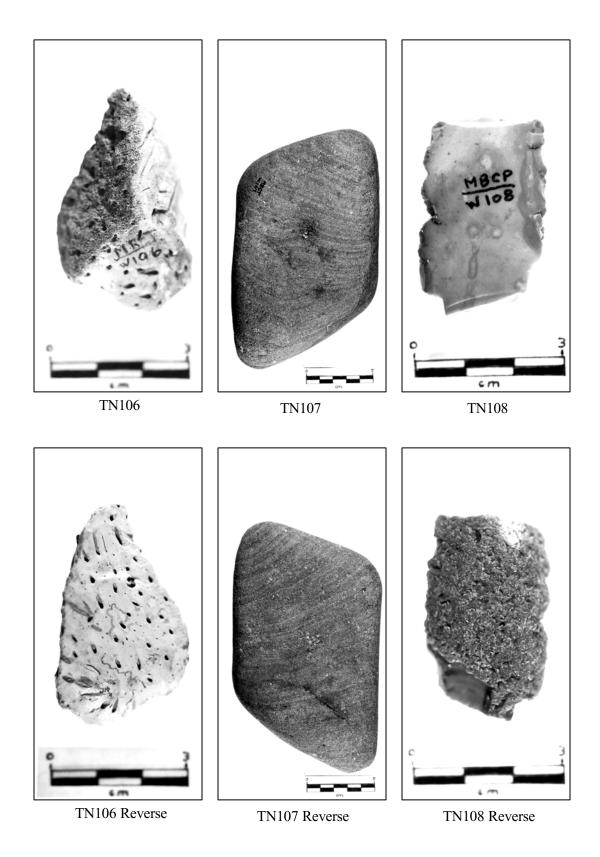


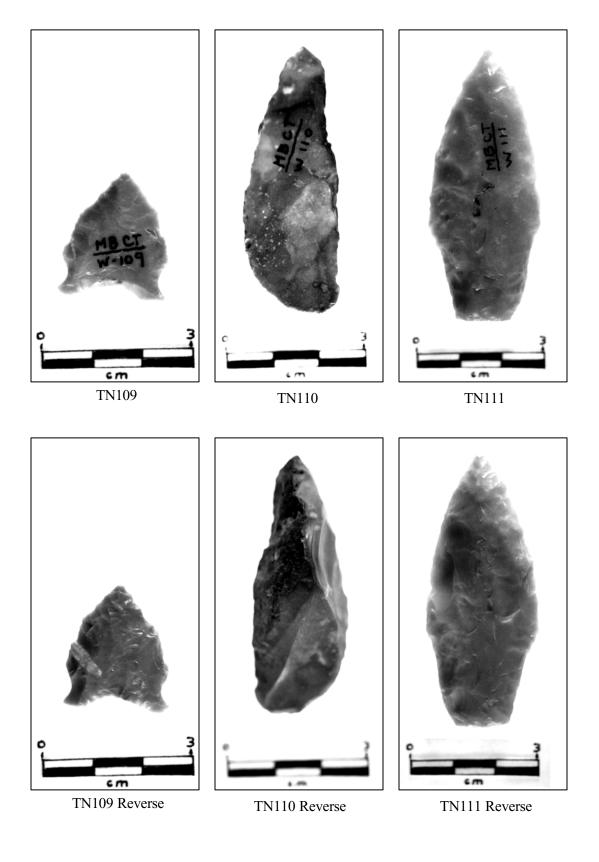


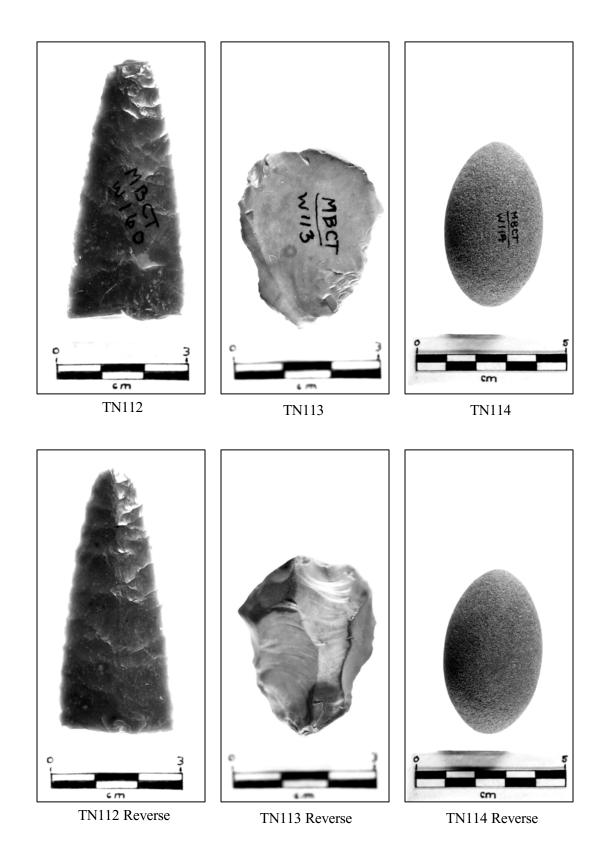


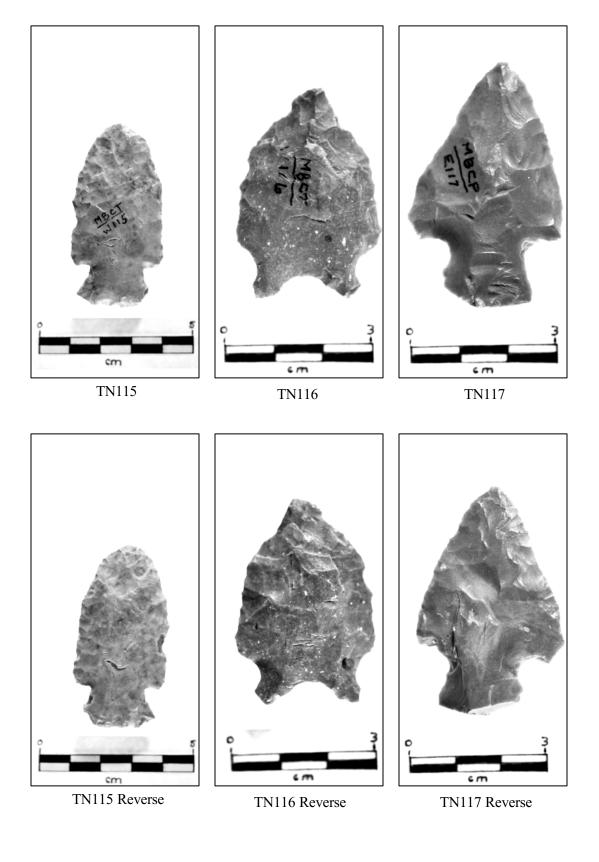


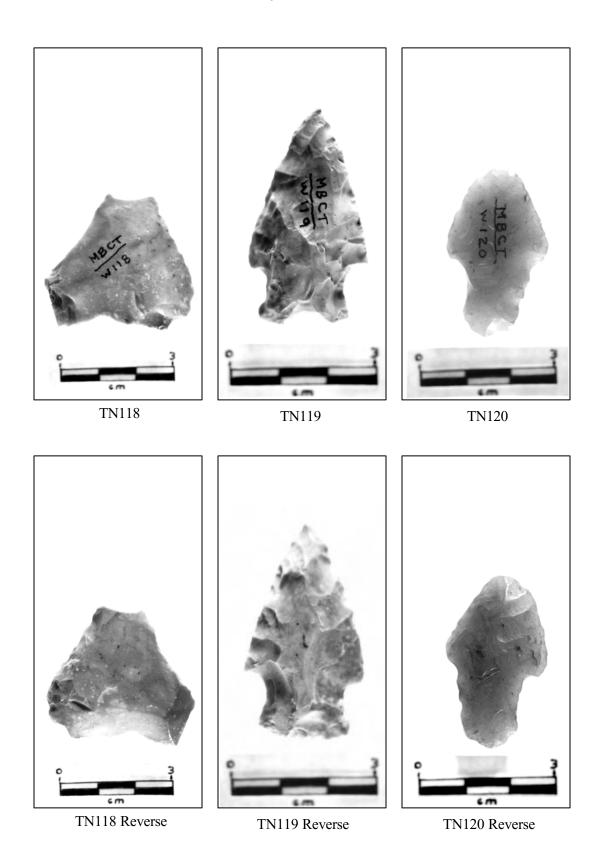


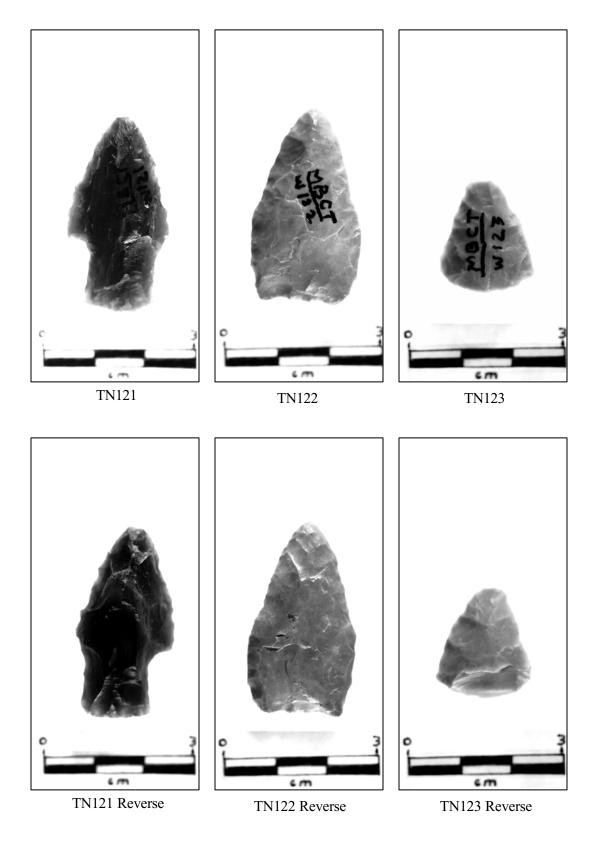


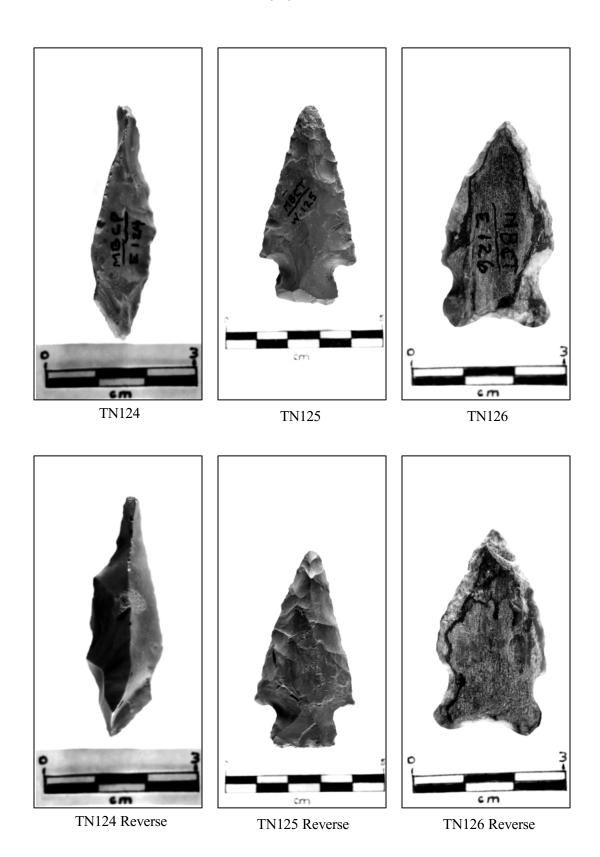


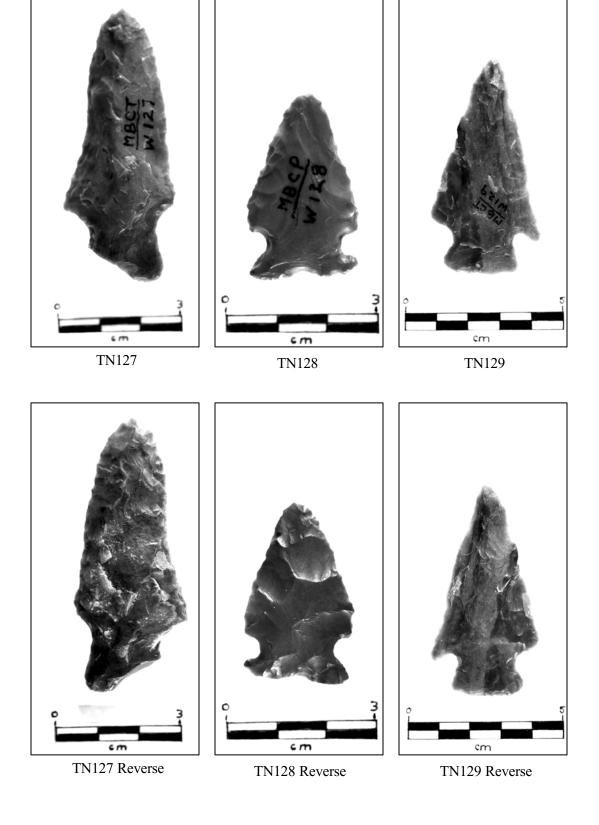


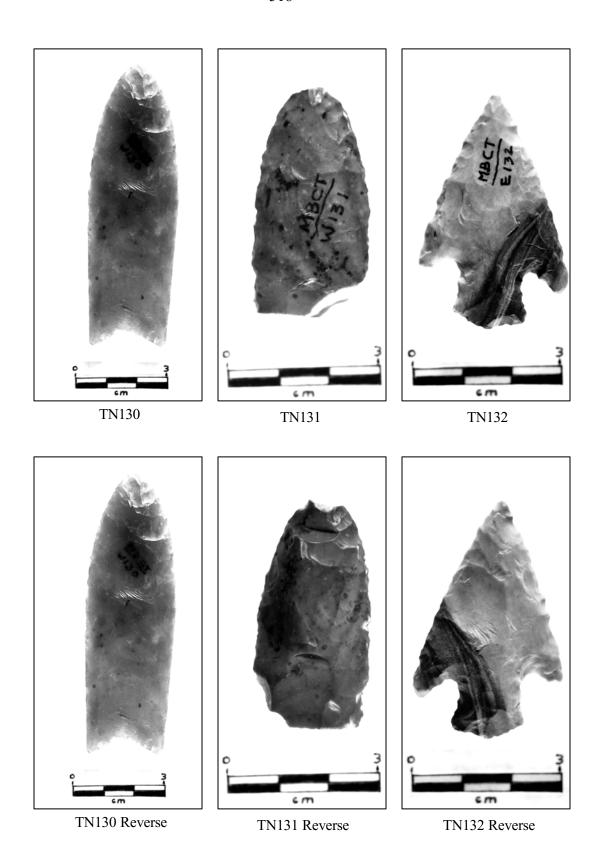


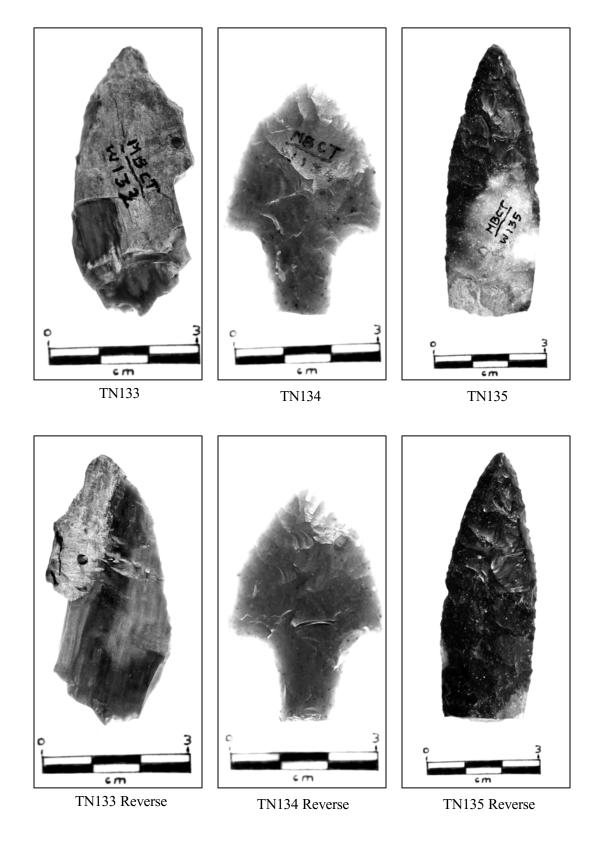


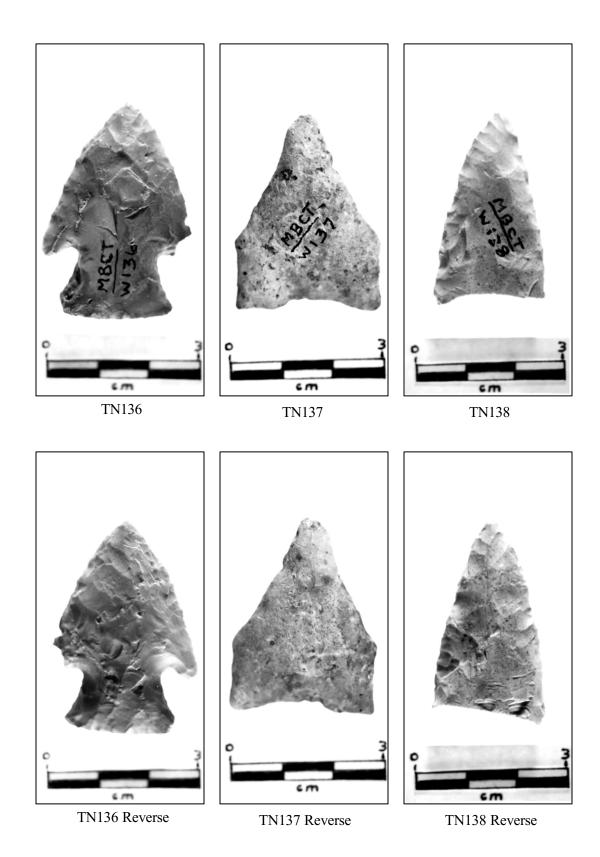


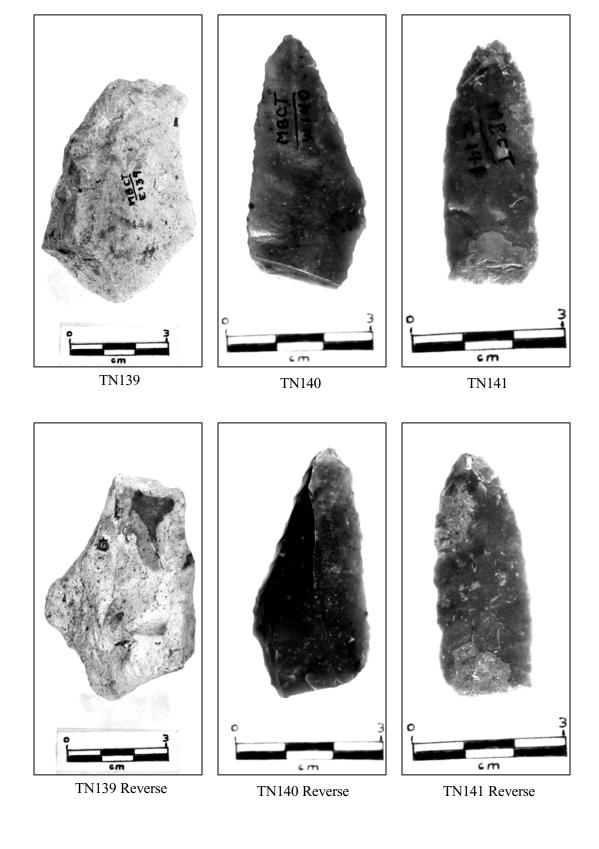


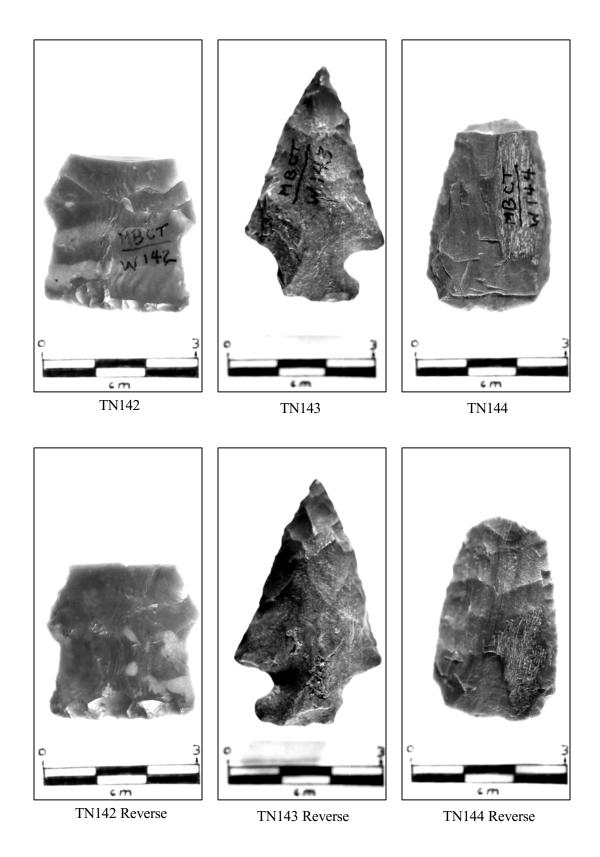


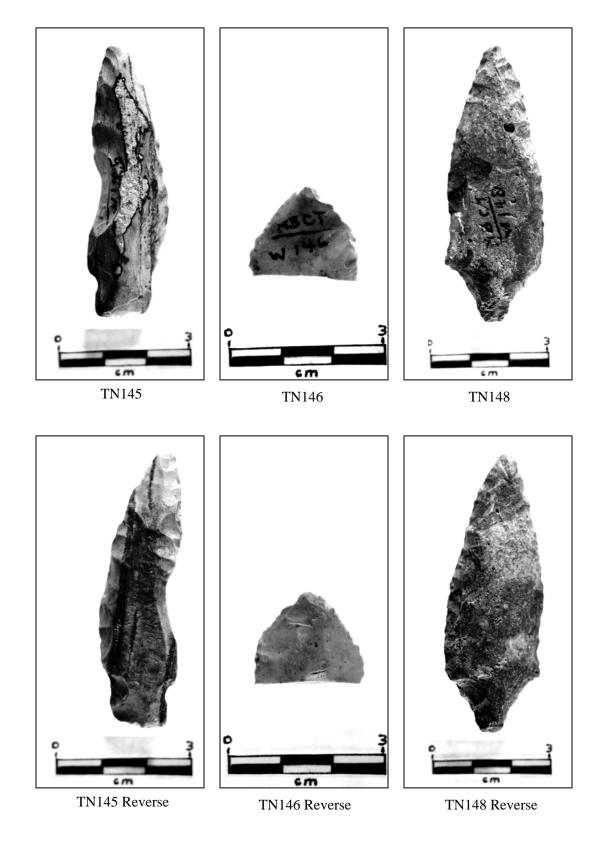


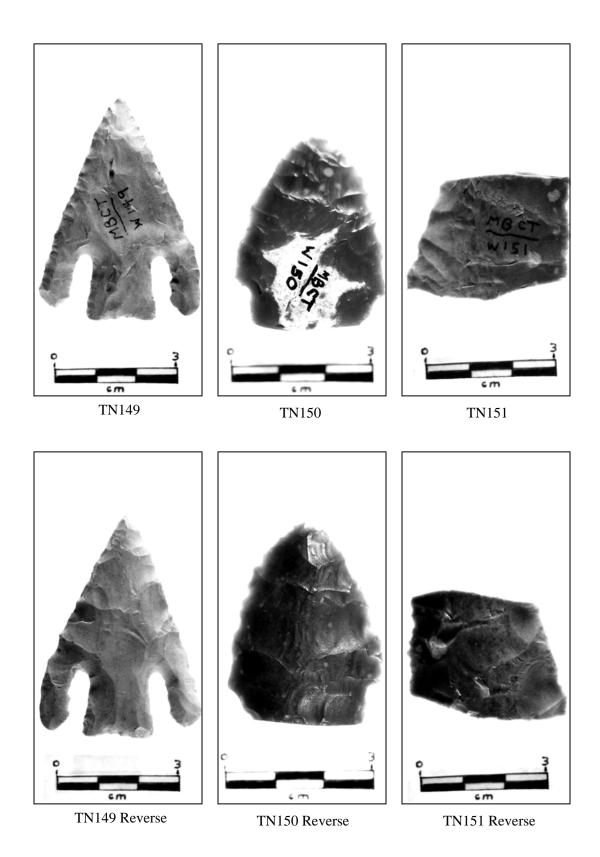


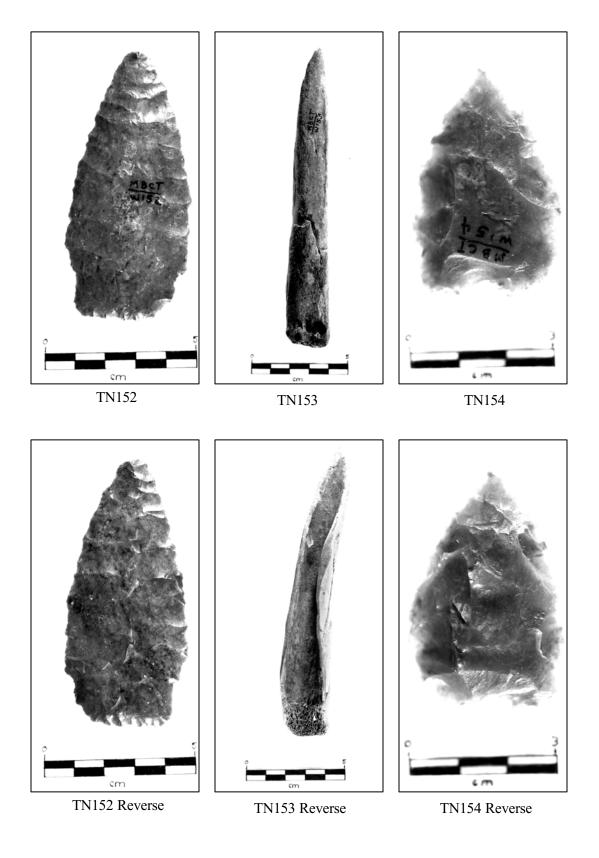


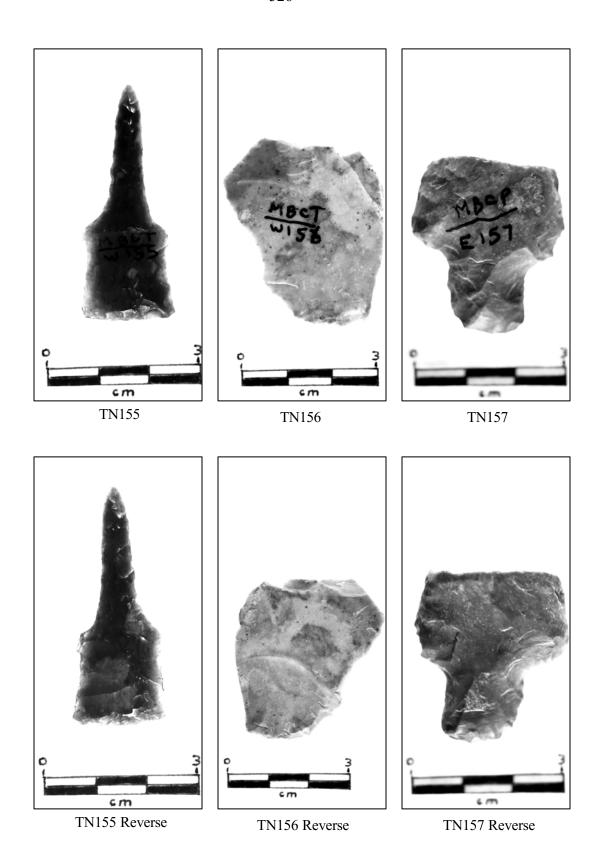


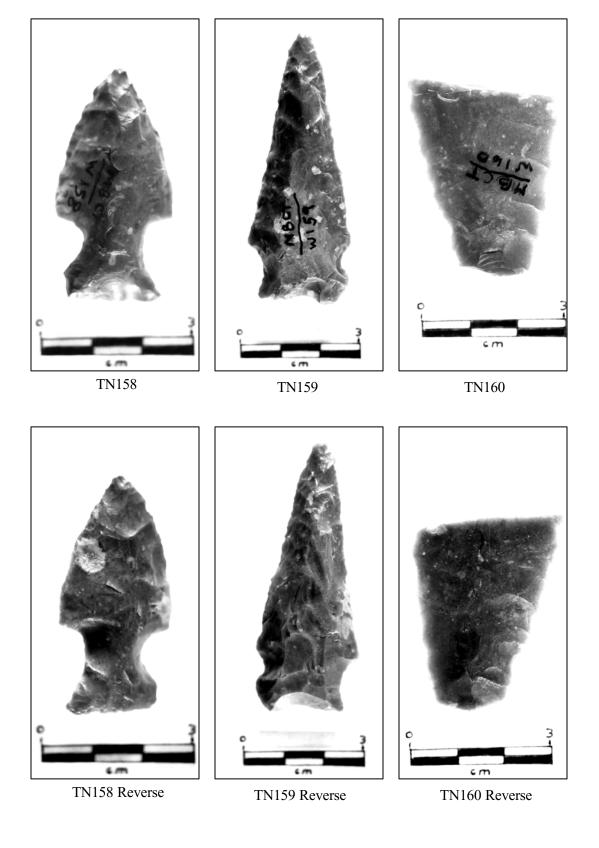


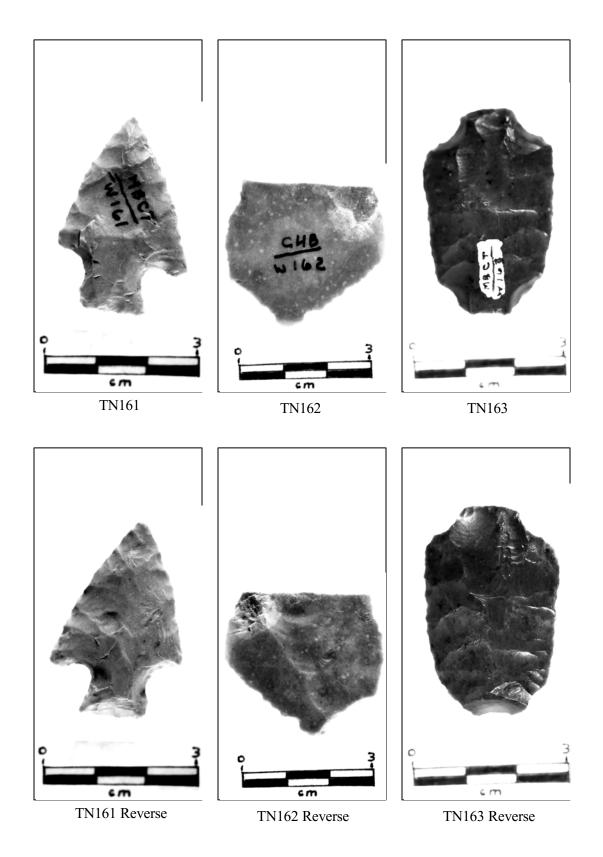


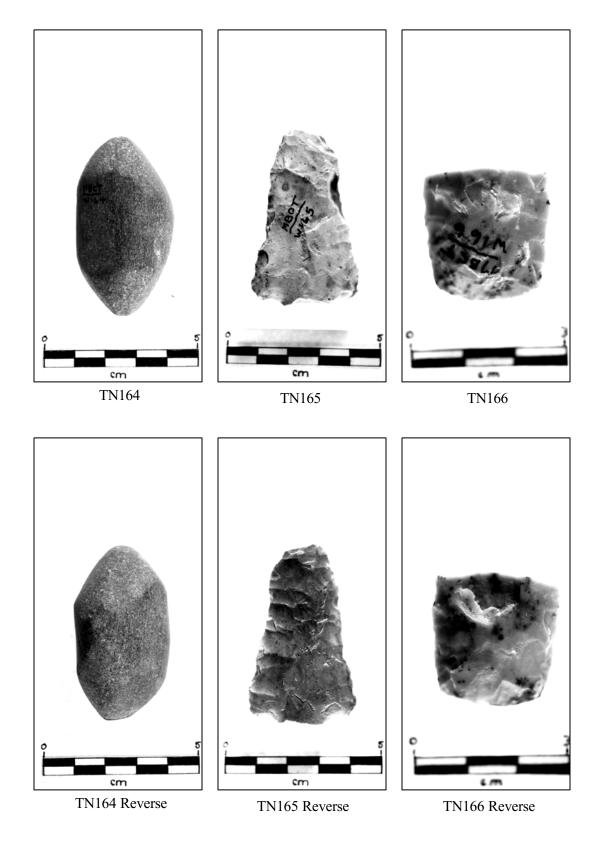


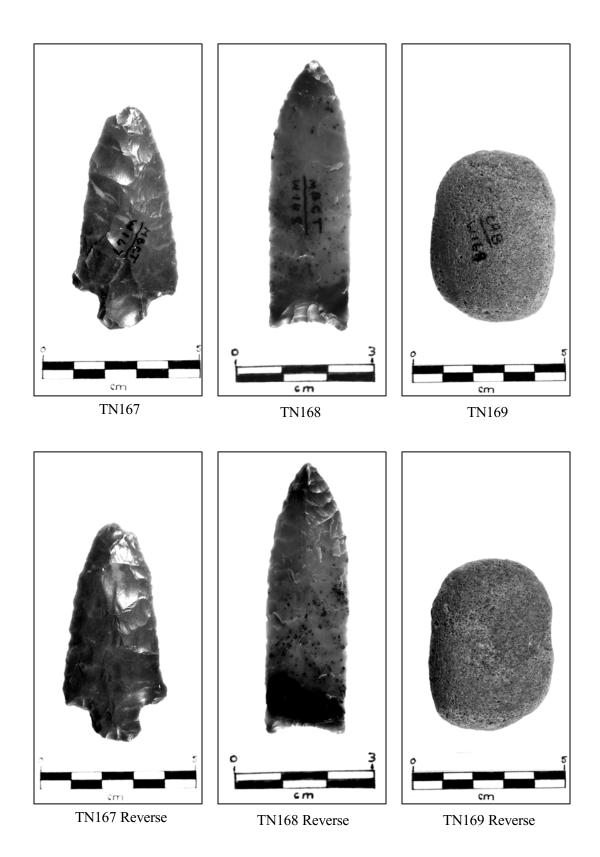


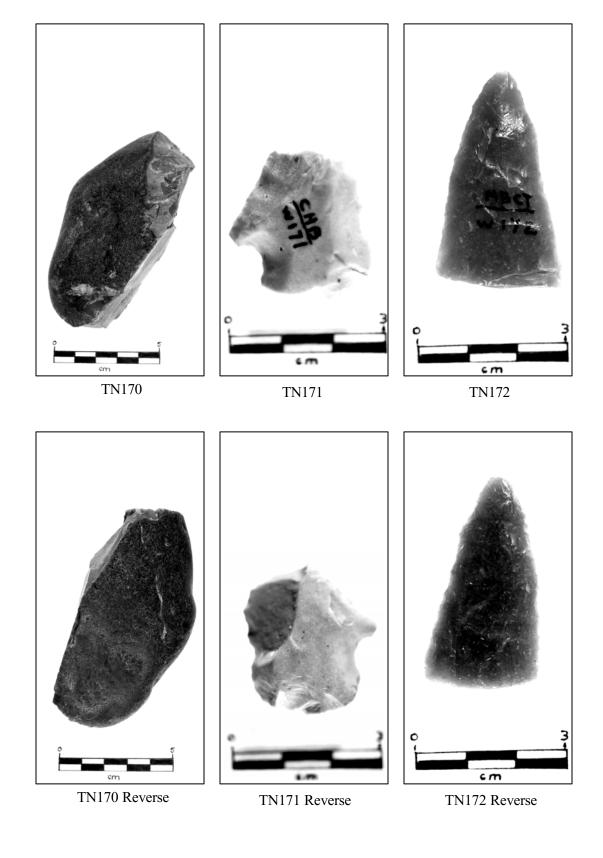


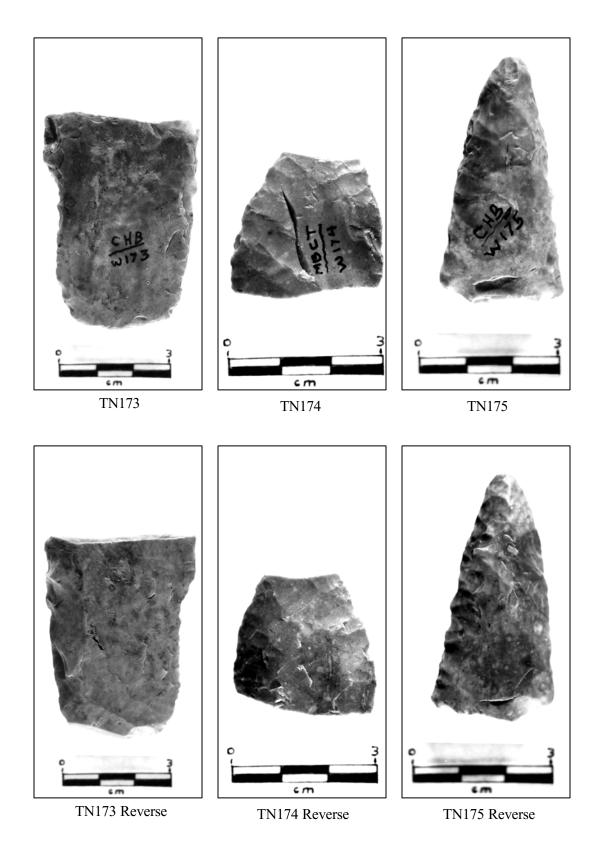


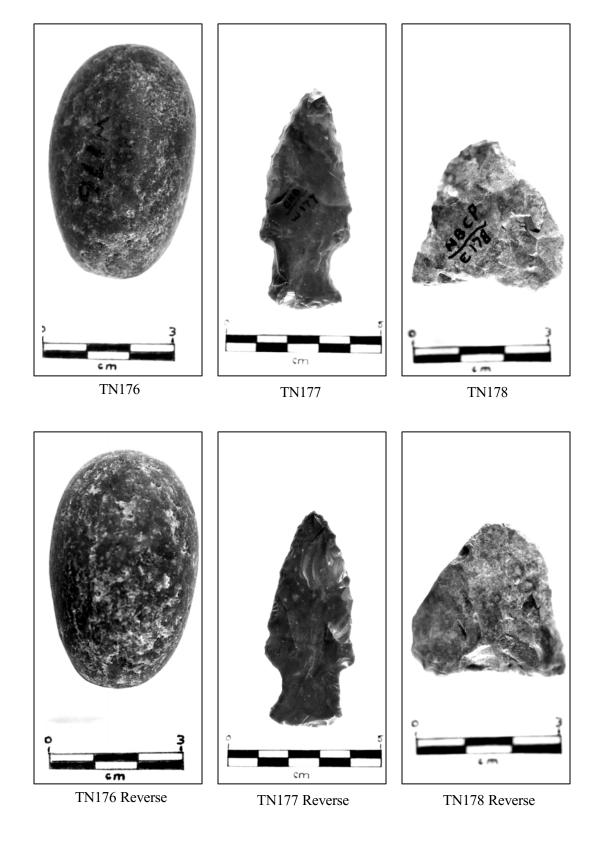


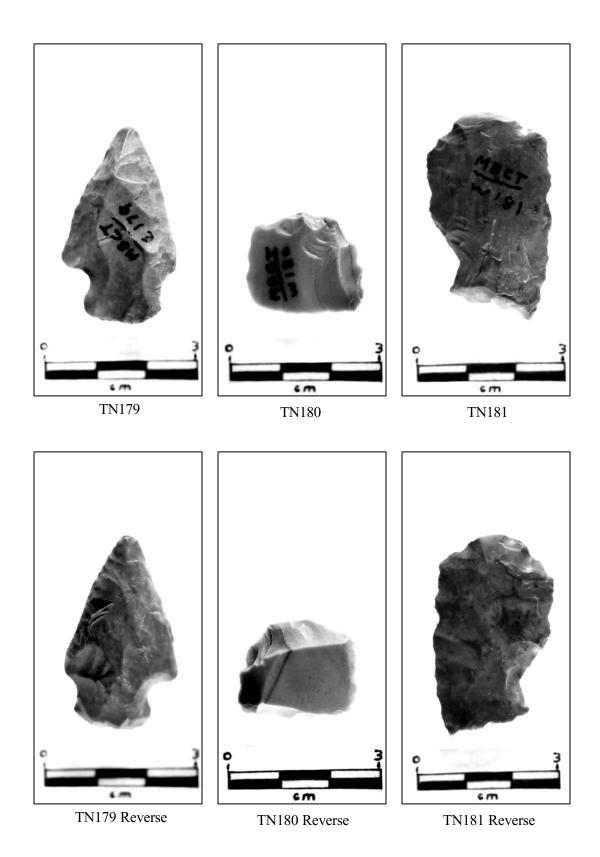


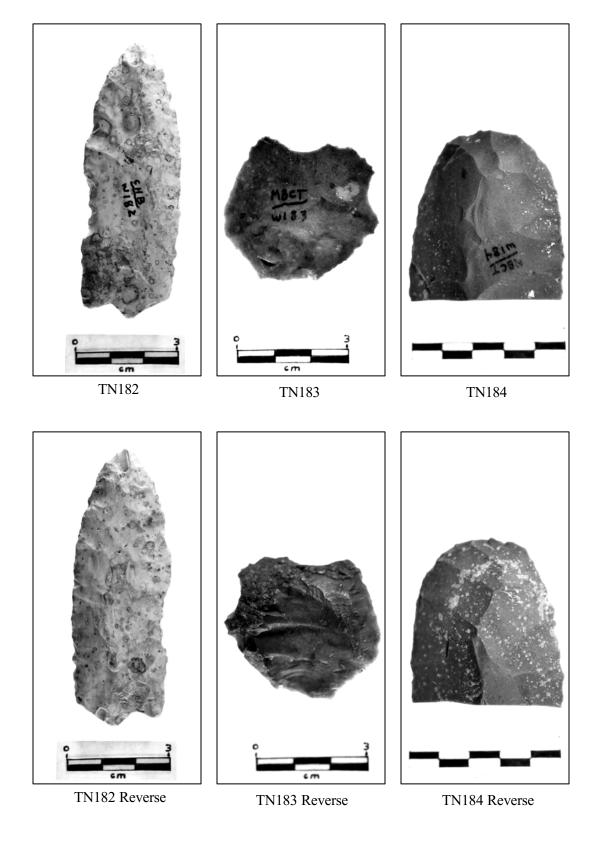


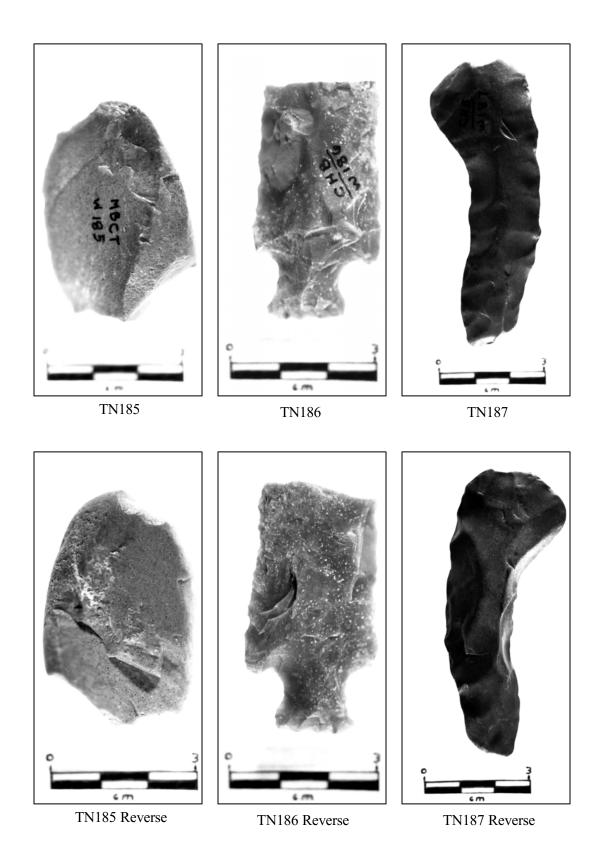


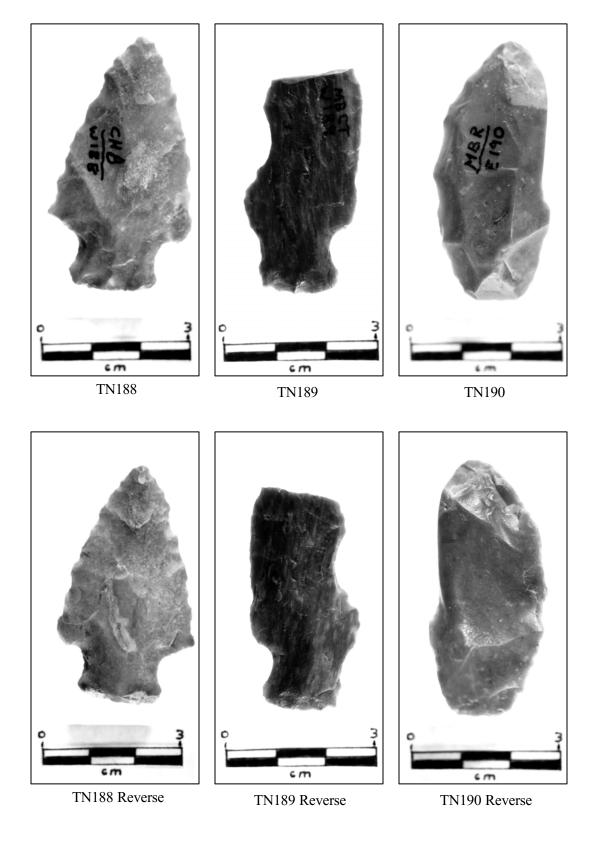


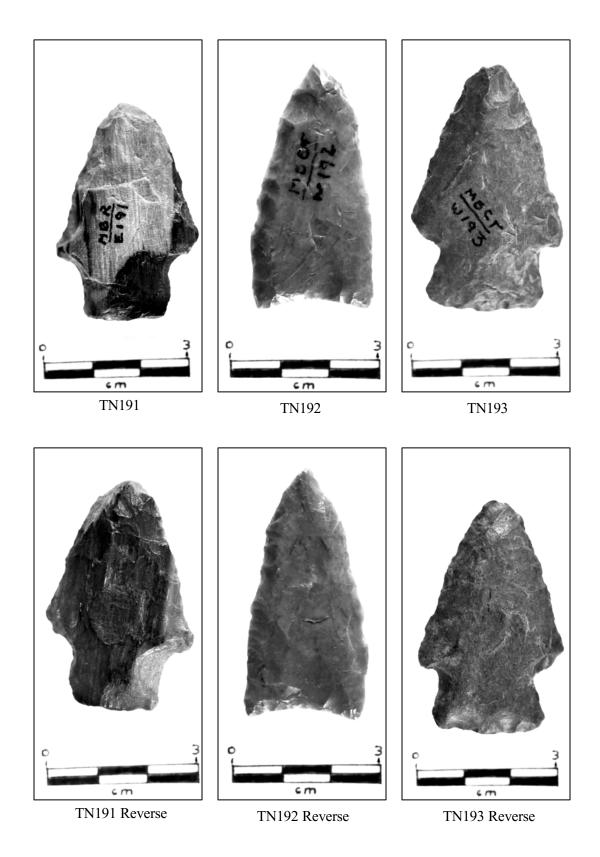


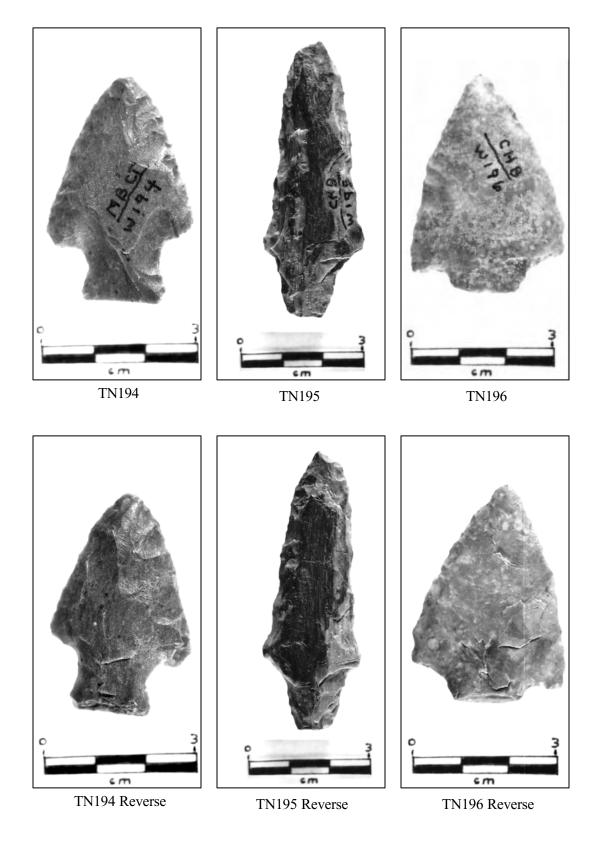


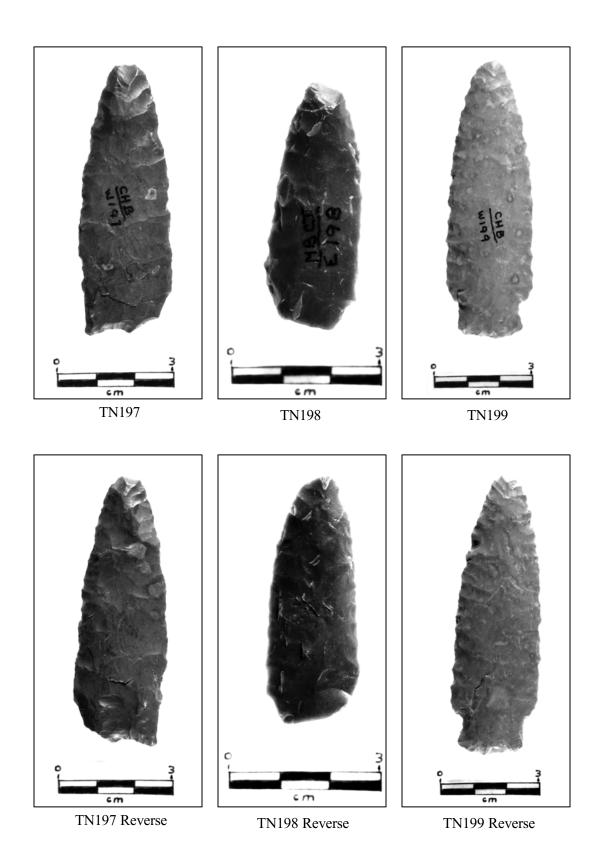


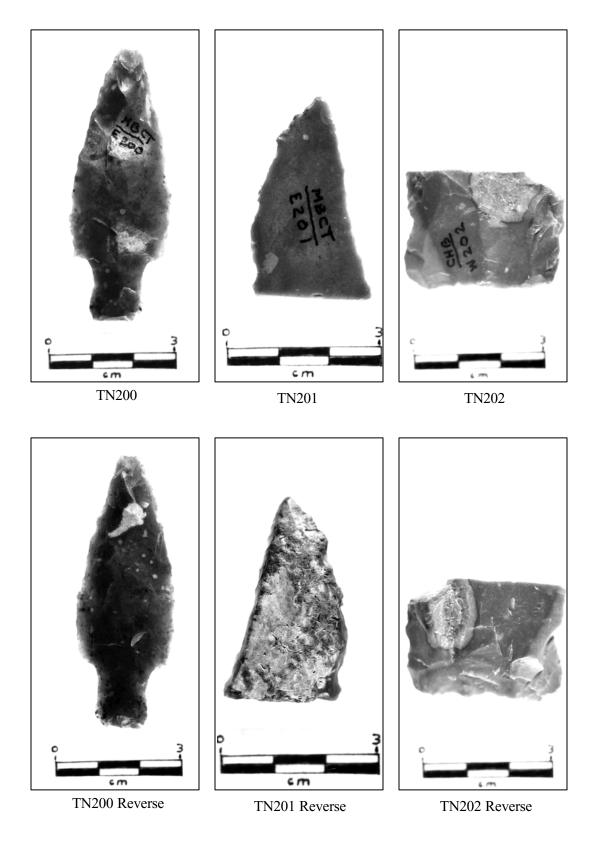


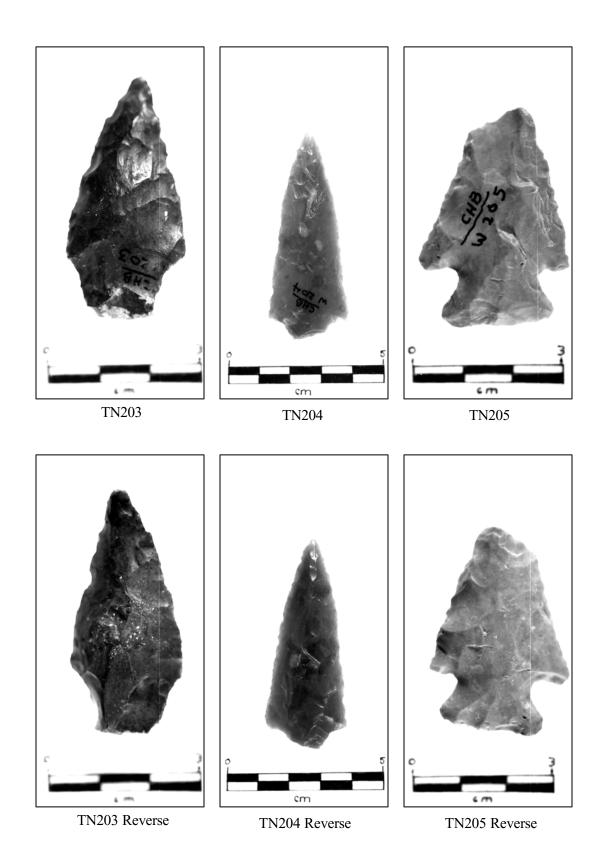


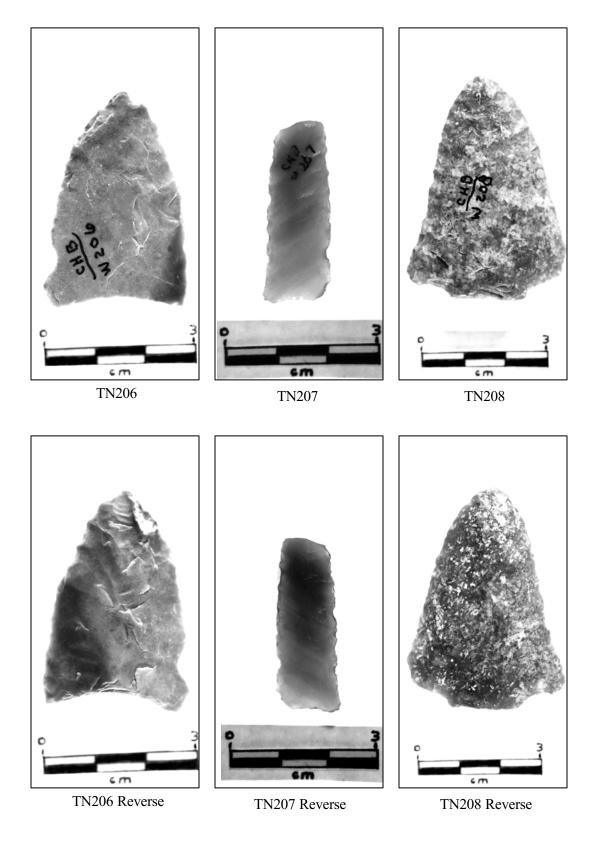


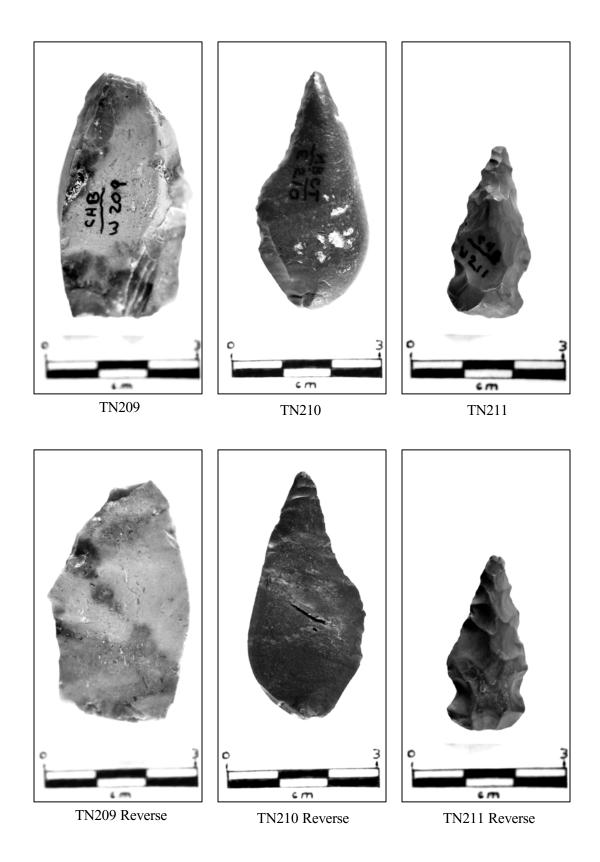


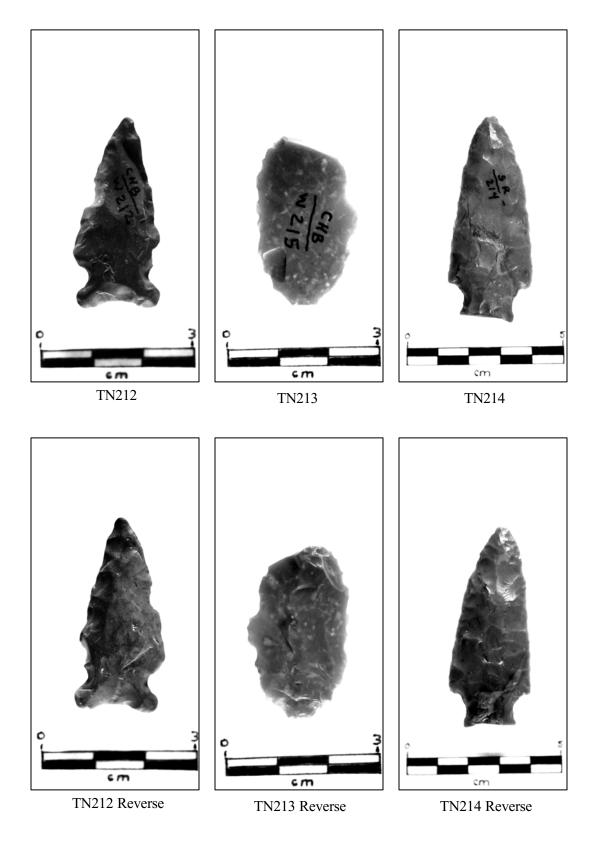


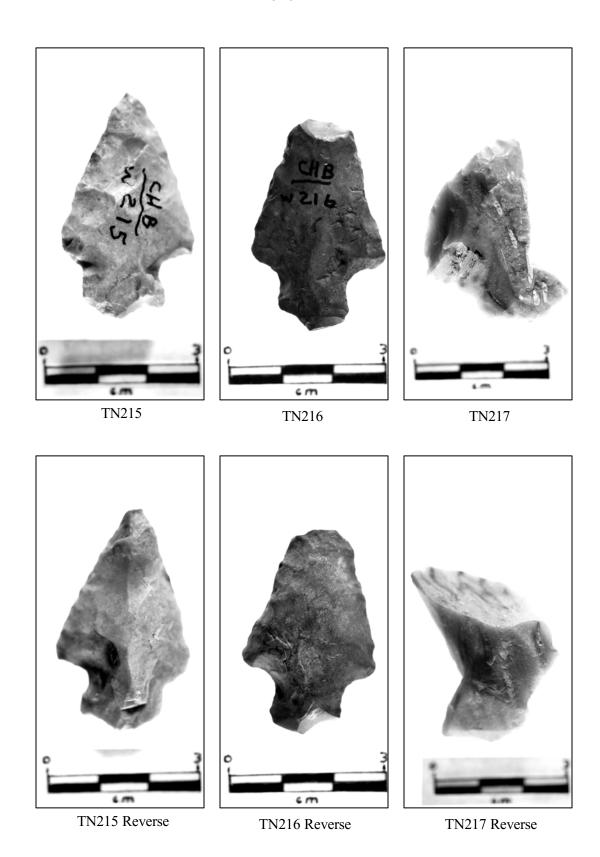


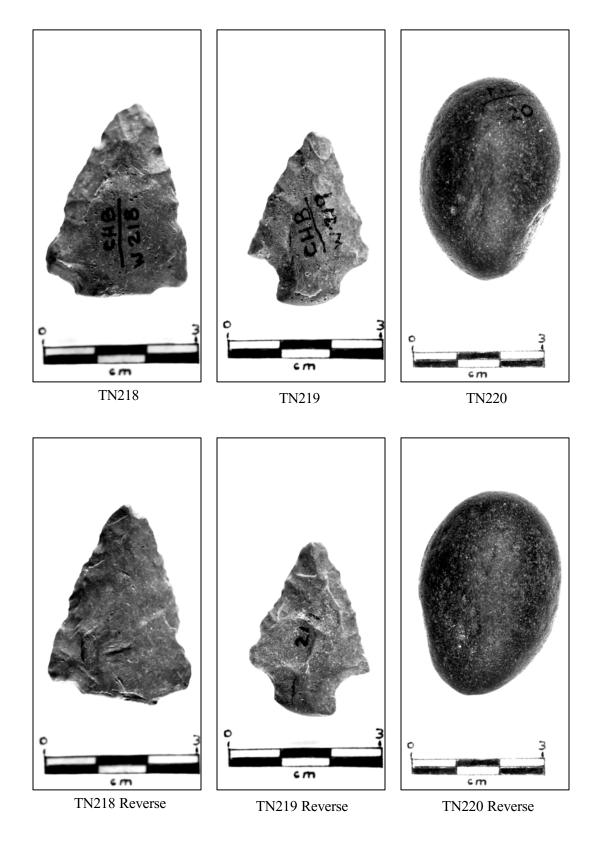


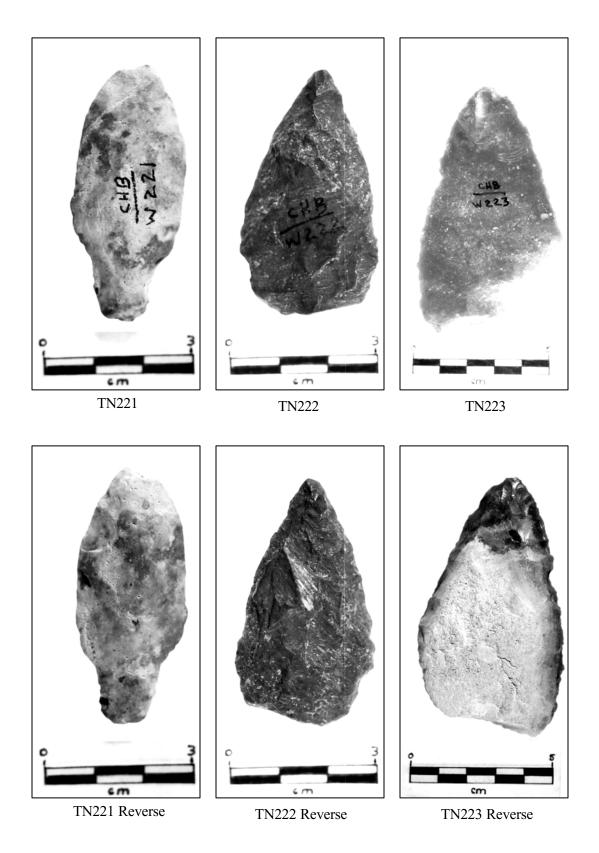


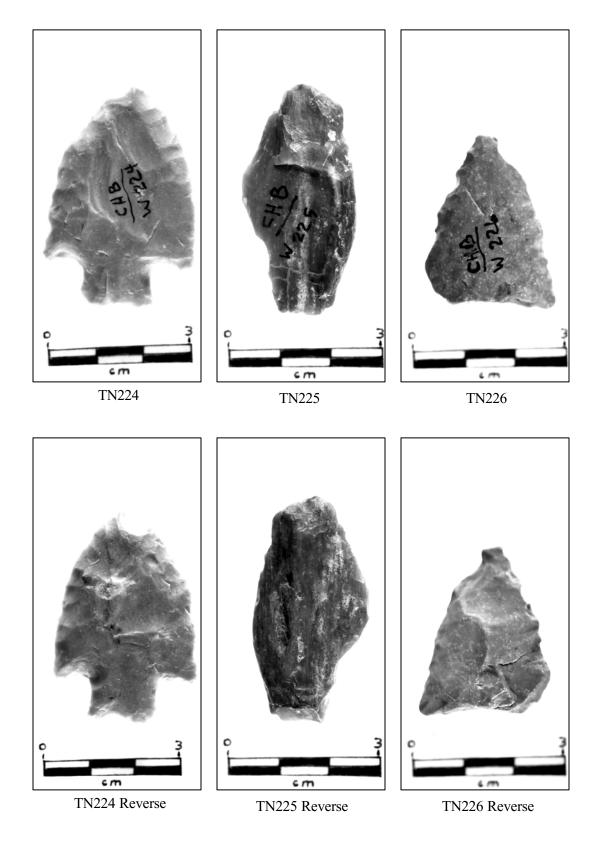


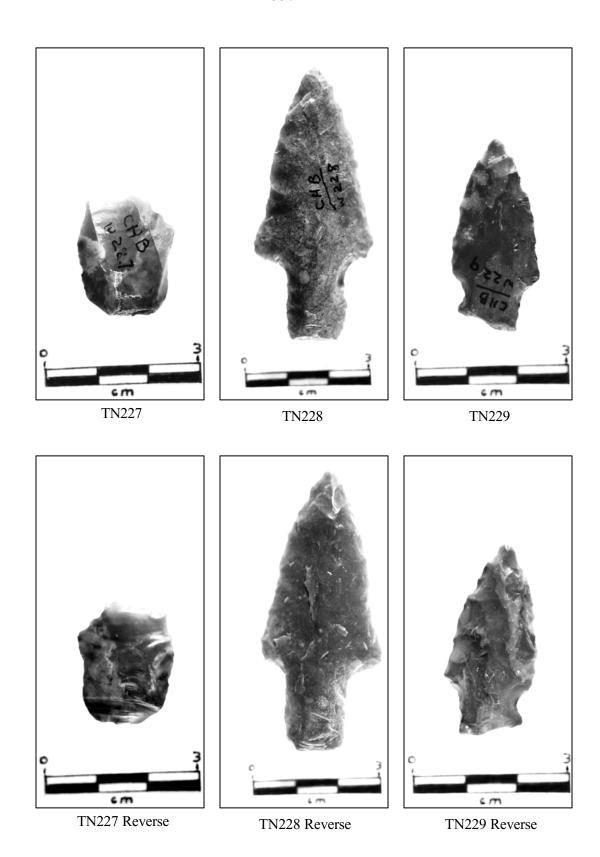


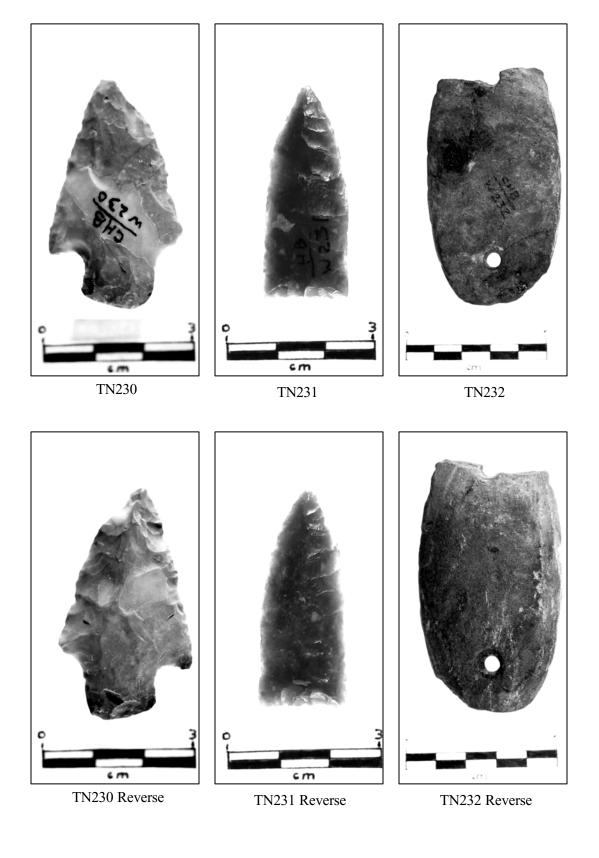


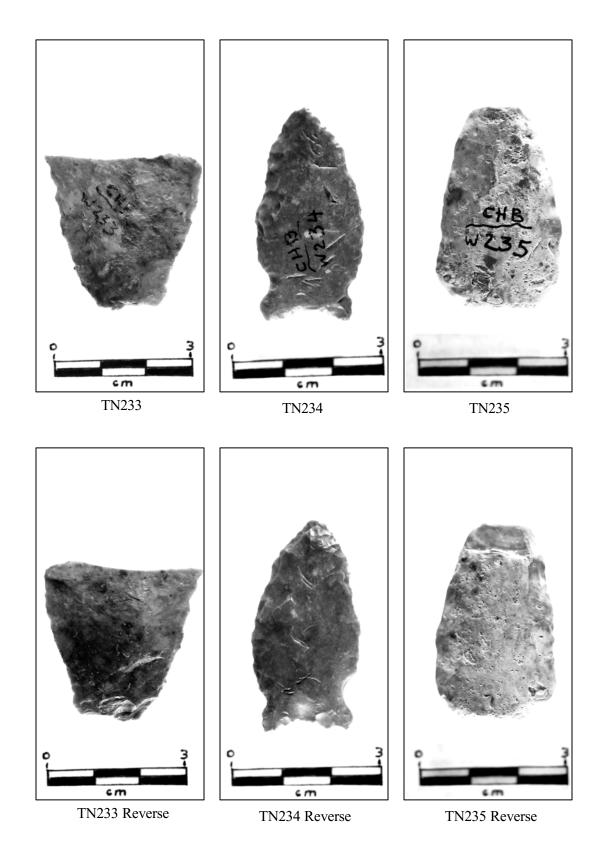


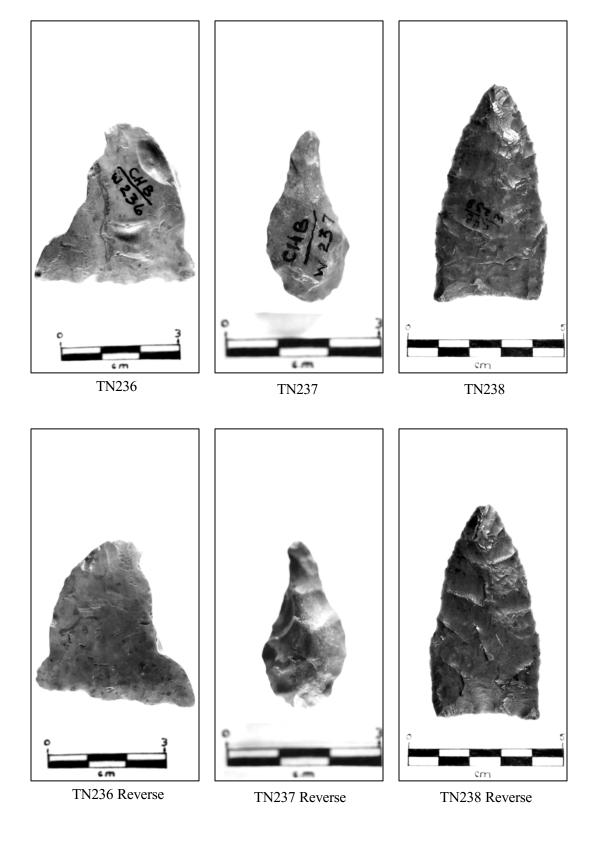


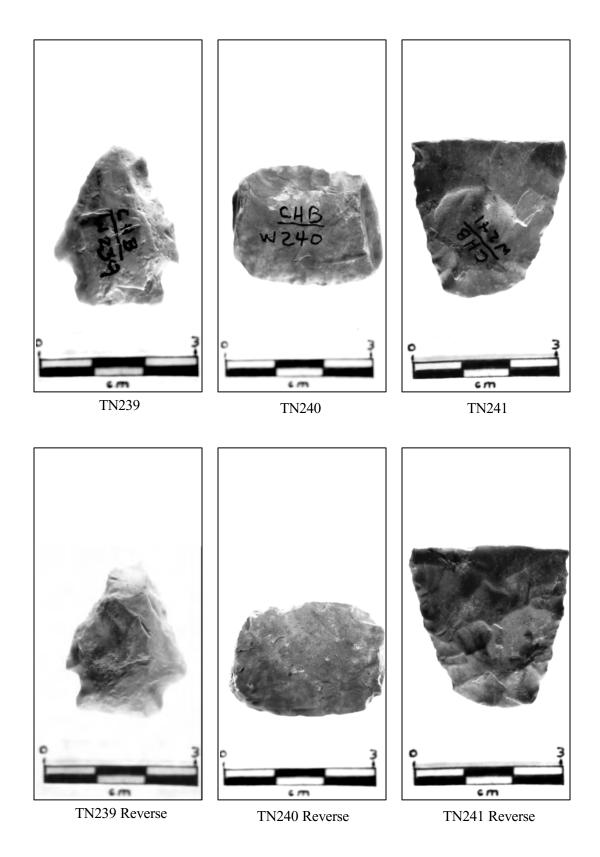


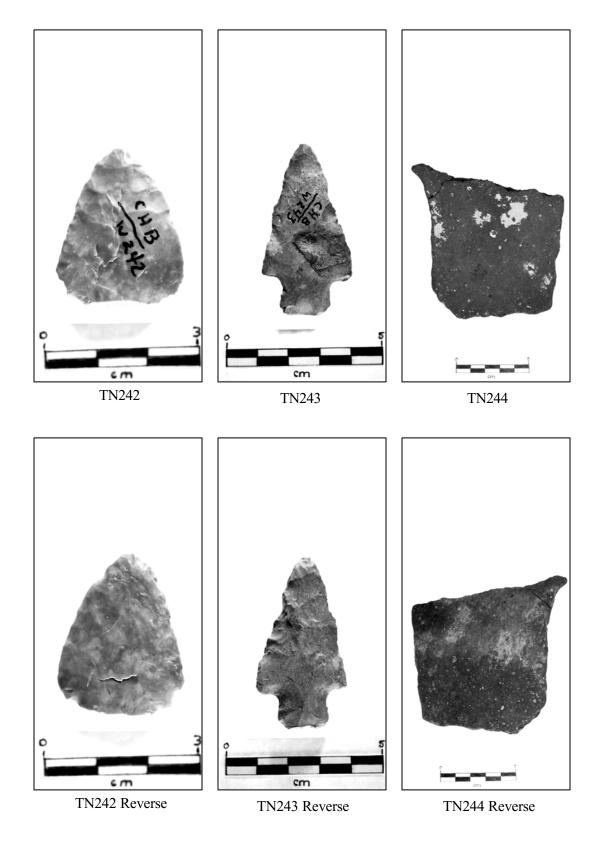


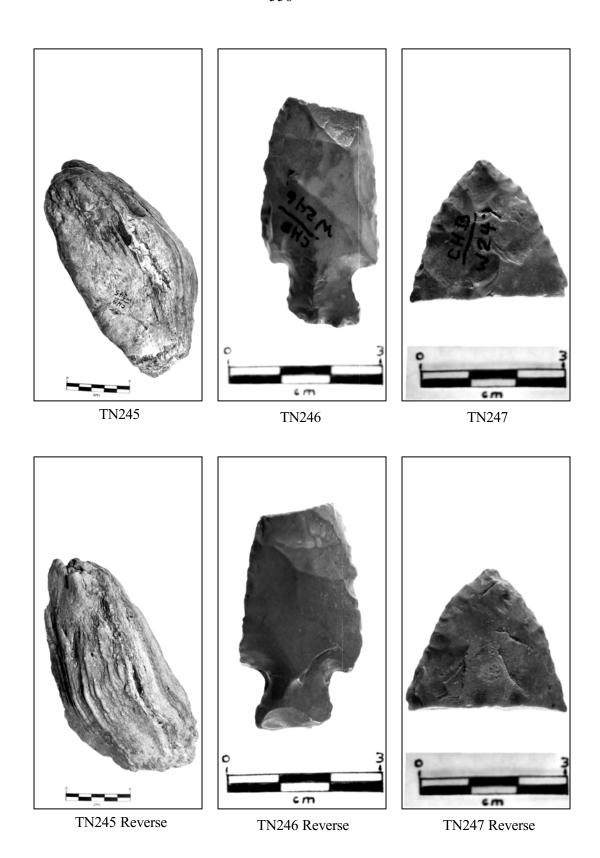


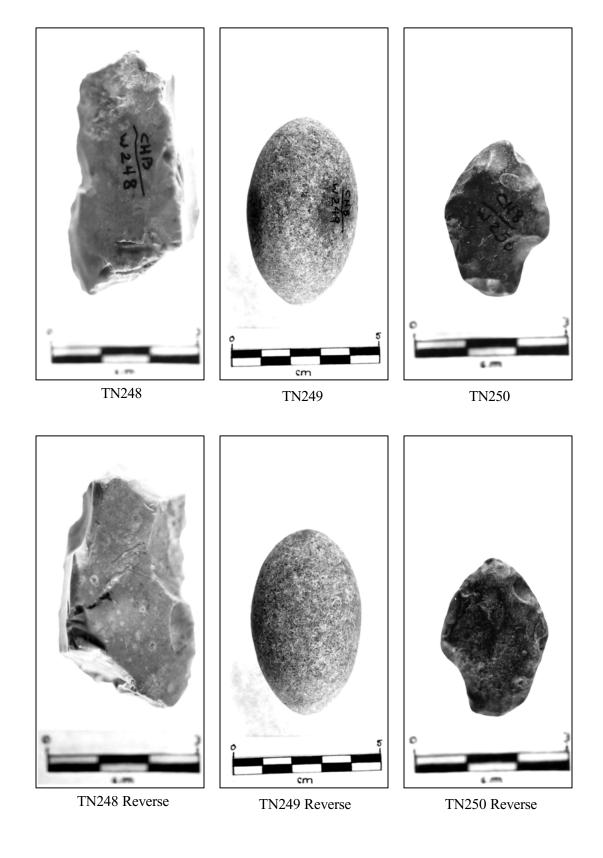


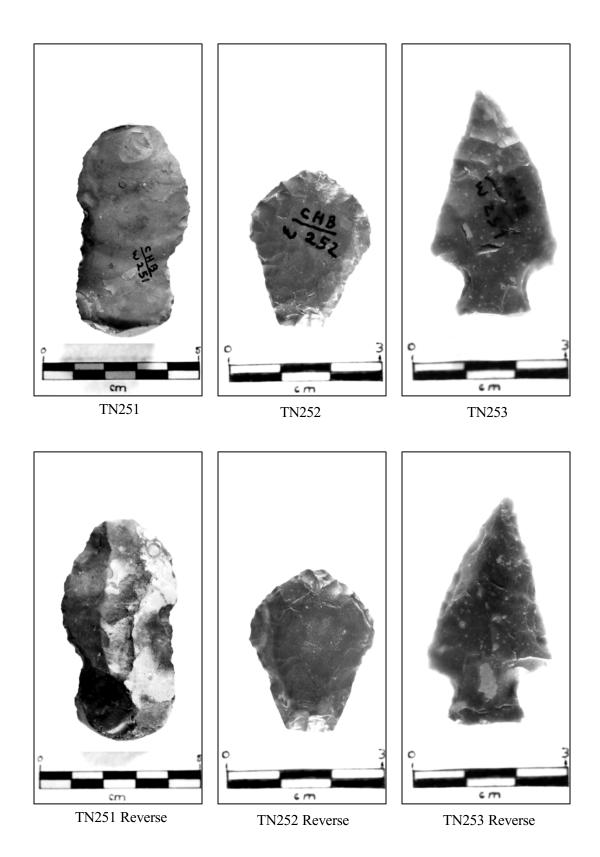


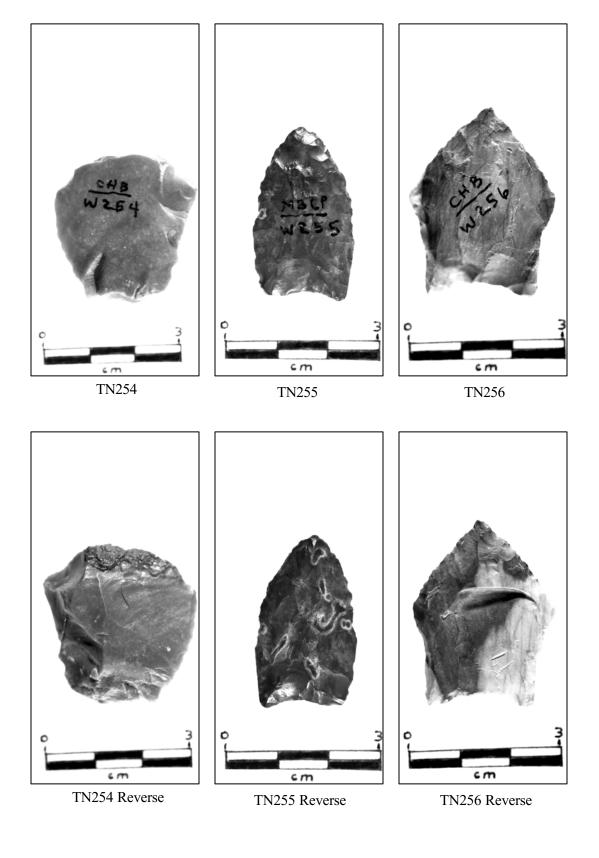


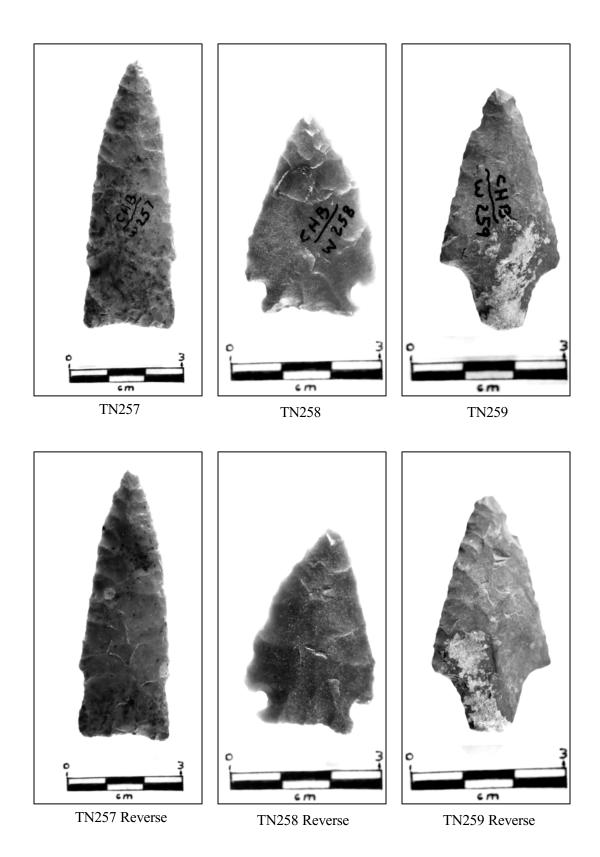


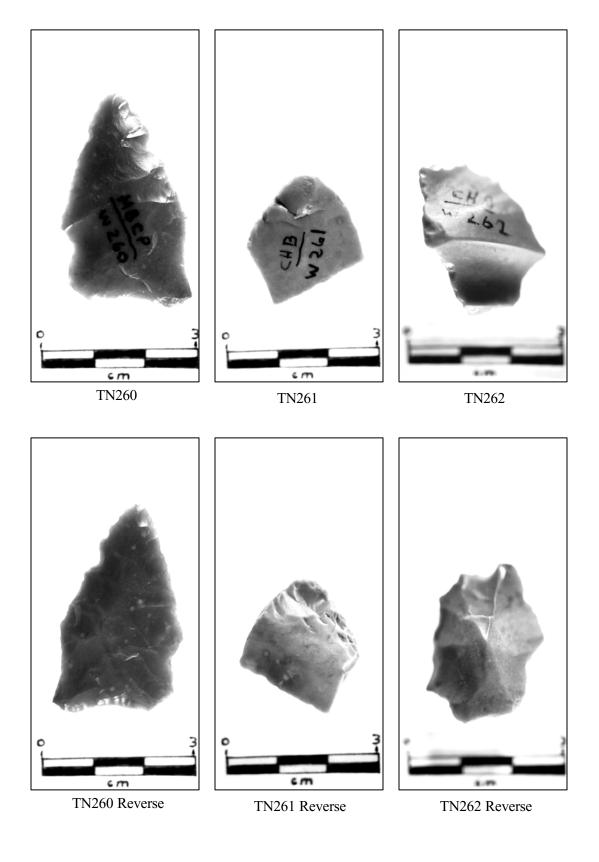


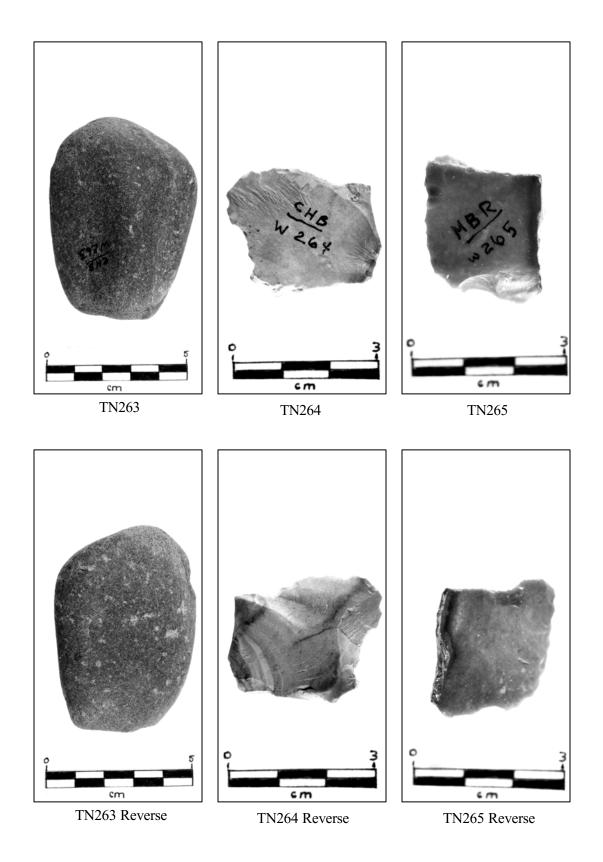


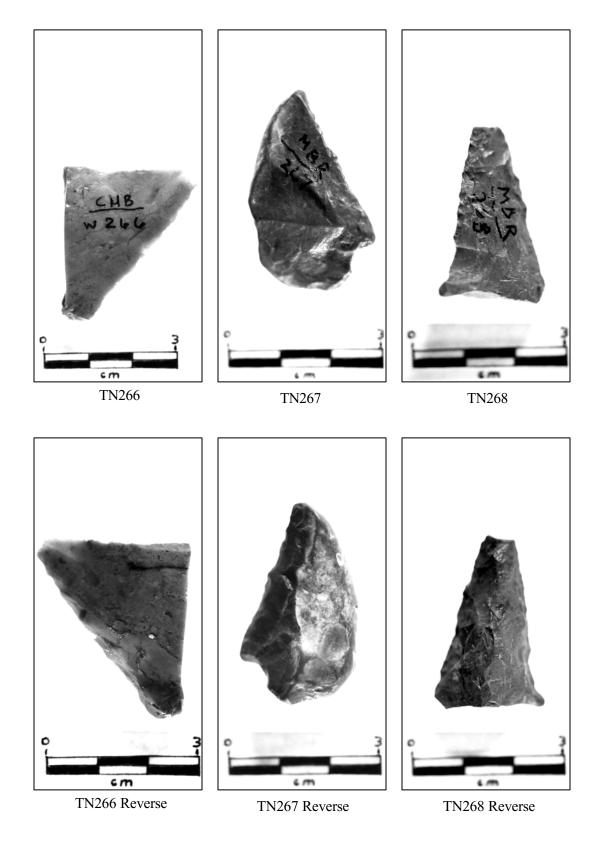


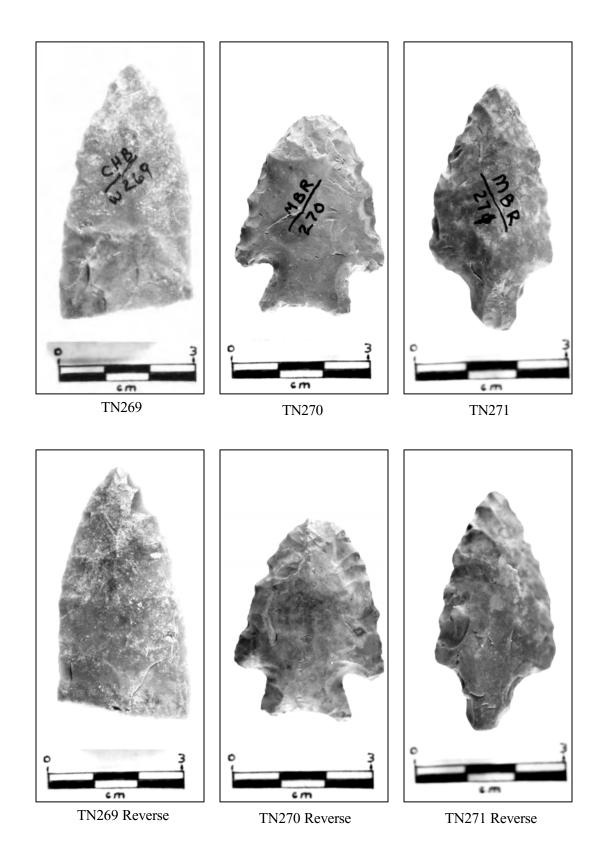


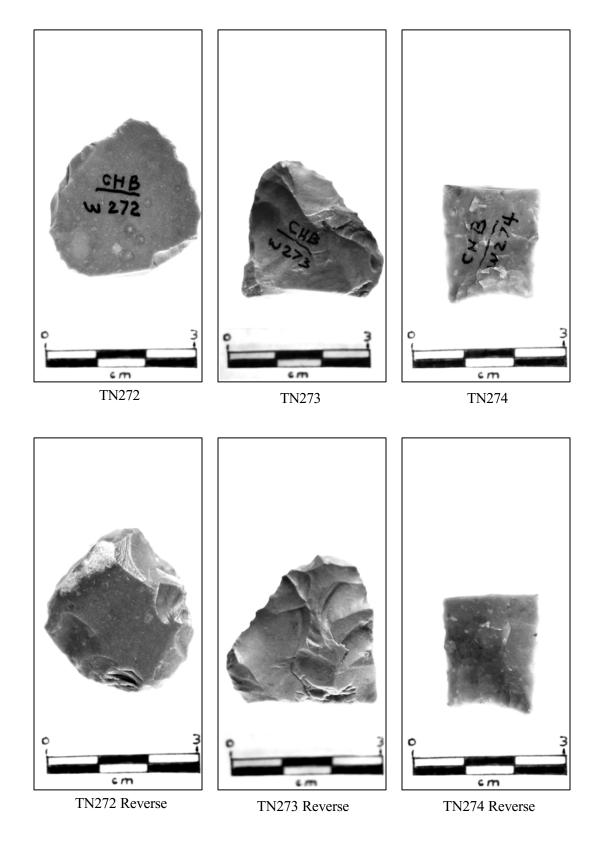


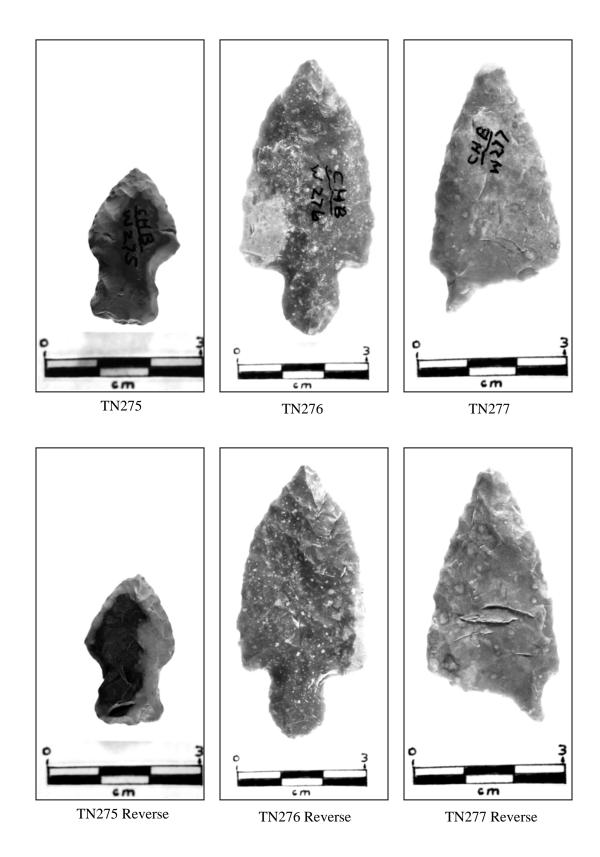


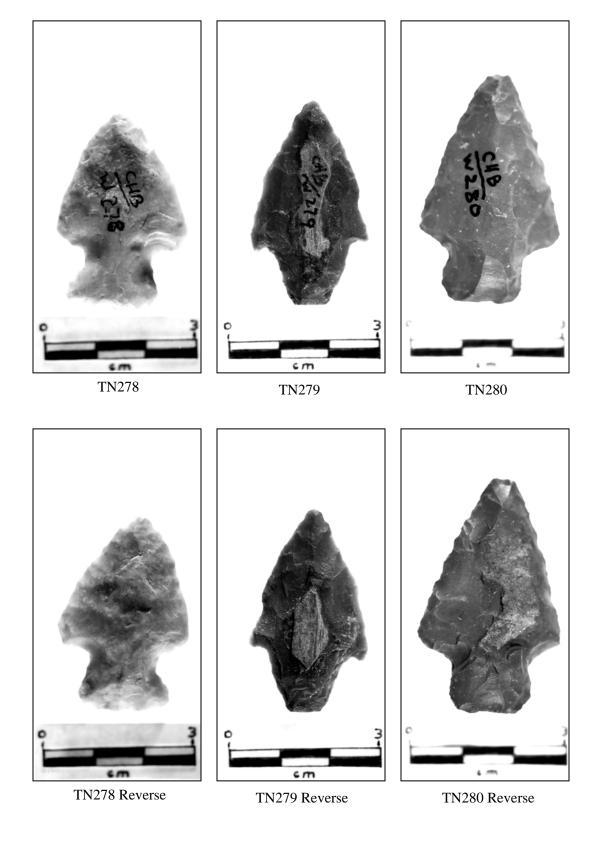


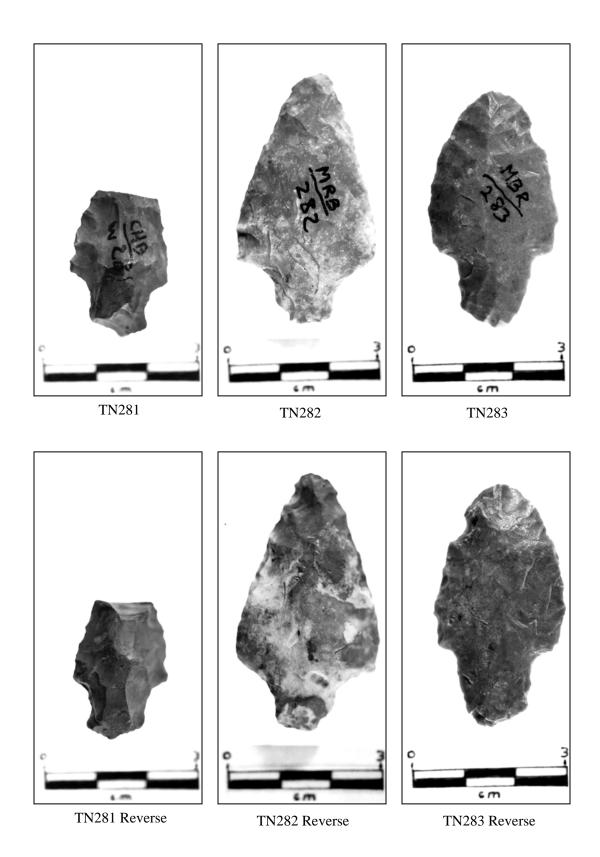


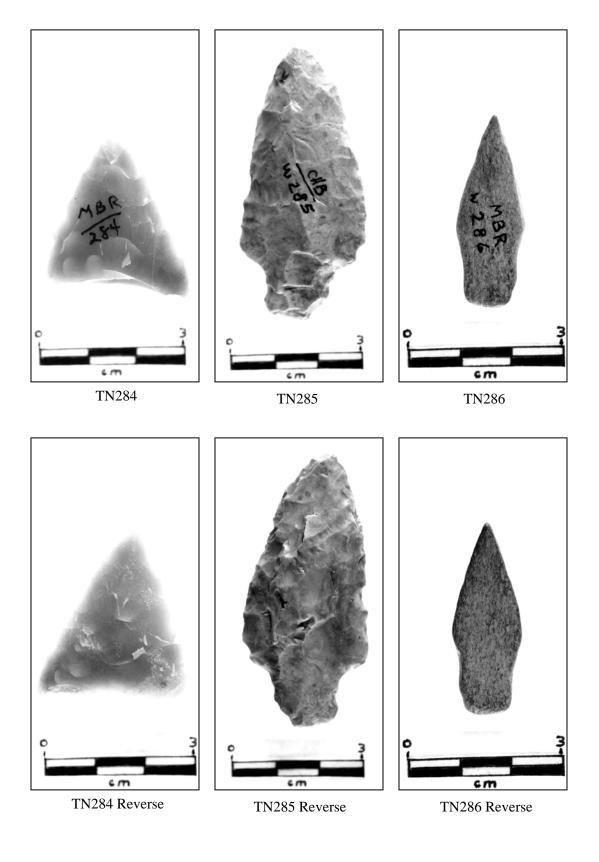




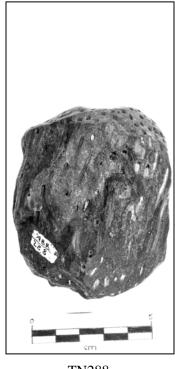






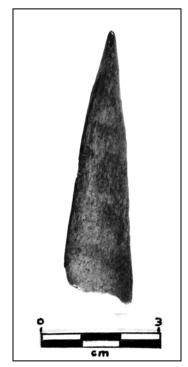








ΓN287 TN288 TN289



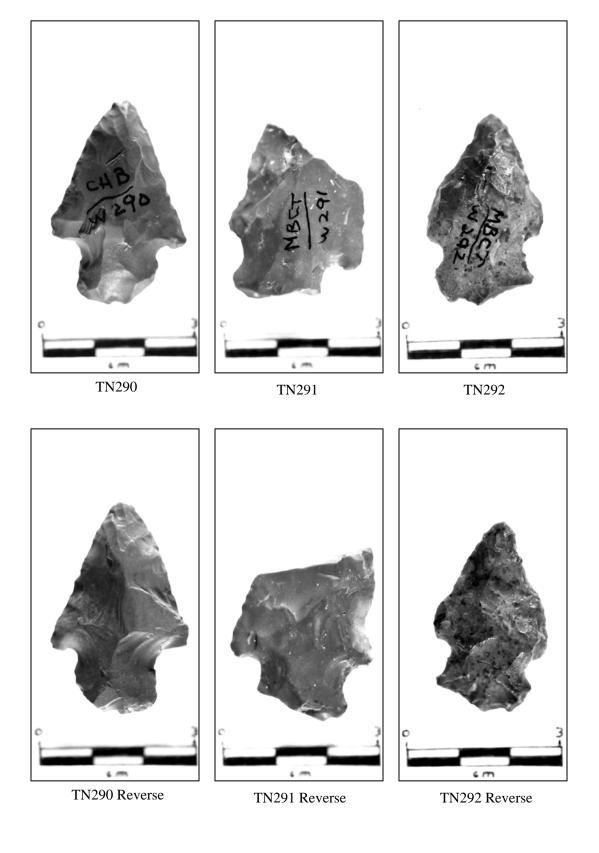


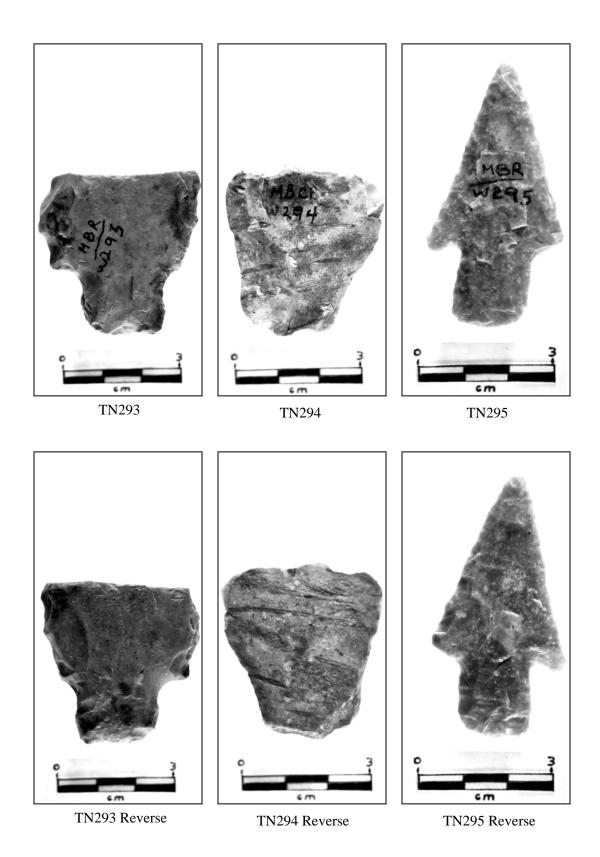


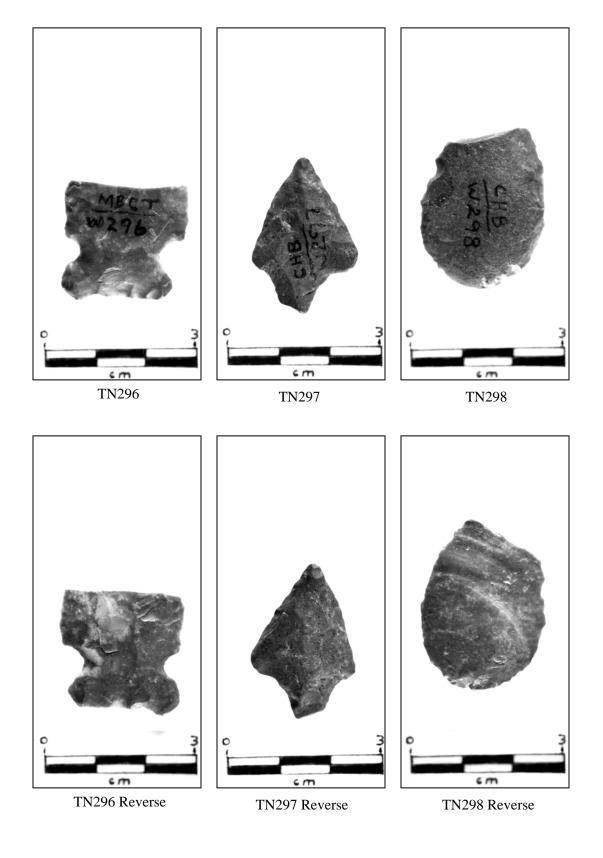
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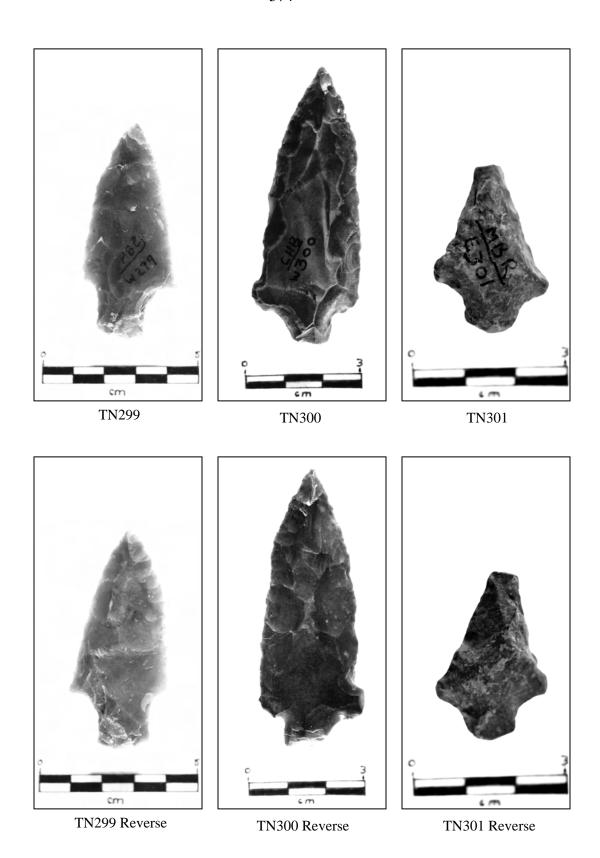
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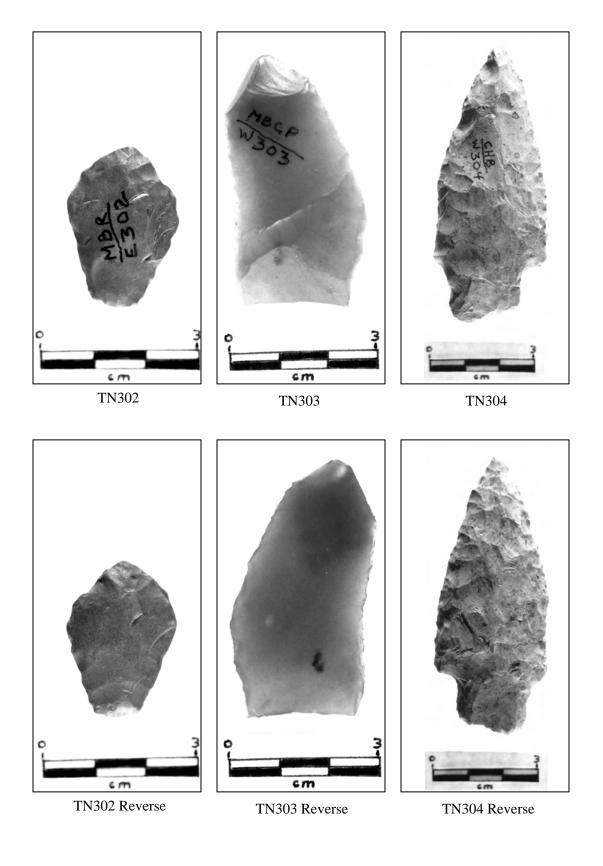
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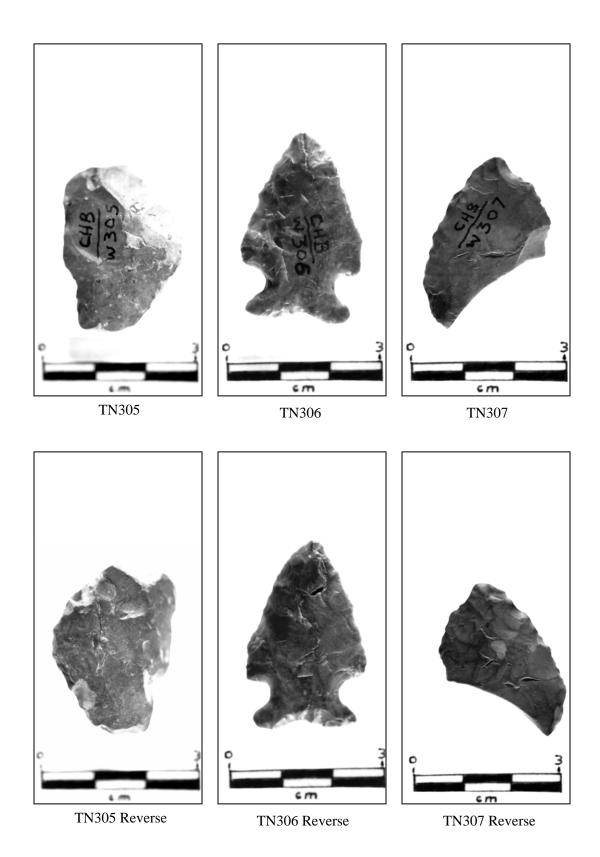


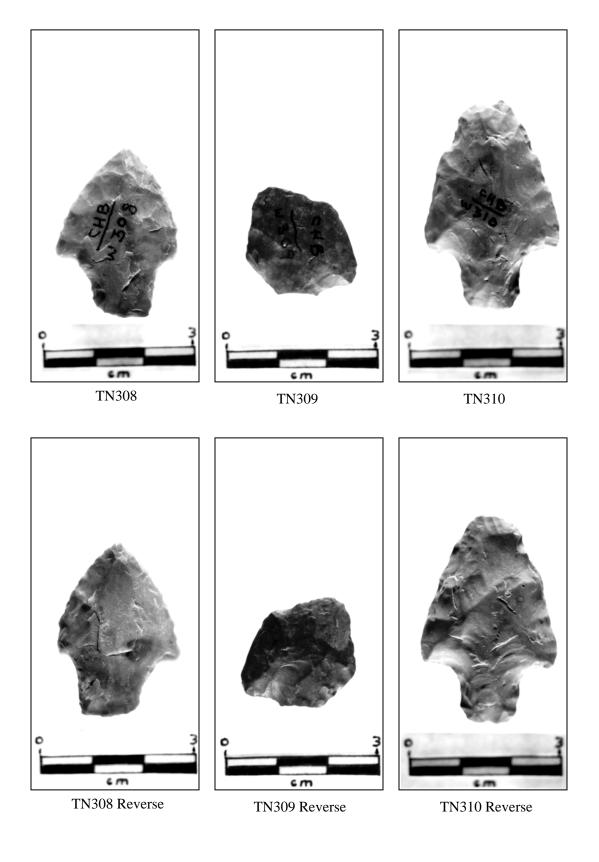


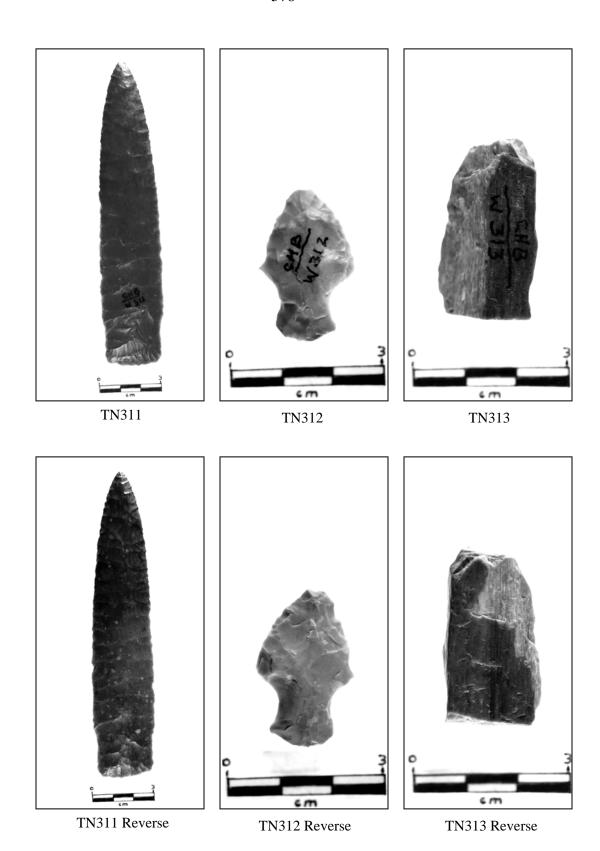


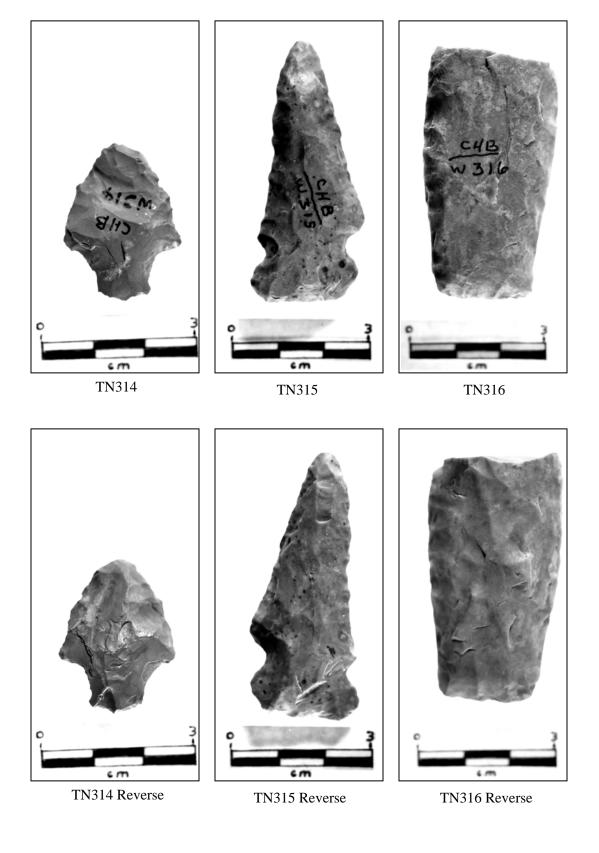


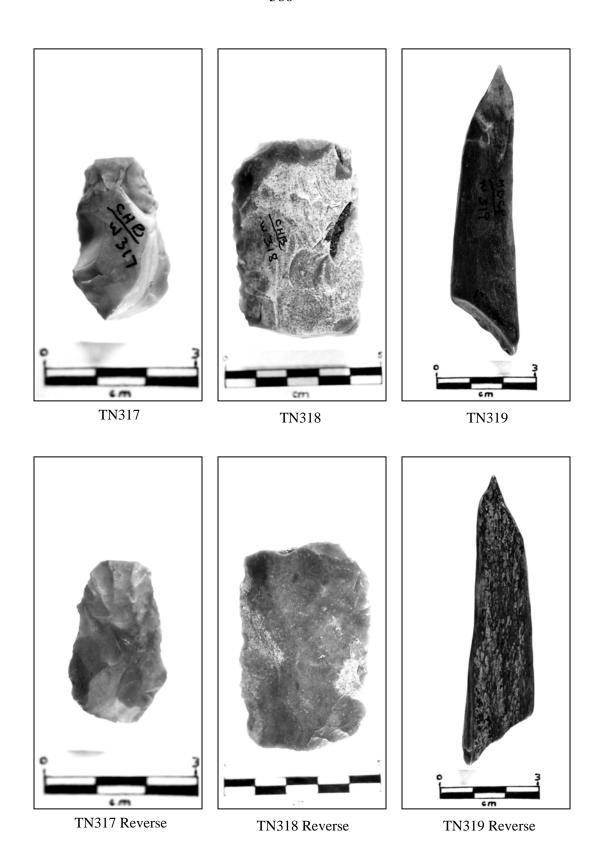


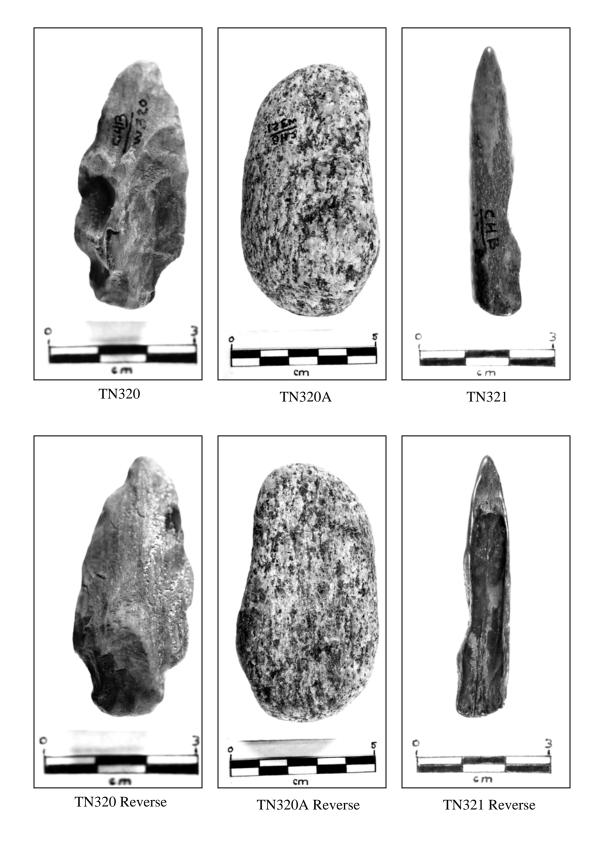


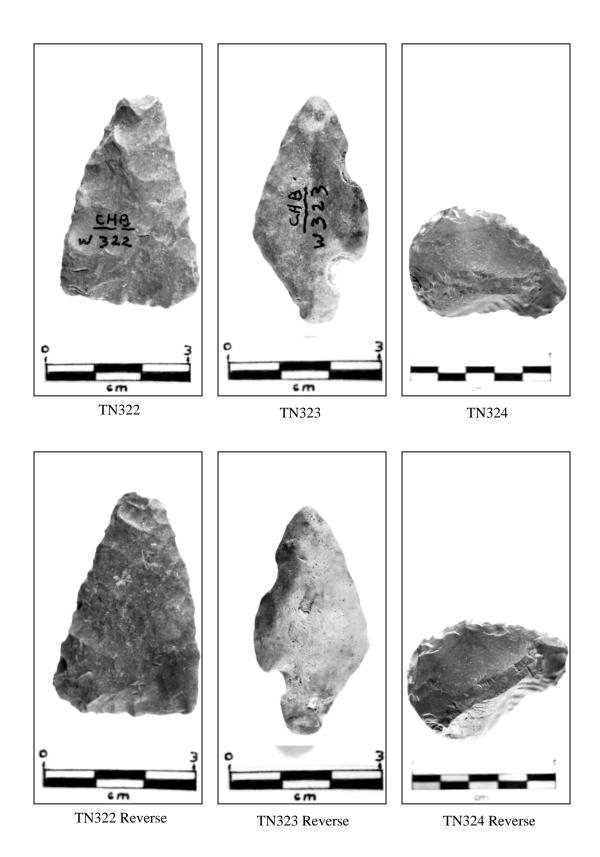


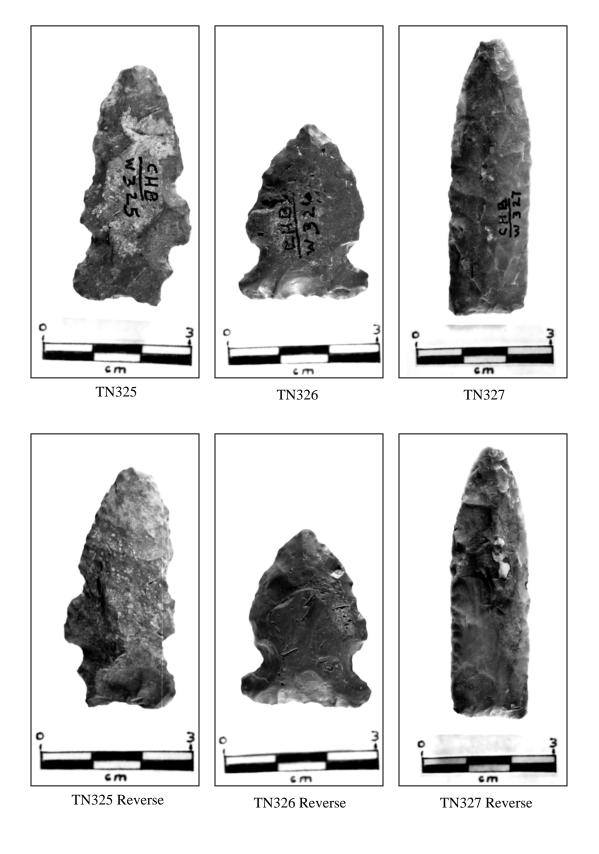


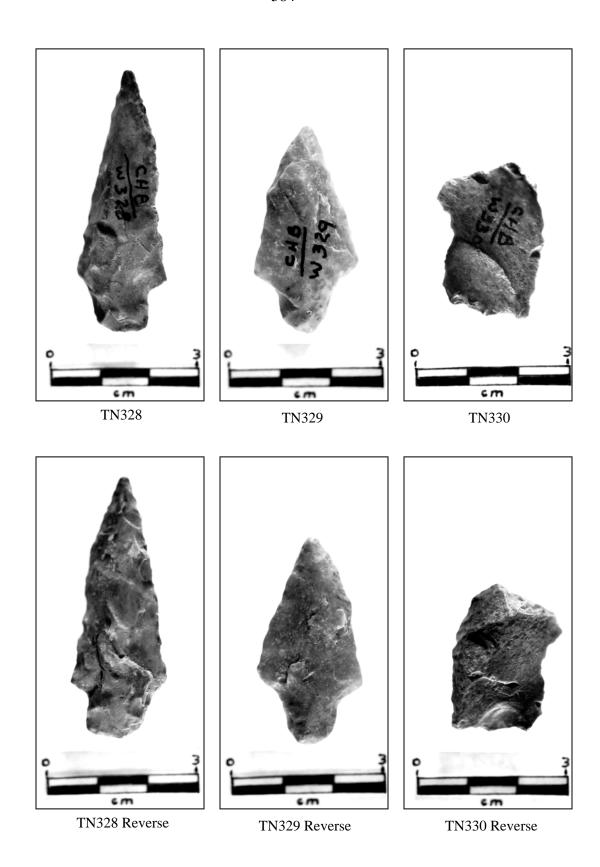


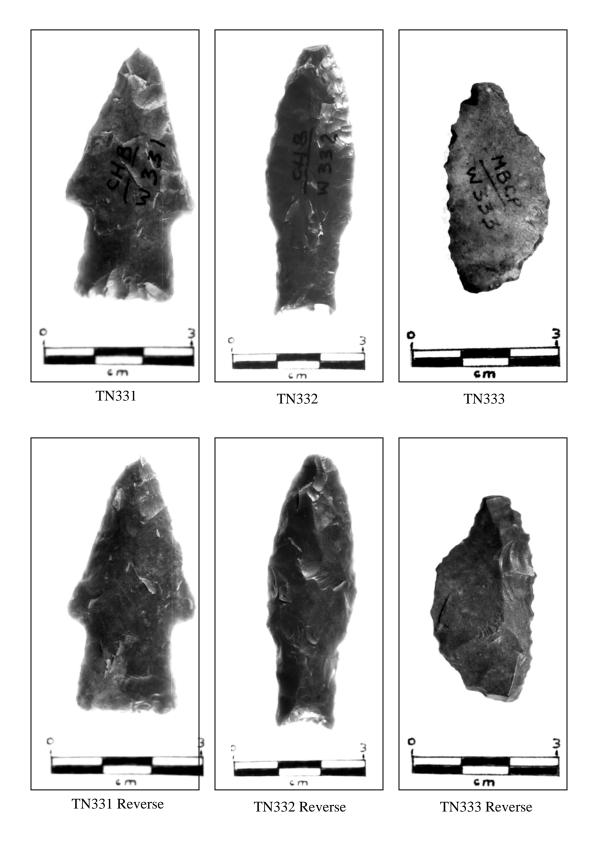


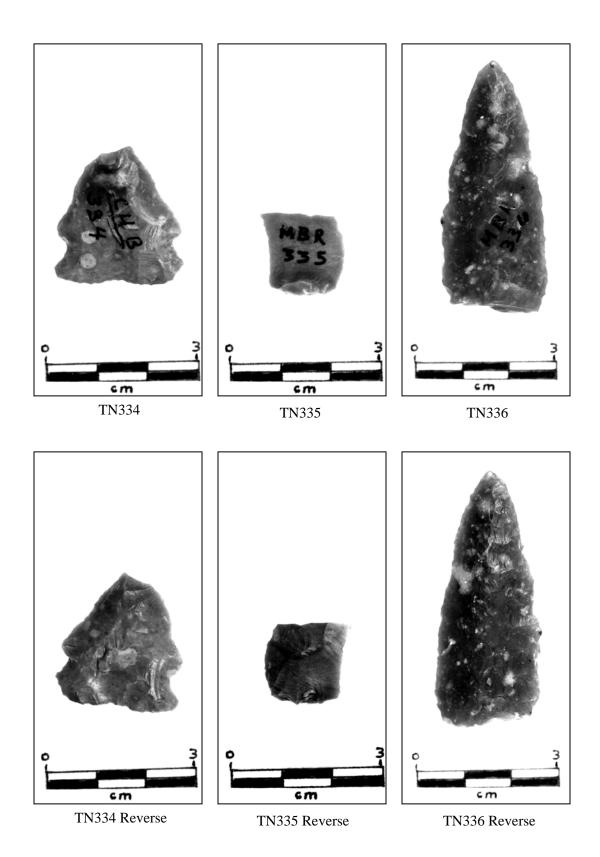


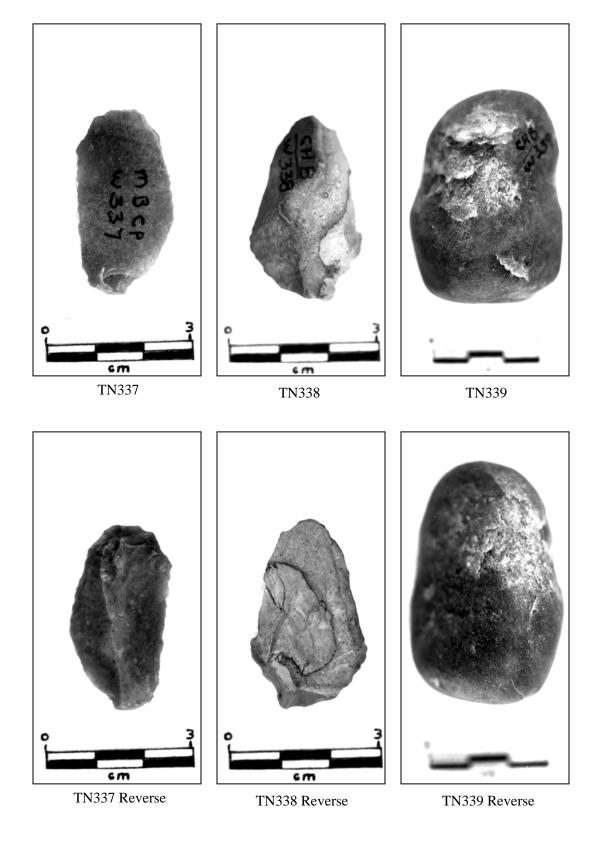


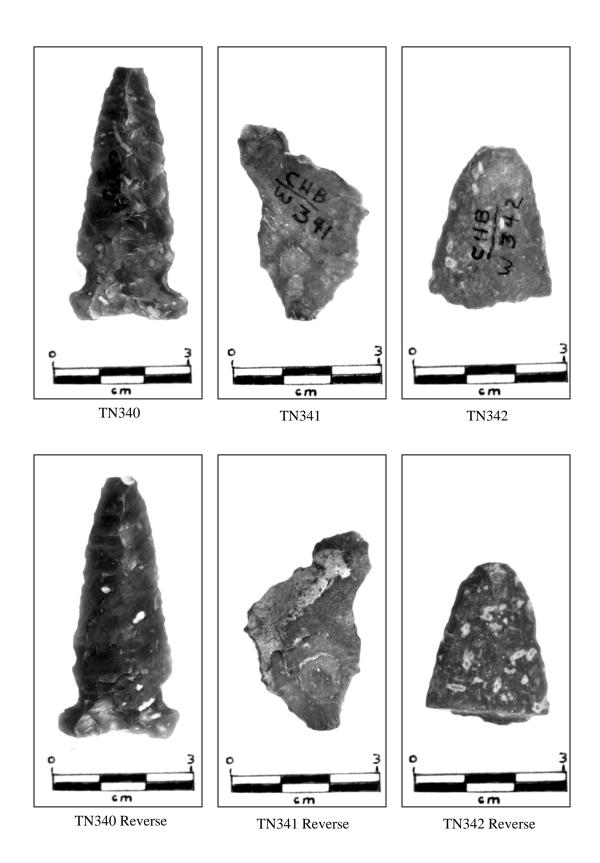


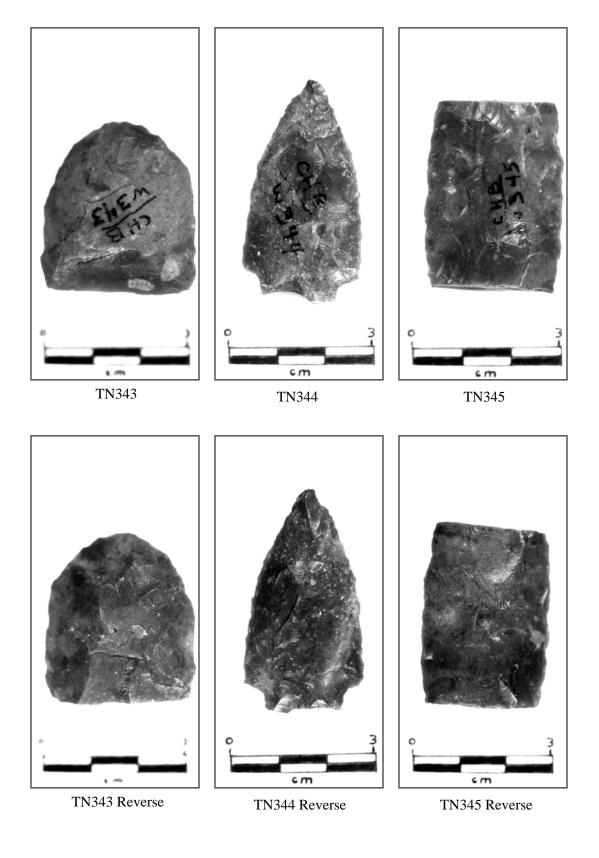


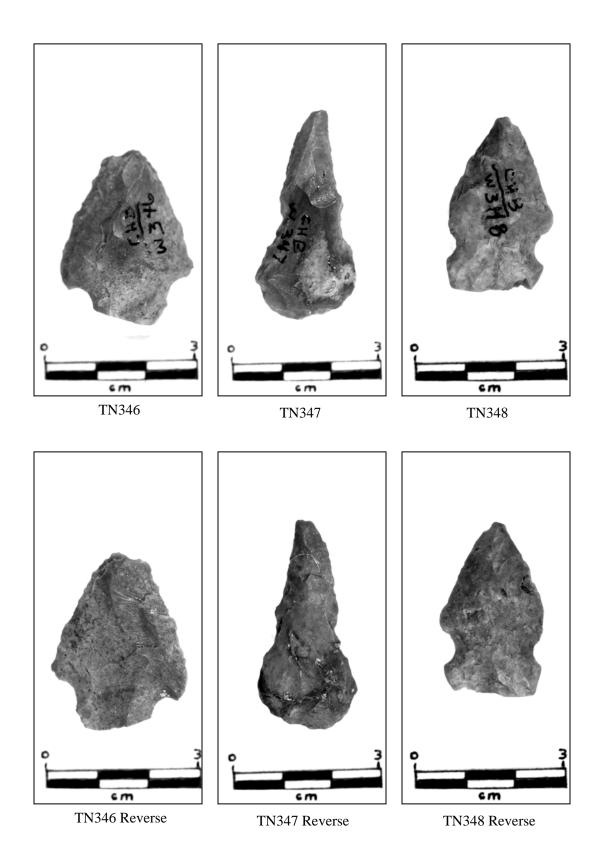
















TNNLD6







TNNLD6 Side

APPENDIX B ARTIFACT DATABASE

Part I: General Artifact Data

Uvlongwave	214	MB 21	7.7	2 5	134	77	77	134	MB21	324 324	2	77	214	77	: :	589	MB 21	2	324	27.7	MB 21	MB 21	,	327	MB 21	214	MB 21	MB 21	324	288	77	2	214	2	BK/TN	MB 21	YLOR	299 299	324	324	470	WH/YLORMT	77	233 MB 21	324	134	77	77/GYWH	77/TNBN	MB21	299	324	MB 21	214 2	134	324 2	214
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Diagnostic	UNTYPED PJOHNSON/PWEBB	PELICAN	HARDIN	NONDIAGNOSTIC PSAN PATRICE	NONDIAGNOSTIC	PGODLEY UNTYPED	NONDIAGNOSTIC	VNTYPED	SAN PATRICE	UNTYPED	BELL	UNTYPED	UNTYPED	UNTYPED	UNTYPED	EARLY SIDE-NOTCHED	NONDIAGNOSTIC UNTYPED	NONDIAGNOSTIC	PONCHARTRAIN	NONDIAGNOSTIC UNTYPED	DALTON	UNTYPED	UNTYPED	PLAINVIEW	SNAPPED-BASE STEMMED PREFUGIO	UNTYPED	SAN PATRICE	PELICAN NONDIAGNOSTIC	NONDIAGNOSTIC	PKENT	WODEN NONDIAGNOSTIC	NONDIAGNOSTIC	UVALDE HELL GAP	UNTYPED	UNTYPED	UNTYPED	SAN PATRICE (KEITH)	LANGE-LIKE	UNTYPED	SCOTTSBLUFF	NONDIAGNOSTIC	UNTYPED	EVANS NONDIAGNOSTIC	UNTYPED SAN PATRICE (KEITH)
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Diagnostic	KEITHVILLE	NONDIAGNOSTIC	KEITHVILLE	NONDIAGNOSTIC	NONDIAGNOSTIC	NONDIAGNOSTIC	PMACON	UNTYPED	UNTYPED	NONDIAGNOSTIC	UNTYPED	KEITHVILLE	PLAINVIEW	LANGE	ELLIS	NONDIAGNOSTIC	SAN PATRICE (KEITH)	PSCOTTSBLUFF	UVALDE	WILLIAMS	ELAM	SCOTTSBLUFF	PEARLY STEMMED LANC	CLOVIS/DALTON	PLANGE	UNTYPED	PALMER	MARSHALL	KENT	UNTYPED	NONDIAGNOSTIC	AFTON	PALMILLAS	NONDIAGNOSTIC	ENSOR	GODLEY	POVERTY POINT	EVANS	PEPPS	ENSOR	CLEAR FORK	PRICE LOBED	UNTYPED LANCEOLATE	NONDIAGNOSTIC UNTYPED	UNTYPED	UNTYPED	UNTYPED	NONDIAGNOSTIC UNTYPED	CLOVIS	EPPS UNTYPED
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Uvlongwave	2	OR/PP	324	BK/BR/GY	112	: 1:	7.2	GR/GY/BR	WH/LTOR	DKGR/GY	324	MB 21	77	DKGR/GY	134	324 DN/OBMT	- C	134	134	299	11	11	324	324	77	MB 21	324	7	11	77	11	DKGR	ВГМН	2 2	AD 21	12	11	RD/ORMT	MB 21	٠ ٦	324	77/PP	11	77	299	7 F	324	2	11	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	RD/ORMT	134	11	LTGY/DKRDBR	2	7.	77	324	MB 21	324	2 5	LTGY/RDBRMT
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Diagnostic	NONDIAGNOSTIC	SAN PATRICE	CLOVIS	PKEITHVILLE	SCOLISBLUFF	EARLY SIDE-NOTCHED	EDGEWOOD	PEDERNALES	NONDIAGNOSTIC	PFOURCHE MAL/PDALTON	PSCOTTSBLUFF	UNTYPED	NONDIAGNOSTIC	UNITYPED	PIORIUGAS	SAN BATBICE	FILE	YARBROUGH	NONDIAGNOSTIC	LANGE	PSCOTTSBLUFF	DAWSON	UNIVEED	NONDIAGNOSTIC	UNITYBED (CONCRETE)	SAN PATRICE	SAN PATRICE	SAN PATRICE	UNTYPED	PALMILLAS	UNTYPED	PJOHNSON/PWEBB	UNITYPED	ONLYPED	NOSWED	ELLIS	PGARY	SCOTTSBLUFF	UNTYPED	MARCOS	SAIN PAIRICE FILIS	YARBROUGH	GARY	ELLIS	UNTYPED	EDGEWOOD	NONDIAGNOSTIC	NONDIAGNOSTIC	GARY	MABOOS	SCOTTSBLUFF	UNTYPED	SAN PATRICE (KEITH)	UNTYPED	NONDIAGNOSTIC	DELHI	UNTYPED	PPALMILLAS SCOTTSRI LIFF	UNTYPED	SAN PATRICE	PELICAN	UNTYPED
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Artifactno	LV 250	LV 251	LV 252	LV 253	LV 254	LV 255	LV 257	LV 258	LV 259	LV 260	LV 261	LV 262	LV 263	LV 264	LV 265	LV 263A	1 V 267	LV 268	LV 269	LV 270	LV 271	LV 272	LV 273	LV 2/4	17.276	1 \ 277	LV 278	LV 279	LV 280	LV 281	LV 282	LV 283	LV 284	LV 285	LV 200	LV 288	LV 289	LV 290	LV 291	LV 292	1 V 294	LV 295	LV 296	LV 297	LV 298	LV 299	LV 301	LV 302	LV 303	LV 304	LV 306	LV 307	LV 308	LV 309	LV 311	LV 312	LV 313	LV314	LV 316	LV 317	LV 318	LV 320

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Artifactno	LV 321	LV 322	LV 323	1 V 325	LV 326	LV 327	LV 328	LV 329	1 / 331	LV 332	LV 333	LV 334	LV 335	LV 336	LV 337	LV 338	LV 339	LV 341	LV 342	LV 343	1 / 345	N N	TN 2	TN3	⊢ 4	۵ را ا حا	0 N N N H	- 82 N	6 N L	TN 10	N 1	1 N 1 Z	TN 14	TN 15	TN 16	N 1	TN 19	1 Z Z	TN 27	TN 23	TN 24	1N 25	TN 27	± 1 28	82 N N 30	TN 31	TN 32	TN 33	TN 35	TN 36	± N 38	68 N H	0 4 N	TN 42	± 1 43	1 N 4 4 4 4 4 5 4 5 4 5 4 5 5 6 6 6 6 6 6 6	TN 46	TN 47

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Diagnostic	ELLIS	UNTYPED	CLOVIS	UNTYPED	PONCHARTRAIN	SCOTTSBILLEE	YARBROUGH	PLAINVIEW	KEITHVILLE	NONDIAGNOSTIC	NONDIAGNOSTIC	NONDIAGNOSTIC	UNTYPED	NONDIAGNOSTIC	NONDIAGNOSTIC	SAN PATRICE	KEITHVILLE	ELLIS	WODEN	NONDIAGNOSTIC	LANGE	PELICAN	HARAHEY KNIFE	YAKBKOUGH	UNTYPED	NONDIAGNOSTIC	HARAHEY KNIFE	SAN PATRICE	NONDIAGNOSTIC DARI	WODEN	EARLY STEMMED	CLOVIS	DALTON	FOLSOM	WODEN	YARRROLIGH	PSCOTTSBLUFF	DAWSON	UNITYPED	NONDIAGNOSTIC	PLAINVIEW	GARY	UNTYPED	DALTON SAN PATRICE	NONDIAGNOSTIC	UNTYPED	NONDIAGNOSTIC	NONDIAGNOSTIC	NONDIAGNOSTIC	NONDIAGNOSTIC	EARLY STEMMED LANC	PSCOTTSBLUFF NONDIAGNOSTIC	NONDIAGNOSTIC	SAN PATRICE	PALMILLAS NONDIAGNOSTIC
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Weight	5.6	9.9	5.6	8.3	6.1	15.8	11.7	- C		3.3	3.6	14.3	7.5	Ε,		4.9	11.3	9.6	8.1	16.2	N 0	265	1	7.8	7.5	0.3	20.8	7.71	. 4	2.9	6.9	20.1	17.3	8.4	L.4.7	15.9	27.3	7.1	5.5	1.0	9 6	8.7	47.4	7.2	4.2	11.7	6.1	51.3	12.3	11.6	1.0.1	9.5	7.4	32.2	7.2	9.5	6.9	3.8	10.6	14
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Period	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	PLATE/TRANSITIONAL ARCHAIC	UNKNOWN	LATE MIDDLE ARCHAIC	INKNOWN	NWONSKI	PALEOINDIAN	LATE ARCHAIC	PLATE/TRANSITIONAL ARCHAIC	PALEOINDIAN	MIDDLE/LATE ARCHAIC	MIDDLE/IRANSIIIONAL ARCHAIC	MIDDI E/TRANSITIONAL ARCHAIC	MIDDLETRANSITIONAL ARCHAIC	PLATE/TRANSITIONAL ARCHAIC	UNKNOWN	PLATE/TRANSITIONAL ARCHAIC	UNKNOWN	UNKNOWN	UNKNOWN	MIDDLE/TRANSITIONAL ARCHAIC	UNKNOWN	UNKNOWN	UNKNOWN	CINKINOWIN EABLY ABCHAIC	- ATE PAI FOINDIAN/FABI Y ABCHAIC	MIDDLE/TRANSITIONAL ARCHAIC	UNKNOWN	MIDDLE/TRANSITIONAL ARCHAIC	UNKNOWN		LATE PALEOINDIAN/EAKLY AKCHAIC PPAT FOINDIAN	PMIDDLE/TRANSITIONAL ARCHAIC	UNKNOWN	UNKNOWN	LATE PALEOINDIAN	MIDDI E/TRANSITIONAL ARCHAIC	PALEOINDIAN	PMIDDLE/TRANSITIONAL ARCHAIC	LATE PALEOINDIAN	LATE ARCHAIC/LATE PREHISTORIC	MIDDLE/TRANSITIONAL ARCHAIC	LATE ARCHAIC/LATE PREHISTORIC	NACONANG	PPALEOINDIAN	UNKNOWN	MIDDLE/TRANSITIONAL ARCHAIC	NACONAN	UNKNOWN	MIDDLE/TRANSITIONAL ARCHAIC	UNKNOWN MIDDIE ABCHAIO	TRANSITIONAL ARCHAIC	PALEOINDIAN MIDDI ETTERNISTIONIAL ABOUND	MIDDLE/TRANSITIONAL ARCHAIC MIDDLE/TRANSITIONAL ARCHAIC	UNKNOWN	LATE PALEOINDIAN	UNKNOWN
Diagnostic	NONDIAGNOSTIC	NONDIAGNOSTIC	NONDIAGNOSTIC	NONDIAGNOSTIC	PYARBROUGH	UNTYPED	MARSHALL	NONDIAGNOSTIC	NONDIAGNOSTIC	PLAINVIEW	ELAM	PADENA	SAN PATRICE	PALMILLAS	GARY	KENT	GARY	PADENA	NONDIAGNOSTIC	PYARBROUGH	NONDIAGNOSTIC	NONDIAGNOSTIC	UNTYPED	ELLIS	UNTYPED	UNTYPED	UNIYPED	NONDIAGNOSTIC RELI	BIG SANDY	GARY	NONDIAGNOSTIC	PONCHARTRAIN	UNTYPED	GARY	ANGOSTURA (TX)	PPOVERTY POINT	UNTYPED	NONDIAGNOSTIC	EARLY SIDE-NOTCHED	GARY	PELICAN	PGARY	SCOTTSBLUFF	HARVEY-MINEOLA BIFACE	GARY	GODLEY	NONDIAGNOSTIC	UNTYPED	NONDIAGNOSTIC	KENT	NONDIAGNOSTIC	UNTYPED	GARY	NONDIAGNOSTIC EVANS	ENSOR	PLAINVIEW	KEN I GARY	NONDIAGNOSTIC	SCOTTSBLUFF FABI V STEMMED I AND	NONDIAGNOSTIC
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Datefound Accuracy	993	993	993	993	993	993	993	200	303	393	993	993	993	863	203	303	393	993	993	993	203	393	993	993	993	993	563	583	203	363	993	993	993	993	39.3	394	994	994																						
Datefor	3/5/1993	3/5/18	4/9/1993	4/20/18	4/20/1993	5/1/18	5/3/18	5/8/10	5/10/16	5/18/1993	5/18/15	6/5/1993	6/5/18	6/9/1993	6/9/1993	6/9/1993	6/9/1993	6/12/15	6/12/1993	6/12/1	6/9/1993	9/21/15	10/19/15	10/23/1993	10/25/18	10/25/18	10/25/15	11/10/13	12/2/1993	12/4/1993	12/4/1993	12/10/18	12/13/1993	12/31/18	12/31/1993	1/16/1994	1/20/1994	1/20/1994	1/20/1994	1/31/16	2/12/15	3/19/1994	3/26/18	4/13/15	4/13/15	4/23/18	5/3/10	5/18/15	10/21/15	10/24/15	10/24/15	11/20/15	11/20/18	11/20/15	11/29/1994	11/29/18	2/10/1995	2/10/1995	3/25/1995	4/11/18
Artifactno	TN 264	TN 265	TN 266	TN 267	TN 268	TN 269	1 N 2 7 0	TN 272	TN 273	TN 274	TN 275	TN 276	TN 277	TN 278	1N2/9	TN 281	TN 282	TN 283	TN 284	TN 285	-N 286	TN 288	TN 289	TN 290	TN 291	TN 292	IN 293	TN 205	202 NT	TN 297	TN 298	TN 299	1N 300	TN 301	1 N 302	TN NLD6	TN 304	TN 305	1N 306	1N 308	TN 309	TN 310	TN 311	TN 312	TN 314	TN 315	TN 310	TN 318	TN 319	TN 320	TN 321	TN 322	TN 323	IN 324	TN 326	TN 327	IN 328	TN 330	TN 331	TN 333

Uvlongwave	2	77	214	2	324		2	324	2	2	324	2	77	77	2		
Uvshortwv	134	DKRDOR	2	299	324		6	324	2	324	324	324	14	11	6		
Lithsource	EDW	EDW	EDW	EDW	EDWG	PUG	ETXG	EDWG	EDW	EDW	EDW	EDW	EDW	EDWG	¥	¥	
Colordif									>	>							
Patina	Ø	S	S	S			S		Σ	Σ	S	Σ	Σ	Σ	I	ž	
Cortex					В			В						В			
hickness Heattreat	7	4	80	9	6	35	10	7	80	12	9	7	7	6	9	2	
Width	25	16	23	20	23	4	56	23	52	30	54	27	52	20	20	20	
Length	27	16	\$	38	37	22	22	45	32	33	45	38	8	4	¥	77	
Weight	5.1	-	10	4.7	7.1	115.2	10.9	2	6.2	16.4	80	13.1	9.9	7.1	5.1	7.8	
Wear	Σ	S	Σ	Σ	Σ		Σ	I	I	Σ	S	Σ	Σ	Σ	I		
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Period	TRANSITIONAL ARCHAIC	UNKNOWN	LATE PALEOINDIAN	UNKNOWN	UNKNOWN	UNKNOWN	LATE PALEOINDIAN/EARLY ARCHAIC	UNKNOWN	UNKNOWN	PALEOINDIAN	UNKNOWN	PALEOINDIAN	UNKNOWN	UNKNOWN	LATE PALEOINDIAN/EARLY ARCHAIC	UNKNOWN	
Diagnostic	ENSOR	NONDIAGNOSTIC	SCOTTSBLUFF	NONDIAGNOSTIC	NONDIAGNOSTIC	NONDIAGNOSTIC	BIG SANDY	NONDIAGNOSTIC	UNTYPED	DALTON	UNTYPED	CLOVIS	UNTYPED	NONDIAGNOSTIC	BIG SANDY	NONDIAGNOSTIC	
Function	8	UT/GV	윤	FL/USC	PBT	£	品	占	Н	ΑZ	<u>L</u>	£	윤	ΑW	品	PAW	
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Datefound Accuracy	4/21/1995	9/5/1995	9/5/1995	9/5/1995	11/16/1995	11/16/1995	11/16/1995	11/16/1995	12/7/1995	12/14/1995	12/14/1995	12/19/1995	12/19/1995	12/19/1995	4/3/1996	4/3/1996	
Artifactno	TN 334	TN 335	TN 336	TN 337	TN 338	± N 339	TN 340	TN 341	TN 342	TN 343	TN 344	TN 345	TN 346	TN 347	TN 348	TN 348A	

Part II: Artifact Color Data

Munsellct3 Munsellct4 Munsellct5											
Munsellct1 Munsellct2	10 YR 4/4 10 YR 4/4		7.5 VK 9/3 10 VR 7/3		10 YR 3/1 10 YR 3/3 7.5 YR 4/4		10 R 2.5/2	10 YR 5/1	,	7/3 10 YR 5/4	10 YR 3/3 10 YR 3/3
Munsellwt3 Munsellwt4 Munsellwt5							10 R 5/3 10 R 4/4 10 Y R 7/3		!	10 YR 5/4 10 YR 5/4 10 YR 5/3	
Munsellwt2 Mur	7.5 YR 7/6	7.5 YR 7/6	5 YR 5/3 7.5 YR 6/6		10 YR 5/6		10 R 6/1 10	10 VR 7/4		10 YR 7/2 10	10 YR 6/4
Munsellwt1	7.5 YR 4/6	10 R 4/6 2.5 Y 7/6	10 R 5/3 5 YR 5/2	5 YR 5/6	10 YR 6/6	2.5 YR 5/6	5 YR 3/2 10 R 4/3 10 R 5/1	7.5.VR 5.16	10 R 4/8	10 YR 8/3	7.5 YR 6/6 7.5 YR 7/6
Munsellor4 Munsellor5	10 YR 5/6 7.5 YR N6/0		10 YR 5/2 10 YR 4/2						10 YR 6/6		
Munsellor3 M	10 YR 7/2 10 YR 7/6 10 YR 5/1	10 YR 7/4 5 YR 5/4	10 YR 4/4 10 R 4/4 10 R 4/4		10 YR 7/2	5 YR 5/6		10 YR 3/3	7.5 YR 5/6 10 YR 5/3 10 YR 4/1		10 YR 5/4
Munsellor2	10 YR 4/2 7.5 YR 5/4 10 YR 8/6 10 YR 5/2 2.5 YR 5/2			10 YR 7/1 10 YR 4/3 7.5 YR 5/6 10 YR 6/4	10 YR 7/3 5 YR 3/4	10 YR 6/6 10 YR 6/4 10 YR 4/4		10 YR 6/6 10 YR 2/1 10 YR 4/2 10 YR 5/6 10 YR 5/6	10 YR 5/6 10 YR 8/3 10 YR 5/4 10 YR 7/3 10 YR 5/1	10 YR 5/6 10 YR 8/1 7.5 YR 5/6	10 YR 5/6 2.5 YR 5/4
Munsellor1	10 YR 5/2 7.5 YR 5/2 10 YR 8/4 10 YR 6/3 10 YR 6/2	10 YR 7/4 10 YR 7/4 10 YR 6/3 2.5 Y 8/2 7.5 YR N3/0 10 YR 3/4	5 YR 5/1 5 YR 3/2 10 YR 5/2 5 YR 4/4 7.5 YR 4/2 2.5 YR 5/4 7.5 YR 3/4	7.5 YR N4/0 10 YR 3/2 7.5 YR 7/6 10 YR 5/2	5 YR 5/2 10 YR 4/4 10 YR 4/6 5 YR 4/2	7.5 YR 7/6 7.5 YR 7/6 10 YR 5/6 10 YR 5/3	5 YR 4/2	10 YR 7/4 10 YR 7/1 10 YR 8/3 10 YR 6/2 10 YR 3/2 10 YR 6/4 10 YR 4/2	10 YR 2/1 10 YR 6/2 10 YR 7/6 2.5 YR 4/2 10 YR 6/6 10 YR 5/1	10 YR 4/2 10 YR 7/6 10 YR 4/1 10 YR 4/1 7.5 YR 5/4 7.5 YR 3/2	10 YR 6/4 10 YR 6/8 7.5 YR 5/4 10 YR 4/2
Colorcort	DKYLBR DKYLBR		BKIL IKDBK LTBR		DKYLBR DKGY/DKBR DKBR	WH	DURDHT	₩	DKGY/WH	YLBR BK	DKBR DKBR
Colorweath	DKBR/RDYL	RDHT YL/RDYUMT	LTRD/RDBR RDGY/RDBR	YLRDHT	BRYLST/YLBR	RDHT	DKRDBR/LTRDGY LTRDHT RDGY/LTRD/RDMT/LTBRSP	ави такио	RD DKGYST	LTBR/LTGYMT/LTYLBRYLBRBR	RDYULTRDYL RDYULTBRILTGYSP
Colororia	GYBRJDKGYBRLTGYSP BR LTBRALTBLGY LTBRAGYBRGYSP LTBRGYBRGYSP LTBRGYRDGYLTRD	YBRUTGYSP LITBRITA'SP LITBRIA'TA'BRITTTBRSP DKGY DKGY DKGYDKGYJDRGRITGYMT	OKTOBERIOKEDGY STATEMENT OKTOBERIOKEDGY ROBELITEDER DKERPERIOKTLERIGYER RDILTBRAMTLITGYSP TOTAL OKTOBERIOKOVER	DKGYILTGYMT DKGYILTGYMT RDYLIDKBR GYBRILTYLBR RK	ROSYLTBRILTGY DKYLBR DYTLBR DKRDGY/DKRDBRILTGYSP	RDYL/LTGYWHSP RDYUBRYLLTGYWHSP YLBRILTYLBR/MLRD BRJDKYLBR	DKGYRD	LTBRLTYLBRDKBR LTGYMEKS LTBR LTBRGYLTGYSP DKOKGYBRUDKGYBRLTGYSP LTBRYLYLBRDKYLBR GYBRYULBR	BK TITBROY TYN BRONGRABRYULTGYSP LITRULTBRSP BRYUTBRSBR BRYUTBRSBR GYLITBRSWITGYSP LITBRGY/GY/DKGYLIGYSP	DKYLBR YLYLBR DKGYWH DKGYWHMT BRJDKBRMTLTGYSP DKBR	OTENTIANT OF THE STATE OF THE S
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ct2 Munsellct3 Munsellct4 Munsellct5																	3/4																							
Munsellwt5 Munsellct1 Munsellct2	10 YR 8/1							10 YR 4/3		7.5 YR 3/2	10 YR 8/2		5 VB 3/3	10 R 3/4			7.5 YR 5/2 7.5 YR 8/4			10 YR 4/2																				
Munsellwt4 Mun										5 YR 3/3																														5 YR 5/4
Munsellwt3			7.5 YR 4/4		7.5 YR //6					5 YR 5/4						10 YR 4/4		10 YR 8/6	40 VB 716	0/ XF 0																				10 YR 5/8
Munsellwt2	V V V V V V V V V V V V V V V V V V V	700	5 YR 7/2	2.5 Y 6/4	2.5 YR //6	10 YR 5/3 10 YR 5/1				7.5 YR 7/6						10 YR 7/6		5 YR 7/2	40 VB 7/5	10 TR //3					10 YR 4/6										10 YR 7/1			10 YR 7/2		10 YR 4/2
ellor5 Munsellwt1	40 VB 7/8	2.5 YR 4/6	10 YR 7/1 5 YR 6/2 7 5 YR 5/6	2.5 Y 7/4	2.5 YK 8/2	10 YR 6/8 7.5 YR 6/6				7.5 YR 5/2 7.5 YR 5/4			10 YR 5/4			10 YR 6/4	10 YR 4/6	5 YR 8/1	99 00	2.5 YR 4/4		10 YR 6/2	10 YR 3/3		10 YR 7/4		10 YR 6/4							5 YR 4/2	2.5 Y N7/0		!	5 YR 5/8 10 YR 7/6		10 YR 5/1
Munsellor4 Munsellor5							!	10 YR 7/2																10 YR 7/4																
Munsellor3								7.5 YR 4/6 10 YR 8/1							10 YR 5/2			200	0 17 00		10 YR 6/2			5 YR 5/8	2				10 YR 6/2	10 YR 5/3	10 YK 6/6									
Munsellor2	10 YR 3/3 10 YR 6/4	10 YR 5/4 10 YR 8/2		10 YR 7/3	10 YR 6/6	7.5 YR N3/0		7.5 YR N2/0 10 YR 5/1			10 YR 4/1	10 YR 5/6		10 YR 6/4	10 YR 6/4			5 YR 6/2	1/6 2/1 0/		10 YR 8/2			5 YR 3/4		2.5 YR 4/4		10 YR 3/2	10 YR 7/8	10 YR 6/4	10 VR 7/6				200	10 YR 3/1	10 YR 4/2			
Munsellor1	10 YR 5/1 10 YR 5/3 10 YR 7/4	10 YR 4/4 10 YR 7/4	10 YR 5/2 2.5 YR 3/4 10 YR 5/2	10 YR 4/4	10 YR 7/1 10 YR 5/6	10 YR 5/2 2.5 YR 5/1	10 YR 7/1	7.5 YR N4/0 7 10 YR 6/6	7.5 YR 5/6	7.5 YR 6/6	10 YR 5/1	10 YR 7/4	10 YR 5/2	10 YR 6/3	10 YR 4/2 10 YR 6/3	10 YR 5/2	2.5 YR 4/2	5 YR 6/4	1/0 21 01	10 YR 7/3	10 YR 7/1	10 YR 3/4	10 YR 7/6	10 YR 4/2	10 YR 6/2	10 YR 4/6							2.5 YR 3/0	10 YR 5/2	2.5 Y N5/0	10 YR 5/2 10 YR 4/4	10 YR 3/6	10 YR 7/4	2.5 YR 3/4	2.5 Y 5/0
Colorcort	М							DKBR		DKGY	MH		aguaxu	DURD			BR/PK			DKGYBR																				
Colorweath	dshw ix	RD RD	LTGY BLPKGY BR/RDYI /DKBR	LTYL/LTYLBR	WHYTURDYLSP	BRYL/BR RDYL/GYMT			i i	BK BR/RDY URDBR/DKRDBR			YLBR			LTYLBR/YL/RDBRMT	LTBLRD	WHMT/PKGY/YLSP	No of Little Ivage	BRYLMI/LIBRYL RDBR		LTBRGY	TERWIT DKBR/LTGY		LTBR/YLBR		LTYLBRMT					LTYLBR		DKRDBRMT	LTGY		!	YLRD YL/LTGY	LTBLGY/WHSP	GY/DKBRGY/YLBR/RDBRMT
Colororia	DKGY BR/DKBR LTBR/LTYLBR	DKYLBR/YLBR LTBR/WH	GYBR DKRDBRHT GYBR	DKYLBR/LTBRSP	LIGY/WHSP YLBR/BRYL/WHLTGYSP	GYBR GY/DKGY	LTGY/WHSP/GYBRSP	DKGY/DKDKGY/BR/LTGY BRYL/GY/WHMT	BR/LTGYSP	YLBK RDYL/LTGYSP	GY/DKGY	LTBR/YLBRMT/LTGYSP	GYBR/LTGYSP GYBB	LTBR/LTYLBR/LTGYBRGYSP	DKGYBR I TBR/I TYI BR/BBGY	LTBRGY/LTGYSP	LTRD	LTRDBR/PKGY/	GIMI/DRIL	LTBR	LTGY/WH/LTBRGY	DKYLBR DKXCX	Y.L.	DKGYBR/DKRDBR/YLRD/LTBRSP	LTBRGY	DKYLBR/RDBR	DKYLBR	YLBR/DKGYBR	YUDKBRGY/LTBRGY	RDBR/LTYLBR/LTBRSP	LIGY/KDBK/BKTL DKGYBR/YISP	LTBRYL	DKGY	GYBR	GY CONDUITONAIT	GYER/LIGYMI DKYLBR/DKGYBN	DKYLBR/DKGYBR	LTBR	DKRDBR	GY
Artifactno	B B B 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8																				0 0 0													CN 15				CN 20		

				0 T.7 ±4		10 YR 4/4							90 02 > 02	0 TX 0/2						
	7/3	4/4	5/6			5/8 5 YR 4/2				6/4							8/2		4/6 8/2	
	10 YR 5/4 10 YR 7/3 5 YR 6/6 5 YR 5/6 5 YR 5/6 10 YP 5/6	10 YR 5/6 2.5 YR 4/4	10 YR 6/1 5 Y 3/1 2.5 YR 5/6	10 R 5/1	10 YR 5/8	5 YR 6/8 5 YR 5/8 2.5 YR 3/2	10 R 4/4	10 YR 4/6		10 YR 7/4 10 YR 6/4	2.5 YR 3/2	10 YR 5/4 10 YR 7/1					10 YR 6/6 10 YR 4/6 10 YR 8/2	10 YR 4/6	10 YR 5/4 10 YR 4/6 10 YR 7/3 10 YR 8/2	7.5 YR 4/6
	4 +			10 R 3/2		2 1 10 YR 7/2					2 2.5 YR N/0	m 01								
5 YR 5/6	7.5 YR 5/4 10 R 5/3 10 YR 6/4			10 R 5/4	10 YR 6/4						10 YR 6/2		2.5 Y 7/2 10 YR 8/2 10 YR 7/2						10 YR 7/8	
10 YR 6/2 2.5 YR 4/2 10 YR 7/2	10 YR 7/6 10 YR 7/1 10 YR 5/4	10 YR 7/6	10 R 3/2 2.5 Y 3/2	10 R 5/2	10 YR 5/6 10 YR 6/3 10 YR 6/4 10 R 4/1	10 YR 4/1 10 YR 5/3	10 YR 5/3 10 YR 5/1 10 YR 4/4	10 VR 5//				10 YR 4/2 10 YR 4/2 7.5 YR 4/6 10 YR 5/6			5 YR 5/8 10 YR 5/1 10 YR 4/6	10 YR 5/8 10 YR 6/2 10 YR 5/3	10 YR 8/2	10 YR 5/6	10 YR 7/3	
10 YR 5/1 10 YR 5/2 10 YR 5/2 10 YR 4/2	10 YR 7/3 10 YR 7/4 10 YR 5/4 10 YR 4/1	10 YR 2/2 10 YR 5/2 10 YR 4/3	10 YR 4/4 2.5 Y 4/2	10 R 5/4 10 P R 6/2	10 YR 6/6 10 YR 6/2 10 YR 6/6	10 YR 5/3 10 YR 4/3	10 YR 3/3 10 YR 5/3	10 YR 6/4		10 YR 5/2	10 YR 4/4 2.5 YR N4/0 10 YR 3/4 10 YR 7/4 10 YR 3/2 10 YR 3/2	10 YR 4/1 10 YR 3/3 5 YR 4/4 10 YR 5/4	2.5 Y 4/2 7.5 YR 7/6 10 YR 5/8	#/6 V I O	7.5 YR 3/6 10 YR 5/6 10 YR 6/6	7.5 YR 5/6 7.5 YR 6/8 10 YR 6/4	10 YR 7/4	10 YR 4/4	10 YR 6/6 10 YR 6/3 10 YR 5/6	
			LTGY/WH	W W		BK DKYLBR/RDMTHT							0 E							
DKGYBROKGYSP	RDBR/LTBR RDYL LTPKHT YLBR/VLRD	YLBR/RDBRSP	GY DKGY/RD	RDGYMT	YLBRSP RDHT	RDYL/YLRD/DKGYRDMTHT DURD	LTRD/PHT BR	YLRDHT	LTYLST	LTBR/LTYLBR/WWBLGY	LTGY/DURDHT LTBLGY/BR RD/PHT WH	LTYLBR LTGY					BRYLST DKYLBR/LTLTBR	YLRDHT	YLBR/DKYLBRMT LTBR/WH	BR
GY BRGY/LTBRGY/YLRDSP GYBRALTRD DKGYBRJDKDKGYBR/LTGYMT LTBRGY/GY	LTBR LTBRAYLBRMT YLBRUTGYMT/LTRD DKGYYVLBR/LTYLBRMT/LTGYSP	DKBR GYBR DKBR/YLSP	RDBK RDBK DKYLBR/DURD/RDBR/LTBRSP DKGYBR/DKOLGRSP	LTRD LTGYBR/LTRD/DURDSP	BRYLYLBR/LTBRSP LTBRGY/LTBR/LTYLBR BRYL/YLBR DKGYBR/DKRDGY/I TBRBN	BRJDKGY/LTGYSP DKBR/BR/LTYLBR/LTGYSP	DKBR/LTBRMT LTBR/GY DKGY/DKYI BRBN	LTYLBR WH/GY	LTBLWH PPRD DKGYRD	GYBR	DKYLBRAYLBR DKBLGYILTGYILTBRGYJDKGY DKYLBRLTYLBRMT LTBR DKGYBRLTBLGYSP DKGYBRLTYLBRLTBFYLSP	DKGY/DKGYBK DKBR/DKGYBR RDBR/BR/LTBR YLBR/LTGY	DKBRGY/OLBR/LTGYSP RDDYL/BRYL/LTBR YLBR/BRYL/LTGY	פארו רו ורפאיסעורפע	RDYL/YLRD YLBR/LTYLBR/DKYLBR/GY BRYL/DKYLBR	BRY/LBRMT RDYL/LTBRGY ITYI BRIBR	LYBR/WH LTBR TYI BP	LI TLBR DKYLBR/YLBR	BRYL/LTBR/YLMT LTBR YLBR	

Munsellct3 Munsellct4 Munsellct5										
Munsellwt5 Munsellct1 Munsellct2	10 YR 3/4	10 YR 4/4								
ellwt2 Munsellwt3 Munsellwt4			R 3/6	3.7/6		.4/6 R 4/6	10 YR 5/2 10 YR 3/2	10 YR 5/6 10 YR 5/3 10 YR 6/2	3/6 3.7/4 4/6	10 YR 6/2 10 YR 8/1
Munsellwt1 Munsellwt2	10 YR 7/6	10 R 4/6 5 YR 6/4	2.5 YR 3/4 2.5 YR 3/6	10 YR 7/4 10 YR 7/6 10 YR 6/6	2.5 YR 4/6	10 R 3/6 10 R 4/6 5 YR 6/4 .5 YR N8/0 2.5 YR 4/6	10 YR 8/3		10 YR 5/3 10 R 3/6 10 YR 5/3 10 YR 7/4 5 YR 4/6 10 R 4/6	5 YR 6/6 2.5 YR 4/6 2.5 YR 6/6 10 YR 10 YR 7/6 10 YR
Munsellor5 Mun	10,	10	2.5	10,	2, 3.	10 (3 (3,7)	10,1	0000	10, 10, 12, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13	2.5 2.5 10
Munsellor4 Mu	10 YR 7/2		10 YR 8/6		10 YR 8/2		10 YR 4/1			
Munsellor3	10 YR 5/6	10 YR 7/2	7.5 YR 7/2 10 YR 5/6 10 YR 7/6	10 YR 8/2 10 YR 4/6 2.5 YR 4/6	5 YR 7/1 10 YR 4/4 10 YR 4/4		10 YR 4/4 10 YR 8/3		10 YR 8/2 10 YR 7/6 7.5 YR 7/6 2.5 YR 4/2	
Munsellor2	10 YR 4/6 5 YR 5/4 10 YR 4/1 10 YR 7/2	10 YR 7/4 7.5 YR 5/6	2.5 Y 7/2 10 YR 4/3 10 YR 7/4 10 YR 6/4	10 YR 6/6 10 YR 4/2 10 YR 4/4 5 YR 5/4 10 YR 6/2	10 YR 7/4 10 YR 7/8 5 YR 6/4 10 YR 7/1 5 Y 6/2 10 YR 7/6	5 YR 7/1 10 YR 8/4 10 YR 8/3 10 R 3/4	10 YR 6/6 2.5 YR 5/4	10 YR 5/6 10 YR 5/6 7.5 YR 5/6 10 YR 5/8	10 YR 8/3 10 YR 8/3 2.5 Y N8/0 10 YR 5/4 7.5 YR 5/3 2.5 YR 4/6	10 YR 6/4
Munsellor1	10 YR 4/4 10 YR 6/6 10 YR 5/6 10 YR 5/2	10 YR 5/6 10 YR 6/8 10 YR 6/4 10 YR 6/4 10 YR 7/4 10 YR 4/4	2.5 Y 7/4 10 YR 6/6 10 YR 6/4 10 YR 7/2 10 YR 5/6	5 YR 5/6 10 YR 5/1 10 YR 5/2 10 YR 5/2 2.5 Y N4/0 10 YR 4/4	10 YR 5/4 10 YR 6/6 10 YR 7/4 10 YR 5/3 5 Y 6/1 10 YR 7/4 10 YR 4/6 5 YR 4/6	5 YR 4/6 5 YR 3/4 5 YR 5/6 10 YR 7/4 7.5 YR N2/0 7.5 YR 8/1 7.5 YR 6/6	7.5 YR 5/2 7.5 YR 6/6 10 YR 7/6 10 YR 5/4	10 YR 8/3 10 YR 5/6 10 YR 4/6 10 YR 6/3 10 YR 6/3 10 YR 4/4 5 YR 4/6	10 YR 7/3 10 YR 5/4 10 YR 7/2 2.5 Y N3/0 10 YR 4/4 10 YR 6/6 7.5 YR 5/6 10 YR 7/2	10 YR 6/6 10 YR 5/1 10 YR 7/3 2.5 YR N4/0
Colorcort	DKYLBR	DKYLBR DKGY	DKYLBR						DKRD	
Colorweath	LTGYSP YL YL	KDH/BKSI RDHT LTRDBRMTHT RDHT	DKRDBR/DKRDHT/WHSP	LTLTBR/YLSP	RDHT	DKRDROHT LTRDBRST BRJOURD WHRDST BR	LTBR/GYBR/DKGYBR LTBR	GYBRJGYBRMT GYBRJTGYBR LTGY DKYLBR LTYLBRMT	BRLTBRMT BRLTBRMT YLRD/RDST LTGYSP	RDYL RDHT LTRD/LTBRGY YL/WH
Colororig	DKYLBR/VLBR/LTGY BRYL/RDBR YLBR/DKGY GYBR/LTGYSP	YLBK BRYL BRYLBR LTYLBRLTBR/LTGY LTBR BR/DKBR	LTYLLTGYPKGYMT BRYLBRYLBRMT LTYLBRALTBRWH,TGYSP LTGYLTYLBRYLLTGYYLSP YLBRJBRYL	OYIOKBRYLLIGYSP OYIOKBOGYWHSP GYBROBK GYBROBK OYBROBYLBRBN DKGYROBRNB DKGYROBRNB BN TBROY	YUBRALTBRSP BRYULT L'IBRALTROBRMTALTGYSP BRYULTGYJOKYLBR GYLTOLGYWHLTGYSP GYLTOLGYWHLTGYSP DKYLBR YLBD	DKRDBRLTGVSP YLORYLRD/LTBR LTYLBR BK BK RDYL	BR RDYL YUBRYUDKYLBRDKGYMT YLBRIRDBRLTBRSP	LITBR YYLBRYLBRBIN YLBRYLBRBIN YLBRYLBR LTGY XLRADM.BR	TLERWH YLER DYBLESYLEYBNWHSP DYBLESYLERYBR BRYL DKRERRERPYL ITGYRBNHTSP	BRYL GY LTBRLTYLBR DKGY/WHSP
Artifactno					4 6 2 2 2 3 3 4 5 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7					

lct3 Munsellct4 Munsellct5																																																	
Munsellwt5 Munsellct1 Munsellct2 Munsellct3								7.5 YR 4/2				10 YR 4/6													7.5 YR 5/6		, c	8/6 \							2.5 YR 3/4												7.5 YR 3/2		
Munsellwt4 Mun																																			10 YR 5/3 2.5														
Munsellwt3														10 VP 4/2	2																	10 YR 7/3			10 YR 4/3	10 YR 7/6	5 Y K 5/8		10 YR 7/4										
Munsellwt2	0	10 K 4/4								7.5 YR 7/2			7.5 YR 7/6	10 VP 5/3							10 YR 8/3										10 R 3/6	10 YR 7/2	5 YR 4/4			10 YR 8/3			10 YR 5/4			10 YR 7/4		10 YR 8/5					2.5 YR 4/6
Munsellwt1	2	5 YK 4/4	Z Z	10 R 4/6			5 YR 5/6			7.5 YR 6/6	7.5 YR 5/6		7.5 YR 6/6	7.5 YR 4/4	100		9	0/0 41	7.5 YR 5/6	10 R 6/4	7.5 YR 6/4	10 YR 6/4					99 00	10 YR 8/2			10 R 4/1	10 YR 7/1	5 YR 4/6	10 YR 7/2	2.5 T 4/4 10 YR 5/6	5 YR 6/1	10 YR 6/8		10 YR 4/2		7.5 YR 6/8	7.5 YR 6/6	10 YR 5/4	10 YR 8/4		7.5 YR 7/6	7.5 YR 5/6		5 YR 5/4
Munsellor4 Munsellor5																																					5 YR 5/4												
Munsellor3 Mu					10 YR 6/2	5 YR 5/1	9	7.5 YR N4/0		7.5 YR 5/1														10 YR 3/2													10 YR 7/3 5								10 YR 4/2			10 YR 5/8	
Munsellor2 N	10 YR 8/1		10 YR 5/8			5 YR 5/6			7.5 YR 5/8	5 Y 5/2	2.5 YR 6/2	0.0			7.5 YR N8/0	10 YR 6/1	7.5 YR 7/6				5 VB 6/1			10 YR 4/4	Z.5 TR 4/2				2.5 Y 7/2	7.5 YR 6/6	3		10 YR 4/2	200	10 YR 6/3			10 YR 6/3	2	7.5 YR //8 10 YR 4/2				7 5 VD 9/2	10 YR 8/4			10 YR 5/6 10 YR 4/6	7.5 YR 7/6
Munsellor1	10 YR 8/3	5 YR 3/2	10 YR 5/6	5 YR 5/1	10 YR 6/4	5 YR 6/6				7.5 YR 6/2				10 VP 5/2	7.5 YR N7/0	10 YR 5/1	7.5 YR 5/6	10 YR 8/2	5 Y 7/2	10 R 4/6	7.5 YR N3/0	10 YR 6/3	10 YR 6/4	10 R 4/6	7.5 YR 7/8	7.5 YR 7/6	10 YR 5/1	10 YR 3/6	2.5 Y N5/0	7.5 YR 5/6	10 YR 5/2	10 YR 5/1	10 YR 7/4	10 YR 5/2	10 TR //4	5 YR 4/3	10 YR 8/4	10 YR 6/6	10 YR 4/1	7.5 YR 7/6 10 YR 4/1	10 YR 6/6	2.5 Y 5/2	10 YR 5/2					10 YR 6/6 10 YR 5/6	
Colorcort								DKBR																	22	í	2	LBA														DKGY					DKBR		
Colorweath	RDHT	YLKU/KDHI	5	RDH			YLRD			RDYL/PKGY	BR	DKYLBR	RDYL	DKBR I TBBGV/RB/DKBB			0000	RDHT	BR	LTRD/RDYLSP	LIBK/LILIBKMI	LTYLBR/YLBR					200	WH			DKRDGY/DURD	LTGY/LTBRMT	YLRD/RDBR	LTGY/LTBRMT	YLBR/BR/RDBR/BR/DKRDBR	LTGY/LTBR/YLSP	BRYL/GYBK/YLKDMI		DKGYBR/YLBR/LTBR		RDYL	RDYL I TOI BR/I TBR	YLBR	LTBR/YL		RDYLSP	YLRD		RDBR/RDHT
Colororig	LTBR/WH	DKRDBR	YLBRWHSP	GY/LTBR	LTYLBR/BRYL/LTBRGY	BR/LIRD/WHLISP RDYL/YLRD/GY		BK/PKGY/DKGYSP RDYL/BR	DKBR/BR	LTBRGY/OLGY/GY	LTOLGY/LTBRGY	7L 7L		RDYL	LTGY/WHMT	GY/LTGYMT	BR/RDYL	WH	LTGY	RD	DKGV/ITGV	LTBR	LTYLBR	RD/DKYLBR/DKGY	BRYIND	RDYL	GY/WHSP	DKYLBR	GY/LTGYMT	BR/RDYL	GYBR	GY VI BB	LTBR/DKGYBR	GYBR	CLIBACLI YLBK DURD/GYRD/I TBR	RDBR	LIBK WH/LTGY/LTBR/DKRDBR	BRYL/LTBR/LTGYSP	DKGY	KDYL DKGY/DKGYBR	BRYL	WH/LTGYMT GYBR	GYBR	WH	LTBR/DKGYBRSP	WH/LTGYSP	RDYL	BRYL/YLBR/DKYLBRSP YLBR/DKYLBR	RDYL/LTGYSP
Artifactno	26 25	6 96 2 2	LV 97	66 A7		LV 102	LV 103	LV 104 LV 105	LV 106	LV 108	LV 109	11	LV 112	LV 113	LV 115	LV 116	LV 117	LV 119	LV 120	LV 121	LV 122	LV 124	LV 125	LV 126	1 \ 12	LV 129	LV 130	LV 132	LV 133	LV 134	LV 136	LV 137	LV 139	LV 140	LV 141	LV 143	LV 144	LV 146	LV 147	LV 148 LV 149	LV 150	LV 151 I V 152	LV 153	LV 154	LV 156 LV 156	LV 157		LV 160 LV 161	

Munselict3 Munselict4 Munselict5																																							
Munselw14 Munselw15 Munselld1 Munselld2 Munselld3 Munselld4 Munselld5													2000	2// 1/10/			10 R 3/4					5 YR 4/2			10 YR 5/6	7.5 VB 3//									10 YR 5/4				10 YR 3/3
Munsellwt3 Munsellwt4 Mu						10 YR 4/8	2.5 YR 4/2	3 4/4		34											10 YR 5/6 5 YR 6/6																		10 K 6/1
Munsellwt2 Muns			XR 5/6	10 YR 5/6		5 YR 5/4 10 Y			/R 6/4	10 YR 6/4		/R 5/4		10 YR 5/3		10 YR 8/2			9	7.5 YR 6/8	10 YR 6/4 10 YR 5/2 10 Y 5 YP 8/2	Z/0 Y	7.5 YR 5/6							10 YR 6/3							10 R 5/3		10 YR 7/1 10 F
Munsellwt1 Muns	7.5 YR 6/6	10 YR 4/4		10 YR 5/4 10 Y	YR 5/6	10 YR 5/3 5 Y				10 YR 6/3 10 Y		10 YR 5/2 10 YR		10 YR 6/4 10 Y		10 YR 7/4 10 \		10 R 4/6			10 YR 7/4 10 Y 10 YR 6/6 10 Y		7.5 YR 4/6 7.5 Y 7.5 YR 5/6 10 YR 5/4						10 YR 4/4 10 YR 6/3					10 YR 6/3			10 R 4/3 10		10 YR 5/6 10 Y
Munsellor2 Munsellor3 Munsellor4 Munsellor5 M	10 YR 6/6 7		7.5 YR 5/4 7.5 YR 7/6	!	5 YR 3/2					10 YR 5/3	7.5 YR 6/6		7.5 YR 4/6		2.5 YR 4/4		10 YR 4/6	10 YR 3/4 10 YR 4/2		10 YR 7/2			7 7 1	10 YR 7/3 10 YR 7/6			10 YR 7/2 10 YR 8/2				10 YR 3/3 5 YR 5/2 5 YR 5/1			10 YR 4/1		10 YR 6/4 10 YR 6/3 10 YR 6/8	7.5 YR 5/4 10 YR 6/4		
Munsellor1 Mun		10 YR 3/1 7.5 YR 5/6 7.5				5 YR 3/1	7R N4/0											7.5 YR 7/2 7.5 YR 5/8 10`			10 YR 8/3 7.5 YR 5/6	2/0 1/1	2.5 Y 8/4 7.5 YR 6/4 10 YR 5/3			YR 6/6		YR 4/1 YR 5/4	YR 7/1 Y N7/0				YR 3/1	10 YR 3/1 10 Y		5 YR 5/2 10 ' 7.5 YR 6/8 10 '		10 YR 3/1	YR 6/6 YR 6/3
Colorcort Mur	10	10	7.5	10	9	2	7.5.7	10	OI.	10	7.5	7.5	7.5		10	01	DURD 10	7.5	7.5	.01	7.5	DKRDGY	2.5 7.5 10	.01	YLBR 10.			0r 7.5	10	7.5	2.5	0 10	0.00		DKYLBR 10	5.7	7.5	.01	DKBR 10
Colorweath	RDYL	DKYLBR	RDYI /BR/DKBR	YLBR	YLBBMT	BR/YLBR/DKYLBR	DKTLBR PKGY/LTRDMT	LTBRGY/LTGY/RDBRMT	WH/LSP WH/LTBR/YL	LTBR/LTYLBR		GYBB/YLBB		LTYLBR/BRMT		LTBR/WH		DKRDGY		RDYL	LTBR/LTYLBR BRYL/GYBR/YLBR/RDYLMT	ביאאריין	BR BRWH YLBR/LTGYSP			RDHT		LTGYSP	DKYLBR LTBR	LTGY/LTBR/RUSP				LTBR	RDBRMT		LTRDHT		YLBK/L1GY/KDGY DKYLBR
10 Colororig	YL/BRYL/LTGYSP RRYL/YLBR/LTGYSP	DKGY DKBR/BRLTGYSP	LTBR/BR/RDYL	LTBR	KUBK/UKKUBK YL	DKGY	DKGY	BR	DATEBR	DKBR/BR	BR/RDYL/LTGYSP	BK/PKWHM1/LTGYSP LTBRGY	BRILTGYSP	LTBR	YLBR/RDBR LTYLBR	LTGY	BR/DKYLBR	PKGY BR/DKBR/DKBRBN	BR	BR/LTGY	LTBR BR TEB	LIBR	LTYL LTBR GYBR	LTGY/LTBR/YLMT	WH/LTGY/LTBRMT YL	BRYL/WHSP BP	LTBRGY/LTGY/WH	DKGY/LIGYSP BR	GY LTBLGY	DKBLGY/LTGYSP	GY/DKBRSP LTRD/RDGY/GY	DKGY/LTBRSP DKGY/BRSP	DKGY	DKDKGY/DKGY	YL RDBR	RDGY/LTYLBR/LTBR RDYL/BRYL/LTGYWHSP	RDYL/BR/LTYLBR/LTGYSP	DKGY	BRYL/LIGYSP LTBR
Artifactno	LV 163	LV 165 LV 166	LV 167	LV 169	12/2	LV 172	LV 174	LV 175	LV 178	LV 178	LV 180	LV 181	LV 183	LV 185	LV 186 LV 187	LV 188	LV 190	LV 191 LV 192	LV 193	LV 194 LV 195	LV 196 LV 197	LV 199	LV 200 LV 201 LV 202	LV 203 LV 204	LV 205 LV 206	LV 207	LV 209	LV 210 LV 211	LV 212 LV 213	LV 214	LV 215 LV 216	LV 217	LV 219	1227	LV 222 LV 223	LV 224 LV 225	LV 226 LV 227	LV 229	LV 230

Munselict2 Munselict3 Munselict4 Munselict5		10 YR 3/4																											000																			
Munsellct1	10 YR 3/2	10 YR 8/6				5 YR 3/4									2.5 YR 4/6											10 YR 8/4			40 D 3/4	5	10 YR 2/2	0 0 0	6/0 11 0/0												10 YR 4/4			
Munsellwt5			7.5 YR 3/4																																													
Munsellwt4			5 YR 4/6																								10 YR 8/2																					
Munsellwt3			5 YR 3/3	•									!	10 YR 8/6			10 YR 6/3				2.5 YR 4/4						10 YR 6/4			10 YR 7/4								2.5 Y 5/2						10 YR 7/6				
Munsellwt2				7.5 YR 6/2			10 YR 5/4		2.5 Y N5/0		7 5 VP N8/0		!	10 YR 8/1			10 YR 8/3				10 YR 7/6			5 R 5/6	0	70 K 5/2	10 YR 7/4			5 YR 6/6	5 YR 4/6							2.5 Y N6/0						10 YR 5/4			10 YR 6/6	
Munsellor5 Munsellwt1			10 YR 4/6 5 YR 4/2	7.5 YR 4/6	7.5 YR 6/6	10 11/20/0	10 YR 6/6	2.5 YR 4/6	5 YR 6/2 10 YR 6/4		7.5 VR 6/2		10 YR 4/4	10 YR 7/1			10 YR 8/2				10 YR 7/4			10 R 4/4	0	L/6 X 0L	10 YR 7/2		10 YR 5/6	10 YR 6/4	5 YR 4/4	10 YR 5/2	1/6 21 01				10 YR 6/2	2.5 Y 7/		7.5 YR 5/6				10 YR 6/4	7.5 YR 5/6 10 YR 7/4		7.5 YR 4/6	
Munsellor4	7.5 YR 7/6					10 YR 5/4			10 YR 7/1			10 YR 3/2																					10 YR 6/2		5 Y 8/6							10 YR 8/2						
Munsellor3	7.5 YR 5/6 10 YR 6/2					5 Y 5/4					7.5 YR 3/4			7 5 VD 5/0	000 21 0.7			10 YR 6/3						!	10 YR 5/8	10 YR 6/2					10 YR 7/4		10 YR 6/4	10 YR 7/2	10 YR 7/2	10 YR 6/6						10 YR 4/2						
Munsellor2	10 YR 4/6 10 YR 7/3 10 YR 7/2 5 YR 5/6					5 Y 5/2		2	10 YR 5/3	7.5 YR 6/6	7.5 YR 3/2	10 YR 7/2		212 07 27	0/0 71 6.7	10 YR 7/2		10 YR 7/3	10 YR 6/3			10 YR 6/6			10 YR 5/4	10 YR 8/3		10 YR 3/4	0 5 V D 4 M	1/1	10 YR 4/4	919 017 3 1	10 YR 7/4	10 YR 5/6	10 YR 7/4	10 YR 8/3		10 YR 7/2	2.5 Y 4/2		10 R 4/3	10 YR 6/2	10 YR 6/8			10 R 3/2		
Munsellor1	2.5 YR N3/0 10 YR 5/6 10 YR 7/2 10 YR 7/6 5 YR 3/3	10 YR 5/4	10 YR 7/6 5 YR 4/4	7.5 YR 6/8	7.5 YR 7/4	2.5 Y N5/0	10 YR 7/3	2.5 Y N5/0	10 YR 5/2 10 YR 7/3	7.5 YR 5/6	7.5 YR 6/4	10 YR 4/2	10 YR 7/3	10 YR 4/2	2.5 YR 7/6	10 YR 5/1	10 YR 3/2	10 YR 8/2	10 YR 4/4	10 YR 2/2	10 YR 5/2	10 YR 7/4		5 YR 4/3	10 YR 5/3	5 YR 4/3	10 YR 7/2	10 YR 3/2	10 YR 7/6	10 YR 5/2	10 YR 3/4	10 YR 3/2	10 YR 7/3	10 YR 6/6	10 YR 5/4	10 YR 7/3	10 YR 4/1	10 YR 5/1	2.5 Y 5/2	10 R 4/6 2.5 YR 4/2	10 R 4/6	10 YR 5/4	10 YR 7/8	10 YR 3/3	7.5 YR 5/4 10 YR 5/4	10 R 3/1	7.5 YR 5/4	2
Colorcort	DKBR	YL/DKYLBR	m			DKRDBR					H M			0	¥ 8	i										LTBR			00,0010		DKBR		בופצ												DKYLBR			
Colorweath			DKYLBR DKRDGY/YI BR/DKRDBR/YI RD/DKBR	BR/PKGY	RDYL/BR	BRIL	BRYL/YLBR	RDHT/LTORSP/ORRD	PRGY LTYLBR/GY/BRGY/LTBLGYMT		PKGYWHMT		DKYLBRMT	LTGY/WH/YLST			WH/LTLTBR/PK/LTBR				LTBR/YL/RDBRMT			LTRD/YLRD		RDGY/LIRD	LTGY/LTBR/LTYLBR/WHSP		BR	LTYI BR/RDYI/ITBR	RDBRYLRD	GYBR	1990				LTBRGY	WH LTGY/GY/GYBR		BR				LTYLBR/YLBR/YL	YLKD LTBRMT		BR/BRYL I TRB/I TVI BP/I TGYSP	L DNT - LUNC - C
Colororig	DKGY YLBRJDKYLBRBRIRDYLSP LTGYLTBRMT/LTBRGY WHYLMT/LTGYSP DKRDBRYYLRD	PR YLBR/YLRDMT	YL RDBR/I TGYSP	RDYL	¥.	LI BK BLGY/OLGY/OL/YLBRSP	LTBR	GY	GYBK/BK/KDBK LTBR/WH/DKGY/LTGY	BR/RDYL/DKBR	LTBR/DKBRBN	DKGYBR/LTGYSP/DKYLBR	LTBR	DKGYBR BKBDXI/BBMT/I TGYSB	PNADIDBAWINEIGISP	GY/LTGYMT	DKGYBR	WH/LTLTBR/LTBR/	WHICH GTIM I	DKBR	GYBR	LTBR/BRYLMT	í	RDBR	BR/YLBR/LTGYSP	GY/LIGY/LIBKGYMI RDBR/LTBRSP	DKGYBR	DKGYBR/DKYLBR	YL/GYSP VI BB/BDBB	GYBB	DKYLBR/LTBRMT	DKGYBR BD/BDX/ MT	LTBR/LTYLBR/LTBRGY/LTGYSP	BRYULTGYSP	ST YLBR/LTBR/LTGY/WHMT/LTGYSP	LTBR/BRYL	DKGY	GY GY/LTGYSP	GYBR/DKGYBR	RD DKGYBR	RD/LTRD	YLBR/LTBRGY/DKGYBR/WHSP	YULTBRSP/BRYL	DKBR	BK DKYLBR	DKRDGY/DURD	BR/LTGYSP	
Artifactno		LV 238			LV 242				LV 247		LV 250													LV 266									LV 278							LV 287 LV 288		LV 290					LV 297	

Munselict1 Munselict2 Munselict3 Munselict4 Munselict5								
Munsellwt3 Munsellwt4 Munsellwt5 Munsellct1	7.5 YR 94							
Munsellwt3		10 YR 6/6		10 YR 6/3 10 YR 4/4	2.5 YR 5/4			
Munsellwt2		10 YR 6/3 10 YR 6/4		7.5 YR 5/6 10 YR 7/3 10 YR 6/6 10 YR 6/4	10 YR 7/6 10 R 3/4 10 R 5/6	10 YR 3/4		
Munsellwt1		10 YR 7/1 10 YR 7/2 7.5 YR 4/4 10 YR 7/4	10 YR 7/1	10 YR 6/6 10 YR 7/2 10 YR 5/6 10 YR 7/4 10 YR 6/4	10 YR 6/6 10 YR 7/3 10 YR 7/1 10 YR 4/2	7.5 YR 8/2 10 YR 4/2 2.5 YR 4/4		10 YR 5/6
Munsellor5	10 YR 8/2							
Munsellor4	10 YR 6/1							
Munsellor3	5 YR 5/2 10 YR 7/4 10 YR 4/4			10 YR 4/6		10 YR 5/4		
Munsellor2		10 YR 4/1 10 YR 5/2 10 YR 7/6 10 YR 6/3	5 YR 6/2 10 YR 6/1 10 YR 5/6 10 YR 6/4	7.5 YR 6/6 10 YR 6/3 10 YR 6/6	10 YR 7/2 7.5 YR 6/6	10 YR 5/1 10 YR 7/1	10 YR 5/8	10 YR 4/6
Munsellor1		10 YR 4/4 10 YR 6/6 7.5 YR 5/8 10 YR 6/8 10 YR 4/2 10 YR 4/6 10 YR 7/4 10 YR 7/4		10 YR 7/2 10 YR 4/2 7.5 YR 5/6 10 YR 5/3 10 YR 6/2 10 YR 6/2 5 YR 4/6		7.5 YR 6/6 10 YR 4/6 10 YR 5/4 10 YR 7/1 10 YR 4/4 10 YR 5/5	10 YR 4/2 10 YR 5/6 10 YR 5/3 10 YR 7/1	5 Y 3/2 10 YR 4/3 5 YR 3/1 10 YR 4/3
Colorcort	DKYLBR WH DKBR					J.	LTGY DKBR/BL RD/GYRD	
Colorweath	LTBRGYYYULTBRIGYWH	PKGYJDKGYWHMT LTGY LTGYLTBR DKBR Y LTBRLTYLBRBRYLSP Y LBR RDHT	LTRD/ROSPHT LTGY/DKGYMT	BRYLBR LTGYLLTBRALTBRALT YLBRBRYLDKYLBR LTBRLTYLBR LTYLBRSP	BRYLYL DKBRDKRDHT LTBR RD/DLRDHT LTGY/RCSP/RDBRSP DKGYBR	PKWHMT DKGYBR/DKYLBR RDBRMT	LTYLBRMTRDBR DKYLRDBR LTGY BRYL BRYL	YLBR
Colororig	YLBRWHSP DOYLLBR PKGYUKKHBR BRRDYLLTGYSP BRRDYLLTGYSP LTGYDKGYSPLTRD/RDGY DKGYBR BR	UBYLLERDKÖYMT WH WH BRYLGYBR BRRYCH TIPALITORY DKYRROKGY DKYRROKGY DKYLBRYLL TIRALITIBRADKBRIT TY BRAT	LTGYPKGYSP DKYLBRGYSP OKYLBRGYSP YLBR YLBR YLBRUTYLBR	LTGY DKGYBR DKGYBR BRRDYL BRRDYL LTGY LTGY LTBRGY VLBRNTLTGYSP VLBRYL YLBRYL YLROY YLROY YLROY	LITER WHILTGYBN WHILTGYBN BRRDYLWHSPLTGYSP LTYLBR DKGY LTGY LTGY LTGY LTGY PPTV	RDYL BOYL DKGYBR DKYBR LTGY/GY/YLBR LTGY/GY/YLBR LTGY/GY/YLBR GYBR YLBR	DKGYBR DKGYBR DKGYBR YLBR BR RO LTGYMT	DKGYYLBRMT DKGYYLBRMT DKGY LTBRMT
Artifactno	LV 300 LV 302 LV 303 LV 304 LV 306 LV 306 LV 306 LV 306 LV 306			LV 328 LV 329 LV 330 LV 331 LV 331 LV 333 LV 333 LV 333			X X X X X X X X X X X X X X X X X X X	

Artifactno	Colororia	Colorweath	Colorcort	Munsellor1	Munsellor2	Munsellor3 Munsellor4 Munsellor5	Munsellwt1	Munseliwt2 Munseliwt3 Munseliwt4 Munseliwt5 Munselict1 Munselict2 Munselict4 Munselict5
	GYBRMT/DKYLBR			10 YR 5/2	10 YR 4/4			
	DKYLBR GYBRYLBR GYBR			10 YR 4/6 10 YR 4/2 10 YR 4/2	10 YR 5/2 10 YR 5/2	10 YR 5/4		
	BRYL			10 YR 6/6				
	LTBRGY LTBR/DKYLBR	DKBRGY/DKBRMT		10 YR 6/3 10 YR 6/3			10 YR 4/4	10 YR 3/3
	LTBR/BRYL DKYLBR/LTGYMT			10 YR 7/4 10 YR 4/6	10 YR 6/6 10 YR 7/1			
	GY LTBR	DKYLBR		2.5 YR 5/0 10 YR 7/3			10 YR 5/6	
	LTYLBR			10 YR 6/4				
	LTGY	YLBR		1			10 YR 5/6	
	YLBR LTYLBR	LTBRGYMT		10 YR 4/4 10 YR 6/4			10 YR 6/2	
	YLBR/BRYL/LTGYMT	FWGGHW		10 YR 6/4	10 YR 6/8	10 YR 6/1		
	LTGY/DKGYBR TGY			10 YR 5/2	10 YR 4/3		200	
	LTBRGY	RDGY/RDHT		10 YR 6/2			10 17 0/0	
	DKGYBR/DKYLBRMT JKYLBR	LTRD		10 YR 3/2 10 YR 4/6	10 YR 3/4			
	LTBRGY	YLBRMT	¥	10 YR 6/4			10 YR 5/4 10 YR 4/3	
	RDBR/BRMT/LTGYMT	BLGY	í	10 R 5/1	10 YR 5/3	10 YR 7/2		
	GYBR	YLBR		10 YR 5/2			10 YR 5/8	
		YLBK/OKBK					10 YR 5/8	
	IRYL							
	.TBRYL/DKGYMT RD			10 YR 6/6	10 YR 3/1			
	BRYL/GYMT BK			10 YR 6/6	10 YR 5/1			
	LTYLBR GY/LTRDMT	DKYLBR/OLGR YI BR	LTGY/WH	10 YR 6/4 10 YR 6/1	10 R 5/3		10 YR 4/6	
	TYLBR			10 YR 6/4				
	BR GY	YLBR YLBR		10 YR 5/3 10 YR 5/1			10 YR 5/6 10 YR 5/8	
	DKYLBR/LTGYMT			10 YR 4/4				
	GY/LTGY/BRGYMT	YLBR/DKYLBR		10 YR 5/1			10 YR 6/4	10 YR 5/6
	BKWHGYBRMT		¥					
	LTBR	YLBR/DKYLBR		10 YR 6/3			10 YR 5/8	10 YR 4/6
	BROR GY	LTYLBRMT		7.5 YR 5/6 10 YR 5/1			10 YR 6/4	
	DKGY/LTGYMT JKBR/BK		LTBR	10 YR 4/1				
	DKYLBR/LTBR BRVI /BRVI RORPMT			10 YR 3/4	10 YR 6/3	5 VB 4/3		
Z6 N	BRYL/BR1LRUBRM1			10 TR 5/0	TU TR 5/0			

GY/GYBR LTGY/BR/RDBR/DKGY			10 YR 5/1	10 YR 5/2					
	WH/LTGY/ORMT		10 YR 6/3						
GY/LTGYBR/DKGYBR/BR	ì		10 YR 5/1	10 YR 6/2	10 YR 4/2	10 YR 4/3			
	á		7.5 YR 5/8	0					
	BR/DKYLBR		10 YR 4/1	0			10 YR 5/3	10 YR 4/4	
	BRYL LTRD/LTGYMTHT		10 YR 7/3				10 YR 5/6 2.5 YR 6/2		
	LTBLGY	BR							
	LTGY/ORMT						2.5 YR 7/2		
	BRGY/RD/PKGYMT		10 YR 5/6						
			2.5 Y 6/4 10 YR 5/2 10 YR 7/3	10 YR 6/8					
			10 YR 5/3						
	DKBRYLMT		10 YR 6/6 10 YR 7/2	10 YR 5/4			10 YR 5/4		
			10 YR 7/8	10 YR 6/6					
			10 YR 6/6	7.5 YR 6/6	7.5 YR 7/2				
	НМ		7.5 YR 7/0 7.5 YR 8/2	7.5 YR 8/6			7.5 YR 8/0		
		DKBR S	7.5 YR 5/4					7.5 YR 3/2	
YLBR/GYBR/GY/LTBRMT		Š	10 YR 5/8	10 YR 5/2	10 YR 5/1	10 YR 8/3			
SRBN			3 TR 4/6 10 YR 5/2	0 2 2					
-	YLRD/LTYL		10 YR 6/6 5 YR 3/4	10 YR 7/1	7.5 YR 6/8	10 R 4/8	5 YR 5/6		
			10 YR 8/2				!		
	LTBRGY		10 YR 4/4	40 VD 5/3			10 YR 6/2		
		LTGY	7.5 YR 3/0	10 TR 5/2			10 YR 7/2		
	LIVER COLL		10 YR 6/6	10 YR 4/6	10 YR 7/4		20 000	200	
	VH/YLMT						10 YR 8/2	10 YR 3/1 10 YR 7/6	
			7.5 YR 3/4				2000		
	g and a		10 YR 4/2				10 TT 3/2		
		200	7.5 YR 4/6	5 Y 4/2	7.5 YR 4/4				
	BUT	DRG	4,0 Y K 5/4						
	HW.		7.5 YR 4/2				2.5 Y 8/3		
			7.5 YR 5/4	7.5 YR 5/0					
	RDYL	HIGHW	2.5 Y 8/2	40 VB 7/3			7.5 YR 7/6		
DRBK/LIBKSP BR/BRWHMT/WH/LTGY		I DR/FIV	10 YR 4/4	10 YR 8/2	10 YR 7/2				
	YLBR		10 YR 7/4				10 YR 5/4	10 YR 5/6	
RDBR/BR/DKBRMT/DKGYSP DKGY/DKBRMT			5 YR 4/3 10 YR 3/1	7.5 YR 4/4 10 YR 4/3	7.5 YR 5/6	7.5 YR N4/0			
	YLRDMT		2.5 Y 6/2				5 YR 4/6		
			0,5 Y K 5/6						
			10 YR 5/4	10 YR 5/6	10 YR 8/4				

Artifactno	Colororig	<u>Colorweath</u> <u>Colorcort</u>	Munsellor1	Munsellor2	lunsellor3 Munsellor4 Munse	llor5 Munsellwt1	Munselior3 Munselior4 Munselior5 Munselior1 Munselior1 Munselior1 Munselior3 Munselior3 Munselior4 Munselior5	ellct4 Munsellct5
TN 161 TN 162 TN 163	YL LTBRGY/LTORMT DKGY/BK/BKSP	DKYL	10 YR 8/6 10 YR 6/2 2.5 Y N3/0	10 YR 8/8 2.5 Y N2/0		10 YR 7/8		
26 L N T T T T T T T T T T T T T T T T T T	BR YURDSP DKYLBRBRYLRDHT LTYLBRJDKYLBRJDKGYBK	LTGYORMT/MLBR	7.5 YR 4/4 10 YR 7/6 10 YR 4/4 10 YR 6/4	10 R 3/4 10 YR 5/3 10 YR 4/6	5 YR 4/6 7.5 YR N3/0 7.5 YR N2/0	10 YR 5/6		
0,1 NT 171 NT 171 NT 173 NT 173 NT	LTYL YLBR LTBR/LTGY/LTRDST BR/BRYLMT	LTBR	2.5 Y 7/4 10 YR 5/4 10 YR 7/3 10 YR 4/3	10 YR 5/6 10 YR 7/2 10 YR 6/6		10 YR 7/4		
TN 175 TN 176		LTGY/LTYLBR/BR/RDBRMT				10 YR 7/2	10 YR 6/4 10 YR 5/3 5 YR 5/4	
X X X X X X X X X X X X X X X X X X X	BRYLBR LTRD/RD BRYL/RDYL ITYI JI TYI BR	YLRDMTHT RDGY	10 YR 5/3 10 R 6/2 10 YR 6/8 2 5 Y 7/4	10 YR 5/4 10 R 5/3 7.5 YR 6/6 2 5 Y 6/4		10 YR 7/6 10 R 6/1	10 R 3/4	
TN 181 TN 182 TN 182 E 183 E 1	LTGY LTGY GY BP!! TBP/DVBDMT	LTBR/RDBRMT WH/LTGY/ORMT	2.5 Y 7/2 7.5 YR 6/0			10 YR 7/4	5 YR 4/4	
T T T T T T N T N T N T N T N T N T N T	DKGYLTGYMT LTYL/TYLBR LTGY/GYBR	LTBLGY RJBR RJBR	10 YR 4/1 2.5 Y 7/4 10 YR 7/2	10 YR 7/1 10 YR 6/4 10 YR 5/2				
TN 188 TN 189 TN 190	YLDKYULTYLMT/DKYLBR DKGYBR/BR YLBR	LTBR/DKBRMT	10 YR 6/6 10 YR 4/2 10 YR 5/4					
TN 191 TN 192 TN 193	DKGY/BRYL BRYL GY	BRALBR	10 YR 3/1 10 YR 6/6 10 YR 5/1	10 YR 6/6		10 YR 5/3	10 YR 5/4	
10 194 195	TYBKSP		10 YR 5/1			200		
TN 196	LTYLBR DKGYBR/DKBR/DKYLBR	DNGT GYBR/LTBRMT LTRD/YLRDSP	10 YR 6/4 10 YR 3/2	10 YR 3/3	10 YR 4/4	10 YR 5/2 10 YR 5/2 10 R 6/3	10 YR 5/3 5 YR 5/6	
TN 198	LTBRGY LTYLBR DKGY/DKGYRD/RDWHMT	DKGY LTGY/LTBRMT ITBIGY	10 YR 6/2 10 YR 6/4 7.5 YR 4/0	10 R 4/1	10 R 3/2	10 YR 4/1 10 YR 7/2	10 YR 7/4	
TN 201	DKYLBR/LTYLBRMT GY	BR/LTYLBR	10 YR 3/4 10 YR 6/1			10 YR 5/3	10 YR 6/6	
TN 203	DKGYBR/DKGY/BKMT GY/DKGY/LTBRGY/OLBRMT		10 YR 3/2 2.5 Y 5/0	10 YR 3/1 2.5 Y 4/0	10 YR 2/1 2.5 Y 6/2 2.5 Y 4/4			
TN 205	BRYL/YL LTBR BRYL	LTYLBR/DKRDBRMT	10 YR 6/6 10 YR 7/3 10 YR 6/6			10 YR 6/4	5 YR 3/2	
TN 208	BR/LTGY LTBRGY DKGYBR/BR	GY/DKYLBR	10 YR 5/3 10 YR 3/2	10 YR 7/2 10 YR 5/3		10 YR 5/1	10 YR 44	
TN 212 N 2 2 12 1 2 2 13	BR PKGY/WH DKBR	BR GY/LTGYMT	7.5 YR 5/6 7.5 YR 7/2 7.5 YR 4/2			7.5 YR 5/6 10 YR 5/1	2/2 \ 9	
TN 215 TN 216 TN 217	LTBR/LTBRGY/BRYL/DKYLBRMT YL/YLBR YL/YLBR/WH	RD/DKOLGYMTHT	10 YR 7/4 10 YR 7/6 10 YR 7/6	10 YR 6/2 10 YR 5/6 10 YR 5/6	10 YR 6/6 10 YR 4/6	10 R 4/6		
TN 218 TN 219	RDYL/BR BR	YLBR/GY	7.5 YR 6/6 7.5 YR 5/4			10 YR 5/6	10 YR 5/1	
TN 222 N 222 N 223 N N 223 N N 223 N N 223 N N 223 N N N N N N N N N N N N N N N N N N N	DKRDBR/DKRD DKYLBR	WH/RU WH	5 YR 3/2 10 YR 4/4	5 YR 3/6			10 YR 8/1	
TN 224 TN 225 TN 226	YLMT DKYLBRDKGY/LTGY LTRDBR CYGRAY DROWET	RD	10 YR 7/6 10 YR 4/4 5 YR 6/4	10 YR 4/1	10 YR 7/1	10 R 5/6		
TN 228 TN 228 TN 229 TN 230	GTBRYTLBRGTMI DKGYBR LTYLBR YL	LTBLGY YLRDIOKRDGY YLBR/LTRDHT	10 TR 5/2 10 YR 4/2 10 YR 6/4 2.5 Y 7/6			5 YR 4/6 10 YR 5/8	10 R 4/16	

Colorweath
LTBR/LTGYMT/YLBRMT
DKYLBR
DKYLBR LTLTYLJOKYLMT/RDHT DKYLBR
LTBRGY/DKBRGYMT
10 YR 5/2 10 YR 4/4 10 YR 4/4
10 YR 6/4 7.5 YR 5/4 10 YR 6/4 YL 10 R 4/6
10 YR 442 10 YR 646 10 YR 642 WH 5 YR 652 10 YR 653
10 10 10 YSP/DKRR
BKRD 10 YR 7/6 10 YR 7/6 10 R 4/6
RDYLDKRDYLLTRDYLMT
YLRD

Munsellwt3 Munsellwt4 Munsellwt5 Munsellct1 Munsellct2 Munsellct3 Munsellct4 Munsellct															
4 Munsellwt5 Munsellct1 Mu							7.5 YR 7/0	ω.			5 YR 4/4				
nsellwt3 Munsellw								10 YR 8/2 2.5 YR 6/6		7.5 Y R 4/6				5 YR 6/4 5 YR 6/1 7.5 YR 6/6	10 YR 6/6
lunsellwt2 Mu	2.5 Y 7/2 5 YR 5/6		5 YR 6/6 10 YR 8/6	5 YR 5/6		10 YR 8/2		10 YR 8/4 10		7.5 YR 5/6 7.5			5 YR 4/3	5 YR 6/6 5 10 YR 6/4 7.5	10 YR 6/3 10
Munsellwt1 N	10 YR 3/0 10 R 5/1 5 YR 4/6	10 YR 8/1 5 YR 5/8	10 YR 7/6 7.5 YR 5/6 7.5 YR 7/6	10 YR 5/6 10 YR 5/6		10 YR 8/3	10 YR 8/3	10 YR 7/6		7.5 YR 5/4			5 YR 5/3 10 YR 6/2	5 YR 4/4 10 YR 6/2	10 YR 7/4
Munsellor2 Munsellor3 Munsellor4 Munsellor5 Munsellwt1 Munsellwt2								10 YR 8/2							
or2 Munsellor				2/3		5/3	9/1	/1 10 R 4/4	5/6 3/4 1/1	3/6 7/3 5/4	712 12	5/6 10 YR 5/1	7/2 8/3	2	7/4
	2.5 YR 7/2 10 R 3/6 10 YR 7/6 2.5 YR 4/6	7 7/1 7 4/4	7.3 TK 3/6 10 YR 5/3 10 YR 7/6	10 YR 6/4 10 YR 6/4 10 YR 6/2 10 YR 8/3 10 YR 5/2	र 5/2	10 YR 6/4 10 YR 6/3 10 YR 7/1	10 YR 5/4 10 YR 4/6 10 YR 5/6	7.5 YR 4/6 7.5 YR 7/2 10 R 5/1 10 YR 5/1		10 YR 3/4 10 YR 3/6 5 YR 5/4 10 YR 7/3 10 YR 5/3 10 YR 6/4	2.5 YR 4/2 10 YR 7/2 5 YR 5/2 5 YR 4/2 10 YR 7/2	5 YR 5/3 10 YR 5/6 7.5 YR 5/4	10 YR 6/2 10 YR 7/2 10 YR 5/2 10 YR 5/3		10 YR 7/6 10 YR 7/4
ort Munsellor1	2.5 YF 10 R 10 YF 2.5 YF	10 YR 7/1 10 YR 4/4	6. 01 F 67	10 YR 10 YR 10 YR 10 YR	10 YR 5/2	10 YF	10 Y	7.5 YF 7.5 YF 10 YF	2 2 2	10 YE 5 YR 10 YE	2.5 YR 5 YR 10 YF	5 YR	10 YR 6/2 10 YR 5/2	0	10 YF
Colorcort							LTGY				RDBR				
Colorweath	DKGY/LTGY LTRD/RDGYMT YLRD	WWDKGY/LTORMT YLRD	YLIDKBRSP BRIRDYLSP RDYLYLLTGYSP	LTYLBRYVLRD YLBR LTBLGY		LTBR/WH	LTBRMT	YL/LTBRMT/WHSP/LTRDST	YLRDST	LTBRMT/LTBLGY BR/DKBRBN	LTBRSP		RDBR LTBRGY/RDBR	RDBR/RDYL/LTRDBR/GYMT LTBRGY/LTYLBR/RDYLMT	LTLTBR/LTBR/BRYL
Colororia	LTGY DKRD YL ORRD	LTGY DKYLBR/LTYLBRMT	GY GY BR/LTGYSP LTBR/DKBR/LTLTBRSP	DKYLBR LTYLBRUTBRRUSP LTBRGY LTBR GYBR	GYBR	LTYLB <i>R</i> /LTBRGYMT LTGY	YLBR/DKYLBR YLBR	BR PKGY/RDGY/LTRD/WH GY	YL/YLBR BRYL/DKYLBRMT DKGYBR/DKGY	DKYLBR RDBR/LTBRMT BR/LTYLBR	LTRD/LTGYSP RDGY/DKRDGY LTGY	GY/DKGY RDBR/YLBRBN/WHSP BR/DKBRSP/LTBRSP	LTBRGY/LTGYSP GYBR/BR	אם סאל זיס סאלי	YULTBR
Artifactno	TN 300 TN 302 TN 302 TN 303 O Y D	.	TN 308 TN 308 TN 309 TN 310 TN 311 TN 312		4	TN 322 L' TN 322 L' TN 323 L'		TN 326 TN 327 TN 328 G			TN 336 L TN 337 R TN 338 L			_	TN 347 Y TN 348

APPENDIX C ARTIFACT DATABASE CODES

ARTIFACT DATABASE CODES

(P prefix used with any code means "possible")

Function

AN	Anvil	HE	Hafting Element
AP	Arrow Point	HS	Hammerstone
AX	Ax		
AW	Awl	KN	Knife
AZ	Adz		
		MBC	Microblade Core
BF	Untyped Biface		
BKN	Backed Knife	NS	Nutting Stone
BL	Blade		
BLCO	Blade Core	PBCO	Pebble Core
BO	Bobbin	PB	Prismatic Blade
BPC	Bipolar Core	PBT	Pebble Tool
BS	Burin Spall	PD	Pendant (conically drilled)
BSC	Backed Scraper	PF	Preform
BST	Bola Stone	PL	Plummet
BTF	Bifacial Thinning Flake	PP	Projectile Point
		PRF	Perforator
CD	Chipping Debris	PS	Pitted Stone
CF	Channel Flake	PT	Pottery
CO	Core		
CR	Crescent-Shaped Tool	SC	Scraper
CPF	Chipped Pebble Fragment	SNSC	Snub-nosed Scraper
		SP	Spokeshave
DF	Decortication Flake	SPC	Split Cobble
DR	Drill		•
		UF	Utilized Flake (flake with at
FL	Flake		least one worked edge or obvious
FG	Chert Fragment		chipping from use)
	<u> </u>	UK	Unknown
GF	Geofact (non-artifact)	USC	Unifacial Scraper
GO	Gouge	UT	Unifacial Tool (undetermined
GS	Ground Stone		function)
GT	Gorget		,
GV	Graver		

Diagnostic

UNTYPED NONDIAGNOSTIC Artifact whose diagnostic type has not been identified Artifact that does not have diagnostic features

Material

AN	Antler	MM	Mammoth Molar
BN	Bone	NV	Novaculite
CC	Chalcedony	OC	Oolitic Chert
CCH	Chalcedonic Chert	PW	Petrified Wood
CH	Chert	QC	Quartzitic Chert and Cherty Quartzite
CJ	Claystone/Jasper	QT	Quartz
DT	Diorite	QZ	Quartzite
FP	Fossil Palm	SFH	Siliceous Fossil Hash
GS	Gar Scale	SO	Siliceous Oolite
HM	Hematite	UI	Unidentified
J/Q	Jasper/Quartzite		
JS	Jasper		

Cortex

OR Original PB Pebble

Patina

A	Absent	M	Moderate
В	Beach Polish	S	Slight
C	Chalky	T	Stained
G	Glazed	Z	Stony Bryozoan Encrustation
H	Heavy		

Lithic Source

AKN	Arkansas Novaculite	JVS	Johns Valley Shale, Ouachita Mountains
ARB	(Hot Springs region) Arbuckle Mountains	JVS(BF)	Big Fork Chert, Johns Valley Shale, Ouachita Mountains
CAT CF	Catahoula Cotter Formation (northeast	JVS(N)	Johns Valley Shale (Nova Chert)
01	Oklahoma, Northwest Arkansas)		
CH	Chuska	KKC	KeokukChert, western Ozark
CIT	Citronelle Gravels (east	****	Mountains
CDC	Louisiana) Colorado River Gravels	KRF	Knife River Flint
CRG	Colorado River Graveis	LAG	Louisiana Gravels
EDW	Edwards Plateau	LAG	Lower Boone Formation
EDW(B)	Edwards (Belton Lake)	LD	(northeastern Oklahoma and
EDWG	Edwards Gravels		northwestern Arkansas)
EDW(GT)	Edwards (Georgetown locality)	LRG	Lampasas River Gravel
EDW(NB)	Edwards (New Braunfels)	MF	Marble Falls
EDW(S)	Big Spring Edwards (Segovia)	MIN	Minnelusa
ETX	East Texas (Tertiary formation)	MQTX	Acme clay pit, McQueeny,
ETXG	East Texas Gravels		Texas (Edwards Gravel)
FLC	Florence Chert, Oklahoma	NA	Not Applicable
FQ	Fisher Quartzite	0) (
CDC	Con Johann Dissan Collida	OM	Ouachita Mountains
GRC	Guadalupe River Cobble (Seguin specimen Acme-11)	OMN	Ouachita Mountains Novaculite
GR(U)	Gravel Source (Unidentified)	OQ	Ogallala Quartzite
GSM	Great Smoky Mountains	QQ	Oganaia Quartzite
	(Eastern Tennessee)	PT	Pinetop (Ouachita Mountains)
HS	Hot Springs, Arkansas	QCSG	Queen City Sand Gravels
I-10-3	Specimen collected by Banks	SD	Spanish Diggings
	(Edwards?)	SGQ	Seymour Gravel Quartzites
			(eastern edge of the Llano
JF	Jackfork Formation (Ouachita		Estacado)
	Mountains)	SS	Stanley Shale Formation
JOC(L)	"Lowrance" Chert from Joins-		(Ouachita Mountains)
	Oil Creek Formation, Arbuckle	STJ	St. Joe Formation (Ozark
	Mountains		Mountains)

Lithic Source (continued)

TAL	Tallahatta	WFC	Wreford Chert (Flint Hills,
TEC	Tecovas		Kansas)
TECG	Tecovas Gravel	WSF	Wesley Formation, Stanley
			Group (Ouachita Mountains)
UG	Uvalde Gravels (Cretaceous,	WWC	Weeping Water Creek
	north-central Texas)		(southeastern Nebraska
UG(O)	Uvalde Gravels (Ogallala)		
UG(P)	Uvalde Gravels (Proctor)		
UK	Unknown		

Color

BK	Black	OL	Olive
BL	Blue	OR	Orange
BN	Streaked or Banded	PK	Pink
BR	Brown	PP	Purple
DK	Dark	RD	Red
DU	DullGR	RU	Rust
	Green	SP	Splotches or Spots
GY	Gray	ST	Stain
HT	Color resulting from	TN	Tan
	Heat Treating	WH	White
LT	Light	YL	Yellow
MT	Mottled		

Complete

AM	Artifact Missing	LB	Langitudinal Proofs
AIVI	Artifact Missing	LD	Longitudinal Break
BB	Base Broken	MD	Midsection
BM	Barbs Missing	NB	New Break
BR	Artifact Broken (irregular	PE	Proximal End present
	break or no apparent distal	SB	Stem Broken
	or proximal end)	TB	Tip Broken
CO	Complete	UF	Unfinished Artifact
DE	Distal End present		
IF	Impact Fracture		

Reworked

В	Artifact Rebuilt with plastic	R	Resharpened (extent not specified)
H	Heavily Resharpened	T	Retooled from an earlier artifact

Heat-Treated

D	Fire Damaged (i.e. spalls and	T	Heat Treated
	pot-lid fractures)	TD	Both Heat Treated and Fire
P	Possibly Heat Treated		Damaged

Basal Grinding

A	Absent	U	Uncertain (due to heavy wear over
Н	Heavy		entire artifact or because base is
P	Present		missing)
S	Slight	UB	Unfinished Base

Accuracy

- 5 = Position accurate within 30 meters
- 4 = Position accurate within 100 meters
- 3 = Position accurate within 150 meters
- 2 = Position accurate within 2 kilometers (Error is always that the artifact is plotted farther east than its actual location.)
- 1 = Accuracy uncertain
- 0 = No location recorded

Reference Artifacts for Ultraviolet Responses

Reference No.	Artifact No.	Lithic Source	Shortwave Response	Longwave Response
2	TN 2	EDW	Medium Orange	Dark Reddish-Orange
3	TN 3	EDW	Yellowish-Gray with Rusk Mottling	Medium-Dark Orange with Rusk Mottling
77	TN 77	EDW	Dull Orangish-Brown	Non-Fluorescent
115	TM 115	EDW	Light Orange with Dark Orange Mottling	Medium Orange with Dark Orange Mottling
134	TN 134	EDW	Orangish-Green	Dull Brownish-Orange
204	TN 204	PEDW/PGSM	Light Bluish-Green with Rust Mottling	Medium Brownish-Orange with Rust Mottling
214	TN 214	EDW	Greenish-Orange	Orange
299	TN 299	EDW	Greenish-Orange*	Orange
324	TN 324	EDWG	Brownish-Orange	Dark Reddish-Brown
MB-21	BN 21	SS/JF	Velvety-Black	Velvety-Black

^{*} Reference artifact 299 is a little more green than reference artifact 214

EDW	Edwards Plateau, Texas
PEDW/PGSM	Possible Edwards Plateau/Possible Great Smokey Mountains, eastern Tennessee
EDWG	Edwards Gravels, Texas
SS/IF	Stanely Shale Formation/jackfork Formation, Quachita Mountains, Arkansas

APPENDIX D DIAGNOSTIC TYPES

Table 14. Alphabetical Listing of Diagnostic Types in the Study Collection

Abasolo 1 Adena 2 Afton 1 Albany Biface 1 Angostura (Texas) 2 Archaic Stemmed 3 Bell 4 Big Sandy 9 Castroville 3 Clear Fork Uniface 1 Clifton 2 Clovis 21 Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate 2 Early Side-notched 9 Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Har	Diagnostic Type	Number
Afton Albany Biface Angostura (Texas) 2 Archaic Stemmed 3 Bell 4 Big Sandy 9 Castroville 3 Clear Fork Uniface 1 Clifton 2 Clovis 21 Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate Early Side-notched Early Stemmed Early Stemmed 6 Early Stemmed 6 Early Stemmed 1 Eliis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary Gary Godley Harahey Knife Hardin Harvey-Mineola Biface 1 I Ada Big Sandy 2 Castroville 1 1 A Big Sandy 9 Castroville 1 1 A Big Sandy 9 E Castroville 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Abasolo	1
Albany Biface Angostura (Texas) 2 Archaic Stemmed 3 Bell 4 Big Sandy 9 Castroville 3 Clear Fork Uniface 1 Clifton 2 Clovis 21 Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate Early Side-notched Early Stemmed Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary Godley Harahey Knife 1 Hardin 1 Harvey-Mineola Biface 1 Hell Gap 1 Harahey Knife 1 Hardin 1 Harvey-Mineola Biface 1 Hell Gap 1 Harahey Knife 1 Hardin 1 Harvey-Mineola Biface 1 Hell Gap 1 Hoxie	Adena	2
Angostura (Texas) 2 Archaic Stemmed 3 Bell 4 Big Sandy 9 Castroville 3 Clear Fork Uniface 1 Clifton 2 Clovis 21 Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate 2 Early Side-notched 9 Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Hall Gap 3 Hoxie 1	Afton	1
Archaic Stemmed Bell Big Sandy Castroville Clear Fork Uniface Clifton Clovis Dalton Darl Dawson Delhi Early Lanceolate Early Side-notched Early Stemmed Early Stemmed Lanceolate Early Stemmed Early Stemmed Folsom Folsom Folsom 2 Friley Gary Godley Harahey Knife Hardin Harvey-Mineola Biface Hell Gap Harahey Knife Hardin Harvey-Mineola Biface 1 Clifton 2 A Ball A Big Sandy 9 Castroville 3 A Big Sandy 9 2 Folsom 2 Folsom 2 Folsom 1 Ball Ball	Albany Biface	1
Bell 4 Big Sandy 9 Castroville 3 Clear Fork Uniface 1 Clifton 2 Clovis 21 Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate 2 Early Side-notched 9 Early Stemmed 6 Early Stemmed 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Angostura (Texas)	2
Big Sandy Castroville Castroville Clear Fork Uniface Clifton Clovis Clovis Dalton Darl Darl Dawson Delhi Del	Archaic Stemmed	3
Castroville Clear Fork Uniface Clifton Clifton Clovis 21 Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate Early Side-notched Early Stemmed 6 Early Stemmed Lanceolate Fedgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 7 Folsom 2 Friley 1 Gary 1 Gary 27 Godley Harahey Knife Hardin Harvey-Mineola Biface 1 Clovis 1 Clovis 21 Dawson 2 Tolowis 2 Tolowis 3 Ellis 5 Early Cary 27 Godley 10 Harahey Knife 1 Hardin 1 3 Harvey-Mineola Biface 1 Hell Gap 1 Hoxie	Bell	4
Clear Fork Uniface 1 Clifton 2 Clovis 21 Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate 2 Early Side-notched 9 Early Stemmed 6 Early Stemmed 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 12 I Dalton 2 27 Clovis 21 21 22 24 25 26 27 27 27 27 27 27 27 28 29 29 20 20 21 21 22 23 24 25 26 26 27 27 27 27 28 27 27 27 28 27 28 27 38 48 49 49 40 40 41 41 41 41 41 41 41 41	Big Sandy	9
Clifton 2 Clovis 21 Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate 2 Early Side-notched 9 Early Stemmed 6 Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 12	Castroville	3
Clovis 21 Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate 2 Early Side-notched 9 Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Eliam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Clear Fork Uniface	1
Dalton 27 Darl 2 Dawson 12 Delhi 5 Early Lanceolate 2 Early Side-notched 9 Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 12	Clifton	2
Darl2Dawson12Delhi5Early Lanceolate2Early Side-notched9Early Stemmed6Early Stemmed Lanceolate7Edgewood4Elam3Ellis26Ensor9Epps11Evans4Figueroa1Folsom2Friley1Gary27Godley10Harahey Knife3Hardin3Harvey-Mineola Biface1Hell Gap3Hoxie1	Clovis	21
Dawson 12 Delhi 5 Early Lanceolate 2 Early Side-notched 9 Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Dalton	27
Delhi 5 Early Lanceolate 2 Early Side-notched 9 Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Darl	2
Early Lanceolate Early Side-notched 9 Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 7 Folsom 2 Friley 1 Gary 27 Godley Harahey Knife Hardin Harvey-Mineola Biface Hell Gap Hoxie 1	Dawson	12
Early Side-notched Early Stemmed Early Stemmed Lanceolate Early Stemmed Lanceolate Fedgewood Elam Salis Ellis Ellis Ensor Specification Epps Epps 11 Evans 4 Figueroa Folsom Folsom 2 Friley 1 Gary Cary Godley Harahey Knife Hardin Harvey-Mineola Biface Hell Gap Hoxie 1	Delhi	5
Early Stemmed 6 Early Stemmed Lanceolate 7 Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Early Lanceolate	2
Early Stemmed Lanceolate 7 Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Early Side-notched	9
Edgewood 4 Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Early Stemmed	6
Elam 3 Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Early Stemmed Lanceolate	7
Ellis 26 Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Edgewood	4
Ensor 9 Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Elam	3
Epps 11 Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Ellis	26
Evans 4 Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Ensor	9
Figueroa 1 Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Epps	11
Folsom 2 Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Evans	4
Friley 1 Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Figueroa	1
Gary 27 Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Folsom	2
Godley 10 Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Friley	1
Harahey Knife 3 Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Gary	27
Hardin 3 Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Godley	10
Harvey-Mineola Biface 1 Hell Gap 3 Hoxie 1	Harahey Knife	3
Hell Gap 3 Hoxie 1	Hardin	3
Hoxie 1	Harvey-Mineola Biface	1
	Hell Gap	3
Johnson/Webb 2	Hoxie	1
	Johnson/Webb	2

Table 14. Alphabetical Listing of Diagnostic Types in the Study Collection (continued)

Diagnostic Type	Number
Keithville	13
Kent	15
Kent/Darl/Yarbrough-like	2
Lange	8
Lange-like	10
Macon	1
Marcos	3
Marshall	8
Midland	1
Morrill	1
Motley	5
Palmer	1
Palmillas	18
Pedernales	1
Pelican	13
Perdiz	1
Plainview	13
Ponchartrain	11
Poverty Point-type	2
Refugio	1
Rice Lobed	2
San Jacinto (pottery)	1
San Patrice	53
Scallorn	2
Scottsbluff	36
Snapped-base Stemmed	2
Tortugas	1
Travis	2
Uvalde	2
Wells	1
Williams	2
Woden	6
Yarbrough	17
Nondiagnostic	199
Untyped	195
Total	880

Table 15. Total Number of Artifacts in Study Collection for Each Diagnostic Type

Diagnostic Type	Definite	Possible	Total
San Patrice	48	5	53
Scottsbluff	26	10	36
Dalton	24	3	27
Gary	23	4	27
Ellis	24	2	26
Clovis	18	3	21
Palmillas	14	4	18
Yarbrough	15	2	17
Kent	12	3	15
Keithville	12	1	13
Pelican	13	0	13
Plainview	13	0	13
Dawson	12	0	12
Epps	10	1	11
Ponchartrain	6	5	11
Godley	6	4	10
Lange-like	10	0	10
Big Sandy	8	1	9
Early Side-notched	6	3	9
Ensor	9	0	9
Lange	7	1	8
Marshall	5	3	8
Early Stemmed Lanceolate	4	3	7
Early Stemmed	6	0	6
Woden	6	0	6
Delhi	5	0	5
Motley	4	1	5
Bell	4	0	4
Edgewood	4	0	4
Evans	4	0	4
Archaic Stemmed	3	0	3
Castroville	2	1	3
Elam	3	0	3
Harahey Knife	3	0	3

Table 15. Total Number of Artifacts in Study Collection for Each Diagnostic Type (continued)

Diagnostic Type	Definite	Possible	Total
Hardin	3	0	3
Hell Gap	3	0	3
Marcos	2	1	3
Adena	0	2	2
Angostura (TX)	2	0	2
Clifton	2	0	2
Darl	2	0	2
Early Lanceolate	2	0	2
Folsom	1	1	2
Johnson/Webb	0	2	2
Kent/Darl/Yarbrough-like	2	0	2
Poverty Point-type	1	1	2
Rice Lobed	0	2	2
Scallorn	1	1	2
Snapped-base Stemmed	2	0	2
Travis	2	0	2
Uvalde	2	0	2
Williams	2	0	2
Abasolo	1	0	1
Afton	1	0	1
Albany Biface	1	0	1
Clear Fork Uniface	1	0	1
Figueroa	1	0	1
Friley	1	0	1
Harvey-Mineola Biface	1	0	1
Hoxie	1	0	1
Macon	0	1	1
Midland	1	0	1
Morrill	1	0	1
Palmer	1	0	1
Pedernales	1	0	1
Perdiz	1	0	1
Refugio	0	1	1
San Jacinto (pottery)	1	0	1
Tortugas	0	1	1
Wells	1	0	1

Table 16. Diagnostic Types of Artifacts in Study Collection, Grouped by Period

Diagnostic Type	Period	Age
Clovis	Paleoindian	11,500-11,000 B.P.
Folsom	Paleoindian	11,050-10,150 B.P.
Dalton	Paleoindian	10,500-9900 B.P.
Plainview	Paleoindian	10,150-10,010 B.P.
Hell Gap	Paleoindian	10,000-9500 B.P.
San Patrice	Paleoindian	10,000-8000 B.P.
Early Lanceolate	Paleoindian	
Midland	Paleoindian	
Palmer	Paleoindian	
Pelican	Paleoindian	
Albany Biface	Paleoindian	
Rice Lobed	Paleoindian	9500-8500 B.P.
Scottsbluff	Late Paleoindian	9120-8650 B.P.
Early Side-notched	Late Paleoindian	
Early Stemmed	Late Paleoindian	
Early Stemmed Lanceolate	Late Paleoindian	
Keithville	Late Paleoindian	
Hardin	Late Paleoindian/Early Archaic	10,000-7500 B.P.
Big Sandy	Late Paleoindian/Early Archaic	10,000-6000 B.P.
Angostura (Texas)	Late Paleoindian/Early Archaic	8800-7500 B.P.
Bell	Early Archaic	8000-5500 B.P.
Hoxie	Early Archaic	
Uvalde	Early Archaic	
Wells	Early Archaic	
Woden	Early Archaic	
Clear Fork Uniface	Early Archaic	
Abasolo	Early/Middle Archaic	
Johnson/Webb	Early/Middle Archaic	
Morrill	Early/Middle Archaic	

Table 16. Diagnostic Types of Artifacts in Study Collection, Grouped by Period (continued)

Diagnostic Type	Period	Age
Dawson	Middle Archaic	
Evans	Middle Archaic	4600-3000 B.P.
Pedernales	Middle Archaic	4000-3200 B.P.
Travis	Middle Archaic	4650-4050 B.P.
Marshall	Middle Archaic	ca 3000 B.P.
Tortugas	Late Middle Archaic	
Afton	Middle/Late Archaic	5000-2000 B.P.
Epps	Middle/Late Archaic	3500-2500 B.P.
Macon	Middle/Late Archaic	3500-2000 B.P.
Motley	Middle/Late Archaic	3500-2500 B.P.
Delhi	Middle/Late Archaic	3300-2200 B.P.
Palmillas	Middle/Late Archaic	
Snapped-base Stemmed	Middle/Late Archaic	
Williams	Middle/Late Archaic	
Gary	Middle/Transitional Archaic	4500-1200 B.P.
Ellis	Middle/Transitional Archaic	4000-1300 B.P.
Kent	Middle/Transitional Archaic	4000-1500 B.P.
Ponchartrain	Middle/Transitional Archaic	4000-1500 B.P.
Refugio	Middle/Transitional Archaic	4000-1000 B.P.
Poverty Point-Type	Middle/Transitional Archaic	3700-2000 B.P.
Lange	Late Archaic	2850-2600 B.P.
Castroville	Late Archaic	2800-2400 B.P.
Elam	Late Archaic	
Lange-like	Late Archaic?	
Kent/Darl/Yarbrough-like	Late Late Archaic	
Godley	Late Archaic/Late Prehistoric	
Harvey-Mineola Biface	Late Archaic/Late Prehistoric	
Adena	Late/Transitional Archaic	2750-2250 B.P.
Marcos	Late/Transitional Archaic	2600-1800 B.P.
Yarbrough	Late/Transitional Archaic	2500-1000 B.P.

Table 16. Diagnostic Types of Artifacts in Study Collection, Grouped by Period (continued)

Diagnostic Type	Period	Age
Ensor	Transitional Archaic	2200-1400 B.P.
Figueroa	Transitional Archaic	2200-1400 B.P.
Darl	Transitional Archaic	ca 1800 B.P.
Edgewood	Transitional Archaic	
Archaic Stemmed	Archaic	
San Jacinto	Late Prehistoric	1560-560 B.P.
Friley	Late Prehistoric	1300-900 B.P.
Scallorn	Late Prehistoric	1300-800 B.P.
Perdiz	Late Prehistoric	800-500 B.P.
Clifton	Late Prehistoric	
Harahey Knife	Late Prehistoric/Historic	700-250 B.P.

APPENDIX E LITHIC MATERIALS IDENTIFICATION

LITHIC MATERIALS IDENTIFICATION MCFADDIN BEACH

by

Larry D. Banks

On 10-14 July and August 28 through 1 September 1995, a portion of the collections assembled from McFaddin Beach were examined for the purpose of identifying the raw materials represented in the chipped stone tools from the collections as a whole. The afternoon of 10 July was spent in briefings by Ms. Melanie Stright concerning the work that had been performed earlier on ultraviolet fluorescence, and the format of collection preparation for the materials identification. The collections were assembled at the home of Paul Tanner, and laid out in trays with numerical sequence for each collection available at the time. The collections examined during this time concerned only those belonging to Paul Tanner (334 specimens), Joe Coen (37 specimens), and Jesse Fremont (28 specimens). Of this total number, however, only 296 specimens fell within the category of chipped stone tools. During the examinations performed in August, some unresolved questions concerning those materials examined in June were re-analyzed and the collections of H. J. (Joe) Louvier and Murray Brown were examined. The collection of Juan Garcia was briefly scanned the evening of August 31 primarily for detecting material types and or artifact classification types not previously seen in collections from McFaddin Beach.

The numbers of specimens considered in the identification of "lithic materials" for the purposes of this report are: Paul Tanner 334, Jesse Fremont 28, Joe Coen 37, Joe Louvier 308, and Murray Brown 112. Of these total numbers (819), however, a number of the cataloged numbers include objects of bone, ground stone, alligator gar scales, etc. that are not from "lithic sources" as identified for purposes of this report. Also a number of artifacts with cataloged numbers were not available for this examination. The total numbers included in these categories to be subtracted from the total is 55; therefore, the total number from which the statistics reported herein are derived is 764.

Examinations were made mostly under natural light, with the aid of a sixteen power hand lens, a binocular microscope and to a large extent by comparison to the provenienced materials from the Banks collection. Materials identified under artificial light are so identified. The raw materials of the comparative collection taken to Port Arthur in June were selected on the basis of anticipated types and localities most reasonably expected to be represented at McFaddin Beach. However, before the examinations had proceeded very far, it was obvious that the comparative specimens did

not begin to cover the geographic range reflected in the collections. In August a more refined set of comparative specimens was used in addition to an additional collection of lithic materials made during the intervening period of time from source areas in Texas from which earlier comparative materials were not available. As presented herein, the notes made during the examination followed a format of artifact number, type of artifact, material type, and applicable notes concerning the presence of cortex, physical evidence of heat treatment, and other notable attributes. If such phenomena were unobserved, they simply are not mentioned in the text. Artifact classifications follow descriptions provided by Turner and Hester (1985), and Perino (1985). Initial classifications for materials examined in June were determined by Nathan Banks in comparison to the cited sources, and following discussion by Melanie Stright, Dawn Youngblood, Paul Tanner and Larry Banks the classifications as assigned herein were utilized. Stright, Tanner and Banks were responsible for the classifications made in August.

Many of the artifacts have been subjected to intentional rejuvenation and effects of mechanical weathering to such an extent that original classifications of both typology and lithic material are difficult and in some cases impossible to identify with high degrees of reliability. In those instances where classifications represent best guesses, they are accompanied by a question mark. Color descriptions are indexed to the Munsell Book of Color as determined in natural light.

Before describing the subject materials, some comments concerning the environmental setting pertaining to lithic resources in general are appropriate. The geographic and geologic setting of the McFaddin Beach locality west of the mouth of the Sabine River on the upper Texas Gulf Coast could hardly be positioned in a more disadvantaged area of the United States regarding availability to natural raw materials required for stone tool production. In fact the seemingly nefarious name for the only volume specifically concerning raw material resources for stone tools in the area is derived in part from the well-known absence of lithic materials on the upper Texas Gulf Coast (Banks, 1990). In proto and early historic times, the raw materials for the relatively few arrowpoints made of chert were, for all practical purposes, obtained as gastroliths in alligator stomachs by Atakapan peoples living in the general area. Most arrowpoints were made of alligator gar scales. There simply are no rocks of any appreciable size or type commonly found as gravels or otherwise on the upper Texas Gulf Coast.

Due north of the recent coastal sands and clays, however, the organically rich sediments of Tertiary-aged deposits contain considerable quantities of varying qualities of silicified (petrified) wood, most notable of which are the petrified palm woods often occurring in fairly large sizes and very high quality of knappable stone. The nearest bedrock sources (slightly less than 160 kilometers (100 miles) of potential lithic materials in proximity to McFaddin Beach are successively from south to north the east-west linear outcrops of the Catahoula and Manning Formations (Banks 1990:48) . These sources are of limited potential simply because of the relatively poor quality of rock they contain in

comparison to types used for lithic materials elsewhere, but they are the nearest bedrock sources of potential contributions of knappable gravels to the lower Sabine and Neches River systems. Also, Reid Ferring (personal communication) has informed the writer that he has observed high quality, but small sizes of chalcedonic rocks in limited exposures of the Catahoula.

Even farther north, approaching the environs of the headwaters of the Sabine River, Cypress Creek, and the Sulphur River, pebbles and less frequently cobble-sized gravels of quartzite, chert, and novaculite derived from the Ouachita Mountains via reworked Cetaceous gravels can be found in Eocene Formations. Also, substantial outcrops of orthoguartzite reflecting considerable aboriginal usage have been found in the headwaters of the Sabine River. Cobbles derived from that source and possibly other similar sporadic outcrops nearer the coast associated with salt diapers are presently unknown to exist in Sabine River gravels, but they should be expected to some degree. Relatively substantial sources of gravels, possibly related to the Citronella or even Amite gravels farther to the east occur to the immediate north and northeast in southwesternmost Louisiana (Banks 1990:48), and it should be especially noted that Chawner 1936:35) made note of the presence of siliceous oolite in the Citronella, although the location of those gravels were in east central Louisiana. Small Dalton points made of yellow siliceous oolite have been reported from sites in the Gilmer area of Upshur County Texas, and the nearest known substantive exposures of siliceous oolite are of Ordovician aged rocks in the flanks of the Ozark Mountains, but even here, the type materials occur in colors of varying shades of gray. Oolitic rocks are reported (Texas Geologic Atlas, Brownwood Sheet) in the Marble Falls Formation near Lampasas Texas, but no further descriptions are available as to whether the oolitic portions are siliceous or not. Attempts to identify siliceous oolite in Central Texas formations by this writer have so far been unsuccessful.

The nearest sources of extensive and abundant quantities of various types of chert are outcrops of the Edwards Group whose nearest proximity of the eastern escarpment of the Edwards Plateau to McFaddin Beach is roughly 274 kilometers (170 miles) to the northwest; the Ouachita Mountains some 400 kilometers (250 miles) to the north; and the Arbuckle Mountains due west of the Ouachita Mountains. In both cases, there are no geographic obstacles to be overcome between McFaddin Beach and those source areas of lithic materials. Also it may be of special interest to point out that caches of large cobble to small boulder sized cortexed nodules of Edwards chert have been found in the Gulf Coastal Plain about midway between the nearest Edwards outcrops and McFaddin Beach. Also a single large (42 pound) boulder of Edwards chert was found by Bill Young south of Corsicana, in close proximity to a cache of Clovis flake blades. The boulder had been prepared as a core for flake blade removal. Though not found in close proximity to McFaddin Beach, these materials are still within the Gulf Coastal Plain as defined by Fenneman (1938:100-101) and certainly within range of the Gulf Coast. The peculiar and distinctive siliceous biomicrite from Pisgah Ridge (Banks 1990:52-53) is also an intermediate potential source of rock for chipped stone tools in southeast Texas.

Finally, and perhaps of greatest relevance to the Texas Gulf Coast, in addition to the potential of bedrock sources of raw material reflected in the easternmost edges of the Edwards Plateau, cobbles derived from the various formations in the Edwards Group and hydrologically transported to the southeast by five major river drainages (Neuces, San Antonio, Guadalupe, Colorado, and Brazos) into the Gulf of Mexico, provided an almost inexhaustible source of raw materials for folk visiting or living in the McFaddin Beach vicinity. West of the Guadalupe River in the vicinity of Seguin, Texas, higher elevations of interfluves contain literally hundreds of acres of large cobble to small boulder size gravels of chert, quartzite, and to a lesser extent, petrified wood. These gravels are referred to in the Texas Geologic Atlas as "High Gravel Deposits [that are] topographically high areas not associated with present drainage"systems. Just how these deposits are related, if at all, to the Uvalde Gravels defined by Byrd (1971) and discussed by Banks (1990:56-57) has yet to be determined, but for all practical purposes those to the south east of the Austin-San Antonio vicinity are essentially the same. Barnes (1970) describes the constituents of the Highland Gravels as "cobbles of well-rounded chert up to 5 inches in size, pebbles of variegated quartzite, limestone, chert, and quartz; occupies topographically high areas not associated with present drainage". And from the same type of topographic setting on interfluves west of the Guadalupe River in the vicinity of Seguin and several miles west of the Colorado River, they appear to be of less areal extent than the Guadalupe gravels.

Without question the origin of the gravels in both cases are from the Edwards Plateau, and with minor constituents derived from the Central Mineral Region or the Llano Uplift of Texas. They are found today as in late Pleistocene and early Holocene times literally strewn across the landscape below and adjacent to the Balcones Escarpment demarcation between the Edwards Plateau and the Gulf Coastal Plain.

Also of particular interest, the Brazos River provides another potential source of exotic materials to the Gulf Coast derived from the Llano (pronounced yano and not to be confused with the distinctively different Llano Uplift.) Estacado with specific applicability to rocks (cherts and vividly colored quartzites) from the Tecovas Formation. Pebbles of Tecovas jasper have been found by the writer on gravel bars of the Brazos River below Lake Whitney Dam, and though it would require considerable selectivity for relatively small pebbles and cobbles to be found near the Gulf Coast, it would not be an impossibility by any means.

Tanner Collection

1. Unidentified, rectangular-stemmed dart point. Made of dark gray and brown petrified wood typical of much of the Tertiary aged materials from east Texas. A cortex remnant of "rusty" color is indicative of the rock having been derived from a gravel source.

- 2. Yarbrough? Made of dark yellowish-brown (10 YR 4/6) Edwards chert.
- 3. Kent or possibly Ellis type dart point. Made of semi-translucent Edwards chert, light gray to gray to yellowish-brown (10 YR 5/4). Slight patination typical of Edwards.
- 4. Broken blade of well-made, unidentified biface. Made of light gray (10 YR 7/1) to gray (10 YR 5/1) and yellowish-brown (10 YR 5/4) Edwards chert.
- 5. Broken, unidentified biface. Made from a large flake blade of high-quality dark yellowish-brown (10 YR 4/4) Edwards chert with light gray (10 YR 7/1) internal splotching.
- 6. Possibly "Yarbrough" dart point, severely resharpened and classification questionable. The coloration changes from the "fresher" flaking reflected in the resharpened portions of original material as grayish-brown (10 YR 5/2) altered by weathering to a more lustrous dark grayish-brown (10 YR 4/2) and dark yellowish-brown (10 YR 3/4) surface. Edwards?
- 7. Strongly shouldered /slightly barbed dart point. Kent/Yarbrough? type. Made of yellowish-brown (10 YR 5/6) Edwards chert mottled with reddish brown (2.5 YR 4/4) staining from weathering. Tiny remnant of pebble cortex remaining on one corner of the stem.
- 8. Fossil Palm core.
- 9. Scottsbluff. Mottled chert. Basic coloration of dark grayish-brown (10 YR 4/2) mottled to lighter yellowish-brown shades and tinges of reddish-brown. An open vug surrounded by a weathered bleb or rind of light gray occurs as a spall on one edge of the blade. There is a slight luster associated with a reddish tinge suggestive of having been heat-treated, but heat-treatment is not conclusive. The rock is typical of weathered Big Fork chert cobbles found in the Johns Valley Shale of the Ouachita Mountains, and it is probably the source of this rock.
- 10. Rectangular stemmed and severely resharpened blade of a Wells-like dart point. Basic material is dark grayish-brown (10 YR 4/2) weathered to dark yellowish-reddish-brown. The distal tip of the point grades into a slightly translucent very light gray as typical of Tecovas cherts. The rest of the material is opaque. Best guess of rock type is Tecovas.
- 11. Incomplete preform or cutting tool (knife) . Dark gray petrified wood with light gray weathered cortex.

- 12. Utilized flake blade. Yellowish-brown (10 YR 5/6 to 5/8) unidentified chert. It is opaque with very slight translucence on thin edges. Exhibits well-healed internal fractures. Typical of some of the Proctor-Uvalde gravels, but no definite cortex is present. The slight luster on both the dorsal and ventral faces is probably attributable to beach polish rather than the rock type.
- 13. Decortication flake of unidentified chert, possibly Edwards, but the brown (10 YR 5/3) type material is weathered to a brownish-yellow, and possibly slightly altered grain size to very fine grained quartzite. Hand specimens collected from Edwards outcrops often exhibit a gradation from chert to quartzite or vice-versa, and to reflect that phenomena, the term "quartzose" is proposed here for distinguishing these particular materials. Exhibits cortex on dorsal surface and two edges. Edwards Gravel source.
- 14. Chipped (tested?) fragment of a pebble. Red Tecovas jasper weathered brownish-yellow with very dark brown to black cortex. This "insignificant" specimen (as artifacts go) is interesting from a source point of view in that some attempt of explanation as to its presence at McFaddin Beach cries for an answer. Does it represent Brazos River gravels found farther west on the Gulf Coast, and where was the mouth of the Brazos (the nearest potential source?) of Tecovas before it was brought to McFaddin Beach, and why would some insignificant item like this have been brought to this area anyway? It was not a highly desirable size for tool manufacture, etc.
- 15. Scraper. Made of light gray (10 YR 7/1) slightly mottled with red and grayish-red cortex remnant. Made of Edwards gravel.
- 16. Geofact not examined.
- 17. Geofact not examined.
- 18. Geofact not examined.
- 19. Large secondary (no cortex present) flake removed from a preform. Made of dark olive gray (5 Y 3/2) chert had been preformed and heat-treated before the secondary flaking commenced. Heat spans (pot lids) and reddened surface of the flaked preform is indicative of secondary heat-treatment. Time lapse between the two events may have been a considerable time as reflected in differences in weathering. The weathered dorsal surface is yellowish-brown (10 YR 5/6) color in contrast to the darker ventral surface. One edge exhibits some flake removal as a result of being used for cutting or scraping activity. It is typical of mottled cherts from the Johns Valley Shale of the Ouachita Mountains.

- 20. Secondary flake of dark grayish-yellow brown (10 YR 4/3 to 4/6) and mottled. It is similar to No. 12 above, but has a darker coloration. Slightly translucent on thin edges. Unidentified chert, possibly Edwards.
- 21. groundstone
- 22. Resharpened Dalton or Plainview. Made of very dark gray (5 YR 3/1) Edwards chert, sometimes referred to colloquially as New Braunfels chert. Homogeneous root beer color and slightly translucent on thin edges.
- 23. Wells or possible Gary-like dart point. Made of light brown (10 YR 4/3) slightly mottled Edwards chert. Poorly or totally unthinned base similar to the Woden dart point defined by Turner and Hester (1993).
- 24. Dalton. Made of mottled grayish-brown (10 YR 5/2) to dark yellowish-brown (10 YR 4/4) Edwards chert.
- 24. bone
- 26. Chipped decortication flake of petrified wood.
- 27. missing (chipping debris)
- 28. Broken blade of shouldered, but untyped dart point. Dark yellowish-brown (10 YR 4/6) subtly banded high quality chert. Edwards-like but not a certainty.
- 29. Broken untyped blade of biface. Made of grayish-brown (10 YR 4/2 to 5/2) to yellowish-brown (10 YR 5/4) fossiliferous chert. Fusilinids present, but the chert is definitely not Florence. During second examination comparison to specimens of "Lowrance" chert from the Joins-Oil Creek Formation of the Arbuckle Mountains was a good match microscopically.
- 30. Broken untyped blade of biface. Grayish-brown (10 YR 4/2 and 5/2). The slightly more convex side is slightly reddened and has increased luster suggesting heat-treatment. Possible Edwards, and similar to No. 20 above.

31- 38. Missing.

39. Flake, possibly decortication, but both surfaces exhibit polish and possible early stages of cortex development. Has a worn burin-like graver on one edge. Brownish-yellow (10 YR 6/6) very fine grained quartzite. Basically identical to the "quartzite portion" of chert-quartzite material in no. 13 above. This one exhibits more wear on the surfaces, however. Edwards?

- 40. Neches River (?) dart point. Light brownish-gray (10 YR 6/3) mottled to darker (10 YR 4/4) and dark brown (3/3) Edwards chert. Dendrites common on one face and very infrequent on other suggests differences from exposure to ground surface.
- 41. Heavily resharpened dart point (Yarbrough?). Made of pale brown (10 YR 6/3) to dark yellowish-brown (10 YR 5/4) Edwards chert.
- 42. Broken untyped biface. Stem missing. Very pale brown (10 YR 7/4) to brownish-yellow (6/6) Edwards chert.
- 43. Broken untyped biface. Dark yellowish-brown (10 YR 4/6) Edwards chert. Red corner of stem suggests heat treatment. Mottled with light gray (10 YR 7/1) nonfossiliferous blebs.
- 44. Heavily resharpened Dalton/Meserve-like point. Homogenous gray (2.5 YR 5/0). Edwards.
- 45. Elam-like or Kent. Heavily resharpened. Made of very pale brown (10 YR 7/3) weathered to darker (10 YR 5/6) yellowish-brown Edwards chert. Slightly reddened, darker shade, and increased luster on one surface suggests heat treatment.
- 46. Broken scraper. Light yellowish-brown (10 YR 6/4) with darker splotching on dorsal crest. Pebble cortex. Fossiliferous, opaque chert. Fossils not identifiable with hand lens. Suggested Arbuckle Mountain source. Check further.
- 47. San Patrice dart point resharpened to a nub. Made of dark yellowish-brown (10 YR 4/4) well-indurated claystone /jasper. One reddened ear is suggestive of heat-treatment. Though no cortex is present, a gravel source is suggested simply because the type material it is made of typically results from claystone/jasper.
- 48. Epps dart point, heavily resharpened. Heavily weathered yellowish-brown (10 YR 5/6) surface. Original rock appears to have been light gray Edwards.
- 49. Scraper made from large flake blade, with bulb of percussion removed from ventral side of blade. Made of high quality yellowish-brown (10 YR 4/4) semi-translucent Edwards chert. Subtle banding similar to Proctor Uvalde gravels. Edwards Gravel.
- 50. Broken blade of untyped biface. Attempted reshaping of stem. Light yellowish-brown (10 YR 6/4) Edwards chert mottled to lighter light brownish-gray (10 YR 6/2).

- 51. Broken blade of wide, heavily resharpened, untyped biface. Mottled Edwards chert. Yellowish-brown (10 YR 6/4), brownish-yellow (6/8), and light gray (6/1).
- 52. Yarbrough (?). Original chert type is unobservable because of thick encrustation, white with red splotches. Tiny light gray spot on one surface is probably indicative of original material.
- 53. Broken blade of shouldered untyped biface. Made of light gray (10 YR 5/2) to dark grayish brown (10 YR 4/3) Edwards chert.
- 54. Untyped, slightly shouldered dart point with slightly flared stem exhibiting basal grinding. Made of light gray (10 YR 7/2) chert weathered to (10 YR 6/6). Similar material type to No. 29 above, but probably Edwards chert.
- 55. Yarbrough (?). Light brownish-gray (10 YR 6/2) chert altered to reddish-gray and red by heating. One surface severely heat fractured and spalled with pot lids. Possibly Edwards.
- 56. Dalton or unfluted Clovis dart point made of slightly mottled dark grayish-brown (10 YR 3/2) to dark yellow-brown (3/4). One side of the blade is slightly reddened, but is more typical of weathering of Nova-chert from the Johns Valley Shale of Ouachita Mountains rather than heat-treatment. Ouachita Mountain source suggested.
- 57. Edgewood (?). Severely resharpened blade. Made of dark yellowish-brown (10 YR 4/6) Edwards chert.
- 58. Edgewood (?). Made of light brownish-gray (10 YR 6/4) weathered to splotched yellowish-brown (10 YR 5/4). Edwards chert.
- 59. Decortication flake. Made of light brownish-gray (10 YR 6/2) splotched and weathered to brown (10 YR 4/3) Edwards chert. Cortex on dorsal surface is black.
- 60. Large unifacial flake scraper. Made of mottled reddish-brown (10 R 5/1) to brown (10 YR 5/3) Edwards chert with light gray (10 YR 7/2) splotches containing black dendrites. Cortex on dorsal surface. Flakes removed from the dorsal side reflect light bluish-gray patina.
- 61. groundstone
- 62. Broken blade of drill. Made of grayish-brown (10 YR 5/2) chert mottled to yellowish-brown (10 YR 5/8). Edwards chert.

- 63. Heavily resharpened Epps (?) dart point. So heavily patinated and worn that original material type cannot be accurately identified. The present surface is yellowish-brown (10 YR 5/8) weathered orangish-brown. Remnant of cortex with chatter marks reflects gravel source of raw material. Edwards gravel source.
- 64. Piece of petrified wood with minimal, if any, aboriginal flaking.
- 65. hammerstone
- 66. San Patrice. Made of very fine quality brownish-yellow petrified wood.
- 67. Edgewood or highly modified Ensor. Light brownish-yellow (10 YR 6/6) to very dark gray (10 YR 3/1) mottling. Edwards chert.
- 68. hammerstone
- 69. Epps-like with resharpened blade. Slightly mottled brownish-yellow (10 YR 6/6) and gray (10 YR 5/1) splotched Edwards chert.
- 70. Severely resharpened untyped Gary-like contracting and stubbed-off stem. Made of black petrified wood.
- 71. Piece of petrified wood. One end reflects minor flaking.
- 72. geofact
- 73. Heavily resharpened Epps-like biface with slightly beveled blade. Made of light yellowish-brown (10 YR 6/4) basic material weathered to darker yellowish-brown (4/6) with olive gray (greenish) tinge. Light gray to white cortex on one surface. Quartz filled vugs. Identical match with Specimen No. I-10-10 collected west of the Colorado River on Interstate 10 locality. Edwards gravel.
- 74. Pelican. Colors vary from one side to other as reflection of effects of weathering. Made of gray (10 YR 6/1) subtly mottled to weak red (10 R 5/3) on one ear. Other side (slightly convex) weathered to yellowish-brown (10 YR 5/6) Edwards chert.
- 75. Severely resharpened Harahey knife. Made of light yellowish-brown (10 YR 6/4) Edwards chert.
- 76. Yarbrough (?) with beveled or "twisted" blade. Made of brown (10 YR 5/3) Edwards chert weathered to yellowish-brown (10 YR 5/6) surface.

- 77. Yarbrough/Epps (?). Interior chert as reflected on one surface of the blade and in a "fresher" burinated spall along one edge of the blade is gray (10 YR 5/1), and other side is weathered yellowish-brown (10 YR 5/8). Edwards chert.
- 78. Large unifacial flake scraper. Beautiful very high-quality subtly-banded dark yellowish-brown (10 YR 4/4) Edwards chert. Light gray splotching on the dorsal surface.
- 79. Gouge or scraper. High quality petrified wood.
- 80. Heavily resharpened (depleted) Harahey knife. The basic rock is gray (10 YR 5/1) with light gray and brownish-gray mottling and grading into a yellowish-brown (10 YR 6/4) and darker yellowish-brown (5/6). Probable Edwards.
- 81. San Patrice dart point. Missing from collection.
- 82. Thick unifacial steeply edged scraper. Pointed on one end and the other unthinned stem end has slightly indented edges as if it was intended for hafting. Petrified wood with black cortex staining on both surfaces and on unthinned Woden-like stem.

83. Very well made Edgewood with broken distal tip. Chert is black with small white to grayish-brown dots. Marble Falls chert from vicinity of Lampasas, but obtainable as river gravel also.

- 84. Yarbrough made of pale brownish-gray petrified wood. Pinkish red tinging may be indicative of heat-treatment.
- 85. Possible Lange or Williams. Distal tip is rounded. Pale brown (10 YR 6/3) with surfaces weathered to yellowish-brown (10 YR 5/8) to dark yellowish-brown (4/6). Thin subtle cortex remnant on one side that still exhibits chatter marks from stream battering. Edwards Gravel.
- 86. Aborted "Clovis-like" preform with hinge fracture across the blade. Edwards chert.
- 87. Small Epps (?). Trinity- like point. Heavily resharpened with broken distal tip, and a fire spall on one surface of stem. Strong brown (7.5 YR 5/6) but appears to be more of a brownish-orange. Chalcedony with translucent edges. Possible Tecovas.
- 88. Dalton. Gray (10 YR 5/1) mottled to lighter shades of light yellowish-brown (10 YR 6/4). Slightly translucent on thin edges. Edwards.

- 89. Broken base of Folsom. Dark gray (10 YR 4/1) with light gray splotches. High quality Edwards chert.
- 90. Kent or Woden (?). Dark brown to black petrified wood with light brown cortex on the end of the unthinned stem.
- 91. Untyped dart point. Heavily resharpened blade with Elam-like stem, but it exhibits basal grinding. Possible Elam made from fragment of an earlier late-paleo type. Differences in coloration occur from one side to other and is translucent on thin edges. Very high quality Edwards chert. One side is dark yellowish-brown (10 YR 3/4), and other (ventral?) side exhibits a pale brown (10 YR 6/3) cortex-like surface. Probably from Edwards Gravel.
- 92. Yarbrough (?). Brownish-yellow (10 YR 6/6) to brownish-yellow (5/6) and reddish-brown (5 YR 4/3) splotching. High quality petrified wood. Reddened edge of the distal tip is indicative of heat treatment.
- 93. Untyped Broken biface. Shouldered and slightly contracting and rounded off stem (Gary?). Gray (10 YR 5/1) to grayish-brown (10 YR 5/2) Edwards chert.
- 94. Heavily resharpened Wells-like. Relatively poor quality chert. Highly mottled light gray to brown, reddish-brown, and dark gray fossiliferous chert, but fossils not identifiable with hand lens. Reddened portion along one edge of stem may reflect heat-treatment. A single, round, cross-section of a fusilinid is observable under microscope. Probable "Lowrance chert" from Arbuckles.
- 95. Broken blade of large biface. Burinated along one edge and other edge used as unifacial scraper. Heavily patinated, white to light gray with orange dots. Raw material appears to have been gray and possibly Edwards, but not certain.
- 96. Broken distal tip of biface. Pale brown (10 YR 6/3) Edwards chert. Pebble cortex on one surface. Edwards gravel.
- 97. Artifact unavailable for inspection.
- 98. Plainview. Gray (10 YR 5/1) to light grayish-brown (10 YR 6/2) on one surface. Other side is dark grayish-brown (10 YR 4/2) to brown (10 YR 4/3). Edwards.
- 98A. Possible Dalton preform. Light yellowish-brown petrified wood with black organic staining on all surfaces. East Texas source area.
- 99. Gary, rounded off distal tip. Strong brown (7.5 YR 5/8). Reddened edge of stem indicative of heat-treatment. Unidentified very fine-grained quartzite similar to No. 13 above.

- 100. Broken biface. Stem missing. Light brownish-gray (2.5 YR 6/2) to light reddish-brown (5 YR 6/3) opaque Edwards chert.
- 101. Dalton. Small splotches of interior material is dark gray (10 YR 4/1) weathered to brown (10 YR 5/3) and dark yellowish-brown (10 YR 4/4). Has encrustation of bryozoans on both surfaces of blade. Possibly Edwards.
- 102. San Patrice. Brownish-yellow (Munsell Strong brown 10 YR 5/6). Heavily patinated, worn, and polished from beach wear. Unidentified type material.
- 103. Unifacial flake. Pale red (2.5 YR 6/2) subtly mottled with light gray along one edge. The unaltered material is very pale brown (10 YR 7/3). Reddish color is probably result of heat-treatment. Edwards.
- 104. (FT 11) Large blade of Delhi-like dart point, but stem is missing. High quality grayish-brown Edwards chert.
- 105. Chert fragment. Brown pebble cortex on one edge. Heavily patinated light bluish-gray surfaces elsewhere.
- 106. Flaked fragment of white petrified palm wood with open vesicles from palm straw.
- 107. Nutting Stone
- 108. Decortication flake. Cortex on dorsal side. High quality chert identical to No. 78 above, but highly-weathered light gray (2.5 Y 7/2) with orange splotching. Edwards.
- 109. San Patrice. Yellowish-brown (10 YR 5/6) with very light bluish-white sporadic dots. Possible Edwards.
- 110. Scraper. Possibly made from "Clovis" decortication flake blade; at least it is from flake blade typical of Clovis. Mottled brownish-gray, red, pinkish-gray. Chemical weathering possibly too strong for positive identification. Edwards-like. Pebble cortex on dorsal side, and heat-treated. Edwards gravel.
- 111. Contracting-stemmed, slightly-shouldered, heavily-resharpened blade. Possibly Gary or more appropriately defined as Woden? Poorly developed cortex at base of unthinned stem. Light yellowish-brown (2.5 Y 6/4) to brownish-yellow (10 YR 6/8). Opaque Edwards chert.
- 112. Broken blade, untyped. Grayish-brown (10 YR 5/2). Edwards chert.

- 113. Decortication flake. Very pale brown (10 YR 7/3). Edwards chert.
- 114. groundstone
- 115. Lange-like dart point. Heavily patinated Edwards.
- 116. San Patrice. Brown (10 YR 5/3) with tiny white dots sprinkled throughout matrix. Burinated span on one edge of distal tip. Unidentified source.
- 117. Marshall or Marshall-1ike Woden (?) with barbs broken off. Brownish-yellow (10 YR 6/6) slightly mottled to darker (5/4) chert. Cobble cortex still present at base of unthinned stem. Edwards Gravel similar to No. 109.
- 118. Flake scraper. Mottled light gray (10 YR 7/2) different shades through yellowish-brown (10 YR 5/4) with pinkish tinge. Cortex still present on two edges. Edwards gravel.
- 119. Epps-like. Typical bluish-gray Edwards. Heavy patination over entire point.
- 120. Wells-like. Yellow (10 YR 7/8) to yellowish-brown (10 YR 6/6). Homogeneous color and texture. Flake scars almost worn off. Yellow chalcedony. Source unknown. Check further.
- 121. Yarbrough. Very dark gray (10 YR 3/1). Very fine quality petrified wood.
- 122. Unthinned Dalton/Pelican-like. Brownish-yellow (10 YR 6/6) grading into reddish- yellow (7.5 YR 6/6), pinkish-gray (7.5 YR 7/2) along edge. Edwards.
- 123. Broken distal tip of biface. Light gray (7.5 YR 7/0) weathered white (7.5 YR 8/0) Edwards.
- 124. Broken edge of bifacial preform. Pinkish-white (7.5 YR 8/2) to reddish-yellow (7.5 YR 8/6). Edwards.
- 125. Lange-like dart point. Brown (7.5 YR 5/4) with remnant of darker cortex. Dark Brown (7.5 YR 3/2). Gravel source possibly Edwards.
- 126. Edgewood. Mottled Dark gray, black, to light gray, white petrified wood. Black cortex on both sides of blade.
- 127. Yarbrough-1ike. One corner of stem broken off. Heavily resharpened blade. Yellowish-brown (10 YR 5/8) to grayish-brown (10 YR 5/2) to gray (10 YR 5/1) mottled with very pale brown (10 YR 8/3) splotching. Edwards.

- 128. Edgewood-like. Yellowish-red (5 YR 4/6 to 5/6). Waxy luster, opaque jasper. Uncertain source, possibly Tecovas, but too homogeneous in color and texture for typical Tecovas types. Very close microscopic match to Minnelusa.
- 129. Marcos-like. Basic color grayish-brown (10 YR 5/2) with both light and darker shades in bands. Petrified wood, very high quality.
- 130. Clovis. Brownish-yellow (10 YR 6/6) to light gray (10 YR 7/1) on one side, and reddish-yellow (7.5 YR 6/8) with red (10 R 4/8) mottling on the other side. Beautiful semi-translucent honey colored "Edwards"(?) chert from north central Texas.
- 131. Untyped broken biface. Basic color yellowish-red (5 YR 5/6) to lighter yellow, but this surface is highly weathered, worn, and patinated. In cross section the patina is white and 2 mm thick. The interior chert is high quality dark reddishbrown (5 YR 3/4). In microscopic comparison and ultraviolet light fluorescence it is virtually identical to Knife River Flint.
- 132. Marcos-like. White (10 YR 8/2) grading into dark yellowish-brown petrified wood.
- 133. Harvey-Mineola biface. Matches Jelks description perfectly. Dark yellowish-brown (10 YR 4/4) weathered to light brownish-gray (10 YR 6/2) cortex. Petrified wood.
- 134. Langtry-like or Woden resharpened blade and unthinned, squared-off stem. Dark grayish-brown (10 YR 4/2) to grayish-brown (5/2). Edwards.
- 135. Broken blade of strongly beveled untyped biface. Dalton (?). Made of very dark gray (7.5 YR 3/0) with tiny white dots. Grades (weathering?) into light gray (10 YR 7/2) chert. Good microscopic comparison to Marble Falls, but the artifact reflects slightly increased illusion of translucency and luster. Weathering alone could have created such changes.
- 136. Marcos-like. Brownish-yellow (10 YR 6/6) to dark yellowish-brown (10 YR 4/6) and very pale brown (10 YR 7/4). Changes in coloration and patterning is typical of cobble weathering, but no cortex is present. Source not certain. Possible Edwards.
- 137. Severely resharpened Dalton. Flake scars completely worn off and heavy patination of very pale brown (10 YR 8/3) to white (8/1). Original material unobservable.

- 138. Broken blade of untyped biface. White (10 YR 8/2) weathered and splotched with yellow (10 YR 7/6). Edwards.
- 139. Geofact.
- 140. Scraper/knife made on faceted Clovis-like flake blade. High quality dark brown (7.5 YR 3/4) semi-translucent Edwards.
- 141. Plainview. Yellowish-brown (10 YR 5/6) mottled to grayish-brown (10 YR 5/2) and lighter colored splotching. Edwards.
- 142. Scottsbluff, broken mid-section stem and lower blade. Dark grayish-brown (10 YR 4/2) with very pale brown splotching. Edwards.
- 143. Ellis/Edgewood (?). Strong brown (7.5 YR 4/6). Lower 2/3 is opaque fine grained quartzite and towards the distal end material grades into a thin band of olive gray (5 Y 4/2) chert, and the distal tip is brown (7.5 YR 4/4) chert with an increased luster. Gradation from quartzite to chert and the color variation is typical of both Edwards and Tecovas. Edwards is probably best guess. Tecovas is typically more varied in coloration.
- 144. Biface preform. Brown (7.5 YR 5/4) petrified wood. Cortex remnant of dark gray present on both faces.
- 145. Pandale-like, crudely flaked. Mottled in shades of white, brown, and black with rust colored staining. Exhibits porous veins filled with iron oxide staining parallel to axis of the blade. Possible Edwards.
- 146. Broken distal tip of biface. White (2.5 Y 8/3) outer surface of thick patina. Interior rock exposed in broken cross section is dark brown high quality chert (7.5 YR 4/2). Almost identical to No. 131 above, but the patina on 146 is slightly thinner. Same microscopic and fluorescent comparisons to Knife River Flint as 131.
- 147. Scraper. Not available for inspection.
- 148. Large, heavily resharpened blade, broken in cross section. Later attempt for refitting with a new crudely-flaked contracting Gary-like stem. Flaking on the stem is much "fresher" than rest of the blade, and appears to result from late Archaic modification of an earlier form of broken artifact. Relatively poor quality orthoquartzite, brown (7.5 YR 5/4) with gray (7.5 YR 5/0) mottling. Small open vugs and plant molds. Good comparison to the brown variety of Fisher quartzite found in headwaters of the Sabine River and should be found as gravels downstream. However, no cortex is evident in this case.

- 149. Bell/Andice/Calf Creek. More typical of Andice. Basic rock is white (2.5 Y 8/2) stained and weathered to reddish-yellow (7.5 YR 7/6) chert. Identical to white Edwards from northeast side of Belton Lake.
- 150. Broken blade of untyped biface. Very well made, slightly shouldered Scottsbluff-like (in outline) blade with stem missing. Dark brown (10 YR 3/3) chert, slightly splotched with very pale brown (10 YR 7/3) spots. White, slightly rust-stained cortex on one side of blade. Edwards gravel.
- Broken mid-section of large untyped biface, but one side exhibits parallel flaking. Brown (10 YR 4/4) grading laterally into mottled brown and white to white (10 YR 8/2) and light gray (10 YR 7/2) chert. Edwards (?).
- 152. Large, wide Scottsbluff, but it lacks basal grinding. From small fracture on one corner of stem, chert is very pale brown (10 YR 7/4). All other surfaces are weathered and stained to yellowish-brown (10 YR 5/4 to 5/6). Edwards.
- 153. bone
- 154. Untyped biface. Unavailable for inspection.
- 155. Drill made on small Scottsbluff. Lacks basal grinding. Very dark gray (10 YR 3/1) with mottled dark brown (10 YR 4/3) splotching. Microscopic and ultraviolet light fluorescence comparison is identical to Knife River Flint.
- 156. Bifacial thinning flake. Light brownish-gray (2.5 Y 6/2) weathered/mottled to yellowish-red (5 YR 4/6). Edwards.
- 157. Broken Palmillas-like large thick and heavily resharpened blade. Strong brown (7.5 YR 5/6) and lighter shade of splotching. Orthoquartzite, small thin remnant of cortex on one surface of stem. Reddened edge of blade is suggestive of heat-treatment. Gravel source.
- 158. Motley-Epps like dart point. Yellowish-brown (10 YR 5/4 to 5/6), with very pale brown (8/4) splotching. VFG quartzose chert. Edwards (?).
- 159. Large Edgewood/Frio-like, with heavily resharpened blade. Basic material yellowish-brown (10 YR 5/4) to dark yellowish-brown (10 YR 4/4) splotching with very pale brown (10 YR 8/4). Other side weathered to slightly lighter color. VFG cherty quartzite. Edwards (?).
- 160. Broken mid-section of large biface with parallel flaking. Scottsbluff (?). Dark yellowish-brown (10 YR 4/4) to brown (10 YR 4/3) Edwards.

- 161. Small Motley-like. Yellow (10 YR 8/6 to 8/8) weathered in places to darker yellow (7/8). VFG cherty quartzite or possibly weathered Edwards.
- 162. Fragment of flake scraper. Light brownish-gray (10 YR 6/2) with light orangish mottling. Edwards.
- 163. Scottsbluff (?) with broken stem and distal end resharpened to drill with blade broken off at juncture with blade. Very dark gray (2.5 Y N3/0) to black (N2/0). Tiny black spots of dendrites sprinkled throughout matrix. Doubtful Edwards (?).
- 164. groundstone
- 165. Broken untyped biface. Strongly shouldered, parallel flaking (?), but stem and distal tip broken off. The two breaks occurred at widely separated times as evidenced by differences in weathering. Basic material is brown (7.5 YR 4/4) weathered to very light gray with orange splotching on one side and yellowish-brown (10 YR 5/6) on other side. Type material uncertain. Check further.
- 166. Broken base of Angostura/First View-like point. Basic yellow (10 YR 7/6) with vivid dusky-red (10 R 3/4) dots. VFG Tecovas quartzite.
- 167. Yarbrough (?), Palmillas-like (?). Dark yellowish-brown (10 YR 4/4) to brown (5/3), yellowish-red (5 YR 4/6). Yellowish-red and waxy luster may result from heat-treatment. Edwards (?).
- 168. Plainview. Light yellowish-brown (10 YR 6/4) grades at distal end to dark yellowish- brown (10 YR 4/6) sprinkled with dendrites toward stem that grades into banded very dark gray (7.5 YR N3) to black (N2). Typical of Minnelusa/Casper/Madera. Check further when comparative specimens are-available.
- 169. groundstone
- 170. Split cobble of Edwards.
- 171. Broken fragment of Palmillas-like dart point. Pale yellow (2.5 Y 7/4) weathered to very pale brown (10 YR 7/4). Reddened area of the broken ear and stem are indicative of heat-treatment. Edwards (?).
- 172. Broken distal end of resharpened parallel flaked biface (Scottsbluff?). Yellowishbrown (10 YR 5/4 to 5/6). Semi-translucent on thin edges. Edwards.

- 173. Large broken base of Dalton (?). Preform (?). Very fine-grained mottled quartzite of very pale brown (10 YR 7/3), light gray (10 YR 7/2), stained weak red. Heavily patinated and worn. Fisher quartzite from headwaters of Sabine River, possibly obtained as gravel.
- 174. Broken mid-section of untyped biface. Brown (10 YR 4/3) to brownish-yellow (6/6). Slightly splotched Edwards.
- 175. Thick broken blade of untyped biface. Strongly shouldered with stem missing. Mottled, highly weathered light gray (10 YR 7/2), light yellowish-brown (10 YR 6/4) to brown (10 YR 5/3) to reddish-brown (5 YR 5/4). Edwards.
- 176. hammerstone
- 177. Epps. Brown (10 YR 5/3) to yellowish-brown (10 YR 5/4) mottled to yellow (10 YR 7/6) and dusky-red (10 R 3/4) on distal end. Waxy luster. Luster and red distal tip are indicative of heat-treatment. Edwards.
- 178. Untyped biface fragment. Pale red (10 R 6/2) to weak red (5/3) weathered to reddish-gray (10 R 6/1). Tecovas quartzite (?).
- 179. Ellis-like. Brownish-yellow (10 YR 6/8) to reddish-yellow (7.5 YR 6/6). Heavily worn. Very fine-grained unidentified cherty quartzite, probably East Texas gravels.
- 180. Small flake scraper. Made of pale yellow (2.5 Y 7/4) to light yellowish-brown (2.5 Y 6/4) chert with well-healed reddish-brown hairline fractures. Edwards (?).
- 181. Broken biface. Stem and distal tip are missing. The broken cross-section is light gray (2.5 Y 7/2). Surfaces are weathered to mottled very pale brown (10 YR 7/4) and reddish-brown (5 YR 4/4). Edwards.
- 182. Broken Clovis. End of stem is missing, but broken cross-section patinated to same degree as blade. Recent (?) flake removed from distal tip reveals gray (7.5 YR 6/0) chert. All other surfaces are heavily patinated and worn from beach wear, and are mottled white, light gray and orange. Edwards.
- 183. Flake scraper. Brown (10 YR 5/3) mottled with both lighter and darker shades of brown. Cortex on dorsal surface. Edwards gravel.
- 184. Broken rounded base of large thick untyped biface. Probably preform and exhibits trace of heat-treatment. Dark gray (10 YR 4/1) with splotched light gray (10 YR 7/1). Dense opaque cherty-quartzite typical of Lower Boone of northeast Oklahoma, northwest Arkansas.

- 185. Cobble scraper. Pale yellow (2.5 Y 7/4) to light yellowish-brown (10 YR 6/4) siliceous oolite. Cobble cortex remains on dorsal side, and clearly indicates a gravel source of the rock. Chawner (1936:135) describes the presence of siliceous oolite in the Citronella gravels of East Central Louisiana but does not provide any description of the rock itself. An identical form of yellow siliceous oolite has been reported (Banks: in press) for a small resharpened Dalton point found at Site 109 for the Gilmer investigations being conducted by Horizon Environmental Services, Inc. of Austin, Texas. This will be examined further.
- 186. Motley/Epps-like broken biface. Basic material is light gray (10 YR 7/2) and grayish-brown (10 YR 5/2), and typical light-bluish gray Edwards patination occurs on the surfaces and on the broken cross-section of the blade.
- 187. Large, thick, broken edge of a preform reworked into a crescent shaped tool (?). Severely weathered and patinated with rusty-brown colored rind. No observable original material, and identity undetermined.
- 188. (check for classification). Made of yellow (10 YR 6/6) very fine-grained quartzite mottled with both darker and lighter shades of yellowish-color on one side and the other side is dark yellowish-brown (10 YR 5/8). Exhibits cortex remnants on both faces and at the base of the stem. Gravel source.
- 189. Palmillas-like broken dart point. Dark grayish-brown (10 YR 4/2) to brown (10 YR 5/3) petrified wood.
- 190. Broken bifacial preform. Yellowish-brown (10 YR 5/4) Edwards chert mottled to lighter and darker shades of brown.
- 191. Yarbrough. Very dark gray (10 YR 3/1) and brownish-yellow (10 YR 6/6) petrified wood.
- 192. Resharpened Dalton or possibly Clovis. Made of uniformly colored brownish-yellow (10 YR 6/6) chert. Possibly Edwards, but not a certainty.
- 193. Ellis. Gray (10 YR 5/1) quartzite, weathered to brown (10 YR 5/3) and yellowish-brown (10 YR 5/4). Typical of quartzites found as gravels in the Queen City Sand Formation of east Texas, and probably occurs in Sabine River Gravels.
- 194. Ellis-like. Aborted attempt of basal thinning because of inadequate ability of the rock to fracture properly. Made of gray (10 YR 5/1) quartzite sprinkled with tiny black dots. Typical of Queen City Sand Formation gravels.

- 195. Kent/Gary/Woden-like. Light gray (10 YR 7/2) petrified wood, weathered to very dark gray (10 YR 3/1) on both surfaces and at the base of the unthinned stem.
- 196. Untyped, broadly shouldered, and broken biface. Light yellowish-brown (10 YR 6/4) Edwards chert mottled to grayish-brown (10 YR 5/2) and very pale brown (10 YR 5/3). Reddened areas on both surfaces near the stem are indicative of heat-treatment.
- 197. Plainview/Dalton/possibly unfluted Clovis. Material type may have precluded the ability to flute the point. Very dark grayish-brown (10 YR 3/2), dark brown (10 YR 3/3), and dark yellowish-brown (10 YR 4/4). Spots of lavender (pale red 10 R 6/3) occur on both surfaces and associated with splotches of yellowish-red (5 YR 5/6). Very high quality of petrified wood.
- 198. Slightly shouldered, broken, and untyped biface. Flake at distal tip exhibits light brownish-gray (10 YR 6/2) coloration. All other surfaces are weathered to darker uniform dark gray (10 YR 4/1). Edwards chert or possibly VFG quartzite. McFaddin materials in general tend to reflect minute differences between chert and quartzite that may be a result of the effects of weathering peculiar to this area. Normally distinctions are much clearer.
- 199. Large Scottsbluff. Spall on one corner of stem exhibits light yellowish-brown (10 YR 6/4) chert as does a flake on the edge of the blade toward distal end. All other surfaces patinated to light gray (10 YR 7/2) with very pale brown (10 YR 7/4) splotching. Edwards chert.
- 200. Yarbrough. Subtly mottled colors from dark gray (7.5 YR 4/0) to dark grayish-red (10 R 4/1), and dusky-red (10 R 3/2) with white splotches. Semi-translucent on thin edges. Other side weathered to lighter shades of same basic colors, patination of light bluish-gray. Edwards.
- 201. Flake scraper. Dark yellowish-brown (10 YR 3/4) with lighter splotches. Cobble cortex on dorsal side. Same material as 131 and 146. Possibly from very high quality Edwards gravels, but it also resembles some varieties of Knife River flint. The rock type is almost identical with a chipped cobble found in Williamson Creek in southeast part of Austin, Texas as weathered from the Edwards.
- 202. Broken rectangular base of large untyped biface. Basic material gray (10 YR 6/1) weathered to brown (10 YR 5/3) and light yellowish-brown (10 YR 6/6). Edwards.
- 203. Kent/Gary-like. Contracting unthinned stem with cortex at base. Very dark grayish-brown (10 YR 3/2) to very dark gray (10 YR 3/1) with black (10 YR 2/1) splotching. Edwards gravel.

- 204. Broken contracting stemmed dart point with broken stem. Gary (?). Beautiful high-quality gray (2.5 Y 5/0) to dark gray (2.5 Y 4/0) with splotches of light brownish-gray (2.5 Y 6/2) to olive brown (2.5 Y 4/4). Possibly Edwards, but a mental comparison with chert from the Great Smoky Mountains of eastern Tennessee gives cause for caution. Check further.
- 205. Ellis/possibly Lange-like. Broken distal tip. Brownish-yellow (10 YR 6/6) to yellow (10 YR 7/6) very fine-grained cherty quartzite. Exhibits tiny open vugs and one quartz-filled vug. Reddened base of the stem is indicative of heat-treatment. Tecovas (?) quartzite.
- 206. Broken blade of untyped biface. Broken cross-section exhibits very pale brown (10 YR 7/3) color, and surfaces mottled to light yellowish-brown (10 YR 6/4) to dark reddish-brown (5 YR 3/2). Small remnant of cortex near distal end on one face. Edwards gravel.
- 207. Very small, thin, Plainview-like dart point or large Talco arrowpoint. Distal end is broken. Beautiful brownish-yellow (10 YR 6/6), semi-translucent chalcedony. Tecovas best guess.
- 208. Blade of large broken biface. Stem broken off, but reveals wide, flaring shoulders. Brown (10 YR 5/3) chert matrix heavily interspersed with light gray (10 YR 7/2) fragments of fossil hash. Similar to Pisgah Ridge materials but not exact match. Good microscopic and fluorescent comparisons to one variety of chert from the Weeping Water Creek in southeastern Nebraska.
- 209. Broken fragment. Light brownish-gray (10 YR 6/2) weathered in splotches to gray (10 YR 5/1), dark yellowish-brown (10 YR 4/4) cherty dolomite with quartz-filled vugs. Edwards.
- 210. Flake scraper with pointed graver-like tip. Very dark grayish-brown (10 YR 3/2) to brown (10 YR 5/3) Edwards gravel. Cortex covers dorsal side.
- 211. Small Godley-like dart point. Strong brown (7.5 YR 5/6) chert, possibly Edwards, but source uncertain. Heavily worn and polished.
- 212. Small Edgewood-like dart point. Fresh flake on one edge exhibits pinkish-gray (7.5 YR 7/2) fine-grained quartzite with small white rectangular inclusions. Rest of artifact is completely covered with strong brown (7.5 YR 5/6) patinated and heavily worn encrustation. Good microscopic comparison with coarse-grained weathered Edwards chert.

- 213. Flake scraper. Dark brown (7.5 YR 4/2) (in fresh flake). All other surfaces weathered to gray (10 YR 5/1) splotched with spots of light gray (5 Y 7/2). Edwards.
- 214. Large Yarbrough. Thick, and has basally unthinned stem like Woden. Gray (5 Y 5/1), splotched with light olive gray (5 Y 6/2) Edwards chert.
- 215. Ellis-like. Very pale brown (10 YR 7/4) mottled light brownish-gray (10 YR 6/2), brownish-yellow (10 YR 6/6) to dark yellowish-brown (10 YR 4/6). Well-healed hairline fractures and quartz-filled vugs. Very fine-grained petrified wood.
- 216. Yarbrough/Ellis-like. Yellow (10 YR 7/6) to yellowish-brown (10 YR 5/6) on fresh breaks. Surfaces mottled red (10 R 4/6) to dark olive gray (5 Y 3/2). Very fine-grained quartzite. If the red areas reflect heat treatment, such treatment was conducted after the tool was flaked. Tecovas quartzite (?).
- 217. Broken edge of bifacial preform. Yellow (10 YR 7/6) to yellowish-brown (10 YR 5/6) with white palm-straw fillings. Petrified palm wood.
- 218. Untyped shouldered and broken biface. Reddish-yellow (7.5 YR 6/6) to brown (7.5 YR 5/4) fine-grained quartzite. Pebble cortex on one surface. Reddened shoulder indicative of heat-treatment. Possibly Tecovas.
- 219. Ellis/Yarbrough-like. Brown (7.5 YR 5/4) fine-grained quartzite. Weathered on one face to yellowish-brown (10 YR 5/6) and gray (10 YR 5/1) splotched on other. Unthinned base contains cortex remnant. Gravel source.
- 220. groundstone
- 221. Palmillas (?). Only rough outline is observable because of wear. Entire artifact heavily encrusted with white and rust-colored patina. Heavily worn, and no original surface observable. Unidentified chert type.
- 222. Untyped broken blade of biface. The proximal edge of the broken plane reflects an aborted attempt of restemming the point. Dark reddish-brown (5 YR 3/2) to dark red (5 YR 3/6) petrified wood.
- 223. Large flake knife. Made from dark yellowish-brown (10 YR 4/4) chert grading into white (10 YR 8/1) band beneath thick weathered rind of the original chert nodule. Edwards.
- 224. Lange (?). Distal tip broken. Yellow (10 YR 7/6) with slight mottling in lighter shades. White quartz-filled vugs on one face. Very fine-grained quartzitic chert. Edwards.

- 225. Harvey-Mineola Biface. Dark yellowish-brown (10 YR 4/4), dark gray (10 YR 4/1) and light gray (10 YR 7/1). Petrified wood. Cortex remnant along one unchipped edge.
- 226. Broken blade of untyped biface. Light reddish-brown (5 YR 6/4) exhibited in fresh flakes at broken stem and on one edge. Exhibits red (10 R 5/6) fine-grained quartzite. The surface is completely patinated and worn. Tecovas quartzite.
- 227. Flake showing minimal use wear. Grayish-brown (10 YR 5/2) mottled yellowish-brownish gray. Edwards chert.
- 228. Yarbrough Dark grayish-brown (10 YR 4/2) on one side. Other side is slightly patinated with light bluish-gray. Edwards.
- 229. Yarbrough-1ike. Incredible sequences of rejuvenation on the blade portion. Basic rock is light yellowish-brown (10 YR 6/4) fine-grained quartzite (reflected in third stage of resharpening). Intermediately weathered and flaked surface is yellowish-red (5 YR 4/6), and the original flaked surface of the stem reflects a dark reddish-gray patina. Good microscopic comparison to Tecovas quartzite.
- 230. Yarbrough. Base of stem is unthinned and appears to be intentionally burinated along lateral edge. Yellow (2.5 Y 7/6) weathered to yellowish-brown (10 YR 5/8) chert, and stem and one ear are weak red (10 R 4/6), probably from heat-treatment. Very fine-grained quartzitic chert, unweathered center exposes the yellowish original rock. Edwards.
- 231. Firstview. Dark grayish-brown (2.5 YR 4/2) with lighter splotching. Edwards.
- 232. Gorget
- 233. Relatively large flake scraper. Highly mottled yellow (10 YR 7/6), dark grayish-brown (10 YR 4/2), light brownish-gray (10 YR 6/2), weak red (2.5 YR 4/2) and red (10 R 5/6). Distinctive pale blue angular patterns of quartz-filled vugs. Tecovas.
- 234. San Patrice (Rogers side-notched variety). Brownish-yellow (10 YR 6/6) from fresh flakes on one edge. One surface weathered to pale brown (10 YR 6/3) with light gray splotching, and other side splotched with yellowish-brown (10 YR 5/6). Edwards (?).
- 235. Completely worn and encrusted broken mid-section of untyped biface. No original surface of the rock is observable. Unidentifiable.

- 236. Broken mid-section of large untyped biface. Completely encrusted and worn. Original material appears to have been gray (10 YR 6/1) chert. Edwards (?).
- 237. Drill formed on broken contracting-stemmed (Gary?) biface. Strong brown (7.5 YR 5/6) very fine-grained and heavily-worn quartzite. Fisher (?). Check further.
- 238. Large Dalton, resharpened blade. Dark olive-gray (5 Y 3/2), with black (5 Y 2.5/1) dendritic splotching. Edwards (?).
- 239. Edgewood/Ellis (?). Very pale brown (10 YR 8/4) with edges weathered to brownish-yellow (10 YR 6/6) and cortex remnant of dark yellowish-brown. Edwards gravel.
- 240. Broken mid-section of slightly shouldered biface. Original material appears to have been light gray (10 YR 6/1). Edwards chert (?).
- 241. Broken mid-section of untyped biface. Yellowish-brown (10 YR 5/4) in broken cross-section. Weathered to mottled yellow (10 YR 7/6) and dark grayish-brown (10 YR 4/2). Well-healed fractures filled with light blue-gray quartz. Edwards.
- 242. Broken blade of untyped biface. Light yellowish-brown (10 YR 6/4) mottled splotching of yellow (10 YR 7/6) and brown (10 YR 5/3). Edwards.
- 243. Yarbrough. Basally unthinned with cortex remaining at base of stem. Yellow (10 YR 8/6) very fine-grained quartzite. Heavily worn and coated with yellowish-brown (10 YR 5/6) patina. Unidentified.
- 244. Pottery
- 245. Mammoth molar
- 246. Yarbrough-1ike, but with beveled blade. Brownish-yellow (10 YR 6/6), weathered (patinated) to dark yellowish-brown (10 YR 4/6). Heavily patinated and worn. Very fine-grained quartzitic chert. Edwards.
- 247. Broken distal end of untyped biface. Pale yellow (2.5 YR 7/4) mottled to lighter and darker shades and reddened (10 R 4/6) on edges. Reddened areas possibly from heat-treatment. Very fine-grained quartzitic chert identical to Seguin specimen Acme-11 from Guadalupe River cobble. Edwards.
- 248. Fragment of large thick bifacial preform. Very pale brown (10 YR 7/3) weathered to dark yellowish-brown (10 YR 4/4) on edges. Has characteristic light orange streaking observable under hand lens. Very fine-grained quartzite. Possibly Tecovas.

- 249. groundstone
- 250. Broken, resharpened, worn, and encrusted contracting-stemmed Gary. Red (10 R 4/6) slightly waxy coating. All flake scars worn off. Original material unobservable.
- 251. Large flake scraper. Yellow (10 YR 7/6) mottled to both lighter and darker shades. Cobble cortex on one side and both ends. Edwards gravel.
- 252. Pelican. Blade severely resharpened. Yellowish-red (5 YR 4/6). Edges inside pebble cortex is light yellowish-brown (10 YR 6/3). Flake scars are heavily worn. Petrified wood.
- 253. Godley-like. Stem is either snapped off or intentionally unthinned. Dark yellowish-brown (10 YR 4/4) with dots and slight splotching of very pale brown (10 YR 8/3). Edwards chert.
- 254. Flake scraper. Basic yellowish-red (5 YR 4/6) on one side. Other side is slightly lighter in color. Very pale brown (10 YR 7/4) streak across one surface. Pebble cortex and minor chatter marks on one edge. Edwards gravel.
- 255. Midland/unfluted Folsom (?). Dark red (2.5 YR 3/4) chert with minor dull yellowish splotching, and obverse side exhibits dark gray quartz-filled vugs surrounded by pale yellow rings. Best guess is Tecovas.
- 256. Pelican. Dark brown (10 YR 4/3) with lighter shades of brown. Petrified wood.
- 257. Scottsbluff . Brownish yellow (10 YR 6/6), mottled darker and lighter shades on one side. Other side is light brownish-gray (10 YR 6/2) with darker mottled dotting. Dramatic differences from one side to the other from effects of weathering. Edwards.
- 258. Small corner-notched biface (Ensor, Ellis-like). Dark yellowish-brown (10 YR 4/4) with reddish tinge on one side; lighter colored brown (10 YR 5/3) on other side. Edwards.
- 259. Gary. Strong brown (7.5 YR 5/6 to 5/8). Light gray splotching on both surfaces of stem and lower blade. Porous character of splotching typical of carbonate rind on chert nodules. Edwards.
- 260. Dalton/Pelican-like. Resharpened blade. One ear broken off. Other ear exhibits dark red coloration suggestive of heat-treatment. Dark yellowish-brown (10 YR 4/4, 4/6) to strong brown (7.5 YR 5/6) with minor very pale brown splotching. Edwards.

- 261. Snapped off proximal end of attempted blade removal from core. Grayish-brown (10 YR 5/2) with white (10 YR 8/2) to light gray (10 YR 7/1) patination on reverse (weathered) side. Edwards.
- 262. Broken edge of thick preform. Dark yellowish-brown (10 YR 4/4), yellowish-brown (10 YR 5/4) to pale brown (10 YR 6/3). Edwards chert.
- 263. hammerstone
- 264. Flake (relatively large) of debitage. Light yellowish-brown (10 YR 6/4) with dark brown splotching on one edge. Dull, earthy luster. Heavily weathered. Edwards (?).
- 265. Broken edge of thick flake scraper. Brown (7.5 YR 5/4) to strong brown (7.5 YR 5/6) and darker beneath cortex of (7.5 YR 4/4). Cortex along one edge. Edwards gravel.
- 266. Flake scraper. Light yellowish-brown (10 YR 6/4) with dark gray mottling and quartz-filled disconnected fractures. Reddened edge at bulb of percussion may be indicative of heat-treatment. Edwards.
- 267. Debitage flake scraper, similar to backed bladelet. Red (10 R 4/6) jasper, weathered yellow (10 YR 7/6) cortex. Tecovas is best guess.
- 268. Broken blade of narrow resharpened biface. Heat-treated Ogallala Quartzite. Uvalde gravel.
- 269. Broken blade of large untyped biface. Light brownish-gray (10 YR 6/2) with fresh fracture on distal tip exhibiting dark grayish-brown (10 YR 4/2). The light brownish-gray grades into light gray (10 YR 7/2). Typical Edwards light bluish-gray patination. Edwards.
- 270. Marshall/Martindale-like with resharpened blade. Brownish-yellow (10 YR 6/6) to very pale brown (10 YR 6/3) and darker brown splotching on one side (ventral), and weathered to yellow (10 YR 7/6) with rusty splotching on other side. Edwards.
- 271. Gary. Yellowish-brown (10 YR 5/4) mottled and splotched with lighter very pale brown (10 YR 7/4). Weathered quartzitic chert or VFG quartzite. Upon further checking, matches quartzitic Edwards chert.
- 272. Scraper. Reddish-gray (5 YR 5/2) on ventral side. Reddish-brown (2.5 YR 5/6) with white porous cortex on dorsal side. Edwards gravel.

- 273. Broken biface preform. Very pale brown (10 YR 6/3 to 7/4). Cortex remnants. Edwards gravel.
- 274. Broken base of Plainview. Grayish-brown (10 YR 5/2) with mottling of weak red (2.5 YR 4/2). Edwards.
- 275. Elam or Neches River (?). Yellow (10 YR 7/6) grading into slightly darker colors of dark yellowish-brown (10 YR 4/6). Pebble cortex on both surfaces. Edwards gravel.
- 276. Palmillas-like. Dark grayish-brown (10 YR 4/2) with lighter colored splotching. Edwards. Reddened distal tip may be indicative of heat-treatment.
- 277. San Patrice. Pale brown (10 YR 6/3) with light yellowish-gray splotches. Other side is darker brown {10 YR 5/3}. Flake at distal tip exposes light gray interior. Edwards.
- 278. Epps-like. Very pale brown (10 YR 8/4) to yellow (10 YR 8/6) mottled with gray to weak red splotching and cortex remnant. Edwards gravel.
- 279. Kent. Very dark grayish-brown (10 YR 3/2) petrified wood. Black beneath cortex of grayish-brown (10 YR 5/2). Cortex on both surfaces, at distal tip, and at base.
- 280. Yarbrough. Thick blade and severely resharpened. Fresher flakes on one edge reveal light yellowish-brown (10 YR 6/4) Edwards chert. Weathering has produced an overall color of strong brown (7.5 YR 4/6). Pebble cortex remnant on one surface of blade and tiny remnant at base of stem. Edwards gravel.
- 281. Yarbrough/Kent (?). Broken thick blade. Distal half of blade missing. Dark red (10 R 3/6) with yellow (10 YR 7/6) weathering on both faces, and blackish-red cortex remnant on one side. Dark gray splotching. Tecovas gravel.
- 282. Gary. Fresh break at distal tip exhibits yellow (10 YR 7/6) raw material. Remainder is highly weathered, worn, and altered to darker yellowish-brown shades. Tiny remnant of cortex with chatter marks on one surface; white weathering crust on other side. Edwards (?) gravel.
- 283. Gary. Fresh flakes on one edge exhibits red (10 R 4/6) jasper. One side weathered to brown (10 YR 5/3); the other to dark reddish-gray (5 YR 4/2). Heavily worn flake scars and slightly polished surfaces. Tecovas (?).
- 284. Broken distal end of large untyped biface. Light gray (5 Y 6/1) to gray (5 Y 5/1) Arkansas novaculite. Typical of materials near Hot Springs.

- 285. Yarbrough (?). Basically very pale brown (10 YR 7/3) with mottling of dark gray (10 YR 4/1) and orange splotching. Heavily patinated Edwards.
- 286. Bone point
- 287. Sliver bone awl
- 288. Pitted stone
- 289. Untyped broken biface. Shouldered and rectangular-stemmed. Reddish-yellow (7.5 YR 6/6) mottled darker and lighter shades. Fresher break on distal tip is a lighter reddish-yellow (10 YR 7/6). Few dark gray and red grains of sand. Finegrained quartzite, with tiny cortex remnant. Gravel source, possibly Edwards/Uvalde.
- 290. Yarbrough (?). Strong brown (7.5 YR 5/8) to reddish-yellow (7.5 YR 6/6). Silica-filled vesicles. Cortex remnant on one side near thicker part of shoulder. Same basic material as 252 above. Petrified wood.
- 291. Epps-like. Strong brown (7.5 YR 4/6) to yellowish-red (5 YR 5/6). Heavily worn surfaces. Very pale brown splotches. Almost identical to some of the yellow-brown petrified wood, but lacks defined wood grain. Source uncertain, but probably from gravel.
- 292. Ensor-like. Reddish-gray (10 YR 5/1) with distinctive dark red splotching. Cortex remnant at base of stem. Tecovas quartzite.
- 293. Broken base of large untyped biface. Similar to no. 289, but larger and more crudely flaked. Yellow (10 YR 7/6) to brownish-yellow (10 YR 6/6) with darker brown (10 YR 3/3) splotches. VFG quartzite. Same basic rock as no. 289 also. Possibly made by same individual.
- 294. Base of biface preform. Heavily worn with flake scars removed. Heavy patination. Multi-colored weathered surfaces distinctive from one side to the other. Both sides exhibit plant stem molds typical of quartzites, but also resembles petrified palm wood. Surfaces too heavily patinated for accurate identification.
- 295. Yarbrough. Pale brown (10 YR 6/3) patinated to light yellowish-gray (10 YR 6/2) and gray (10 YR 6/1). Edwards.
- 296. Edgewood/Ellis (?). Light brownish-gray (10 YR 6/2) and light yellowish-brown (10 YR 6/4) weathered to dark yellowish-brown (10 YR 4/4). Edwards.

- 297. Garyito. Dark red (10 R 3/6). Heavily worn. Dark gray silica grains visible with hand lens. Tecovas quartzite.
- 298. Rounded decortication flake with retouched edges. Brown (10 YR 5/4) weathered and worn. Dorsal side covered with yellowish-red (5 YR 5/6) cortex. Edwards gravel.
- 299. Yarbrough. Grayish brown (2.5 YR 5/2) with lighter gray mottling grading into weak red (10 R 4/2) at distal end. Edwards.
- 300. Untyped, large, shouldered biface. Stem missing, but was apparently straight to slightly contracting. At broken stem material exhibits light gray (2.5 YR 7/2) Edwards chert. Weathering progresses successively outward to very dark gray (10 YR 3/0) to outermost weathered surface of light gray (2.5 Y 7/2). Edwards.
- 301. Gary. Dark red (10 R 3/6) mottled with lighter weak red to reddish-gray (10 R 5/1). Heavily worn and patinated. Fisher quartzite.
- 302. Pelican (?) with severely resharpened blade. Yellowish-red (5 YR 4/6 to 5/6). Heavily worn surfaces. Actual raw material only observable in one flake on resharpened distal tip of yellow (10 YR 7/6) VFG quartzite. Small remnant of cortex on one side. Gravel source, possibly Edwards or Uvalde.
- 303. Unifacial flake scraper from blade. Beautiful homogenous-colored, semi-translucent orangish red (red 2.5 YR 4/6) chert. Most similar to Chuska, but not a certainty.
- 304. Large Yarbrough. Heavily patinated with white (10 YR 8/1) dark gray and pale orange splotching. Typical of Edwards, but fresh material unobservable.
- 305. Broken biface fragment. Heavily worn and patinated. Yellowish-red (5 YR 5/8) staining. Raw material in fresh flake of edge is light gray (10 YR 7/1) Edwards.
- 306. Edgewood Very subtly mottled dark yellowish-brown (10 YR 4/4) with both darker and lighter shades. Edwards.
- 307. Broken untyped (possibly Pelican or San Patrice) biface. Strong brown (7.5 YR 5/6) with light yellow splotching. Reddened ear on one shoulder indicative of heat-treatment. Edwards.
- 308. Gary/Wells (?). Mottled yellow (10 YR 7/6) with gray and dark brown splotching. Gray "splotching" is unweathered grainy quartzitic chert. Heavily weathered Edwards.

- 309. San Patrice/Pelican (?). Strong brown (7.5 YR 5/6) splotched with reddishyellow (5 YR 6/6). Completely patinated and worn. Fresh material unobservable. Source uncertain.
- 310. Gary/Yarbrough (?). Distal tip resharpened. Reddish-yellow (7.5 YR 7/6) to yellow (10 YR 8/6). Light gray very infrequent splotches. Original material unobservable. Heavily patinated and worn.
- 311. Large Scottsbluff. Brown (10 YR 5/3) with light gray splotching. Edwards.
- 312. Small Palmillas. Basically very pale brown (10 YR 7/6) with darker and lighter splotching. Edwards.
- 313. Harvey-Mineola Biface. Piece of petrified wood like backed bladelet.
- 314. Garyito. Dark yellowish-brown (10 YR 4/6) jasper. Pebble cortex. Gravel source, possibly Queen City Sand Formation.
- 315. Ensor. Light yellowish-brown (10 YR 6/4) to pale brown (10 YR 6/3). Small rust colored splotches. Edwards.
- 316. Large broken Dalton. Heavily worn and patinated. Patina about 2 mm thick. Broken blade exhibits light brownish-gray chert (10 YR 6/2). Remainder of surfaces weathered to light yellowish-brown (10 YR 5/6) to yellowish-red (5 YR 5/6). Edwards.
- 317. Broken biface preform. Very pale brown (10 YR 8/3) weathered to yellowish-brown (10 YR 5/6). Cortex remnant on one side of blade. Edwards gravel.
- 318. Large broken mid-section of untyped biface. Grayish brown (10 YR 5/2) with typical light blue-gray patina. Edwards.
- 319. Bone awl
- 320. Yarbrough. Grayish-brown (10 YR 5/2) petrified wood.
- 321. Bone awl
- 322. Tortugas or biface preform (?). Basic light yellowish-brown (10 YR 6/4) mottled with light brownish-gray (10 YR 6/3). Edwards.
- 323. Very pale brown (10 YR 8/3) to white (10 YR 8/2) weathering. Single "fresh" flake on one edge exhibits light gray (10 YR 7/1) Fisher quartzite. All other surfaces completely encrusted and patinated.

- 324. Decortication flake scraper. Yellowish-brown (10 YR 5/4) to dark yellowish-brown (10 YR 4/6). Edwards gravel.
- 325. Evans. Yellowish-brown (10 YR 5/6) mottled to very pale brown (10 YR 8/3). Cortex on reverse side of light gray (7.5 YR 7/0). Edwards gravel.
- 326. Ensor with resharpened blade. Strong brown (7.5 YR 4/6) cortex remnant with chatter marks. Edwards gravel.
- 327. Plainview. Multi-colored; pinkish-gray (7.5 YR 7/2), reddish-gray (10 R 5/1), weak red (10 R 4/4) to white (10 YR 8/2). Cherty quartzite. Tecovas.
- 328. Kent (?) with twisted stem. Coarse grained chert or VFG quartzite. Highly mottled yellow (10 YR 7/6), gray (10 YR 5/1), very pale brown (10 YR 8/4), with white (10 YR 8/2) splotches and dots, and light red (2.5 YR 6/6) staining. Basic material is the gray quartzitic chert. Possibly Edwards.

(Artifacts Viewed Under Artificial Light)

- 329. Gary. Yellow (10 YR 7/6) quartzite grades into yellowish-brown (10 YR 5/6). Heavily worn. Flake scars removed. Stained with yellowish-red at base of stem. Probably same unknown source of other yellow quartzites.
- 330. Flake. Brownish-yellow (10 YR 6/6) subtly mottled to dark yellowish-brown (10 YR 3/4). Cortex remnant on one edge. Petrified wood from gravel source.
- 331. Yarbrough (?). Large stem, resharpened blade. Dark grayish-brown (10 YR 4/2) to dark gray (10 YR 4/1). Edwards.
- 332. Hell Gap-like. Heavy basal grinding, slightly shouldered. Distal tip broken. Dark yellowish-brown (10 YR 3/4 to 3/6). Obverse side heavily worn. Edwards.
- 333. Flake scraper. Reddish-brown (5 YR 5/4) mottled with light pale brown (10 YR 7/3). Cortex remnant. Edwards gravel.
- 334. Edgewood, distal tip broken. Brown (10 YR 5/3) to light yellowish-brown (10 YR 6/4). Slightly mottled with pale brown splotching and initial development of light bluish- gray patina. Edwards.

Coen Collection

- 1. Large broken base of rounded biface. Light gray (10 YR 7/1) mottled to white (10 YR 8/2) and light brownish-gray (10 YR 6/2) Edwards chert.
- 1A. Broken distal end of untyped biface. Dark brown (10 YR 4/3). Encrusted and worn. Broken mid-section also worn and coated with white encrustation. Uncertain source.
- 2. Large Clovis resharpened into a Yarbrough dart point. Clovis fluting still observable. Dark yellowish-brown (10 YR 3/4) mottled to light brownish-gray (10 YR 6/2). Slightly translucent on thin edges. Edwards.
- 3. Yarbrough. Resharpened blade, with impact fracture at distal tip. Dark gray (2.5 Y 4/0). Very fine-grained quartzite weathered to mottled yellowish-brown (10 YR 5/6). Queen City Formation quartzite from gravel.
- 4. Pelican. Yellow (10 YR 7/6) mottled to dark brown (10 YR 3/3). Tiny white inclusions. Round and rectangular open vugs. Slight encrustation of light gray patina on both surfaces. Edwards (?).
- 5. Large Clovis. Slightly piano-convex in cross-section. Dorsal side is dark grayish-brown (10 YR 4/2) grading into reddish-brown at distal and proximal ends. Splotched with numerous tiny light gray splotches. Ventral (slightly flatter) side is dark reddish-brown (5 YR 3/4) with yellowish-red (5 YR 5/8) and very pale brown (10 YR 7/4) splotching. The differences in coloration from one side to the other are most likely from differences of exposure to the surface of the ground, etc. VHQ Edwards.
- 5A. Broken, percussion end of Clovis flake blade. One edge used as cutting/scraping tool. Pale brown (10 YR 6/3) slightly mottled to gray (10 YR 5/1) and brown (10 YR 5/3). Cobble cortex with chatter marks observable along one edge. Edwards gravel.
- 5B. Bristol Biface. Light brownish-gray (10 YR 6/2) mottled to very pale brown (10 YR 7/4) and yellowish-brown (10 YR 4/6). Edwards (?).
- 5C. Flake knife/scraper. Made from prismatic (Clovis?) blade. Pebble cortex with chatter marks on the wide distal end. The end with the bulb of percussion has been resharpened into a sharp point (graver?). Beautiful semi-translucent dark yellowish-brown (10 YR 4/6) grading into splotched reddish-brown (2.5 YR 4/4). Possibly Edwards.

- 6. Yarbrough-like. Burinated spall on one edge of the stem. Black (5 Y 2.5/1). Very dense chert-like quartzite. Very similar to Seymour gravel quartzites along eastern edge of Llano Estacado.
- 7. Hell Gap. Dark yellowish-brown (10 YR 4/6) subtly mottled to light yellowish-brown (10 YR 6/4). Source uncertain. Check further for possible relationship to Proctor gravels.
- 8. Lange (?). Yellowish-brown (10 YR 5/4) grading into very dark grayish-brown (10 YR 3/2). Ventral side slightly lighter in color. Very subtle "banding" at base of the stem is typical of cobble cortex development. Edwards gravel source.
- 9. Yarbrough/possible Pontchartrain (?). Light brownish-gray (10 YR 6/2) with few tiny red (10 R 4/6) dots. Edwards.
- 10. Large resharpened Dalton. Distal end broken. Yellow (10 YR 8/6) with darker (10 YR 7/8) to light brownish-gray (10 YR 6/2). Very fine-grained quartzite. Source uncertain.
- 10A. Broken San Patrice. Reddish-brown (2.5 YR 5/4) with light yellowish-brown (10 YR 6/4) and pale brown (10 YR 5/3) splotching. Edwards.
- 11. San Patrice. Multi-colored light gray (10 YR 7/2), reddish-brown (2.5 YR 5/4), and brownish-yellow (10 YR 6/6). Edwards gravel.
- 12. Base of Clovis dart point. Very dark grayish brown (10 YR 3/2). Mottled with yellow (10 YR 7/6) dots. Possibly Edwards, but source not a certainty.
- 13. Ellis-like. Light brownish-yellow (10 YR 6/6), weathered on surface to light yellowish-brown. Very fine-grained quartzite or well indurated siltstone of undetermined source.
- 13A. Broken proximal end of wide parallel-flaked biface. Scottsbluff (?). Very dark gray (2.5 YR 3/0) Edwards chert?
- 14. Edgewood/Ensor (?). Broken distal end. Very dark gray (10 YR 3/1) Edwards chert.
- 15. Plainview. Basically grayish-brown (10 YR 5/2), slightly mottled to dark reddish-brown (5 YR 4/2). Edwards.
- 16. Godley. Gray (2.5 Y N5/0) with patinated surfaces weathered to light gray (2.5 Y N7/0) and light gray (10 YR 7/1). The higher surfaces of both sides reflect an older weathered surface from which later retouched edges formed. Edwards.

(Due to rain, the following artifacts from the Coen collection were examined under artificial light.)

- 17. Dalton. Grayish-brown (10 YR 5/2) with light gray (10 YR 7/2) mottling. Edwards.
- 18. Dalton, resharpened and broken in attempt to retouch blade to (Cody-like) Red River knife. Dark yellowish-brown (10 YR 4/4) with very dark gray (10 YR 3/1) banding across one ear on one side and near broken distal tip on other side. Very fine-grained quartzite. Though no cortex per se is present, the banding at the ends are indicative of being from a cobble. Probably Edwards gravels (Seguin).
- 19. San Patrice (St Johns variety). Dark yellowish-brown (10 YR 3/6) to dark grayish-brown (10 YR 4/2) very fine-grained quartzite. Louisiana gravels (?).
- 20. Yarbrough. Completely encrusted with thick yellowish-red patina (5 YR 5/8), and flake scars worn off. Original material not observable. Quartzite-like appearance.
- 21. Dalton. Resharpened at angle across the blade like Red River knife. Very pale brown (10 YR 7/4) mottled to yellow (10 YR 7/6) and light gray (10 YR 7/2). Edwards.
- 22. Flake knife/scraper. Dark reddish-brown (2.5 YR 3/4). Semi-translucent on thin edges. Patinated on both sides with light bluish-gray and tiny white dots. Edwards.
- 23. Heavily resharpened distal end of untyped biface. Completely patinated on all surfaces including the broken cross section; original material unobservable. Patination identical to Edwards types. The different degrees of patination reflected from the interior surfaces to the edges suggest edge rejuvenation of an older blade at the same time in which the blade was broken.
- 24. Scottsbluff. Broken in cross-section towards distal tip. The break in cross-section exhibits gray (2.5 Y 5/0) fresh material. Surfaces are subtly mottled gray (10 YR 5/1), dark brownish-gray (10 YR 4/2), yellowish-brown (10 YR 5/8), and reddish-brown (5 YR 5/4). Edwards chert.
- 25. Yarbrough-1ike. Axis of stem is at slight angle to axis of blade. Reddish-brown (2.5 YR 4/2 to 4/4) and outer edges are dusky red (10 R 3/4). Brownish interior is more subtly splotched with very pale brown (10 YR 7/4). Heat-treated. Possible Edwards, but definite source not certain.
- 26. Untyped blade of broken biface. Stem broken off. Completely encrusted with thick white to light gray patina dotted with orangish-red dots. Flake scars worn completely away. The "dotting" reflected on the surface may result from open

- ends of palm straw, and be indicative of petrified palm wood source, but this is not a certainty.
- 27. Broken mid-section of untyped biface. Parallel flaking on blade is suggestive of Scottsbluff. Dark grayish-brown (10 YR 4/2) with scattered dots of dark gray. In broken cross-section, a gray (10 YR 5/1) Edwards matrix is revealed.
- 28. Large bifacial thinning flake. One edge exhibits retouch or use as cutting tool. Brownish-gray (10 YR 5/2) to light brownish-gray (10 YR 6/2) mottled with yellowish-red (5 YR 5/6) dots. Edwards.
- 29. Broken distal end of parallel flaked blade. Scottsbluff (?). Grayish-brown (10 YR 5/2) grading into weak red (2.5 YR 4/2). Edwards (?).
- 30. Broken mid-section of wide thin untyped biface. Dark grayish-brown (10 YR 4/2) to very dark grayish-brown high quality Edwards chert. Mottled spot on one edge of light gray (10 YR 7/2).
- 31. Bifacial thinning flake. Opaque light brownish-gray (10 YR 6/2) with gray quartz-filled well-healed fracture. Edwards chert.
- 32. Yarbrough. Completely coated with reddish-brown (10 YR 5/4) and very pale brown (10 YR 7/3) encrustation. Original material unobservable.
- 33. Broken distal end of biface. Very pale brown (10 YR 7/3) weathered to reddish-yellow (5 YR 6/6), very fine-grained quartzite. Possible Edwards, but source uncertain.
- 34. Severely resharpened Gary-like biface. Mottled very pale brown (10 YR 7/4), yellow (10 YR 7/6), brown (7.5 YR 5/4) with slight pinkish-tinge may be due to heat-treatment. Edwards.
- 35. Pelican. Plano-convex in cross section. Yellowish-brown (10 YR 5/4) mottled with light gray (10 YR 7/1) splotching. Weak red (10 R 5/3) on resharpened distal end. Very fine-grained quartzite. Source uncertain.

Jessie Fremont Collection

(Examined under Natural Light)

1. Large Marcos. Basic rock is beautiful dark gray (10 YR 4/1) chert that grades into mottled yellowish-brown (10 YR 5/4) and light yellowish-brown (10 YR 6/4). Small areas of light gray splotching. Reverse side reflects yellowish-brown

- grading into yellowish-red (5 YR 5/6). Differences in colors from the opposing sides are attributable to differences in surface exposure. Edwards (?).
- 2. Ellis. Light gray (10 YR 7/2) weathered to light yellowish-brown (10 YR 6/6). Edwards chert.
- 3. Small grooved elongate maul. Battering exhibited on "hammer" end of maul. Made of hard, very dark brown (10 YR 2/2) hematite.
- 4. San Patrice preform (?). Grayish-brown (10 YR 5/2) weathered to yellowish-brown (10 YR 5/6) and splotching of reddish-brown (2.5 YR 4/4). Probably Edwards.
- 5. Unifacial hafted scraper with Yarbrough-like stem. Scraping edge is worn smooth, but other surfaces are heavily worn also. Dark brown (10 YR 4/3) with prominent yellow (10 YR 7/6) splotches. Edwards (?).
- 6. Godley-like, small dart point of reddish-black very fine-grained quartzite. The final tool form is made from an older and larger biface as evidenced by the thick weathered gray (10 YR 6/1) cortex. Seymour gravel quartzite (?).
- 7. Large flake scraper. Made of dark yellowish-brown (10 YR 4/4) to dusky red (10 R 3/2) and reddish-brown, and splotched with very pale brown. Cortex on dorsal surface. Edwards Gravel source.
- 8. Large decortication flake used as cutting/scraping tool. Splotchy dark grayish-brown (2.5 Y 4/2) to very dark olive green (2.5 Y 3/2). Distinctive silica cemented very fine-grained quartzite. Weathered to very dark gray (5 Y 3/1) and red (2.5 YR 5/6). Light gray to white cortex on dorsal side of scraper. Typical of chert from the Johns Valley Shale of the Ouachita Mountains.
- 9. Kent/ Yarbrough-like. Dark yellowish-brown (10 YR 4/4) to brown (10 YR 5/3). Cortex remnants of reddish-brown (5 YR 4/4). Edwards Gravel source.
- 10. Broken mid-section of large biface possibly used as another tool similar to Bristol Biface. Weak red (10 R 5/4) weathered on reverse side to subtly mottled reddishgray (10 R 5/1). Resembles Florence chert without fossils. Distinctive minute grains. Source uncertain. Check further.
- 11. San Patrice. Multi-colored very fine-grained quartzite. Light grayish-brown (10 YR 6/2), weak red (10 R 5/2 to 5/4) and dusky red (10 R 3/2) splotching. Has a white chalky looking silica rind on one side. Dark gray silica cemented fractures and vug filling. Tecovas quartzite gravel.

- 12. San Patrice. Brownish-yellow (10 YR 6/6) to yellowish-brown (10 YR 5/6), with very pale brown splotching. Thin linear lines running diagonally across the blade give appearance of petrified wood grain, but the rock is orthoquartzite. Light gray silica "eyes" on both surfaces have appearance of crinoid stem cross sections. Source undetermined.
- 13. Broken blade of untyped large biface. Light brownish-gray (10 YR 6/2), pale brown (10 YR 6/3) and light yellowish-brown (10 YR 6/4). Weathered splotches of yellowish-brown (10 YR 5/8). Very fine grained silica cemented orthoquartzite with gray (10 YR 5/1) quartz-filled vugs; individual rounded and spicule-like quartz grains. Uncertain source, possibly Fisher quartzite.
- 14. Resharpened blade of Bulverde possibly Merrill-like dart point. Brownish-yellow (10 YR 6/6) to yellowish-brown (10 YR 6/4) quartzitic chert. Reddened distal tip and splotching on one face are indicative of heat-treatment. Possible Edwards or East Texas gravel source.
- 15. Blade of broken untyped biface (stem missing). Dark grayish-brown (10 YR 4/2) with curvate indistinct banding of dark reddish-gray (10 R 4/1) and outermost edge of pale brown (10 YR 6/3). Edwards chert.
- 16. Broken untyped biface blade. Stem and distal tip missing. Reddish-yellow (5 YR 6/8) and yellowish-red (5 YR 5/8) with dark grayish-red (5 YR 4/2) mottling. Has waxy luster. Same rock as No. 14 above. Cherty quartzite of indefinite source. Probably heat-treated as reflected in color and increased luster.
- 17. Flake blade used as scraper /knife. Brown (10 YR 5/3) to dark gray (10 YR 4/1) mottled with light gray (10 YR 7/2) splotches. Black cobble cortex on one end. Grading into the cortex area, the chert becomes more translucent with a dusky red (2.5 YR 3/2) color. Same phenomena observed in Edwards gravels. Apparently the weathering affects the brown chert by altering it to a more reddish color.
- 18. Decortication flake/scraper. Dark brown (10 YR 4/3) to brown (10 YR 5/3) and light yellowish-brown (10 YR 6/4). Opaque, with very small circular splotches of light gray (10 YR 7/2) sprinkled throughout. Dark yellowish-brown (10 YR 4/4) cortex on dorsal side. Minor red mottling on the cortex surface that appears to result from heat-treatment. Edwards gravel source.
- 19. Broken blade of untyped, strongly-shouldered biface. Dark brown (10 YR 3/3) to pale brown (10 YR 5/3) mottled quartzite. Cherty center, but grains increase in coarseness towards outer surface (as result of weathering?). East Texas gravel quartzite.

- 20. Broken distal end of untyped biface. The broken cross-section exhibits minor retouch. Pale brown (10 YR 5/3) and gray (10 YR 5/1) altered to mottled weak red (10 R 4/4) from heat-treatment or possibly from weathering. Edwards chert.
- 21. Palmillas/Kent/Yarbrough-like. Heavily worn and patinated with brown cortex-like patina. Dark gray (10 YR 4/1) very fine-grained quartzite. Concentric banding in cross-section is dull, dark yellowish-brown (10 YR 4/4). Typical of Queen City Sand gravels.
- 22. Edgewood. Blade resharpened into rounded scraper-like shape. Light yellowish-brown (10 YR 6/4) altered to yellowish-red (10 YR 4/6) with heat-treatment. Same yellow rock type as 14 above.
- 23. Fragment. White (10 YR 8/1) to gray (10 YR 5/1) Edwards.
- 24. Broken blade of shouldered and tapered stem (Gary-like?) biface. Very pale bluish-white novaculite (no good color match with available chips) with gray quartz-filled and well-healed hairline fractures. Light yellowish staining on one side may be indicative of inner pebble cortex.
- 25. Pebble of purplish-red quartzite like Seymour gravels.
- 26. Pebble of dark grayish red quartzite.
- 27. Large Wells/Yarbrough (?). Grayish-brown (10 YR 5/2) chert weathered/patinated to very pale brown (10 YR 7/4), light yellowish-brown (10 YR 6/4) and white/bluish-gray. Edwards.
- 28. Large broken drill. Same basic rock as 13 above. Quartzite. Tiny remnant of pebble cortex on one ear indicative of gravel source.
- 29. Yarbrough. Dark yellowish-brown (10 YR 4/4) subtly mottled to lighter shades of yellowish-brown. Dusky red (2.5 YR 3/2) at base of stem is indicative of heat-treatment. Initial formation of light gray patina on one side. Made of "yellow" quartzite like Nos. 13 and 28 from gravel sources.
- 30. Base and lower blade of large wide Dalton. Blade resharpened severely into rounded distal end. Distinctively mottled dark gray (2.5 YR N/4) with bluish cast. Well-rounded grains of light gray (10 YR 7/1) to light brownish-gray (10 YR 6/2) quartz embedded in dark gray (2.5 YR N/0) silica cement. Possible cross-sections of very small crinoid stems are present, but distinctions are difficult because of poor preservation. Weathered surface has light bluish-gray patina. Edges and surfaces of stem exhibit brownish weathering that does not appear to

- extend very far onto the blade; staining from effects hafting (?). Good match with Weeping Water Creek, Nebraska.
- 31. Broken distal end of untyped biface. Dark yellowish-brown (10 YR 3/4) on one side; light yellowish-brown (10 YR 6/3) mottling with reddened distal tip. Possible heat-treatment (?). Edwards chert.
- 32. Broken blade of shouldered biface. Made of pale brown (10 YR 7/4) quartzite as evidenced from one small opening in patina. Completely encrusted with white chalky patina, but definitely quartzite.
- 33. Broken mid-section of untyped biface. Very dark grayish-brown (10 YR 3/2) with slight spots of light blue-gray. Edwards.
- 34. Eastern Clovis. Very dark grayish-brown (10 YR 3/2). Translucent on thin edges that are light yellowish-brown (10 YR 6/6) and subtle splotches of light brownish-yellow. Beautiful Edwards (?).
- 35. Dalton. Dark gray (10 YR 4/1) to dark grayish-brown (10 YR 4/2). Edwards.

H.J. (Joe) Louvier Collection

- 1. Refugio dart point. Worn and slightly patinated. Mottled in multiple shades of reddish- brown (5 YR 4/4), strong brown (7.5 YR 4/6) to very pale brown (10 YR 7/3), and light gray (10 YR 7/1) patina. Opaque. Tecovas chert.
- 2. Broken untyped biface fragment. Yellowish-brown (10 YR 5/4 to 5/6) to light gray (10 YR 7/2). Opaque with light gray blebs. Edwards.
- 3. Uvalde. Dark brownish-gray (2.5 Y 4/2) to olive brown (2.5 Y 4/4) with light gray (2.5 Y 7/2) splotching. Gives an illusion of translucency and waxy luster. Edwards.
- 4. San Patrice. Wide base with one corner of stem broken off. Siliceous fossil hash with silica cement and silica-replaced fossil fragments, mostly sponge spicules. Exhibits tiny quartz-filled vugs. Grades from reddish-yellow (7.5 YR 7/6), brownish-yellow (10 YR 6/6) to very pale brown (10 YR 8/2). Specific source unidentified.
- 5. Pelican. Yellowish-brown (10 YR 5/8) very subtly grading into brownish-yellow (10 YR 6/8). Light gray (10 YR 7/2) silica-cemented minute fractures and vugs. Edwards.

- 6. Decortication flake scraper. Very pale brown (10 YR 8/3) cortex on dorsal side. Light yellowish-brown (10 YR 6/4) subtly mottled with both lighter and darker shades of yellowish-brown. Edwards gravel identical to some of the 1-10 gravels collected west of the Colorado River.
- 7. hammerstone
- 8. hammerstone
- 9. Untyped, possibly Kent or Carrollton-like, but it has no basal grinding. Severely resharpened and shoulders rounded by rejuvenation. High quality, slightly translucent reddish-yellow (7.5 YR 3/6) to yellow-red (5 YR 5/8) unidentified chalcedonic chert, possibly Tecovas.
- 10. Yarbrough-1ike. Yellowish-brown (10 YR 5/6) to both darker and lighter shades. Gray (10 YR 5/1) silica-filled veins on one edge. Rock type grades from jasper on one face to fine-grained Tecovas quartzite on the other side.
- 11. Decortication flake scraper. Brownish-yellow (10 YR 6/6) to dark yellowish-brown (10 YR 4/6). Reddened on bulbed end from heat-treatment that also exhibits cortex remnant. Edwards gravel.
- 12. Decortication flake scraper. Opaque, strong brown (7.5 YR 5/6) to subtly mottled yellowish-brown (10 YR 5/8). Cortex remnant on dorsal side. Weathered Edwards chert similar to cobble collected by Scott in southeast edge of Austin. Edwards gravel.
- 13. Fairland (?). One ear broken off. Impact fracture on distal end. Reddish-yellow (7.5 YR 6/8) with light brownish-gray (10 YR 6/2) incompletely silicified blebs exposed on opposing sides of the blade. Slight reddening toward distal tip. Tiny red stained fossil-like spiculitic rods. Edwards (?).
- 14. Hell Gap or long-stemmed Pelican. Blade is severely resharpened. Basal grinding. Homogeneously colored very dense light yellowish-brown (10 YR 6/4) to brown (10 YR 5/3). No exact color match. Very fine-grained quartzite. Similar to, but denser than Tecovas comparative specimens. Compare Tecovas and Spanish Diggings specimens.
- 15. Lange-like. Very pale brown (10 YR 8/3) to white (10 YR 8/2) with brownish-yellow (10 YR 6/6) staining on higher surfaces of flake scars. Heat spall on one surface of stem, and one corner of stem broken off. Edwards chert.

- 16. Broken biface fragment. Pebble cortex. Very pale brown (10 YR 7/4) mottled (weathered) to darker dark yellowish-brown (10 YR 4/6) and lighter very pale brown (10 YR 8/2). Slightly fossiliferous chert identical to specimen 1-10 -3.
- 17. Untyped broken blade of biface. Light yellowish-brown (10 YR 6/4) Edwards.
- Un.Fl. (unnumbered flake) exhibiting prismatic flake scar removal. Beautiful dark reddish-brown (5 YR 3/4) with splotches of yellowish-red (5 YR 5/6), semi-translucent Edwards chert.
- Un.Fl. (unnumbered flake) like one above, but slightly redder shading. Beautiful material. Edwards.
- 18. Poorly made Ellis/Edgewood-like. Dark yellowish-brown (10 YR 4/4) to yellowish-brown (10 YR 5/6). Cortex remnant on one surface. Edwards gravel.
- 19. Broken mid-section of strongly-shouldered untyped biface. Yellowish-red (10 YR 4/6) heat-treated Edwards.
- 20. Palmer or Keithville variety of San Patrice. Stem is ground on base and in corner notches. One ear is broken off. Stem and lower blade on one side are reddened from heat-treatment. Brownish-yellow (10 YR 6/6) mottled with subtle splotches of very pale brown (10 YR 7/3) and yellow (10 YR 7/8). Edwards chert.
- 21. Blade of untyped biface, possibly San Patrice, with stem broken off. Pale brown (10 YR 6/3) mottled and stained to darker shades of yellowish-brown (10 YR 5/4) to dark yellowish-brown (10 YR 4/6). Edwards.
- 22. Yarbrough. Yellowish-brown (10 YR 5/6), weathered to very pale brown (10 YR 7/3) to white (10 YR 8/2). Cortex remnant on one surface of blade. Edwards gravel.
- 23. Broken distal end of untyped biface. Heavily worn; flake scars obliterated to large extent. Thick-bladed. Strong brown (7.5 YR 4/6) cortex. Original material unobservable. From gravel source.
- 24. Broken blade of untyped biface. One side exhibits slight degree of parallel flaking. Edges resharpened. Yellowish-brown (10 YR 5/4), very pale brown (10 YR 7/4) with slightly reddened surficial tinging, from heat-treatment (?). Edwards chert.
- 25. Scottsbluff. Dark yellowish-brown (10 YR 4/4 to 4/6) on one side. Other side is yellowish-brown (10 YR 5/6) with light gray (10 YR 7/2) splotching. Edwards.

- 26. Broken biface fragment. Flute scar retained on one side. Subtly mottled brownish-yellow (10 YR 6/6) to reddish-brown (5 YR 5/4). Initial stages of light gray splotched patina on side opposite the flute.
- 27. Large triangular-shaped decortication flake with crude retouch along edges. Basic rock was yellowish-brown (10 YR 5/6). Coarsely defined concentric banding to shades of dark gray (10 YR 4/1). Band beneath cortex remnant has glossy luster and is yellow (10 YR 7/6). Cortex remnant is dark yellowish-brown (10 YR 3/4). Chatter marks on cortex surface. Edwards gravel.
- 28. Broken mid-section of large untyped biface. Plano-convex in cross-section. Grayish-brown (10 YR 5/2) with slight light gray (10 YR 7/2) splotching. Opaque. Edwards.
- 29. Broken, probably uncompleted strongly shouldered untyped biface. Thick bodied, no retouch on edges. Yellowish-brown (10 YR 5/6) with slightly reddened surface from heat-treatment. Black staining on one side. Edwards.
- 30. Evans. Brownish-yellow (10 YR 6/8) with dark yellowish-brown (10 YR 4/4) cortex remnants on both sides of blade. Edwards gravel.
- 31. Large decortication flake scraper. Dark yellowish-brown (10 YR 4/4) heat-spalled and altered by heat-treatment to red (10 R 4/6). Edwards gravel.
- 32. Broken distal end of untyped biface. Light yellowish-brown (10 YR 6/4) to very pale brown (10 YR 7/4). Light gray (10 YR 7/2) well-healed quartz-filled vugs. Slightly reddish tinge on one side from heat-treatment (?). Edwards.
- 33. Half of a longitudinally-split small San Patrice (Keithville variety). Very pale brown (10 YR 7/4) mottled to shades of light reddish-brown (5 YR 6/4) from heat-treatment. A single fossil clast of turretella is visible on one side. Heavily worn, but not patinated. Edwards.
- 34. Small Edgewood/Frio-like dart point. Brown (10 YR 4/4) to strong brown (7.5 YR 5/6). Slight reddening on one side of stem. Dark gray cortex on other side. Edwards gravel.
- 35. Marshall. Barbs broken or removed as result of resharpening blade edges. Mottled pale yellow (2.5 Y 7/4), light gray (2.5 Y 7/2), to pinkish-gray (7.5 YR 7/2). Edwards.
- 36. San Patrice. Brownish-yellow (10 YR 6/6) mottled to brown (10 YR 4/3) and yellowish-brown (10 YR 5/6). Small light spots of typical Edwards splotching. Edwards.

- 37. Untyped, thick bodied, heavily-resharpened biface. Final form appears to result from attempts to re-stem the broken blade of a previously existing biface. Coarsely defined rounded out side notches. Worn flake scars. Dark reddishbrown (2.5 YR 3/4) to dark red (2.5 YR 3/6). Tiny spots of white encrustation on one corner of stem and on one side of blade. Original material obscured by heavy heat-treatment and wear. Appears to have been Edwards, but not a certainty.
- 38. San Patrice. Light yellowish-brown (10 YR 6/4) to very pale brown (10 YR 7/4). Small and subtle white to light gray silica-filled splotches. Edwards.
- 39. Palmillas. Light gray (10 YR 7/2) to light yellowish-brown (10 YR 6/4) to yellow (10 YR 7/6). Minute splotches of light gray and yellow (10 YR 8/6). Edwards.
- 40. Thick decortication flake. Yellowish-brown (10 YR 5/6) to brownish-yellow (10 YR 6/6). Edwards gravel. Dark yellowish-brown cortex on dorsal surface.
- 41. San Patrice. Yellowish-red (5 YR 5/6) to brownish-yellow (10 YR 6/6). Light gray splotching. Edwards.
- 42. Broken mid-section of untyped biface. Gray (10 YR 5/1) to dark reddish-gray (10 YR 4/2). White (10 YR 8/2) splotching. Edwards.
- 43. Big Sandy-like. Grayish-brown to brown (10 YR 5/2 to 4/3). Edwards.
- 44. Yarbrough (?). Pale brown (10 YR 6/3) weathered to very pale brown (10 YR 7/4) and yellow (10 YR 7/6) splotching. Gray silica-filled vugs. Edwards.
- 45. Bristol Biface or possibly thick flake scraper. Plano-convex in cross-section, with steeply beveled edges. Thin, lamellar banding in shades of grayish-brown (10 YR 5/2) and dark yellowish-brown (10 YR 4/4 and 4/6) give the rock the appearance of being petrified wood, but the rock is typical of Edwards cobbles and boulders near Evant, Texas and possibly elsewhere in the Edwards Plateau.
- 46. Base and lower blade of broken Plainview. Very high-quality dark gray (2.5 Y N4) grading subtly to reddish-brown (5 YR 5/4) to red (2.5 YR 4/6) on one corner of stem. Semi-translucent on thin edges. Pinetop (Ouachita Mts) or St. Joe (from flanks of the Ozarks) (?). Check both types for fluorescence.
- 47. Thick-bodied, severely resharpened Godley. Dark yellowish-brown (10 YR 4/4) with weathered splotching to brownish-yellow (10 YR 6/6). Edwards.
- 48. Broken untyped mid-section of biface. Brown (10 YR 5/3) to light brownish-gray (10 YR 6/2). Edwards.

- 49. San Patrice. Yellowish-brown (10 YR 5/4), very pale brown (10 YR 7/4) splotching. Edwards.
- 50. Broken blade of shouldered, probably contracting-stemmed (stem broken off slightly below the shoulder) Gary (?). Brownish-yellow (10 YR 6/6) to yellow (10 YR 7/8). Heavily worn siliceous oolite. Probably from gravel source, but cortex not present on this specific piece.
- 51. San Patrice. Very pale brown (10 YR 7/4) mottled to light reddish brown (5 YR 6/4). Light gray (5 YR 7/1) silica filling of vein-like splotches. Edwards.
- 52. Big Sandy-like. Thick, heavily resharpened. Brownish-yellow (10 YR 6/6) to light gray (10 YR 7/1), dark yellowish-brown (10 YR 4/4). Cortex remnant on base. Edwards gravel.
- 53. Ensor or, more likely, Palmer. Corner-notched with notches ground. Brown (10 YR 5/3) altered to red (2.5 YR 4/6) on lower blade and stem from heat-treatment. Quartzitic petrified wood.
- 54. Broken untyped mid-section of biface. Gray (5 Y 6/1) to light olive gray (5 Y 6/2) with white and light gray tiny splotches. Edwards.
- 55. Scottsbluff. with resharpened blade. Very pale brown (10 YR 7/4) to yellow (10 YR 7/6) with dark yellowish-brown (10 YR 4/4) small dots and white (10 YR 8/2) splotching beneath the cortex remnant near distal tip on one face of blade. Edwards gravel.
- 56. Broken distal end of untyped biface. Dark yellowish-brown (10 YR 4/6). Edwards.
- 57. Large bifacial thinning flake. Beautiful, semi-translucent on thin edges. Yellowish-red (5 YR 4/6). Good match with one of the Fremont Clovis points, and possibly from the same artifact. VHQ Edwards.
- 58. Lange (?). Severely resharpened blade. Heavily worn. Yellowish-red (5 YR 4/6). Possibly heat-treated. Siliceous oolite and toward distal end the oolites are cemented with white silica cement.
- 59. Broken distal end of untyped biface. Dark reddish-brown (5 YR 3/4), light gray (5 YR 7/1) splotching. Semi-translucent on thin edges. The broken cross-section exhibits unsuccessful attempt to re-stem the broken blade. Edwards.

- 60. Secondary flake. Yellowish-orange (yellowish red 5 YR 5/6) and very pale brown (10 YR 8/4). Broken graver tip on one edge. Edwards.
- 61. Palmillas. Light yellowish-brown original material, altered to dark red (10 R 3/6) and red (10 R 4/6) with heat-treatment. Quartzitic chert, fossil-like unidentifiable wisps. Edwards (?).
- 62. Broken distal-end of untyped biface. Very pale brown (10 YR 7/4 and 8/3) with weathered staining to light reddish-brown (5 YR 6/4). Well-worn flake scars. Edwards.
- 63. Broken distal end of untyped biface. Black (7.5 YR N/2) very fine-grained hematite. Flake scars heavily worn. Could be from any one of several different north-central, central, or east Texas sources, and probably from river gravels.
- 64. Elongate, severely resharpened, untyped biface. Edges flaked off to same width of slightly indented stem. Proximal end of stem is widest point. Flake scars worn off and heavily patinated (cortexed) with strong brown (7.5 YR 4/6) to dusky red (10 R 3/4) at base of stem. Original material unobservable.
- 65. Broken mid-section of untyped biface. Broken section exposes very dark gray (5 YR 3/1) interior. Flake scars worn off and encrusted with white (7.5 YR N/8) and red (2.5 YR 4/6) staining. Heat spall (pot lid fracture) on one side. Edwards (?).
- 66. Martindale-like or Edgewood (?). Barbs broken off. Reddish-yellow (7.5 YR 6/6) weathered to strong brown (7.5 YR 4/6). White, incompletely silicified blebs on one side of blade. Worn flake scars and broken distal tip. Edwards.
- 67. Big Sandy. Broken distal end. Broken cross-section is brown (7.5 YR 5/2) Edwards chert. All other surfaces thickly patinated with splotchy very pale brown (10 YR 7/4), grayish-brown (10 YR 5/2), and very dark grayish-brown (10 YR 3/2). Flake scars heavily worn, but still observable. Incredible ultraviolet fluorescence identical to artifact No. 208 of Tanner collection.
- 68. Broken distal end of untyped biface. Original material was reddish-yellow (7.5 YR 6/6) chert weathered and encrusted to very pale brown (10 YR 8/3). Edwards.
- 69. Palmillas-like. Splotchy yellow (10 YR 7/6), brownish-yellow (10 YR 6/6) and dark yellowish-brown (10 YR 4/4) with dark gray (10 YR 4/1). Severely resharpened, thick-bodied blade. Edwards.
- 70. Fragment of flake scraper. Yellowish-brown (10 YR 5/4) with reddish-brown (2.5 YR 5/4) and very pale brown (10 YR 8/3) splotching. Edwards.
- 71. hammerstone

- 72. Wells. Heavily resharpened thick blade. Very pale brown (10 YR 8/3 and 7/3) mottled and splotched with dots of grayish-brown (10 YR 5/2), gray (10 YR 5/6) and brown (10 YR 5/3). Edwards.
- 73. Broken blade of untyped shouldered biface. Stem missing. Yellowish-brown (10 YR 5/6) on one side and grayish-brown (10 YR 5/2) to light grayish-brown (10 YR 6/2) initial stages of patination on other side. Edwards.
- 74. Pointed flake scraper. Opaque, dark yellowish-brown (10 YR 4/6) to yellowish-brown (10 YR 5/6). Subtle concentric banding. Older flaked surface of light gray (10 YR 7/2) patina on dorsal side. Scraper made from older artifact? Edwards.
- 75. Palmillas-like. Yellow (10 YR 7/6) weathered to dark yellowish-brown (10 YR 4/6). Edwards.
- 76. Flake scraper. Chert-quartzitic chert texture. Pale brown (10 YR 6/3) quartzitic portion grades into finer-grained and more lustrous yellowish-brown (10 YR 5/6). Edwards chert.
- 77. Ensor. Light gray (10 YR 7/2) subtly mottled to light yellowish-brown (10 YR 6/4). Edwards.
- 78. Ellis. Dark yellowish-brown (10 YR 4/4) to strong brown (7.5 YR 5/6). Resharpened blade. Edwards.
- 79. Broken Gary (?). Heavily resharpened. No good color match; closest is yellowish-red (5 YR 4/6) and yellowish-brown (10 YR 5/8). Heavily worn. Siliceous oolite.
- 80. Edgewood (?). Base material is very pale brown (10 YR 7/3, 8/3) and white (10 YR 8/2). Weathered and heavily encrusted to brown (10 YR 5/3) and on other side to dark red (10 R 3/6). Edwards.
- 81. Broken blade of slightly barbed, untyped biface; stem missing. Made on large plano-convex flake, but the plano side's edges are steeply retouched also as biface. Yellowish-brown (10 YR 5/4) mottled to brown (10 YR 5/3) and splotched to very pale brown (10 YR 7/4). Reddened area of medial ridge of convex side suggests heat-treatment. Gray silica-cemented vugs. Edwards.
- 82. San Patrice. Light gray (10 YR 7/2) with white (10 YR 8/3) and yellow (10 YR 7/6) splotches. Reverse side slightly darker. Edwards
- 83. Broken and reworked Clovis (?). Flute scars retained on both faces of the blade. Dark bluish-gray; closest match is very dark gray (2.5 Y N3/) and subtle

- concentric banding in lighter shades of gray and splotched white (2.5 Y N8). Made from Edwards nodule.
- 84. Kent/Woden. Unthinned stem with cortex at base. Thick-bodied from heavy resharpening. Worn flake scars. Dark yellowish-brown (10 YR 4/4) and yellowish-brown (10 YR 5/4). Edwards gravel.
- 85. Edgewood/Ellis. Brownish-yellow (10 YR 6/6) weathered to yellowish-red (5 YR 4/6) and red (10 R 4/6) staining. Heavily worn. Fossiliferous siliceous oolite; one cross-section appears to be a fusilinid, and tiny rings surrounding oolite spherules are red. Small cortex remnant on one side. Gravel source, possibly from Lampasas River.
- 86. San Patrice. Strong brown (7.5 YR 5/6), brown (7.5 YR 5/3) and reddish-yellow (7.5 YR 7/6). Made from large decortication flake; cortex remnant on most of one side of the blade which is curved and the concave side where the cortex is present is only about 2 mm thick. Light gray spots and splotches. Edwards gravel. Cortex is dark red, possibly from heat-treatment.
- 87. San Patrice (Keithville variety). Light gray (10 YR 7/2) grades into red (2.5 YR 4/6) and weak red (2.5 YR 4/2). Reddened areas have slight increase in luster. Heat-treated (?). Edwards chert.
- 88. Palmillas (?). Heavily resharpened blade. Heavily worn and patinated with reddish-yellow (5 YR 6/6) cortex. Original rock unobservable.
- 89. Palmillas (?). Resharpened blade. Thick-bodied. Brownish-yellow (10 YR 6/6). Crudely flaked. Edwards.
- 90. Kent (?). Original material appears to have been gray (10 YR 5/1) Edwards chert made from heat-treated preform. The blade reveals later rejuvenation. Higher surfaces of flake scars are reddened from heat-treatment.
- 91. Broken untyped blade of biface. Very pale brown (10 YR 7/3) to light yellowish-brown (10 YR 6/4) and reddish (2.5 YR 4/6) tinging from heat-treatment. Cortex remnant on one side, and heat fracture (pot lid) on other side. Edwards gravel.
- 92. San Patrice (Keithville variety). Basic rock was dark gray (2.5 YR N4/0) weathered to light red (2.5 YR 6/6) and light brownish-gray (10 YR 6/2). Tiny white dots in matrix. Marble Falls chert. Possibly from gravel although no cortex is present.
- 93. Yarbrough (?). Original material unobservable. Heavily worn and encrusted with yellow (10 YR 7/6) to white (10 YR 8/1) cortex.

- 94. Broken untyped biface. Very pale brown (10 YR 8/3) to white (10 YR 8/1) original material with gray quartz-filled, well-healed fractures. Reddened surfaces on both sides indicate heat-treatment, and stem reflects "fresher" flaking in attempt to re-stem an earlier and broken blade. Edwards.
- 95. Untyped biface. Yellowish-red (5 YR 4/4) to red (10 R 4/4). Severely resharpened blade. Heat-treated Edwards gravel. Cortex remnant on one side.
- 96. Untyped shouldered biface. Contracting-stemmed small point; blade broken in mid-section. All flake scars and edges worn smooth, but no patination. Dark reddish-brown (5 YR 3/2). Edwards. Tendency towards translucency on thin edges.
- 97. Marshall (?). Yellowish-brown (10 YR 5/6 to 5/8) with tiny white dots and splotches. Heavily resharpened blade. Flute-like flake scar on one side. Edwards.
- 98. Pelican. Heavily resharpened blade. Fresher flaking on edges reveals yellowish-brown (10 YR 5/6). All other surfaces weathered to yellowish-red (5 YR 5/8). Reddened ears are indicative of heat-treatment. Edwards.
- 99. Lange-like stem with resharpened blade. Gray (5 YR 5/1) to very pale brown (10 YR 7/3); heat-treated to red (10 R 4/6) on stem and one side of blade. Pot lid fracture on one side. Edwards.
- 100. Small Yarbrough. Light yellowish-brown (10 YR 6/4), brownish-yellow (10 YR 6/6) and light brownish-gray (10 YR 6/2). Edwards.
- 101. Dawson-like stem. Appears to have been retooled from an earlier broken biface blade. Strong brown (7.5 YR 4/6) with weak red (10 R 5/4) tinging. White and light gray tiny spots and splotches. High quality Edwards chert.
- 102. Fairland/Ensor-like. Resharpened blade. Reddish-yellow (5 YR 6/6) to yellowish-red (5 YR 5/6) with gray (5 YR 5/1) bleb on one edge of stem. Edwards.
- 103. Untyped, shouldered, expanding-stemmed biface. Blade broken above shoulder. Flake scars worn off and completely covered with thick pebble-like cortex. Yellowish-red (5 YR 5/6). Break across the blade exhibits the same degree of cortex patination. Original material unobservable.

- 104. Broken blade of untyped biface. Brown (7.5 YR 5/4), splotched with pinkish-gray (7.5 YR 6/2) to dark gray (7.5 YR N4/). Unidentified chert, possibly weathered Edwards gravel, but no cortex is present.
- 105. Broken blade of untyped biface. Distal tip and stem missing. Reddish-yellow (7.5 YR 7/6) with strong brown (7.5 YR 4/6) and dark brown (7.5 YR 4/2) cortex. Edwards gravel.
- 106. Unshouldered Pelican (?). Made of high-quality petrified wood. Color of dark brown (7.5 YR 4/4) to strong brown (7.5 YR 5/8). Semi-translucent.
- 107. Broken Pelican. Base of stem broken off. Brown (7.5 YR 5/2) to reddish-yellow (7.5 YR 6/6) Edwards.
- 108. Broken blade of untyped biface. Light brownish-gray (2.5 YR 6/2), olive gray (5 Y 5/2) mottled to reddish-yellow (7.5 YR 6/6) and pinkish-gray (7.5 YR 7/2). Gray (7.5 YR 5/1) quartz-filled vugs, and small white round splotches. Edwards.
- 109. San Patrice. Light olive gray (5 Y 6/2), light brownish-gray (2.5 YR 6/2) weathered to strong brown (7.5 YR 5/6). Dark gray quartz-filled and well-healed fracture. Tiny white and light gray splotches. Edwards.
- 110. Kent/Yarbrough-like. Beautiful reddish-yellow (7.5 YR 7/6) shading into strong brown (7.5 YR 5/6). Almost waxy luster and semi-translucent on thin edges. Honey-colored chert from north-central Texas, possible Edwards, but not a certainty.
- 111. Very well-made San Patrice/Pelican (?). Yellow (10 YR 7/6) with weathered cortex remnants on both faces of dark yellowish-brown (10 YR 4/6). Edwards gravel.
- 112. San Patrice. Reddish-yellow (7.5 YR 6/6 to 7/6). Cortex completely obscuring original material. Flake scars worn off. Unidentifiable.
- 113. Broken distal end of untyped biface. Reddish-yellow petrified wood reflected in "fresh" crude flakes on both edges. Dark brown (7.5 YR 4/4) cortex on both faces and in broken cross-section. Original artifact was broken and distal end, weathered with cobble-like cortex, and then edges were later reflaked from the earlier blade.
- 114. Yarbrough. One side is light brownish-gray (10 YR 6/2) with "dull" luster. Other side is darker; brown (10 YR 5/3) and dark brown (10 YR 4/3). Dull quartzitic chert. Contains both open and quartz-filled vugs. Gives appearance of dull well-indurated siltstone, but one "fresh" flake on one edge reveals grayish-

- brown (10 YR 5/2) quartzitic chert. Poor quality of Edwards gravel identical to materials at Acme clay-pit near McQueeny, Texas.
- 115. Scraper. Light gray (7.5 YR N7/0) to white (7.5 YR N8/0) slightly mottled. Edwards.
- 116. Broken base of Scottsbluff, but lacks basal grinding. Broken above the shoulder. Gray (10 YR 5/1) mottled light gray (10 YR 6/1). Edwards.
- 117. San Patrice. Strong brown (7.5 YR 5/6) to reddish-yellow (7.5 YR 7/6). Very dense quartzite. Well-healed quartz-filled fractures. Tecovas.
- 118. Broken San Patrice. Light brown (7.5 YR 6/6) on fresh break across blade. Weathered to strong brown (7.5 YR 5/6) tinged with red on edges and one ear. Edwards.
- 119. San Patrice. White (10 YR 8/2) Fisher quartzite. Reddened surfaces on both faces of blade are indicative of heat-treatment..
- 120. Broken distal end of untyped biface. Light gray (5 Y 7/2) on fresh break. Weathered to strong brown (7.5 YR 5/6) cortex. Pebble cortex on one surface. Siliceous oolite. Typical of Cotter formation, NE Oklahoma, NW Arkansas. Interesting comparison to the other yellow siliceous oolites at McFaddin.
- 121. Plainview. Red (10 R 4/6) weathered and splotched to pale red (10 R 6/4) and reddish-yellow (5 YR 7/6). Fossiliferous (unidentified sponge and fossil ghosts). Opaque, unidentified (but possibly Edwards) chert.
- 122. Broken Perdiz arrowpoint. Mottled light brown (7.5 YR 6/4) to very pale brown (10 YR 8/3) patina. Edwards.
- 123. Dalton. Original material on one side is very dark gray (7.5 YR N3/0) to light gray (5 YR 6/1). Other side weathered to light reddish-brown (2.5 YR 6/4) to light red (2.5 YR 6/6). Possibly heat-treated. The dark gray side has round, white, and incompletely silicified blebs on weathered surface. Resharpening of the blade appears to have taken place after heat-treatment, and blade broken at same time of rejuvenation. Edwards.
- 124. Wells/Dawson-like. Pale brown (10 YR 6/3) weathered to light yellowish-brown (10 YR 6/4). Other side is yellowish-brown (10 YR 5/6). Edwards.
- 125. Dalton (?). Base of stem and one side of stem broken off. Light yellowish-brown (10 YR 6/4). Edwards.

- 126. Mid-section of broken untyped biface. Beautiful multi-colored red (10 R 4/6), dark yellowish-brown (10 YR 4/4), very dark gray (10 YR 3/2) petrified wood. Thin, well-made point.
- 127. Wells. Brown (10 YR 5/3) to weak red (2.5 YR 4/2), good quality petrified wood.
- 128. Kent-like; short rectangular stem, strongly shouldered. Reddish-yellow (7.5 YR 7/8) with strong brown (7.5 YR 5/6) cortex on one face of blade. Edwards gravel.
- 129. Flake of reddish-yellow (7.5 YR 7/6) Edwards chert.
- 130. Large Motley with severely resharpened blade. Gray (10 YR 5/1) with white internal splotching. Edwards.
- 131. Yarbrough. Resharpened blade. Yellow (10 YR 8/8) weathered staining to brownish-yellow (10 YR 6/6). Cortex remnant of yellowish-brown (10 YR 5/8). Edwards gravel.
- 132. Broken (distal?) end of untyped biface. Dark yellowish-brown (10 YR 3/6), homogenous coloration. White (10 YR 8/2) patina development on one side. Edwards.
- 133. Large rectangular, slightly expanding-stem, untyped biface. Blade edges severely resharpened to thick edges in contrast to the edge angles on the stem. Barbs or shoulders that may have been present originally, have been removed by the rejuvenation. Slightly mottled gray (2.5 Y N5/0) to light gray (2.5 Y 7/2). Edwards typical of the Georgetown locality.
- 134. hammerstone.
- 135. Untyped, strongly-shouldered and roughly rectangular stemmed biface. Strong brown (7.5 YR 5/6) to reddish-yellow (7.5 YR 6/6). Subtle light splotching. Moderately worn flake scars. Edwards chert.
- 136. Untyped biface fragment, distal end. In broken cross-section chert is grayish-brown (10 YR 5/2). All other surfaces are dark reddish-gray (10 R 4/1) to dusky red (10 R 3/6) from heat-treatment or burning. Pot lid fractures on both faces. Edwards.
- 137. Gary. One shoulder broken off. In "fresh" break chert is gray (10 YR 5/1). All other surfaces slightly lighter and mottled in shades of light gray (10 YR 7/1 to 7/2) and splotches of very pale brown (10 YR 7/3). Edwards.

- 138. Possibly Palmer, but notching is more of side-notch than from the corner and the notching appears to have been added to a larger broken distal end of another biface made from a decortication flake. Cortex remnant is on one side of blade. Yellowish-brown (10 YR 5/4) with slightly reddish tinge (from heat-treatment?). Edwards gravel.
- 139. Epps or Motley. Dark grayish-brown (10 YR 4/2). Weathered surfaces altered to yellowish-red (5 YR 4/6) and reddish-brown (5 YR 4/4). Small impact fracture at distal tip exhibits very pale brown (10 YR 7/4) color. Probably heat-treated. The biface also exhibits unusual narrow, longitudinal flakes from base of the stem into the lower portion of the blade. Edwards chert.
- 140. Yarbrough (?). Grayish-brown (10 YR 5/2) weathered and mottled to light gray (10 YR 7/2) to very pale brown (10 YR 7/3). Edwards.
- 141. Hafted (side notched) unifacial flake scraper. Plano-convex. Cortex on dorsal side. Interior portion of the ventral side is very pale brown (10 YR 7/4) to light yellowish-brown (10 YR 6/4). Edges and dorsal side are reddish-brown (2.5 YR 4/4) from heat-treatment. Edwards gravel.
- 142. Broken mid-section of large untyped biface. One end (distal?) had been converted to a drill and drill bit then broken off. The opposing sides of the blade are different colors; first, pale brown (10 YR 6/3) mottled to shades of yellowish-brown (10 YR 5/6) to strong brown (5 YR 4/6). Second side, reddish-brown (10 YR 4/3), brown (10 YR 5/3), and dark reddish-brown (2.5 YR 3/4). Cortex remnant on one side and at opposite end of drill bit. Two flakes on opposing faces expose dusky red (2.5 YR 3/2) and grayish-red interior. Edwards.
- 143. Large flake blade converted to biface, or possibly even made from an earlier biface. Base of stem is unthinned although attempted thinning is evident on one side, which was abandoned because of a bad fracture. The artifact exhibits differences in "freshness" between flake removals exhibited on opposing faces. The ventral side reflects older patina. Original chert is reddish-brown (5 YR 4/3) weathered to light gray (5 YR 6/1), splotched with spots of very pale brown (10 YR 8/3) and yellow (10 YR 7/6). Edwards.
- 144. Yarbrough. Very pale brown (10 YR 8/4) weathered and mottled to brownish-yellow (10 YR 6/8), grayish-brown (10 YR 5/2) and yellowish-red (5 YR 5/8). Cortex remnant at base of stem. Edwards gravel.
- 145. Hafted scraper made on unifacial stem shaped like Dalton or Johnson stem. Scraping end is bifacially flaked like so many of the Johnson-type scrapers. White (10 YR 8/2) to light gray (10 YR 7/2) and very pale brown (10 YR 7/3). Dorsal side is darker reddish-brown (5 YR 5/4) and very pale brown (10 YR 7/3).

- Fossiliferous chert; Turritella clast only identifiable type. Others are white maciated fragments. Good match with Oil Creek-Joins or Lowrance chert from Arbuckle Mountains.
- 146. Broken blade of large untyped biface. Brownish-yellow (10 YR 6/6) to pale brown (10 YR 6/3). Tiny light gray splotching. Edwards.
- 147. Delhi (?). Large biface. "Fresh" flake on one shoulder exhibits dark gray (10 YR 4/1) quartzitic sandstone (quartzite) from the Jackfork or Stanley Shale of the Ouachita Mountains. Other surfaces weathered to dark grayish-brown (10 YR 4/2) to yellowish-brown (10 YR 5/4) and very pale brown (10 YR 7/4). The weathering and wear also gives the rock a false appearance of being finer-grained and chert.
- 148. Broken Gary (distal end broken off). Reddish-yellow (7.5 YR 7/6 to 7/8). Arkansas Novaculite. Surfaces are worn and slightly weathered. The weathering gives an illusion of slight translucency that is atypical of novaculite.
- 149. Unifacial flake scraper shaped roughly like a shark tooth. Made from decortication flake from edge of a pebble. Cortex retained around the proximal end and on both faces. Flaking occurred only on one side. Dark gray (10 YR 4/1) and dark grayish-brown (10 YR 4/2). Edwards gravel.
- 150. Decortication flake used as scraper on one edge. Brownish-yellow (10 YR 6/6) weathered to reddish-yellow (7.5 YR 6/8). Cortex remnant on one edge. Ouartzitic chert. Edwards gravel.
- 151. Rectangular-stemmed, resharpened blade, untyped biface. Resembles Carrollton with shoulders reduced by blade rejuvenation. White, light gray mottled petrified wood. Weathered and stained to reddish-yellow (7.5 YR 6/6). Dark gray cortex remnants on both faces.
- 152. Broken very well-made Marcos. Broken above shoulders. Grayish brown (2.5 Y 5/2) in "fresh" break across blade. Surfaces weathered to light olive brown (2.5 Y 5/4) and very pale brown (10 YR 7/4). Edwards.
- 153. Yarbrough (?), basally unthinned like Woden. Grayish-brown (10 YR 5/2), higher surfaces of flake scars on one side weathered to yellowish-brown (10 YR 5/4). Edwards.
- 154. Broken distal end of untyped biface. White (10 YR 8/1) and whiter. Slight staining of very pale brown (10 YR 8/4) to yellow (10 YR 8/5). Interior break is white (10 YR 8/1). Flake scars worn off of one side. Edwards.

- 155. Broken distal end of untyped biface. Brown (10 YR 4/4) high-quality Edwards chert, with pinkish-white (7.5 YR 8/2) splotches.
- 156. Broken untyped biface. Shoulders removed by resharpening, and stem is broken off. Very pale brown (10 YR 7/4 to 8/4) with dark grayish-brown (10 YR 4/2) dots and splotches. Edwards.
- 157. Palmillas. White (2.5 Y 8/2) with reddish-yellow (7.5 YR 7/6) splotching from weathering. Light gray internal splotches. Edwards.
- 158. Broken distal end of untyped biface. From the edge of the break, the blade was spalled and thinned toward the distal tip, and a Clifton-like stem was added to the thinned area of the spall. Light yellowish-brown (10 YR 6/4) with worn distal tip of reddish-brown (5 YR 5/4). Flake scars worn and slightly polished. Dense, very fine- grained, unidentified quartzite.
- 159. Broken Epps. Angled break across blade above the shoulders exhibits retouch and the distal tip is worn and possibly used as a graver. In "fresh" break the rock is reddish-yellow (7.5 YR 7/6). Surface on one side weathered to yellowish-red (7.5 YR 5/6). Dark brown (7.5 YR 3/2) cortex remnant on reverse side. Edwards.
- 160. Yarbrough. Thick-bodied, resharpened blade. Brownish-yellow (10 YR 6/6) to yellowish-brown (10 YR 5/6). Tiny dots of dark yellowish-brown (10 YR 5/8) sprinkled sporadically. Gray quartz-filled vugs and a single white fossil (sponge?) present on one side. Edwards.
- 161. Fairland. Resharpened blade. Yellowish-brown (10 YR 5/6) to dark yellowish-brown (10 YR 4/6). Tiny darker rod-like fossil fragments sprinkled in matrix. Edwards.
- 162. Fairland. Resharpened blade. Reddish-yellow (7.5 YR 6/6 to 7/6) altered to reddish-brown (5 YR 5/4) and red (2.5 YR 4/6) through heat-treatment. Subtle light gray internal splotches. Edwards.
- 163. Broken fragment of untyped biface. Yellow (10 YR 7/6) to brownish-yellow (10 YR 6/6). Other side weathered to reddish-yellow (7.5 YR 6/6). Light gray internal splotching. Edwards.
- 164. Broken untyped biface fragment. Impact fracture on distal tip. Brownish-yellow (10 YR 6/6) to yellowish-brown (10 YR 5/8). Light gray internal splotching. Edwards.
- 165. Unifacial flake scraper made from prismatic blade. Has burin-like graver tip in center of the widest broken edge. Very dark gray (10 YR 3/1) on ventral side.

- Weathered to dark yellowish-brown (10 YR 4/4) on dorsal side. Differences in color may have resulted from concentric banding (weathering) of nodule. Very high quality Edwards chert.
- 166. Severely resharpened, thick-bodied, nubbed Edgewood. Broken shoulder and one corner of stem. Strong brown (7.5 YR 5/6) to brown (7.5 YR 4/4). Incompletely silicified blebs of white limestone surrounded by dark gray concentric "eyes", and internal light gray splotching. Possible fossils (unidentifiable) on one side of stem. Edwards.
- 167. Blade of small untyped biface. Stem broken off. Light brown (7.5 YR 6/4) to brown (7.5 YR 5/4) and reddish-yellow (7.5 YR 7/6). One white circular bleb of unsilicified limestone on one side. Edwards.
- 168. Broken, stem and lower blade of Williams-like biface. Heavily worn and patinated. Original material obscured, but under microscope, the internal light gray splotching so typical of Edwards is observable. Even the break across the blade is heavily patinated. Weathered surfaces are reddish-yellow (7.5 YR 6/6), brown (7.5 YR 5/6) and strong brown (7.5 YR 5/6). Possible Edwards.
- 169. Broken distal end of untyped biface. Distal tip broken off also. Thick-bodied. Pale brown (10 YR 6/3) in "fresh" break. Surfaces weathered to yellowish-brown (10 YR 5/4 and 5/6). Edwards.
- 170. Broken untyped biface. One corner of expanding stem broken off. Marcos (?). Reddish-brown (5 YR 4/4) to dark reddish-brown (5 YR 3/2). Worn flake scars. Edwards.
- 171. Ellis-like. Yellow (10 YR 7/6) mottled to yellowish-brown (10 YR 5/6). Healed, quartz-filled fracture at angle across the blade gives appearance of petrified wood grain, but it is Edwards chert.
- 172. Untyped biface with severely resharpened blade. Small, slightly tapered, rectangular stem. Blade is reflaked with almost oblique technique with thick-bodied, almost diamond-shaped cross-section. Original material appears to have been very dark gray (5 YR 3/1) altered by weathering to mottled brown (10 YR 5/3), yellowish-brown (5 YR 5/4), and dark yellowish-brown (10 YR 4/8). Edwards chert.
- 173. Broken distal tip of untyped biface. Light yellowish-brown (10 YR 6/6) weathered to dark yellowish-brown (10 YR 4/6). Internal light gray splotching. Edwards.
- 174. Gary/Woden. Pebble cortex at base of the unthinned Gary-like stem. From the rock exposed in a single small flake on one side, the rock is dark gray (7.5 YR

- N4/0) Edwards chert. All surfaces weathered and highly-mottled pinkish-gray (5 YR 6/2 to 7/2) to weak red (2.5 YR 4/2). Edwards gravel.
- 175. Large bifacial thinning flake from preform. Retouch along one edge. "Fresh break" on one edge exhibits brown (10 YR 5/3) Edwards chert. Surfaces weathered to highly-mottled light brownish-gray (10 YR 6/2), light gray (10 YR 7/2), and reddish-brown (5 YR 4/4) Edwards.
- 176. Broken stem of large, thin, beautifully flaked Scottsbluff. Dark yellowish-brown (10 YR 4/4 to 4/6) with one corner weathered on both faces to white (10 YR 8/1) and splotches of yellow (10 YR 7/6). Edwards.
- 177. Broken distal end of untyped biface. Completely encrusted with white to very pale brown (10 YR 8/2) splotched with yellow (10 YR 6/4). Material type unobservable.
- 178. Broken Darl (?). Beveled blade. Dark brown (10 YR 4/3) to brown (10 YR 5/3) weathered to very pale brown (10 YR 6/3) and light yellowish-brown (10 YR 6/4). Edwards.
- 179. Large, wide Dalton with severely resharpened blade. One ear is broken off of the stem. White (10 YR 8/1) Edwards chert with lower base of stem exhibiting weak red (10 R 5/4) and red (2.5 YR 4/6) from heat-treatment. Weathered to splotched yellowish-brown (10 YR 5/4). Edwards.
- 180. Flake scraper. Strong brown (7.5 YR 5/6) to reddish-yellow (7.5 YR 6/6). Internal light gray splotching. Edwards.
- 181. Edgewood. Strong brown (7.5 YR 5/6) with pinkish-white (7.5 YR 8/2) mottling. Internal light gray splotching. Luster results from beach wear. Edwards.
- 182. Broken mid-section of large untyped biface. One fluted end (proximal?) was resharpened into rounded stem or drill-like blade, and then was broken again. "Fresh" break is light brownish-gray (10 YR 6/2). Surfaces are grayish-brown (10 YR 5/2) to yellowish-brown (10 YR 5/4). Edwards.
- 183. Yarbrough with resharpened stem. Strong brown (7.5 YR 5/6 to 4/6). Internal light gray splotching. Edwards.
- 184. Decortication flake blade scraper. Yellowish-brown (10 YR 5/4) with darker mottling of (10 YR 4/4). Light gray (10 YR 7/2) cortex on one end of dorsal surface. Edwards gravel.

- 185. Depleted core/preform. Very pale brown (10 YR 7/3) mottled to light yellowish-brown (10 YR 6/4), brown (10 YR 5/3). Quartz-filled vugs. Edwards.
- 186. Darl with unusual deep longitudinal flake scars emanating from distal tip into blade and hinging-off slightly above shoulder. Beveled blade. Mottled yellowish-brown (10 YR 5/4) to reddish-brown (2. 5 YR 4/4) on both faces. One side reflects blade flaking from an earlier and more heavily weathered surface. Edwards.
- 187. Yarbrough. Light yellowish-brown (10 YR 6/4). Edwards.
- 188. Untyped biface. Appears to result from re-stemming of an earlier broken distal end of biface. Stem is formed on crescent-shaped spalled surface, and retouch is reflected on inside of the crescent. Light gray (10 YR 7/1) weathered to very pale brown (10 YR 7/4) and white (10 YR 8/2). Edwards chert.
- 189. Fairland/possibly small Dalton/Meserve. Has beveled blade and slightly eared stem. Made of light gray (10 YR 7/2) chert dotted with splotches of pale brown (10 YR 6/3). Edwards.
- 190. Broken blade of shouldered untyped biface. Stem broken off at thickest section of blade. Brown (10 YR 5/6) and dark yellowish-brown (10 YR 4/6). Cortex remnant on one side is dusky red (10 R 3/4) and area surrounding cortex remnant is slightly reddened suggesting heat treatment. Petrified wood.
- 191. Perforated roundish pendant of thin fine-grained quartzite. Dark reddish-gray (10 R 4/6) weathered surface, but grains are lighter colored pinkish-gray (7.5 YR 7/2). Bi-conically drilled, but mostly from one side.
- 192. Broken untyped biface, possibly small preform, or attempted re-stemming of larger broken biface. Strong brown (7.5 YR 5/8) with lower portion slightly darker brown (10 YR 3/4) and subtle band of dark brown (10 YR 4/2) across blade. Tiny dark-colored dots sprinkled throughout matrix. Edwards.
- 193. Edgewood/Fairland (?) with blade heavily resharpened. Strong brown (7.5 YR 5/6). Edwards.
- 194. Edgewood (?). Blade totally removed by resharpening to a nub. Weathered reddish-yellow (7.5 YR 6/6 to 6/8). Edwards.
- 195. Midland/Plainview. Identical rock to specimen No. 208 in Tanner collection. Ultraviolet comparisons to weathered portion of Weeping Water Creek chert are very similar. Differences possibly occur as a result of salt-water weathering.

- 196. Large Yarbrough or resharpened Lange. Very pale brown (10 YR 8/3) mottled to very pale brown (10 YR 7/4) and light yellowish-brown (10 YR 6/4). Edwards.
- 197. Big Sandy. Basic material is strong brown (7.5 YR 5/6) mottled and weathered to brownish-yellow (10 YR 6/6), grayish-brown (10 YR 5/2), yellowish-brown (10 YR 5/6), and reddish-yellow (5 YR 6/6). Edwards.
- 198. Evans. Break angled across the blade removing one of the notches. Heavily worn and patinated. "Fresh" break in cross-section is pale brown (10 YR 6/3). Surfaces weathered to reddish-yellow (10 YR 6/6) and pinkish-white (5 YR 8/2). Edwards.
- 199. Untyped non-shouldered biface. Made on large flake blade. Ventral flaked along edges and rudimentary stem. Dark reddish-gray (5 YR 4/2) cortex remnant on dorsal side, and reddened area around cortex suggests heat-treatment. Quartz-filled vugs and very slight splotching. Edwards gravel.
- 200. San Patrice (Keithville variety). Strong brown (7.5 YR 4/6 to 5/6). Worn and heavily patinated. Interior rock is pale yellow (2.5 Y 8/4) petrified wood with grain axis aligned at right angles to axis of the blade.
- 201. Godley/Yarbrough (?). Small biface with resharpened blade. Has unusual longitudinal flakes removed from the distal tip extending onto the face of the blade. Light brown (7.5 YR 6/4) weathered to strong brown (7.5 YR 5/6) with white incompletely silicified blebs on one surface. Edwards.
- 202. Dalton (remodified). Impact fracture occurred from the distal tip, and then the blade was resharpened, and the stem was modified on one edge and at the base. Grayish-brown (10 YR 5/3) weathered to yellowish-brown (10 YR 5/4), light gray splotching. Edwards.
- 203. Artifact missing.
- 204. Fairland, but with beveled blade. Light gray (10 YR 7/2) mottled on stem to very pale brown (10 YR 7/3) and yellow (10 YR 7/6). Grayish-brown splotching on notch on one side. Edwards.
- 205. Williams. Mottled white (5 Y 8/2), light gray (2.5 Y 7/2) to very pale brown (10 YR 7/3). Edwards.
- 206. Elam. Yellow (10 YR 8/6) with yellowish-brown (10 YR 5/6) cortex remnants on both sides of the resharpened blade. Edwards gravel.
- 207. Broken Scottsbluff. Blade resharpened with distal end rounded to scraper-like edge. Brownish-yellow (10 YR 6/6) with white splotches. Reddened base of the

- stem is indicative of heat-treatment. Cortex remnant at one corner of the stem. Is the reddening from chemical weathering of the cobble, or from heat-treatment, or both? Edwards gravel source.
- 208. Big Sandy (?). Severely resharpened blade. Not as well made as most Big Sandy points, but the modification may have been done much later by other people. Cortex remnants on both faces. Chert is strong brown (7.5 YR 5/6). Cortex is dark brown (7.5 YR 3/4). Worn flake scars. Edwards gravel.
- 209. Most similar to Early Stemmed Lanceolate in outline, but it lacks basal grinding. Untyped. Light brownish-gray (10 YR 6/2) to light gray (10 YR 7/2) with white (10 YR 8/2) incompletely silicified limestone bleb on one side of blade. Blade is broken near distal end. Dark gray quartz-filled fracture. Edwards.
- 210. Dalton. Dark gray (10 YR 4/1) with minor light gray splotching. Edwards.
- 211. Large crudely-flaked Bulverde-shaped rectangular-stemmed dart point. Thick and poorly made; possibly because of raw material. Brown (7.5 YR 5/4) fossiliferous, vuggy chert. Fossils are nodosaria-like and sponges. Vugs tend to be open and quartz-lined. Light gray splotching and coating on one side. Quartz-filled, well-healed fracture across the blade that did not inhibit flaking. Edwards; probably from gravel though no cortex is present. Stream rolling would have reduced fractures and flaws to minimum significance for flaking.
- 212. Untyped broken distal end of strongly-beveled biface (Darl?). Thin blade. "Fresh" break exhibits gray (10 YR 7/1) Edwards chert. All other surfaces weathered to dark yellowish-brown (10 YR 4/4). Fluorescence is dramatically different between the rock exposed in the break (yellow) and the weathered surfaces (no fluorescence). This serves as a precaution to using fluorescence without discrimination.
- 213. Preform. Original rock exposed in center is pale blue-gray (nearest color match is light gray 2.5 Y N7/). Outer portions weathered to pale brown (10 YR 6/3). Edwards, and probably from gravel.
- 214. Ensor. Distal end is broken. In "fresh" break rock is dark bluish-gray (best match 7.5 YR N5/) with light gray splotching. All other surfaces weathered to light gray (10 YR 7/2) and pale brown (10 YR 6/3). Rust-colored splotches occur on higher edges of flake scars on both sides. Edwards.
- 215. Marshall. Gray (10 YR 6/1) with pin-point-sized dots and small rod-like spots of dark brown (10 YR 3/3). Quartz-filled vug on one side. Edwards.

- 216. Palmillas. Weak red (2.5 YR 4/2), reddish-gray (5 YR 5/2) to gray (5 YR 5/1). Edwards.
- 217. Yarbrough. Dark gray (10 YR 4/1) splotched with pale brown (10 YR 6/3). Edwards.
- 218. Untyped biface fragment. Base of stem and distal end missing. Tremendous impact fracture extending into blade from distal end to the shoulder-stem contact. Very dark gray (10 YR 3/1) with tiny brown splotching. Edwards.
- 219. Fragment of large flake blade. "Fresh" break is very dark gray (10 YR 3/1) Edwards-looking chert, but the surfaces on both sides reflect petrified wood grain. Doesn't fluoresce. Petrified wood with very fine flaking along one edge.
- 220. Big Sandy. Yellowish-brown (10 YR 5/6) with white to light gray splotching. One quartz-filled vug on one side. Edwards.
- 221. Marcos (?) with tapered Afton-like distal end of blade. Very dark gray (10 YR 3/1) to dark gray (10 YR 4/1). Weathered at distal tip to pale brown (10 YR 6/3). Fossiliferous with numerous white spiculitic masses and individual spicule-like features. Wreford Chert from Flint Hills of Kansas is best match. Does not fluoresce.
- 222. Woden. Blade resharpened. Yellow (10 YR 7/6) mottled and weathered to reddish-brown staining. Dark yellowish-brown (10 YR 5/4) cortex at base of unthinned stem. Edwards gravel.
- 223. Friley arrowpoint. Reddish brown (5 YR 4/4) chert. No positive identification, but it is typical of gravels from Queen City Sand Formation of East Texas.
- 224. Large flake of high-quality petrified wood. Reddish-gray (5 YR 5/2) to light yellowish-brown (10 YR 6/4), and very pale brown (10 YR 6/3).
- 225. Ellis. Reddish-yellow (7.5 YR 6/8) to brownish-yellow (10 YR 6/8). Light gray to white splotching. Pure white silica-lined depression and vugs. Faint concentric banding is visible on one side of stem and edge of the blade. Unidentified (possibly Edwards) gravel source.
- 226. Morrill. Weak red (10 R 4/3 to 5/3). Uniformly colored and textured. Microscopic tiny red dots like Edwards, some splotching. Slight luster. Best guess is very well heat-treated Edwards.
- 227. Godley (?). Reddish-yellow (7.5 YR 6/6) to brown (7.5 YR 5/4) to light yellowish-brown (10 YR 6/4). Light gray splotching. Edwards.

- 228. Plummet. Black (10 YR 2/1) diorite. Slightly notched wedge-shaped ends. An aborted perforation in center on one side. Check further for source. Hot Springs?
- 229. Large thick, severely resharpened Morhiss (?) or Lange (?). Very dark gray (10 YR 3/1) chert. Marble Falls is best match.
- 230. Evans. Stem broken off. Brownish-yellow (10 YR 6/6) weathered to yellowish-brown (10 YR 5/6). Light gray (10 YR 7/1) to reddish-gray (10 R 6/1) patina forming on one side. Tiny light gray internal splotching. Edwards.
- 231. Epps. Severely-resharpened blade. Pale brown (10 YR 6/3) to weathered dark yellowish-brown (10 YR 4/4). Dark brown (10 YR 3/3) cortex remnant on one corner of stem. Edwards gravel.
- 232. Shares similarities to small Fairland dart point and to large Haskell arrowpoint (?). Very dark gray (2.5 YR N3/0). Tiny spicule-like rods. Opaque even on thin edges. Badly heat-spalled. Ouachita Mountain source, Stanley group; Wesley Formation.
- 233. Epps. Yellowish-brown (10 YR 5/6), dark yellowish-brown (10 YR 4/6) to strong brown (7.5 YR 5/6) splotched reddish-yellow (7.5 YR 7/6). Oolitic chert. Dark brown (10 YR 3/2) cortex remnant at base of stem. Unidentified gravel source.
- 234. Artifact not available for inspection.
- 235. Rice-Lobed (Perino, 1985:323). One shoulder broken off. White (whiter than Munsell chart) mottled with yellow (10 YR 7/6) and light gray (10 YR 7/2) splotches. Fossiliferous, but a single crinoid cross-section is a strong possibility, and sponge spicules are observable but individual fossils are not clearly discernable. Unidentified, probable viola chert, Arbuckle source.
- 236. Untyped strongly shouldered and broad blade, beautifully flaked blade-stem missing. Dark reddish-brown (5 YR 3/3) to yellowish-red (5 YR 5/6). Edwards.
- 237. Broken mid-section of untyped lanceolate biface. Impact fracture from distal tip. Both broken sections are weathered to same extent as other surfaces. Exposed glimpses of inner rock on edges and under microscope are brown (10 YR 5/3). Probably Edwards, but weathered surfaces obscure details.
- 238. Large decortication flake scraper notched for hafting on one end and retouched along the two blade edges. Yellowish-brown (10 YR 5/4) with yellowish-red mottling on ventral side. Yellow (10 YR 8/6) to dark yellowish-brown (10 YR 3/4) cortex on dorsal side. Edwards gravel.

- 239. Edgewood. Yellow (10 YR 7/6) weathered on both sides to dark yellowish-brown (10 YR 4/6). Vug filled with tiny quartz crystals on one side. Fossiliferous Edwards chert, but individual fossils not identifiable.
- 240. Broken untyped biface. Strongly shouldered. One corner of stem (rectangular?) broken off along plane of healed, quartz-filled fracture. Distal end of blade broken at angle across the blade and the break exhibits flaking attempts to retouch that broken edge, but was left uncompleted. Reddish-brown (5 YR 4/4) weathered to dark reddish-gray (5 YR 4/2) and yellowish-brown (10 YR 5/4). Other side is darker (dark reddish-brown 5 YR 3/3, yellowish-red 5 YR 4/6, and dark brown 7.5 YR 3/4). Internal light gray splotching. Edwards.
- 241. Broken mid-section of untyped biface. Fresh break of reddish-yellow (7.5 YR 6/8). One side weathered to strong brown (7.5 YR 4/6) and other side pinkish-gray (7.5 YR 6/2). Edwards.
- 242. Broken distal end of biface. Fresh break pink (7.5 YR 7/4) surfaces weathered to reddish-yellow (7.5 YR 6/6) and strong brown (7.5 YR 5/6). Edwards.
- 243. Broken distal end of biface. Very pale brown (10 YR 7/4). Surfaces weathered to brownish-yellow (10 YR 6/6). Edwards.
- 244. Large decortication flake with retouch along the non-cortexed edge. Multi-colored beautiful blue-gray (2.5 Y N5/), olive gray (5 Y 5/2), olive (5 Y 5/4), and yellowish-brown (10 YR 5/4) splotching. Cortex remnant is dark reddish-brown (5 YR 3/4). VHQ Edwards gravel.
- 245. Broken biface fragment split longitudinally down center of blade, along one edge, and across blade. Very pale brown (10 YR 7/3). Weathered surfaces are brownish-yellow (10 YR 6/6) and yellowish-brown (10 YR 5/4). Edwards.
- 246. Broken Clovis. Angled break across the blade resharpened. "Fresh flakes" on reverse side exhibit gray (2.5 Y N5/0) chert. Other surfaces are red (2.5 YR 4/6) with light orange splotches on one side, and on other side, thin band of orangish-red extends around perimeter of the flute scar. Beautiful red waxy color from heat-treatment after first break and rechipping had occurred. Could chemical weathering produce such a color and luster? Very high quality of Edwards (?).
- 247. Large bifacial thinning flake. Reddish discoloration at one end could be indicative of chemical weathering effects just under edge of cortex or from heattreatment. Basic color on ventral side is grayish-brown (10 YR 5/2) to brown (10 YR 5/3). Along thin edge (versus the thicker edge of a hinge fracture) color shades into reddish-brown (5 YR 5/4). Dorsal side exhibits development of pinkish-gray (5 YR 6/2) patina. Edwards.

- 248. Marshall-like biface. Strongly shouldered, barbs broken off. Thick bodied from resharpening. Stem appears to have been added to broken blade of an earlier biface. Flaking and patination are different from the upper portion of the blade and that portion from the stem/notch interface to base of the stem. Unusual material. Original material appears to be that portion on the slightly flatter side near the distal end. Rock is very pale brown (10 YR 7/3) to white (10 YR 8/2), opaque, and surrounds a quartz-lined vug and a darker gray (10 YR 5/1) unweathered center inside the pale brown. Remainder of surface grades into light yellowish-brown (10 YR 6/4), gray (2.5 Y N5/), and a brownish-gray without a good color match. Microscopically, the chert reflects tendency towards translucency with spicule-like inclusions. On both corners of the stem white (10 YR 8/2) to light gray (10 YR 7/1) poorly silicified and probably fossiliferous (can't identify species) carbonate remnants occur. Surface is weathered to typical light bluish-gray lightly mottled patination typical of both Edwards and Knife River Flint, but Edwards materials exactly like this are unknown to me. Unidentified. Check further with ultraviolet light.
- 249. Broken distal end of biface. Strong brown (7.5 YR 5/6) to reddish-yellow (7.5 YR 6/6). Along one edge shades into dark brown (7.5 YR 4/4). Typical of Edwards gravel although no cortex is present.
- 250. Unifacial flake scraper broken across blade toward distal (?) end. Light brown (7.5 YR 6/4) with subtle concentric banding grading outward to dark brown (7.5 YR 3/2). Cortex remnant is white on dorsal side, underlain by 3-4 mm thick band of dark brown (7.5 YR 3/4). Edwards gravel .
- 251. Small Dalton. Light brown (7.5 YR 6/4) with light reddish-yellow (7.5 YR 7/6) to pinkish-white (7.5 YR 8/2) internal splotching. Other side is mottled (patinated) pinkish-gray (7.5 YR 6/2) and white (7.5 YR N8). Edwards.
- 252. Large beautiful Clovis. Dark grayish brown (10 YR 4/2) with internal light gray (10 YR 7/2) splotching. Reverse side grades into shades of dark yellowish-brown (10 YR 4/6) and one corner of base is very dark grayish-brown (10 YR 3/2). Waxy luster. VHQ Edwards.
- 253. San Patrice. Basic material only visible in one small area along base of the stem. Very pale brown (10 YR 7/3). Surfaces weathered to mottled spots of dark yellowish-brown (10 YR 4/4). One ear broken off; other ear is slightly reddened (heat-treated?), and retains tiny remnant of pebble cortex. Red color could be either from heat-treatment or possibly from chemical weathering. Edwards gravel.
- 254. Broken Scottsbluff (distal end missing). Break across the blade is weathered to same extent as rest of the artifact. Tiny "fresh" flake on one corner of the stem

- exposes internal rock of dark grayish-brown (10 YR 4/2). All other surfaces heavily patinated to light gray (10 YR 7/1) and white (10 YR 8/1) with minimal yellow (10 YR 8/6) iron-oxide staining. Edwards.
- 255. Small corner-notched (?) biface. Edgewood, almost Palmer-like. Basal grinding in the notches and on base of the stem. Mottled pink (7.5 YR 7/4), reddishyellow (7.5 YR 6/6), to strong brown (7.5 YR 5/8). Internal light gray splotching. Cortex remnants on both sides of blade. Strong brown cortex. Edwards gravel.
- 256. Broken biface with added Gary-like stem. Plano-convex in cross-section. Strong brown (2.5 YR 4/6) cortex remnant on dorsal side of stem. Possible tiny remnant of cortex on ventral side which is yellow (2.5 YR 7/6). Edwards gravel.
- 257. Small Edgewood with incurvate resharpened blade. Thick-bodied. Gray (10 YR 5/1) mottled with light gray (10 YR 7/2) splotches in roughly linear pattern parallel to axis of the blade. Edwards.
- 258. Pedernales with the blade resharpened at angle across the blade reminiscent of Cody or Red River knives. Unifacial flaking occurs along this broken and resharpened edge. One barb is broken off. Internal rock exposed in the numerous small very dark grayish-brown (10 YR 3/2) "splotches" on both sides. Other surfaces are white (10 YR 8/2), very pale brown (10 YR 8/3) to pinkish tinge (no good color match) and pale brown (10 YR 6/3). Tiny pin-point holes filled with extraneous minute black particles. Rock reflects early stages of tripolitic weathering. Unusually weathered Edwards chert.
- 259. Plate-like fragment of thin white (10 YR 8/2), very pale brown (10 YR 7/3) to pale brown (10 YR 6/3) petrified wood. Angled break across the "blade" has been retouched, and the flat "proximal" end has been roughly flaked.
- 260. Possibly a heavily depleted, notched, double-bitted Fourche Maline axe; or possibly a severely reworked Dalton adze. Mottled white (10 YR 8/2) to light gray (2.5 Y 7/2) Keokuk chert from western Ozark Mountains. Slight polish on one end of artifact is suggestive of being used as an adze.
- 261. Broken mid-section of untyped biface. Dark yellowish-brown (10 YR 4/4) with internal splotches of pale brown (10 YR 6/3). Edwards.
- 262. Broken distal end of narrow drill-like, pointed, bifacially-flaked tool. Appears to have been flaked into shape initially, and then flake scars almost removed by grinding. Hematitic appearance, but is very dark brown (10 YR 2/2) quartzitic chert. Surface weathered too heavily for specific identification from visual classification.

- 263. Has attributes of a heavily-weathered bifacial "thinning" flake scraper, but it may be too thick to have been a "thinning flake". One band of grayish-brown (10 YR 5/2) chert across the narrow end of the flake may be indicative of original Edwards raw material. Remainder of the flake is completely encrusted with mottled pale brown (10 YR 7/4), yellow (10 YR 7/6), to reddish-brown (2.5 YR 4/4) cortex. Coarse retouch along two edges of the flake. Possibly Edwards.
- 264. Broken distal end of untyped biface. Subtly mottled very pale brown (10 YR 7/4) to brownish-yellow (10 YR 6/6). Edwards.
- 265. Broken distal end of untyped biface. Break across the blade has been thinned slightly and edges are slightly beveled. Ear-like projections on broken end reflect Carrizo-like outline, but not intentional enough for definition. Very pale brown (10 YR 7/3) Edwards.
- 266. San Patrice. Broken distal end "fresh" break is reddish-brown (5 YR 4/3). All other surfaces are weathered to mottled weak red (10 R 4/4) and yellowish-red (5 YR 5/6). Petrified wood.
- 267. Edgewood. Made on slightly curved unifacial flake blade. Cortex remnant on curved ventral side. Minimal retouch, but very fine flaking along edges of ventral side. Edges on dorsal side are steeply and basically unifacial flaked. Brown (10 YR 5/3) to yellowish-brown (10 YR 5/4 to 5/8). Subtle banding on distal end becoming slightly more translucent at tip. Internal light gray splotching. Edwards.
- 268. Yarbrough. Color change from one side to other. One side, mottled gray (10 YR 5/1), light gray (10 YR 6/1) and light brownish-gray (10 YR 6/2). Other side, weathered to reddish gray (10 R 5/1) and weak red (10 R 5/2). Edwards.
- 269. Unifacial, steeply-edged scraper, similar to Bristol Biface, but it has very pale brown (10 YR 8/4) cortex on one side that Bristol Bifaces normally do not exhibit. Reddish-brown (5 YR 4/3) with internal very pale brown (10 YR 8/3) splotching. Edwards gravel.
- 270. Large Lange biface with tip broken from impact fracture, and heavily resharpened finely-flaked blade edges. Internal material exposed in "fresh" break at distal end is dark grayish-brown (10 YR 7/2) weathered outwardly on all exposed surfaces to light gray (10 YR 7/2), very pale brown (10 YR 7/4), light yellowish-brown (10 YR 6/4) with white (10 YR 8/2) splotching. Edwards. Large flake blade resharpened into untyped (broken)
- 271. Large flake blade resharpened into untyped (broken) dart point. Ventral side is unifacial flake surface except for minimal retouch along the edges. Dorsal side exhibits beautiful roughly parallel flaking typical of Scottsbluff-like technique.

- Very dark grayish-brown (10 YR 3/2) on ventral side grading into dark yellowish-brown (10 YR 3/4) on dorsal side. VHQ Edwards chert.
- 272. Broken Kent. Distal end missing. Material exposed in "fresh" break across blade is yellow (10 YR 7/6), gray splotched Edwards. Rest of artifact is heavily worn (flake scars essentially removed) and heavily patinated with strong brown (10 YR 5/6) cortex. Edwards.
- 273. Edgewood/Epps-like with wide, flaring notches and rounded shoulders. Made from decortication flake blade. Cortex remnant on ventral side of dusky red (10 R 3/4) and areas around cortex remnant reddened to red (10 R 4/6). Other side of stem is reddish-brown (2.5 YR 4/4). Basic rock on both sides is yellowish-brown (10 YR 5/4). Edwards gravel.
- 274. Broken fragment of unifacial flake blade tapered to biface-like point, but distal tip is broken as well as being broken in mid-section. Dorsal side appears to have been unifacially flaked, but flake scars almost worn off. Heavily encrusted with mottled light yellowish-brown (10 YR 6/4) reddish-yellow (5 YR 6/6), and very pale brown (10 YR 7/4). "Fresh" flake on one edge exposes grayish-brown (10 YR 5/2) Edwards chert.
- 275. Large decortication flake. Retouch along two edges. Dark yellowish-brown (10 YR 3/4 to 4/4) mottled with very pale brown (10 YR 7/4) splotching. Cortex is very dark brown (10 YR 2/2). Beneath cortex on dorsal side chert is reddish-brown (5 YR 4/4) to yellowish-red (5 YR 4/6). Edwards gravel.
- 276. Morhiss-like. Large, thick, strongly shouldered biface. Dense, very fine-grained quartzose chert. Very dark grayish-brown (10 YR 3/2) on one side and on other side weathered to grayish-brown (10 YR 5/2). Unidentified quartzite.
- 277. San Patrice. Strong brown (7.5 YR 5/6), subtly mottled to reddish-yellow (7.5 YR 6/6). Cortex remnant of very pale brown (10 YR 8/3) underlain by thin veneer of very dark gray (10 YR 3/1). Edwards gravel.
- 278. San Patrice. Mottled very pale brown {10 YR 7/3 to 7/4), light yellowish-brown (10 YR 6/4), and light brownish-gray (10 YR 6/2) spots. Internal light gray splotching. Other side is slightly darker shades of pale yellowish-brown. Edwards.
- 279. San Patrice. Brownish-yellow (10 YR 6/6) with light gray (10 YR 7/2) splotching. Edwards. Reverse side grades into more of a brownish-yellow (10 YR 5/6).

- 280. Classic Plains end scraper. Made from flake blade and identical to the hafted types found by Wedel in central Kansas. Gray (10 YR 5/1) Edwards.
- 281. Epps-like. Unusual material, basically yellowish-brown (10 YR 5/4) splotched and mottled with very pale brown (10 YR 7/4), light gray (10 YR 7/2), and white (5 Y 8/6). Well healed quartz-filled fracture across blade is dark brown (10 YR 3/3). Internal light gray splotching. Almost identical to material of No. 148, but not as heavily weathered. Edwards. This could also indicate that 148 may be an unusual variety of Edwards.
- 282. Very small Kent-like. Very pale brown (10 YR 7/3 to 8/3). Stem is brownish-yellow (10 YR 6/6) and may indicate difference in weathering from having been hafted. Edwards.
- 283. Similar to No. 276 (Morhiss-like) with stem and thick blade, but this one is much smaller, possibly a large crude Kent (?). Light brownish-gray (10 YR 6/2), but fresh flake on one side exposes dark gray (10 YR 4/1) interior. Surface coloring due to weathering. Edwards.
- 284. Large untyped, but shares attributes of both Godley and Epps in outline. Broken across blade with distal end missing. Very fine-grained semi-translucent quartzite; gray (10 YR 5/1) weathered to opaque white (whiter than Munsell chips). Similar in color to Catahoula, but is more translucent like Tallahatta. Check further.
- 285. Broken mid-section of thick untyped biface. Fresh flake on one edge exposes gray (10 YR 5/1) chert. Internal light gray splotching. Surfaces weathered to light gray (2.5 Y 7/) to gray (2.5 Y N6). Other side is grayish-brown (2.5 Y 5/2). Edwards.
- 286. Yarbrough. Grayish-brown (2.5 Y 5/2) to dark grayish-brown (2.5 Y 4/2). Waxy luster. Edwards.
- 287. Elam-like. Red (10 R 4/6). Uniform coloration, texture. Could be Tecovas, but is also very similar to St. Joe from Ozarks. Check further.
- 288. Edgewood (?). Completely encrusted with thick, strong brown (7.5 YR 5/6) cortex. Flake scars heavily worn. Impact fracture at distal end. Same degree of weathering on impact fracture as on rest of the artifact. Raised "knot" on one side is dark grayish-brown (2.5 YR 4/2). Almost appears to have been original material. Tiny white dots sprinkled throughout matrix. Unidentifiable because of weathering, but possibly yellowish-brown quartzite.

- 289. Broken, Gary-like biface, but one side of the blade and stem are resharpened and removed one shoulder. Red (10 R 4/6) with weak red (10 R 4/3) very subtle splotching in center and towards distal tip. Similar to No. 287. Almost too uniform in color for Tecovas, but Tecovas is best guess.
- 290. Large broken Scottsbluff preform (?). Lacks retouch along edges and lacks basal delineation and grinding. Broken distal tip. Mottled shades of yellowish-brown (10 YR 5/4), light brownish-gray (10 YR 6/2), yellowish-brown (10 YR 5/4), dark grayish-brown (10 YR 4/2), and splotched with white (10 YR 8/2). One edge exhibits yellowish-brown chert without grainy texture exhibited over most of the surfaces. No observable definite wood grain, but weathering and gradation from grainy to microcrystalline roughly linear alignment is most suggestive of petrified wood. The type material could be the reason the tool form was not completed.
- 291. Broken mid-section of untyped biface. Dusky red (10 R 3/3), dark grayish-red (10 R 3/1), to weak red (10 R 4/3) very fine-grained quartzite grading into chert. Quartz-lined vug on one side. Tecovas.
- 292. Very large Ellis/small Lange (?). Yellow (10 YR 7/8) with very pale brown internal splotching. Stem grades into brownish-yellow (10 YR 6/8). Edwards.
- 293. San Patrice. Dark brown (10 YR 3/3) internal chert weathering outward to light yellowish-brown (10 YR 6/4), yellowish-brown (10 YR 5/4) and yellow (10 YR 7/6). Along one edge where internal splotching is so common the rock has a grainier quartzite appearance. Effects of weathering (?). Edwards.
- 294. Ellis. Brown (7.5 YR 5/4). Cortex remnant on one side is dark brown (7.5 YR 3/4) and material around cortex remnant is yellowish-red (7.5 YR 5/6). Edwards gravel.
- 295. Kent. Dark yellowish-brown (10 YR 5/4) with weathered mottling of very pale brown (10 YR 7/4). Dark yellowish-brown (10 YR 4/4) cortex remnant underlain by band of very pale brown on one side of blade. Edwards gravel.
- 296. Very small, severely resharpened, Gary-like biface. Dark reddish-gray (10 R 3/1) to dusky red (10 R 3/2). Possibly heat-treated. Edwards.
- 297. Edgewood. Brown (7.5 YR 5/4) subtly mottled to strong brown (7.5 YR 4/6) and brownish-yellow (10 YR 6/6). Internal light gray splotching. Edwards.
- 298. Kent-like. Fresh flake on one edge exposes very pale brown (10 YR 7/3) chert with light gray internal splotching. Surfaces all weathered to very pale brown (10 YR 7/4) and light yellowish-brown (10 YR 6/4) with light gray splotching.

- Slightly darker shade at base of stem is suggestive of cortexual weathering, but no cortex, per se, is observable. Edwards.
- 299. Edgewood. Pale yellow (2.5 Y 7/4) to brownish -yellow (10 YR 6/6). Reddish-yellow (7.5 YR 6/6) at stem. Light gray internal splotching. Edwards.
- 300. Bifacially flaked and broken preform. Dark yellowish-brown cortex on one "corner". Yellowish-brown (10 YR 5/6) uniformly colored except for very white splotching and white fossil sponge exposed on one side. Edwards gravel.
- 301. Flake (bifacial thinning?) with slightly retouched edge. Semi-translucent on thin edges. Dark yellowish-brown (10 YR 3/4). Edwards.
- 302. Decortication flake with retouch along one edge. Very white coarse cortex on dorsal side. Beneath cortex is pinkish-gray (best match 5 YR 7/1). Ventral side is dark yellowish-brown (10 YR 4/4). VHQ Edwards gravel.
- 303. Gary. Strong brown (7.5 YR 5/6) to reddish-yellow (7.5 YR 7/6) on outer edge. Cortex remnants on both sides of blade and at very tip of one shoulder. Light gray splotching on side opposite cortex. Edwards gravel.
- 304. Gary with pointed stem. Worn flake scars. Strong brown (7.5 YR 5/6) to reddish-yellow (7.5 YR 7/6) on outer edge. Dark brown (7.5 YR 3/4) cortex remnants on both sides of blade. Grainy texture. Quartzitic Edwards chert gravel.
- 305. Bell/Calf Creek. Light gray (10 YR 7/2) slightly splotched with dark gray dots. Grades into pale red (10 R 4/6) along the side with a broken barb. Reddish-gray (5 YR 5/2) quartz-filled, healed fracture. Novaculite from Ouachita Mountains.
- 306. Dalton/Scottsbluff preform (?). Lacks shoulder definition. "Fresh flake" on one side exposes dark grayish-brown semi-translucent interior. All other surfaces weathered and mottled; light brownish-gray (10 YR 6/2), yellow (10 YR 7/6), very pale brown (10 YR 7/4), and gray (10 YR 6/1) on one side. Other side more mixed mottling of same colors and with white (10 YR 8/2). Mottled surfaces very similar to No.148. Edwards.
- 307. Flake blade from prismatic core. Burin graver on one end. Retouch along both edges of blade. Dark brown (10 YR 3/3) subtly changing to dark yellowish-brown (10 YR 3/4 to 4/4). Slight difference in texture corresponding to changes in color. Darker shade (10 YR 3/4) tends to be coarser. Indistinct banding commensurate with color change is suggestive of concentric cobble weathering. Edwards.
- 308. San Patrice. Strong brown (7.5 YR 5/6). Indistinct cortex remnant on one side. Quartzitic chert from Edwards gravel.

Murray Brown Collection

- 1. Yarbrough (?). Grayish-brown (10 YR 5/2) to dark grayish-brown (10 YR 4/2). Splotched on one side with light gray (10 YR 7/2) and internal light gray splotching. Edwards.
- 2. Lange-like, but it has "twisted" blade. Brown (7.5 YR 5/2 to 5/4) mottled to strong brown (7.5 YR 4/6) and reddish-yellow (7.5 YR 7/6). Opaque. At base of stem an accretion of siliceous (sandy) asphaltum-like material with tiny white dots of kaolinite-like material adhering to the rock as if it may have been a hafting mastic. Material is quartzitic chert. Edwards (?). Check further for comparisons. Could the hafting mastic be tested?
- 3. Kent/Woden. Very pale brown (10 YR 8/4) to yellow (10 YR 8/6) grading at stem to yellow (10 YR 7/6), yellowish-brown (10 YR 5/6), and light blue-gray (best match 7.5 YR N6/0). Cortex remnant at base of the unthinned stem is dark yellowish-brown (10 YR 4/4). Light gray internal splotching. Edwards gravel.
- 4. Godley (?). Crudely flaked. Yellowish-brown (10 YR 3/4), pale brown (10 YR 6/3) to yellowish-brown (10 YR 5/4), splotched with light gray (10 YR 7/2) and white fossil spicules. Quartz-filled tiny vugs. Poor quality Edwards chert; could have been reason for crude flaking.
- 5. Yarbrough. Gray (10 YR 5/1), light gray (10 YR 6/l to 7/1), and pale brown (10 YR 6/3) on one side. Other side is slightly more uniform in gray color with light gray linear splotching parallel to axis of blade. Probably fossiliferous, but individual specimens cannot be identified. Edwards chert.
- 6. Big Sandy. Broken distal end. In corner of one of the notches is a black siliceous residue (mastic?) very similar to that on No. 2 above. Chert is grayish-brown (10 YR 5/2) to light brownish-gray (10 YR 6/2). Internal light gray splotching. Edwards.
- 7. Big Sandy with beveled blade edges. Brown (10 YR 4/3) grading into pale brown (10 YR 6/3). Other side has gray (10 YR 5/1) color across mid-section of blade. Edwards.
- 8. Thick, crudely-flaked Yarbrough-like biface. Mottled brownish-yellow (10 YR 6/4), yellowish-brown (10 YR 5/6), and grayish-brown (10 YR 5/2) with light gray internal splotching. Edwards.
- 9. Dawson. Light yellowish-brown (10 YR 6/4). Internal light gray splotching. Edwards.

- 10. Thick-bodied, heavily resharpened, crudely-flaked and side-notched untyped biface. Basally unthinned. Appears to have been re-stemmed from an earlier broken blade of a biface. Grayish-brown (10 YR 5/2) semi-translucent chert. Slightly patinated with light gray (10 YR 7/1) to white (8/2). Edwards.
- 11. Large flake knife/scraper. Made from decortication flake. Cortex is dark yellowish-brown (10 YR 4/4). Ventral side is light yellowish-brown (10 YR 6/4) to brown (10 YR 5/3). Internal light gray splotching. Edwards gravel.
- 12. Flake blade scraper. White cortex remnant along thick unflaked edge. Retouch on opposing edge. Brown VHQ chert grading into light gray towards cortexed edge. Edwards gravel.
- 13. Pebble scraper. Flaked along one edge of pebble. "Fresh" flaking is yellow (10 YR 7/8) grading on ventral side to thin band of dark yellowish-brown inside of cortex, and on dorsal side into dark gray (10 YR 4/1) beneath cortex. Cortex is mottled very dark gray (10 YR 3/1), dark grayish-brown (10 YR 4/2), and light gray (10 YR 6/1). Ventral side of cortex is strong brown (7.5 YR 4/6) to dark brown (7.5 YR 3/2). Edwards gravel.
- 14. Decortication flake. Minor retouch on thin edge opposite cortex. Pale brown (10 YR 6/3) grading concentrically to very pale brown (10 YR 7/4) and yellowish-brown (10 YR 5/4) away from cortex of dark yellowish-brown (10 YR 3/4). Edwards gravel.
- 15. Split and slightly flaked cobble (core?). Dark yellowish-brown cortex (10 YR 4/4) along one edge and side. Bifacially removed flakes from both sides. Pale brown (10 YR 6/3), grayish-brown (10 YR 5/2) and gray splotched (10 YR 5/1). Edwards gravel.
- 16. Elongate small flake scraper. Light brownish-gray (10 YR 6/2), reddish-gray, weak red (2.5 YR 5/2). No cortex. Edwards.
- 17. Light gray (10 YR 7/2) mottled to very pale brown (10 YR 7/3), and light gray internal splotching. Brownish-yellow (10 YR 6/6) on one edge. Edwards.
- 18. Large bifacially-flaked Cliffton or very small Garyito. Stemming appears to have been added after point was made. Unusual oblique flaking on one side of blade. Yellowish-brown (10 YR 5/6) altered to red (10 R 4/6) on stem. Light gray internal splotching. Edwards.
- 19. Double-notched Evans. Notches added to an earlier, possibly broken blade. Slight differences in color and flaking techniques between area from upper notches to the base in comparison to distal end of blade. Very pale brown (10 YR)

- 7/4) to light yellowish-brown (10 YR 6/4), with light gray splotching especially evident in the more recently flaked areas of the notches. Edwards.
- 20. Long, classic Darl with beveled blade. Pale brown (10 YR 6/3), brown (10 YR 5/3), and very pale brown (10 YR 7/4) splotching. Edwards.
- 21. Large, slightly-shouldered and broken, untyped biface with Scottsbluff-like appearance. Stem missing. Dark gray (2.5 Y N4/0). Quartzitic sandstone (quartzite) from Stanley Shale or Jackfork Formation of Ouachita Mountains in southeastern Oklahoma.
- 22. Small Midland. Best color match for basic rock is white (2.5 Y 8/2) mottled to yellow (2.5 Y 7/6) and reddish-yellow (7.5 YR 7/6). Other side is mostly yellow (2.5 Y 7/6). Internal light gray splotching. Edwards is best guess.
- 23. Plano-convex scraper with flaking across the ventral surface. Appears to have been rechipped from a broken biface. On "dorsal" side edges are steeply beveled. Very dark gray (7.5 YR N3/0) to dark gray (7.5 YR 4/1) and on ventral side to reddish-brown (5 YR 5/4). Subtle internal splotches and mottling of light and dark gray on ventral side. High quality Edwards.
- 24. Broken Morrill-like biface. Distal end missing. Dark yellowish-brown (10 YR 3/4) slightly mottled areas of yellowish-brown (10 YR 5/4). VHQ Edwards.
- 25. Keithville/possibly small Ensor. Material type probably influenced quality of knapping. Gray (5 YR 5/1) petrified wood with black cortex on one side and light reddish-brown (7.5 YR 5/3) on other. Gravel source.
- 26. Marcos (?) with shoulders rounded off in resharpening blade. Beautiful dark reddish-brown (5 YR 3/2) and other side of dark reddish-gray (5 YR 4/2) semitranslucent Edwards chert.
- 27. Rounded, heavily worn, untyped biface. Lanceolate in outline, slightly shouldered. Almost as thick as it is wide. Grayish-brown (10 YR 5/2) to brownish-yellow (10 YR 6/6) siliceous oolite.
- 28. Ensor. Extremely well made of reddish-brown (5 YR 4/4) to light reddish-brown (5 YR 6/3) petrified wood.
- 29. Motley (?). Dark brown (7.5 YR 4/2), strong brown (7.5 YR 4/6), dark yellowish-brown (10 YR 4/4), and grayish-brown (10 YR 5/2) petrified wood. Very pale brown (10 YR 7/3) cortex on one face.

- 30. Broken distal end of large untyped biface. Plano-convex in cross-section. In broken cross-section chert is red (2.5 YR 5/4) mottled with very pale brown (10 YR 7/3). Surfaces slightly more subdued in colors of weak red (10 R 5/3) and reddish-brown (5 YR 5/3). Internal light gray splotching. Heat-treated (?). Edwards.
- 31. Palmillas (?). Heavily worn and completely encrusted with thick reddish-gray (5 YR 5/2) to reddish-brown (7.5 YR 6/6) cortex. Unidentifiable.
- 32. Large bifacial thinning flake. Beautiful semi-translucent dark brown (7.5 YR 3/4) subtly mottled to brown (7.5 YR 5/4) and weak red (10 R 4/4) with light gray internal splotching, and outermost edge of dark grayish-brown (10 YR 4/2). Edwards. Possibly from same rock that Clovis point No. 5 of Coen collection is made of.
- 33. Broken distal end of untyped biface. Very pale brown (10 YR 7/3) to yellowish-brown (10 YR 5/4). Light gray internal splotching. Edwards.
- 34. Broken blade (bit) of drill. Dark gray (7.5 YR N4/0) with light gray (10 YR 7/1) mottling. Edwards.
- 35. Pelican. Very dark gray (10 YR 3/2) to dark brown (10 YR 4/3) petrified wood.
- 36. Broken untyped biface. Stem missing. Reddish-yellow (5 YR 7/6) to strong brown (7.5 YR 5/6). Reddened on one side to yellowish-red (5 YR 5/6). Heattreated (?). Edwards.
- 37. Godley (?). Grayish-brown (10 YR 5/2) to light yellowish-brown (10 YR 6/4) quartzitic chert. Possibly Edwards.
- 38. Black fossilized alligator gar scale. Possible projectile point (?).
- 39. Broken untyped biface. Strongly shouldered, stem missing. Dark yellowish-brown cortex remnant on one face of blade. Grades from reddish-gray (5 YR 5/2) semi-translucent edge to very pale brown (10 YR 7/3) and light gray (10 YR 7/2). Slight staining of brownish-yellow (10 YR 6/6) on one side of blade. Area beneath cortex is yellowish-brown (10 YR 5/6). Edwards gravel.
- 40. Thick, crudely-flaked Elam-like biface. Thick steeply-flaked blade edges. Very dark gray (10 YR 3/1) cortex remnant on one side. Dark brown (10 YR 3/3) cortex on other side. Dark yellowish-brown (10 YR 4/4) quartzitic chert. Edwards gravel.
- 41. Pebble with one edge flaked. Dark yellowish-brown (10 YR 4/6) on flaked edge. Cortex is dark brown (7.5 YR 4/4). Edwards gravel source.

- 42. Bifacial thinning flake. Beautiful material. Dark reddish-gray (5 YR 4/2) to dark reddish-brown (5 YR 3/4). Light gray splotching. Edwards.
- 43. Edgewood (?). Heavily worn and completely encrusted with yellowish-red (5 YR 5/6) cortex. Raw material unobservable. Pebble cortex on one face. Gravel source.
- 44. Bell. Reddish-yellow (7.5 YR 7/6) opaque chert. Liberally sprinkled with light gray and white splotches and unidentified fossil fragments. Edwards.
- 45. Pontchartrain (?). Corners of stem broken off. Reddish-yellow (7.5 YR 7/6) to brownish-yellow (10 YR 6/6). Distal tip broken and reddened (red 2.5 YR 5/6). Sprinkled with white and light gray splotches. Coarser grained than chert in general. Quartzitic Edwards chert.
- 46. San Patrice (?). Broken across one corner of stem. Yellowish-brown (10 YR 5/6) to light yellowish-brown (10 YR 6/4) to yellowish-red (5 YR 5/6). Yellowish-red is chert. Light yellowish-brown is very fine quartzite. Edwards (?).
- 47. Marshall. Brown (10 YR 5/3) to dark yellowish-brown (10 YR 4/4). White inner cortex on one side. Edwards.
- 48. Resharpened Plainview. Resharpening across blade at angle like Cody Knife. Black, beautiful petrified wood.
- 49. Motley (?) with resharpened blade. Broken distal end missing. In break rock is dark grayish-red (5 YR 4/2). Other surfaces are dark reddish-brown (5 YR 3/2) with light reddish-gray patina. Microscopically resembles snake skin-like texture as result of heat fracturing. Heat-treated Edwards.
- 50. Flaked pebble. Slight retouch along one edge. Very dusky red (10 R 2.5/2) cortex, heat-spalled surface. Flaked edge is weak red (10 R 4/3). Heat-treated Edwards pebble.
- 51. Broken distal end of untyped biface. Broken end exhibits same patina as rest of the artifact. Color differences from one side to other. One side, reddish-gray (10 R 5/1) mottled to weak red (10 R 5/3) and red (10 YR 4/4). Other side, reddish-gray (10 R 6/1) and pale brown (10 YR 7/3) splotches. Edwards.
- 52. Bone

- 53. Plate of petrified wood, retouched along two edges. Very pale brown (10 YR 7/4) to light yellowish-brown (10 YR 6/6), very dark brown (10 YR 3/3). Gray (10 YR 5/1) cortex on one side. Gravel source.
- 54. Broken untyped biface. Stem missing. Strongly shouldered. Light gray (10 YR 7/1) and black (10 YR 2/1) splotched novaculite. Ouachita Mountains, Hot Springs vicinity.
- 55. Plate-like petrified wood flaked on three edges. Very pale brown (10 YR 8/3).
- 56. Clovis-like. Light brownish-gray (10 YR 6/2). Light gray internal splotching. Edwards.
- 57. Large broken blade of untyped biface. Very dark grayish-brown (10 YR 3/2) to dark grayish-brown (10 YR 4/2) with light gray internal splotches. Edwards.
- 58. Untyped biface. Long narrow blade and narrow rectangular stem. Strongly shouldered, beveled blade. Light brownish-yellow (10 YR 6/4) to yellowish-brown (10 YR 5/6). Distal end is dark yellowish-brown (10 YR 4/6). Edwards.
- 59. Yarbrough. Well-made. Grayish-brown (10 YR 4/2) to yellowish-brown (10 YR 5/4) petrified wood. White cortex on one face.
- 60. Broken, untyped biface. Stem missing. Completely encrusted with thick cortex-like coating; strong brown (7.5 YR 5/6) to very pale brown (10 YR 7/4), and with red at the distal tip. None of the original material is observable for identification.
- 61. Alligator gar scale. Black (10 YR 2/1) with red (10 R 4/8) patina.
- 62. Prismatic flake blade. Triangular in cross-section. Dark gray patina at base with 2 mm-thick white siliceous band between the cortex and the underlying chert. The chert is light brownish-gray (10 YR 6/2) Edwards chert.
- 63. San Patrice. Yellow (10 YR 7/6) to yellowish-brown (10 YR 5/6). Other side is darker strong brown (7.5 YR 5/6) to brownish-yellow (10 YR 6/6). Light gray splotching and a single cross-section of what appears to be a fossil coral are on one side. Comparison to Newton County, Texas artifacts found on Cow Creek by Paul Tanner is identical. East Texas source.
- 64. Pelican. Weak red (2.5 YR 4/2) semi-translucent chert. Splotched with very pale brown (10 YR 8/3) on one side, and has developmental patina forming along linear lines parallel to axis of the blade on the other side. Edwards.

- 65. San Patrice. Brownish-yellow (10 YR 6/6) to yellowish-brown (10 YR 5/4) and brown (10 YR 5/3). Very dark gray staining on surfaces. Siliceous oolite, and at distal end the oolites becomes less concentrated and grades into an oolitic chert. Same unknown source as the other yellowish siliceous oolites yet to be determined.
- 66. Broken untyped biface. Stem is spalled into lower part of the blade and distal end broken across the blade. Strongly shouldered. Mottled subtle banding at transverse angles across the blade of gray (10 YR 5/1) to very pale brown (10 YR 7/3). Light gray internal splotching. Small open vugs. Roughly similar to some of the cherts from the Johns Valley Shale of the Ouachita's, but slightly more typical of Edwards. Does not fluoresce like Edwards; however. Uncertain identification. Check further.
- 67. Motley. Opaque, light brownish-gray (10 YR 6/2). Other side slightly darker (10 YR 5/1) gray. Dark gray (10 YR 4/1) splotch filled with white spicule fragments. Internal light gray splotching. Edwards.
- 68. Broken mid-section of large wide prismatic blade. Retouched along the two blade edges. Earlier broken cross-section has same degree of weathering as rest of blade. "Fresh" break exhibits dark yellowish-brown (10 YR 4/2) chert. Heavy patination over all other surfaces. On ventral side chert is very pale brown (10 YR 8/3) mottled with light gray (10 YR 7/2) patina. One corner on both sides exhibits light brownish-gray (large relatively speaking 5-6 mm) quartz-filled vug. Fossil spicules. Dorsal side weathered to light yellowish-brown (10 YR 6/4), yellowish-brown (10 YR 5/4) and brown (10 YR 5/3). Patina obscures other details. Identity undetermined. Check further.
- 69. Yarbrough. Yellow (10 YR 7/6) to yellowish-brown (10 YR 5/6). Cortex remnants of yellowish-brown (10 YR 5/4) on one side of stem and on high medial ridge of the other side. Small white circular splotches in linear alignment are probably fossil ghosts. Moderate wear on flake scars. Edwards gravel source.
- 70. Woden. Very dark gray (10 YR 3/1) with white rod-like fibers and patch of white at distal end. Petrified wood. Black cortex on ventral face and at base of unthinned stem.
- 71. Woden-like, but no cortex at base of stem. Dark gray (10 YR 4/1) to white (10 YR 8/1) mottled petrified wood.
- 72. Strongly shouldered untyped biface. Brown (7.5 YR 5/4) mottled to strong brown (7.5 YR 5/6) quartzitic chert. Light gray internal splotches. Edwards.

- 73. Chunk of high-quality petrified wood, flaked along one edge. Dark brown (7.5 YR 3/2). Cortex on four sides of chunk. Gravel source.
- 74. Fragment of flaked chert. No cortex. Opaque grayish-brown (10 YR 5/2) with tiny red dots like Big Spring Edwards (Segovia).
- 75. Broken blade of untyped biface. Stem missing. One side is light yellowish-brown (10 YR 6/4) to yellowish-brown (10 YR 5/6). Light gray internal splotching. Other side is reddish-brown (10 YR 5/4) under dark brown (10 YR 3/3) cortex remnant. Edwards gravel.
- 76. Pelican. Highly resharpened blade. Brownish-yellow (10 YR 6/8) mottled lighter shades. Petrified palm wood. Dark Brown (10 YR 3/3) cortex on one face. East Texas gravel source.
- 77. Broken, strongly-shouldered, untyped biface. Stem broken off. Reddish-yellow (7.5 YR 6/6) and lighter reddish-yellow cortex over all surfaces. Original appears to be yellowish quartzite, but details unobservable.
- 78. San Patrice. Brown (7.5 YR 5/4) mottled to reddish-yellow (7.5 YR 7/6) and light brown (10 YR 6/4). Light gray splotches. White quartz-filled healed fracture. Quartzitic chert. Possibly Edwards, but not certainty.
- 79. Dalton. Dark grayish-brown (10 YR 4/2). Reddish-brown (2.5 YR 5/4) at distal tip. Edwards.
- 80. Fragment of gray (10 YR 5/1) Edwards chert.
- 81. Small fragment of flake scraper. Minimal retouch on one edge. Very dark gray (10 YR 5/1) homogeneous Edwards. Translucent on thin edges.
- 82. Woden. Brown (10 YR 5/3) to dark brown (10 YR 3/3) petrified wood. White (10 YR 8/1) cortex on base of unthinned stem. East Texas gravel.
- 83. Resharpened drill-like blade. Very pale brown (10 YR 7/4) to light yellowish-brown (10 YR 6/4) siliceous oolite.
- 84. Large flake with retouch along one edge. Yellow (10 YR 7/8) and white (10 YR 8/2) splotchy thick patination (encrustation). Original material unobservable.
- 85. Elongate pebble, bifacially flaked to thick graver-like tip at one end. "Fresh" flaked area is dark yellowish-brown (10 YR 4/4) to yellowish-brown (10 YR 5/4) quartzitic chert, like all other quartzitic cherts. Gravel source, Edwards (?).

- 86. Broken proximal end of wide stemmed (Dalton?) biface. Very pale brown (10 YR 7/4) to white (10 YR 8/2) Edwards.
- 87. Godley (?). Made from decortication flake with strongly curved axis. Bifacially flaked. Cortex occurs on concave side of curved face. Original material completely encrusted in red (2.5 YR 4/6) thick patina. Unidentifiable.
- 88. Bone
- 89. Palmillas (?). Grayish-brown (10 YR 5/2) Edwards. Patinated over whole blade except for distal tip. Patina is light gray (10 YR 7/1).
- 90. Gary. Interior rock exposed in heat spalls and on "fresher" chipped edges is dark reddish-brown (2.5 YR 3/4) probably discolored by heavy heat-treatment. Surfaces patinated to bluish-pinkish-gray (nearest color match is pinkish-gray (5 YR 6 or 7/2), but they lack bluish tinging. Quartzitic chert. Possibly heat-treated Edwards.
- 91. Edgewood/Ellis (?). "Fresh break" where one shoulder is broken exposes grayish-brown (10 YR 5/2). Also contains fossil fragments (one fossil coral). All other surfaces heavily patinated with strong brown (7.5 YR 5/6) and reddishyellow (7.5 YR 7/6) and dark brown (7.5 YR 4/4). Edwards.
- 92. Artifact not available for inspection.
- 93. Yarbrough. Entire surface worn and patinated, but through patination under microscope chert is light gray (10 YR 7/1) splotched with white. Fossiliferous. Patinated surfaces are white (2.5 YR 8/2), yellow (2.5 YR 7/6), splotched with reddish-yellow (7.5 YR 7/6). Edwards.
- 94. Ellis. Yellowish-brown (10 YR 5/6) to brownish-yellow (10 YR 6/6). White to light gray internal splotches. Fossiliferous-coral. Edwards.
- 95. Broken mid-section of prismatic blade. Base material is grayish-brown (10 YR 5/2) on one broken corner. All other surfaces patinated with brownish-yellow (10 YR 6/8) to brown (10 YR 5/3). Edwards (?).
- 96. Gary, but with slightly rectangular stem. Gray (2.5 YR 5/1) from fresh flake on edge. Very dark gray (7.5 YR N3/) healed fracture. All other surfaces mottled and weathered reddish-yellow (7.5 YR 6/6) and gray (10 YR 5/1). Heavily resharpened blade. Edwards.
- 97. Secondary flake from preform. Light gray (10 YR 7/1) and white subtle splotches. Tiny grayish-brown dots. Edwards.

- 98. Gary with slightly squared stem. Strong brown (7.5 YR 4/6) with light gray chert (10 YR 7/2) in center of blade. Rest of the rock is siliceous oolite; dark gray (7.5 YR N4/) to very dark gray (7.5 YR N2/). Sooty manganese dioxide staining on all surfaces.
- 99. Pebble preform. Plano-convex. Brownish-yellow (10 YR 6/6) to gray (10 YR 5/1) to white (10 YR 8/1) mottled. Dark brown (10 YR 4/3) cortex on medial ridge. Edwards gravel.
- 100. Small Kent. Made from thick decortication flake. Cortex remnant on medial ridge. Distal tip, is flattened and has polish as does medial ridge as if it was used for cutting or gouging activity rather than as projectile point. Strong brown (7.5 YR 5/6) quartzitic chert with light gray circular splotching. Edwards (?).
- 101. Pebble core for bi-polar flaking. Flakes removed from two opposing sides of pebble. Cortex is dark brown (7.5 YR 3/2). Chert is yellowish-brown (10 YR 5/4) patinated to brown (7.5 YR 5/2). Edwards gravel.
- 102. Extremely thin fragment of untyped broken biface about 2 mm thick. Broken distal end exposes reddish-yellow (7.5 YR 6/6) quartzitic chert. Light gray splotches. Surfaces weathered to brown (7.5 YR 5/4), reddish-yellow (7.5 YR 7/6), reddish-brown (5 YR 5/4) and dark reddish-brown (5 YR 3/3). Edwards (?).
- 103. Chunk (possibly rough core) of gray (10 YR 5/1) to dark gray (10 YR 4/1). White (10 YR 8/2) typical nodular rind of Georgetown Edwards.
- 104. Depleted core-like fragment with flakes struck from a prepared platform on opposing sides. Very dark gray (7.5 YR N3/) to subtle band of light gray (7.5 YR 7/0). Edwards.
- 105. San Patrice. Very pale brown (10 YR 7/4) subtly mottled with yellowish-brown (10 YR 5/6), light gray internal splotching. Edwards.
- 106. Broken distal end of untyped biface. Yellowish-brown (10 YR 5/4) with light gray internal splotching. Broken cross-section is grayish-brown (10 YR 5/2). Edwards.
- 107. Pebble core fragment. Flakes removed from opposing sides. Cortex is dark reddish-brown (5 YR 3/3). Grayish-brown (10 YR 5/2) chert in "fresh" flake on one corner. Weathered, patinated to light blue-gray (7.5 YR N7/). Edwards Chert.
- 108. Pebble core fragment with four flakes removed. Rock is pale brown (10 YR 6/3) to light yellowish-brown (10 YR 6/4), internal light gray and brownish-gray

- splotching. Dusky red (10 R 3/4) cortex on two ends and one side. Heat-treatment reddening extending up to 1 cm into rock. Edwards gravel.
- 109. Broken distal end of untyped biface. Dark grayish-brown (10 YR 4/2), semi-translucent Edwards. Slight patina.
- 110. Broken untyped shouldered biface. Stem missing. Pale brown (10 YR 6/3), light yellowish-brown (10 YR 6/4), to brownish-gray (10 YR 5/2). Un-heat-treated Ogallala Quartzite.
- 111. Ellis. Light brownish-gray (10 YR 5/2) weathered to light yellowish-brown (10 YR 6/4), yellow (10 YR 7/6), and splotchy reddish-brown (10 YR 4/4). Internal light gray splotching. Edwards.
- 112. Decortication flake with minimal retouch on one edge. In "fresh" flaking chert is weak red (2.5 YR 4/2). Patinated bluish-pale red (best match is 10 R 6/2). Cortex is brown (7.5 YR 5/2) to pink (7.5 YR 8/4) and slightly reddened on one edge. Possibly heat-treated Edwards.

Tabulations

The seven hundred and seventy-six artifacts included in this analysis are divided into categories that some may find a little confusing, but the breakdown of material types are explained in Table 1 as follows:

Edwards

Edwards chert w/o evidence of pebble cortex	
and no evidence of heat-treatment	330
Edwards w evidence of heat-treatment	34
with evidence of gravel cortex and no heat-treatment	98
with evidence of cortex and heat-treatment	11
Possible Edwards (without absolute assurance of accuracy)	
and no evidence of heat treatment	46
Possible with evidence of heat-treatment	5
Quartzitic chert w/ cortex and w/o heat-treatment	23
Quartzitic chert w/o cortex and w/ heat-treatment	2
Quartzitic chert w/o cortex and w/o heat-treatment	7
Total Edwards chert	556
Honey-colored (Edwards?) N. Central Texas	2

Petrified Wood	
With evidence of cortex	19
W/O evidence of cortex	33
With evidence of heat-treatment	4
Petrified palm wood w/o heat-treatment	3
Petrified palm wood w/ heat-treatment	0
Total Petrified wood	59
East Texas Gravels	
(includes well-indurated claystone, quartzite, and chert from	
Tertiary Formations and stream beds of East Texas and Louisiana)	17
Siliceous Oolite	11
Arkansas Novaculite	5
Marble Falls	4
Fisher Quartzite	
W/O heat-treatment	7
With heat-treatment	_1
Total Fisher Quartzite	8
Tecovas	
Quartzite	10
Jasper w/o heat-treatment	14
Jasper w/ heat-treatment	_4
Total Tecovas	28
Orthoquartzites (General)	2
Ouachita Mountains	
Stanley Shale/Jackfork quartzite	
Big Fork Chert	
Wesley Chert	
Total Ouachita Mountains	8
Arbuckle Mountains	
Joins-Oil Creek Formation (Lowrance chert)	4
Ozark Mountains	
Keokuk (Upper Boone Formation)	1
Lower Boone	1

Knife River Flint	3
Possible Tallahatta Quartzite	1
Minnelusa	2
Flint Hills Wreford Formation Weeping Water Creek	1 3
Chuska (possible, but not certain)	1
<u>Unsourced Chalcedony</u>	2
Unidentifiable W/O cortex With cortex	21 6
Unidentified Chert Quartzite	15 9
Uvalde Gravel Ogallala w/ heat-treatment Ogallala w/o heat-treatment General with cortex	1 1
TOTAL CHIPPED STONE ARTIFACTS:	776
Specialized Ground-stone Artifacts Diorite Hematite	1 3
Fossilized Alligator Gar Scales (possible arrowpoints)	2

From the above charts some interesting statistics can be derived as follows. Edwards chert and quartzitic chert combined, derived presumably from in-situ formations (that is those artifacts which cannot be attributed to gravel sources on the basis of the presence of cortex) (total of 556) constitutes 71.6 % of the total lithic materials represented at McFaddin Beach. Of this amount 364 or 65% of the total Edwards possibly came from non-gravel sources while 109 (19.6 %) was derived from gravels eroded from the Edwards formations and recovered secondarily from deposits probably much closer to the Gulf Coast similar to the extensive gravels west of the Guadalupe and Colorado River drainages of today. It is also of interest that of the total Edwards

materials only 52 (9%) provide evidence of having been heat-treated. Being one of the higher qualities of chert available anywhere, the better grades of Edwards, and indeed for production of more common types of stone tools, even for the poorest grades of Edwards, heat treatment may not be an absolute necessity for effective knapping.

The total number of artifacts made of petrified wood (59) comprises the second highest percenatge of 7.9% of the total artifacts, and the distant Tecovas materials, chert and quartzite, combined for a total of 27 artifacts (3.4%) of the total comprise a relatively surprising percentage even though it is small. And thirdly, the percentage of siliceous oolite (11 artifacts) at 1.4 % is somewhat surprising because there are no known sources of this specific rock type within close proximity to the Texas Gulf Coast. It is possible that some of the Paleozoic rocks in the eastern flanks of the Llano Uplift may contribute such rocks to gravel deposits such as the "Edwards gravels" as referenced in this report, but at present such sources are unknown. Also artifact numbers of siliceous oolite are of special interest for geological purposes as well as for a better understanding of prehistoric usage of lithic materials in general. For example, one artifact exhibits siliceous oolite actually grading into a rock type wihtin a single small rock that must be classified as siliceous oolitic chert rather than siliceous oolite per se. While the distinctions may seem irrelevant, the depositional origins of the sedimentary rock itself demands a better understanding of geological process involved. And, Louvier's artifact No. 120 is typical of in-situ siliceous oolite found in the Cotter Dolomite of the Ozark Mountains. This single artifact may suggest strongly that the chemically weathered specimens altered to yellowish and brownish shades are indeed from the same sources.

Of the other type materials, percentages (because of being so low) are rather meaningless, but the sources and the distances represented are almost unbelievable. In as much that comparative microscopic analysis and subjection to both long and short-wave ultraviolet light were used in the identifications, the identifications reported here are believed to be highly reliable, and only subjection to trace element analyses such as x-ray fluorescence, proton-induced x-ray examination (PIXE) or neutron activation would possibly provide more accurate identifications.

These remote sources comprise Knife River Flint from North Dakota, Wreford chert from the Flint Hills of Kansas, material from quarries on Weeping Water Creek in eastern Nebraska, Minnelusa from eastern Wyoming; a possibility of quartzite (Tallahatta) from Mississippi, and even a more remote possibility of chert from eastern Tennessee, and chert from the Chuska Mountains of northwest New Mexico. If these source identifications are accurate, then some other questions arise. For example, within the geographic distances between these sources and McFaddin Beach there are considerable numbers of other lithic resources available in easily accessible surface areas and in large quantities and quality of materials; yet they are not represented at McFaddin Beach. This is not to imply that all such lithic resources should be also found at McFaddin Beach, but it does justify other questions. Why were the rock types found here selected instead of others? It may be of greatest relevance in this regard to note that the

exotic materials found at McFaddin Beach are from traditional sources of well known resources which are derived primarily from well-established quarry sources known to have been in use since Paleoindian times.

It is evident that most of the cherts and possibly the quartzites were obtained from gravels derived from the Edwards Plateau if not from the Edwards Group of geological formations themselves. And while only those articles with evidence of cortex can be specifically attributed to the gravel sources, it can also be expected that many of those artifacts not exhibiting actual cortex were also derived from gravels from which all traces of cortex were removed by original knapping activities and subsequent rejuvenation which was very prevalent. Gravels found in the Highland sources west of the Guadalupe River are certainly large enough for any of the artifacts at McFaddin Beach to have been made from.

Combining cherts from the western Ouachita Mountains with the Arkansas Novaculite probably from the quarries near Hot Springs Arkansas, all the Ouachita materials (13) only constitute 1.6 % of the total. Since the Ouachitas are one of the nearer major sources of lithic materials this percentage seems surprisingly low. Also, though of lesser importance as lithic sources, the absence of closer sources such as Pisgah Ridge, Catahoula, and Manning Fused Glass are highlighted because of their absence.

This examination also is important for a better understanding of events in the McFaddin Beach vicinity in general by pointing out that dart points are not the only artifact types represented although they certainly dominate the inventory. For everything from pebble and nodular cores, flake blades, preforms, decortication flakes, secondary flakes, hammerstones, and cutting/scraping tools are present. Stright has suggested and probably very correctly so that it is possible that attraction to this area during the Archaic era was the abundant high quality lithic materials available in the abandoned Paleoindian assemblage.

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The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Royalty Management Program** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.