Rockshelter Survey and Testing in the Hemlock Cliffs and Mesmore Cliffs Areas of the Hoosier National Forest

Crawford County, Indiana

Volume Two

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TABLE OF CONTENTS

Appendix A: Chipped Stone Classification (Cochran 1991)

Biface An artifact with negative flake scars covering both surfaces either partially or wholly is herein termed a biface (Crabtree 1972-38; Tixier 1974:4). As used here, a biface has no modification for hafting and bifaces are viewed as stages in the manufacture of points. In order to avoid confusion, the terms "blank", "blade", and "preform" are not normally applied to bifaces. Blank and preform are general terms that can be applied to a number of manufacturing sequences (e.g., gorget blank or preform, celt blank or preform, etc.). Use of the term blade is restricted to a specific type of flake with parallel sides and a length that is two times greater than the width, or a particular portion of a point: the blade element. In the latter case, the term is only used when discussing points. Callahan (1979) separates bifaces into stages or levels of reduction beginning with the selection of the raw material (Stage 1) and continuing through successive levels of refinement (Stages 2, 3, 4, etc.).

Biface fragment Biface fragments consist of various portions of bifaces broken either during manufacture or through use.

Bipolar Artifacts This category includes those artifacts that are the result of bipolar flaking. Bipolar flaking involves resting a stone nucleus on an anvil and striking the nucleus with a hammerstone or billet (Flenniken 1982:32). The artifacts that result from bipolar flaking include bipolar cores (Hayden 1980: 2-3), bipolar flakes (Kobuyashi 1975), and pieces esquillees (Hayden 1980:2-3). Bipolar cores exhibit opposing striking platforms of several types (Binford and Quimby 1964) and prominent negative flake scars. Bipolar flakes consist of the flakes detached during bipolar flaking. Pieces esquilles are similar to bipolar cores except that they exhibit opposing ridge striking platforms and lack prominent negative flake scars; pieces esquillee tend to be rectangular while bipolar cores may exhibit any number of forms.

There is confusion in the archaeological literature in the use of the terms "bipolar core" and "pieces esquillee". Some investigators use them interchangeably while others designate all bipolar nuclei as pieces esquillee (Hayden 1980). For the purposes of this classification, all bipolar artifacts are grouped under the single heading "bipolar artifact".

Blades A blade is a specialized flake that has more-or-less parallel sides and is at least twice as long as it is wide. Thickness varies little along the length of the blade. Blades also have straight, parallel, or converging ridges on the dorsal surface (Movius et al. 1968:4; Crabtree 1972:42).

Block Flakes Block flakes are sharp-edged, irregularly shaped pieces of isotropic stone that lack a striking platform, a positive or negative bulb of percussion, compression rings, or any other attribute associated with conchoidal fracture. Block flakes may occur naturally through frost cracking or uncontrolled heating (Watson 1956:19-21; Oakley 1956:9-11). They can also be produced during chipped stone reduction where the raw material has been exposed to either of the above processes or when the material breaks along internal planes of weakness. In an archaeological assemblage, block flakes would occur in greater percentages where early stages of reduction occurred.

Core A core is a nucleus of stone exhibiting one or more negative flake scars (Crabtree 1972:54). Objects categorized as cores may range from a simple nucleus with only one negative flake scar to specialized forms with multiple flake removals. Striking platforms may be prepared or unprepared. Cores can be subdivided into more specific types (cf. Monet-White 193;6-7; Callahan 1979:41; Wepler and Cochran 1983:38-40).

Denticulate Artifacts in this class are distinguished by a toothed or serrated edge created by the alternating removal of a series of flakes from the margin on a flake, biface or core (Crabtree 1972:58). Cores with unprepared platform edges and nonmarginal areas of applied force may exhibit "denticulate" edges but are not included in this class.

Edge Modified Flakes Edge modified flakes are unspecialized flake tools distinguished by regular edge wear or retouch. The former is most often recognized as a continuous row of small flakes removed along one flake edge. Flake margins can be modified during cultivation of a site, by lake shore erosion, spontaneous retouch during lithic reduction, and a variety of other natural and mechanical processes. Retouched flakes can represent one resharpening of a dulled flake margin to conservation of a flake through extensive resharpening. Objects in this class are usually not morphologically distinct, and the class encompasses a wide range of diversity in size, shape, and construction of the retouched edge or edges. It is not normally possible to distinguish between prehistoric utilization and edge damage resulting from other causes with microscopic examination of all flake margins. For this classification, all flakes with regular edge modification were sorted into this class.

Endscraper Endscrapers are a morphologically distinct unifacial tool form resulting from the concentration of retouch on one end of a flake or blade (Crabtree 1972:60; Movius et al. 1968:9).

Flake A flake is "any piece of stone removed from a larger mass by the application of force - either intentional, accidentally, or by nature" (Crabtree 1972:64).

Gravers A flake, blade or other artifact that exhibits one or more small sharp point (graver spurs) intentionally retouched from one or more margins of the artifacts is classified as a graver (Crabtree 1972:68; Nero 1957:300). The retouching that isolates the graver spur may be unifacial or bifacial.

Notch Flakes A notch flake is "the result of pressure flaking to remove notches along the basal and/or lateral margins of a biface in order to create a hafting element" (Austin 1986:96). They are defined as having "a peculiar half-cone shape" (Waldorf 1984:35) that makes them distinctive. "The most recognizable and distinctive characteristic of the flake is the presence of a recessed, U-shaped platform. While most flakes exhibit a relatively straight, continuous margin at the juncture of the striking platform and dorsal flake surface, the notching flake is typified by a deep, semi-circular scallop which is the result of prior notching" (Austin 1986:96).

Perforator "Bifacially chipped stone artifacts or artifact fragments with extremely narrow, parallel-sided blades and steep-angled lateral edges are classified as perforators" (Ahler and McMillan 1976:179). Perforators are equivalent to artifacts frequently referred to as drills. Perforator is herewith preferred due to the more generalized suggestion of function as a piercing tool. Some artifacts in this class may represent exhausted cutting tools.

Point A point is "any bifacially flaked, bilaterally symmetrical, chipped stone artifact exhibiting a point of juncture on one (distal) end and some facility (notching, constriction, lateral grinding) for hafting on the opposite (proximal) end. Thus, point is a morphologically defined class of chipped stone tool, and the term. . .does not convey any particular functional interpretation" (Ahler and McMillan 1976:165).

Point fragments Broken portions of points are sorted into this category. Hafting elements from broken points are, however, when distinctive, classified as points.

Stage 3 Bifaces Stage 3 bifaces represent "that stage (primary thinning) during which a lenticular cross-section is obtained by means of striking so as to drive flakes from the edge to or slightly beyond the center of the biface, contacting or slightly undercutting similar flake scars taken from the opposite margin. . . . Aligned, centered edge-angles of between 40 and 60 degrees should result so that secondary thinning may be effected subsequently" (Callahan 1979:37).

Stage 4 Bifaces Stage 4 bifaces represent "that stage (secondary thinning) in which a flattened cross-section is obtained by means of striking flakes so that they considerably undercut prior flake scars from the opposite margin and so that the width/thickness ratio is made to fall between roughly 4.00 and 5.00 or more. Aligned, centered edge-angles of between 25 and 45 degrees and surfaces without significant humps, hinges, step-fractures, or median convexity. . ." (Callahan 1979:37).

Unmodified flakes Artifacts in this class have one or more positive or negative flake attributes (Watson 1956:17; Oakley 1957:16). Flake margins show no evidence of use or retouch.

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Appendix B: Artifacts from 12-Cr-321, 1997

Artifacts Recovered from 12-Cr-321, 1997

Identification	Comments	Material	Provenience	#
Point	Middle Archaic Side Notched; re-sharpened as a scraper	Holland or Derby Chert	U1/L2; 06-23-97	1
Point	Middle Archaic Side Notched; re-sharpened as a scraper	Holland or Derby Chert	U1/L3; 06-23-97	1
Point	Late Archaic Stemmed; fragmentary, base only	Wyandotte Chert	U1/L3; 06-23-97	1
Point	Late Archaic Stemmed; fragmentary, base only	Wyandotte Chert	U1/L3; 06-23-97	1
Point	Raddatz; fragmentary, base only	Holland or Derby Chert	U2/L1; 06-19-97	1
Point	Lowe Flared Base	Holland or Derby Chert	North trail slope; 06-09-97	1
Point	Unidentified fragment; heat-damaged	Wyandotte Chert	Trail slope; 06-23-97	1
Biface	fragmentary	Wyandotte Chert	U1/L3; 06-23-97	1
Biface	fragmentary	Holland or Derby Chert	U2/L2; 06-19-97	1
Flake, unm.		Allen's Creek Chert	U1/L5; 06-24-97	1
Flake, unm.		Haney Chert	U1/L5; 06-24-97	2
Flake, unm.		Wyandotte Chert	U1/L5; 06-24-97	1
Flake, unm.		Wyandotte Chert	U2/L2; 06-19-97	1
Flake, unm.		Unident. Fossil-iferous Chert	U2/L1; 06-19-97	1

Flake, retouched	possible scraper	Wyandotte Chert	Trial slope into 12-Cr-59; 06-30-97	1
Flake, edge-modified		Wyandotte Chert	U1/Surface; 06-19-97	2
Flake, edge-modified		Allen's Creek Chert	U1/L1; 06-20-97	1
Flake, edge-modified	heat-damaged	Wyandotte Chert	U1/L1; 06-20-97	1
Flake, edge-modified		Haney Chert	U1/L2; 06-20/23-97	7
Flake, edge-modified		Holland or Derby Chert	U1/L2; 06-20/23-97	5
Flake, edge-modified		Wyandotte Chert	U1/L2; 06-20/23-97	5
Flake, edge-modified		Haney Chert	U1/L3; 06-23-97	7
Flake, edge-modified		Wyandotte Chert	U1/L3; 06-23-97	4
Flake, edge-modified		Allen's Creek Chert	U1/L4; 06-23-97	1
Flake, edge-modified		Allen's Creek Chert	U1/L4; 06-24-97	1
Flake, edge-modified		Haney Chert	U1/L4; 06-23-97	6
Flake, edge-modified		Holland or Derby Chert	U1/L4; 06-23-97	2
Flake, edge-modified		Wyandotte Chert	U1/L4; 06-23-97	2
Flake, edge-modified		Wyandotte Chert	U1/L4; 06-24-97	6
Flake, edge-modified		Unidentified Chert	U1/L4; 06-23-97	1
Flake, edge-modified		Unident. Fossil-iferous Chert	U1/L4; 06-23-97	1
Flake, edge-modified		Allen's Creek Chert	U1/L5; 06-24-97	7
Flake, edge-modified	heat-treated	Allen's Creek Chert	U1/L5; 06-24-97	2

Flake, edge-modified		Haney Chert	U1/L5; 06-24-97	14
Flake, edge-modified	heat-treated	Haney Chert	U1/L5; 06-24-97	3
Flake, edge-modified		Holland or Derby Chert	U1/L5; 06-24-97	6
Flake, edge-modified	heat-treated	Holland or Derby Chert	U1/L5; 06-24-97	1
Flake, edge-modified		Wyandotte Chert	U1/L5; 06-24-97	16
Flake, edge-modified	heat-damaged	Wyandotte Chert	U1/L5; 06-24-97	3
Flake, edge-modified		Unidentified Chert	U1/L5; 06-24-97	1
Flake, edge-modified		Haney Chert	U2/L1; 06-19-97	1
Flake, edge-modified		Holland or Derby Chert	U2/L1; 06-19-97	1
Flake, edge-modified		Wyandotte Chert	U2/L1; 06-19-97	8
Flake, edge-modified		Unident. Fossil-iferous Chert	U2/L1; 06-19-97	3
Flake, edge-modified		Haney Chert	U2/L2; 06-19-97	3
Flake, edge-modified		Holland or Derby Chert	U2/L2; 06-19-97	5
Flake, edge-modified		Wyandotte Chert	U2/L2; 06-19-97	5
Flake, edge-modified	heat-damaged	Wyandotte Chert	U2/L2; 06-19-97	1
Flake, edge-modified		Unident. Fossil-iferous Chert	U2/L2; 06-19-97	3
Flake, edge-modified	heat-treated	Haney Chert	Trail slope east of 12-Cr-59; 06-05-97	1
Flake, edge-modified		Holland or Derby Chert	Trail slope east of 12-Cr-59; 06-05-97	2
Flake, edge-modified	heat-damaged	Holland or Derby Chert	Trail slope east of 12-Cr-59; 06-05-97	2

Flake, edge-modified	heat-treated & heat-damaged	Holland or Derby Chert	Trail slope east of 12-Cr-59; 06-05-97	1
Flake, edge-modified		Wyandotte Chert	Trail slope east of 12-Cr-59; 06-05-97	2
Flake, edge-modified	heat-damaged	Wyandotte Chert	Trail slope east of 12-Cr-59; 06-05-97	1
Flake, edge-modified	heat-damaged	Wyandotte Chert	Trail slope into 12-Cr-59; 06-05-97	1
Flake, edge-modified	heat-damaged	Wyandotte Chert	Trail slope east of 12-Cr-59; 06-09-97	1
Flake, edge-modified		Holland or Derby Chert	Trail slope south of 12-Cr-59; 06-10-97	1
Core	edge-modified	Holland or Derby Chert	U1/L5; 06-24-97	1
Core	edge-modified	Wyandotte Chert	U1/L5; 06-24-97	1
Sandstone	burned	indeterm	U1/L5; 06-24-97	6
Snail Shell	almost whole	indeterm	U2/L2; 06-19-97	1
Charcoal, sterile		indeterm	U2/L1; 06-19-97	1
Charcoal, not sterile		indeterm	U2/L1; 06-19-97	1

Appendix C: Artifacts from 12-Cr-321, 1998

Artifacts Recovered from 12-Cr-321: 1998

Identification	Comments	Material	Provenance	#
Flake, unm.		Allen's Creek Chert	top of entrance to 12-Cr-59; 05-21-98	2
Flake, unm.		Haney Chert	top of entrance to 12-Cr-59; 05-21-98	1
Flake, unm.		Holland or Derby Chert	top of entrance to 12-Cr-59; 05-21-98	4
Flake, unm.		Wyandotte Chert	top of entrance to 12-Cr-59; 05-21-98	5
Flake, unm.	heat-damaged	Wyandotte Chert	top of entrance to 12-Cr-59; 05-21-98	2
Flake, unm.		Unidentified Chert	top of entrance to 12-Cr-59; 05-21-98	1
Flake, edge-modified		Allen's Creek Chert	top of entrance to 12-Cr-59; 05-21-98	1
Flake, edge-modified		Holland or Derby Chert	top of entrance to 12-Cr-59; 05-21-98	1
Flake, edge-modified	heat-damaged	Holland or Derby Chert	top of entrance to 12-Cr-59; 05-21-98	1
Flake, edge-modified		Wyandotte Chert	top of entrance to 12-Cr-59; 05-21-98	1
Flake, edge-modified	heat-damaged	Wyandotte Chert	top of entrance to 12-Cr-59; 05-21-98	1
Safety pin		metal	top of entrance to 12-Cr-59; 05-21-98	1
Point	fragmentary; resharpened	Wyandotte Chert	surface of trail to 12-Cr-60; 05-28-98	1
Point	fragmentary, blade only	Wyandotte Chert	surface to NE of U1; 05-20-98	1
Flake, unm.		Holland or Derby Chert	U1/L2; 05-19-98	1
Flake, unm.		Wyandotte Chert	U1/L2; 05-19-98	1
Flake, unm.		Allen's Creek Chert	U1/L3; 05-19-98	1
Flake, unm.	heat-treated	Allen's Creek Chert	U1/L4; 05-20-98	1
Flake, unm.	heat-damaged	Wyandotte Chert	U1/L4; 05-20-98	2
Block flake		Holland or Derby Chert	U1/L4; 05-19-98	1

Flake, unm.		Allen's Creek Chert	U1/L5; 05-20-98	3
Flake, unm.		Holland or Derby Chert	U1/L5; 05-20-98	1
Flake, unm.		Wyandotte Chert	U1/L5; 05-20-98	1
Flake, edge-modified		Wyandotte Chert	U1/L6; 05-20-98	1
Flake, unm.		Allen's Creek Chert	U1/L7; 05-21-98	2
Flake, unm.		Holland or Derby Chert	U1/L7; 05-21-98	1
Bone, unm.	fragmentary	indeterminate	U1/L7; 05-21-98	1
Flake, unm.		Allen's Creek Chert	U1/L8; 05-21-98	5
Flake, unm.		Holland or Derby Chert	U1/L8; 05-21-98	1
Flake, unm.		Wyandotte Chert	U1/L8; 05-21-98	3
Flake, unm.	heat-damaged	Wyandotte Chert	U1/L8; 05-21-98	1
Flake, unm.	heat-treated	Allen's Creek Chert	U1/L9; 05-21/26-98	2
Flake, unm.		Holland or Derby Chert	U1/L9; 05-21/26-98	3
Flake, unm.		Wyandotte Chert	U1/L9; 05-21/26-98	4
Flake, unm.	heat-damaged	Wyandotte Chert	U1/L9; 05-21/26-98	2
Flake, unm.		Allen's Creek Chert	U1/L10; 05-26-98	1
Flake, unm.	heat-treated	Allen's Creek Chert	U1/L10; 05-26-98	1
Flake, unm.		Wyandotte Chert	U1/L10; 05-26-98	1
Flake, unm.	heat-damaged	Wyandotte Chert	U1/L10; 05-26-98	1
Flake, unm.		Allen's Creek Chert	U1/L11; 05-26-98	1
Flake, unm.		Holland or Derby Chert	U1/L11; 05-26-98	3
Flake, unm.		Wyandotte Chert	U1/L11; 05-26-98	2
Flake, edge-modified		Holland or Derby Chert	U1/L11; 05-26-98	1
Flake, unm.		Allen's Creek Chert	U1/L12; 05-26-98	1
Flake, unm.		Holland or Derby Chert	U1/L12; 05-26-98	3
Flake, unm.		Wyandotte Chert	U1/L12; 05-25-98	4
Flake, unm.	heat-damaged	Wyandotte Chert	U1/L12; 05-26-98	1
Flake, unm.		Allen's Creek Chert	U1/L13; 05-26-98	1

Flake, unm.	heat-treated	Allen's Creek Chert	U1/L13; 05-26-98	1
Flake, unm.	heat-treated	Haney Chert	U1/L13; 05-26-98	1
Flake, unm.		Holland or Derby Chert	U1/L13; 05-26-98	1
Flake, unm.		Allen's Creek Chert	U1/L14; 05-27-98	3
Flake, unm.	heat-damaged	Holland or Derby Chert	U1/L14; 05-27-98	1
Flake, unm.		Allen's Creek Chert	U1/L15; 05-27-98	1
Flake, unm.		Holland or Derby Chert	U1/L15; 05-27-98	2
Flake, unm.	heat-damaged	Wyandotte Chert	U1/L16; 05-27-98	1
Fossil	fragmentary	indeterminate	U1/L16; 05-27-98	1
Flake, unm.		Holland or Derby Chert	U1/North wall pedestal; 05-27-98	1
Flake, unm.		Wyandotte Chert	U1/North wall pedestal; 05-27-98	1
Charcoal, not sterile		indeterminate	U2/L1; 06-03-98	1
Flake, unm.		Unidentified Chert	U2/L2; 06-03-98	1
Burned bone, unm.	fragmentary	indeterminate	U2/L2; 06-03-98	1
Charcoal, not sterile		indeterminate	U2/L2; 06-03-98	1
Core		Allen's Creek Chert	U2/L3; 06-08-98	1
Flake, unm.		Wyandotte Chert	U2/L3; 06-08-98	1
Flake, edge-modified	heat-treated	Haney Chert	U2/L3; 06-08-98	1
Fossil	fragmentary	indeterminate	U2/L3; 06-08-98	1
Charcoal, not sterile		indeterminate	U2/L3; 06-08-98	1
Charcoal, not sterile		indeterminate	U2/L4; 06-09-98	1
Flake, edge-modified		Holland or Derby Chert	U2/L5; 06-09-98	1
Sandstone "ball"		Tick Ridge	U2/L5; 06-09-98	1
Charcoal, not sterile		indeterminate	U2/L5; 06-09-98	1

Appendix D: Artifacts from 12-Cr-385, 1997

Artifacts Recovered from 12-Cr-385, 1997

Identification	Comments	Material	Provenience	#
Point	Middle Archaic Side Notched; fragmentary, base only	Holland or Derby Chert	U1/L2; 06-20-97	1
Biface	fragmentary; heat-damaged	Holland or Derby Chert	U1/L2; 06-20-97	1
Biface	fragmentary	Wyandotte Chert	U2/L1; 06-25-97	1
Biface	fragmentary; heat-damaged	Wyandotte Chert	U2/L1; 06-25-97	1
Biface	fragmentary; heat-treated	Allen's Creek Chert	U2/L2; 06-25-97	1
Flake, unm.		Allen's Creek Chert	U1/L1; 06-20-97	2
Flake, unm.		Holland or Derby Chert	U1/L1; 06-20-97	2
Flake, unm.		Allen's Creek Chert	U1/L2; 06-20-97	2
Flake, unm.		Haney Chert	U1/L2; 06-20-97	2
Flake, unm.		Wyandotte Chert	U1/L2; 06-20-97	7
Flake, unm.	heat-damaged	Wyandotte Chert	U1/L2; 06-20-97	1
Flake, unm.		Unidentified Chert	U1/L2; 06-20-97	2
Flake, unm.		Unident. Fossil-iferous Chert	U1/L2; 06-20-97	2
Flake, unm.		Haney Chert	U2/L1; 06-25-97	1
Flake, unm.		Holland or Derby Chert	U2/L1; 06-25-97	1
Flake, unm.	heat-damaged	Wyandotte Chert	U2/L1; 06-25-97	2
Flake, unm.		Allen's Creek Chert	U2/L2; 06-25-97	2

Flake, unm.	heat-damaged	Holland or Derby Chert	U2/L2; 06-25-97	1
Flake, unm.		Wyandotte Chert	U2/L2; 06-25-97	1
Flake, edge-modified		Allen's Creek Chert	U1/L1; 06-20-97	4
Flake, edge-modified		Haney Chert	U1/L1; 06-20-97	8
Flake, edge-modified		Holland or Derby Chert	U1/L1; 06-20-97	11
Flake, edge-modified	heat-treated	Muldrugh Chert	U1/L1; 06-20-97	1
Flake, edge-modified		Wyandotte Chert	U1/L1; 06-20-97	12
Flake, edge-modified	heat-damaged	Wyandotte Chert	U1/L1; 06-20-97	3
Flake, edge-modified		Unidentified Chert	U1/L1; 06-20-97	1
Flake, edge-modified		Unident. Fossil-iferous Chert	U1/L1; 06-20-97	3
Flake, edge-modified		Allen's Creek Chert	U1/L2; 06-20-97	5
Flake, edge-modified		Haney Chert	U1/L2; 06-20-97	7
Flake, edge-modified	heat-treated	Haney Chert	U1/L2; 06-20-97	1
Flake, edge-modified		Holland or Derby Chert	U1/L2; 06-20-97	14
Flake, edge-modified	heat-damaged	Holland or Derby Chert	U1/L2; 06-20-97	2
Flake, edge-modified		Wyandotte Chert	U1/L2; 06-20-97	24
Flake, edge-modified	heat-damaged	Wyandotte Chert	U1/L2; 06-20-97	5
Flake, edge-modified		Unidentified Chert	U1/L2; 06-20-97	11
Flake, edge-modified		Unident. Fossil-iferous Chert	U1/L2; 06-20-97	3

Flake, edge-modified		Allen's Creek Chert	U2/L1; 06-25-97	3
Flake, edge-modified		Haney Chert	U2/L1; 06-25-97	5
Flake, edge-modified		Holland or Derby Chert	U2/L1; 06-25-97	8
Flake, edge-modified	heat-damaged	Holland or Derby Chert	U2/L1; 06-25-97	2
Flake, edge-modified		Plummer Chert	U2/L1; 06-25-97	1
Flake, edge-modified		Wyandotte Chert	U2/L1; 06-25-97	6
Flake, edge-modified	heat-damaged	Wyandotte Chert	U2/L1; 06-25-97	2
Flake, edge-modified		Unidentified Chert	U2/L1; 06-25-97	1
Flake, edge-modified		Unident. Fossil-iferous Chert	U2/L1; 06-25-97	3
Flake, edge-modified		Allen's Creek Chert	U2/L2; 06-25-97	4
Flake, edge-modified		Haney Chert	U2/L2; 06-25-97	9
Flake, edge-modified		Holland or Derby Chert	U2/L2; 06-25-97	8
Flake, edge-modified	heat-damaged	Holland or Derby Chert	U2/L2; 06-25-97	1
Flake, edge-modified		Wyandotte Chert	U2/L2; 06-25-97	5
Flake, edge-modified		Unident. Fossil-iferous Chert	U2/L2; 06-25-97	7
Block flake		Allen's Creek Chert	U1/L1; 06-20-97	1
Block flake		Allen's Creek Chert	U1/L2; 06-20-97	1
Block flake		Haney Chert	U1/L2; 06-20-97	1
Sandstone		indeterm	U1/L1; 06-20-97	1
Sandstone		indeterm	U2/L2; 06-25-97	1

Stone, unidentified		indeterm	U1/L2; 06-20-97	3
Stone, unidentified		indeterm	U2/L1; 06-25-97	1
Bottle glass	cobalt blue		U2/L1; 06-25-97	1
Metal pin, large	carriage or stove fragment	indeterm	U2/L1; 06-25-97	1
Unknown	wood-like	indeterm	U1/L1; 06-20-97	3
Charcoal, sterile		indeterm	U2/L1; 06-25-97	1
Charcoal, not sterile		indeterm	U1/L2; 06-20-97	1

Appendix E: Artifacts from 12-Cr-59, 1997

12-Cr-59 Artifacts Recovered from the Surface, 1997

Identification	Comments	Material	Provenience	#
Point	St. Charles-like	Wyandotte Chert	Drainage; 04-14-97	1
Biface	fragmentary	Wyandotte Chert	Drainage; 04-14-97	1
Flake, edge-modified		Haney Chert	Drainage; 04-14-97	1
Biface	heat-treated	Haney Chert	Drainage; 06-05-97	1
Flake, edge-modified		Allen's Creek Chert	Drainage; 06-05-97	2
Flake, edge-modified		Holland or Derby Chert	Drainage; 06-05-97	2
Flake, edge-modified	heat-damaged	Holland or Derby Chert	Drainage; 06-05-97	1
Flake, edge-modified		Wyandotte Chert	Drainage; 06-05-97	1
Flake, edge-modified		Unident. Fossil-iferous Chert	Drainage; 06-05-97	1
Biface		Haney Chert	Drainage; 06-09-97	1
Flake, edge-modified		Allen's Creek Chert	Drainage; 06-09-97	2
Flake, edge-modified	heat-treated	Allen's Creek Chert	Drainage; 06-09-97	1
Flake, edge-modified		Wyandotte Chert	Drainage; 06-09-97	1
Flake, unm.	heat-damaged	Wyandotte Chert	Drainage; 06-12-97	1
Flake, edge-modified		Allen's Creek Chert	Drainage; 06-12-97	5
Flake, edge-modified	heat-treated	Allen's Creek Chert	Drainage; 06-12-97	2
Flake, edge-modified		Haney Chert	Drainage; 06-12-97	2
Flake, edge-modified		Holland or Derby Chert	Drainage; 06-12-97	2
Flake, edge-modified		Wyandotte Chert	Drainage; 06-12-97	3
Flake, edge-modified	heat-treated	Unidentified Chert	Drainage; 06-12-97	1
Point	Unclassified	Holland or Derby Chert	Drainage; 06-17-97	1

Flake, unm.		Haney Chert	Drainage; 06-17-97	1
Flake, edge-modified		Allen's Creek Chert	Drainage; 06-17-97	9
Flake, edge-modified		Haney Chert	Drainage; 06-17-97	5
Flake, edge-modified		Holland or Derby Chert	Drainage; 06-17-97	3
Flake, edge-modified	heat-treated	Holland or Derby Chert	Drainage; 06-17-97	1
Flake, edge-modified	heat-damaged	Holland or Derby Chert	Drainage; 06-17-97	2
Flake, edge-modified		Wyandotte Chert	Drainage; 06-17-97	3
Flake, edge-modified		Unident. Fossil-iferous Chert	Drainage; 06-17-97	1
Core		Allen's Creek Chert	Drainage; 06-17-97	2
Core		Haney Chert	Drainage; 06-17-97	3
Core	heat-treated	Haney Chert	Drainage; 06-17-97	1
Core		Unidentified Chert	Drainage; 06-17-97	1
Core	edge-modified	Unident. Fossil-iferous Chert	Drainage; 06-17-97	1
Coal		indeterm	Drainage; 06-17-97	1
Biface		Holland or Derby Chert	Drainage; 06-19-97	1
Flake, unm.		Haney Chert	Drainage; 06-19-97	1
Flake, edge-modified		Allen's Creek Chert	Drainage; 06-19-97	4
Flake, edge-modified		Haney Chert	Drainage; 06-19-97	2
Flake, edge-modified		Holland or Derby Chert	Drainage; 06-19-97	2
Flake, edge-modified		Wyandotte Chert	Drainage; 06-19-97	1
Flake, unm.		Haney chert	Drainage; 06-24-97	1
Flake, edge-modified		Haney Chert	Drainage; 06-24-97	2

Flake, edge-modified		Holland or Derby Chert	Drainage; 06-24-97	1
Point	Kirk Corner Notched	Wyandotte Chert	Drainage; 06-30-97	1
Flake, edge-modified		Allen's Creek Chert	Drainage; 06-30-97	2
Bone, unm.	fragmentary	indeterm	Drainage; 07-01-97	1
Burned bone, unm.	fragmentary	indeterm	Drainage; 07-01-97	2
Biface	fragmentary	Haney Chert	Drainage; 07-01-97	1
Flake, unm.		Allen's Creek Chert	Drainage; 07-01-97	1
Flake, unm.		Haney Chert	Drainage; 07-01-97	5
Flake, edge-modified		Allen's Creek Chert	Drainage; 07-01-97	9
Flake, edge-modified		Haney Chert	Drainage; 07-01-97	8
Flake, edge-modified		Holland or Derby Chert	Drainage; 07-01-97	1
Flake, edge-modified		Wyandotte Chert	Drainage; 07-01-97	4
Core		Haney Chert	Drainage; 07-01-97	1
Unknown		indeterm	Drainage; 07-01-97	1

12-Cr-59 Artifacts Recovered from Profiles, 1997

Identification	Comments	Material	Provenience	#
Burned bone, unm.	fragmentary	indeterm	Backdirt of pot-hunter's hole, see map; 06-09-97	1
Flake, edge-modified		Holland or Derby Chert	Backdirt of pot-hunter's hole, see map; 06-09-97	1
Charcoal, not sterile	probably modern	indeterm	Backdirt of pot-hunter's hole, see map; 06-09-97	1
Burned tooth, unm.	fragmentary	rodent incisor	Profile 1 - 2 m S of 9W; 06-10-97	1
Bone, unm.	fragmentary	indeterm	Profile 1 - 2 m S of 9W; 06-10-97	10
Burned bone, unm	fragmentary	indeterm	Profile 1 - 2 m S of 9W; 06-10-97	4
Burned bone, cut marks	fragmentary cut marks on dorsal surface	indeterm	Loose dirt 1 - 2 m S of 9W; 06-10-97	1
Bead	whole	Anculosa shell	Loose dirt 1 - 2 m S of 9W; 06-10-97	1
Snail shell	fragmentary	indeterm	Loose dirt 1 - 2 m S of 9W; 06-10-97	1
Endscraper		Holland or Derby Chert	Loose dirt 1 - 2 m S of 9W; 06-10-97	1
Flake, edge-modified		Allen's Creek Chert	Loose dirt 1 - 2 m S of 9W; 06-10-97	2
Flake, edge-modified		Haney Chert	Loose dirt 1 - 2 m S of 9W; 06-10-97	3
Flake, edge-modified	heat-treated	Haney Chert	Loose dirt 1 - 2 m S of 9W; 06-10-97	2
Flake, edge-modified		Holland or Derby Chert	Loose dirt 1 - 2 m S of 9W; 06-10-97	2
Flake, edge-modified		Wyandotte Chert	Loose dirt 1 - 2 m S of 9W; 06-10-97	2
Nutshell	fragmentary	indeterm	Loose dirt 1 - 2 m S of 9W; 06-10-97	3
Nutshell	fragmentary burned	indeterm	Loose dirt 1 - 2 m S of 9W; 06-10-97	1

Nutshell	fragmentary burned	indeterm	Profile 1 - 2 m S of 9W; 06-10-97	1
Charcoal, sterile	probably modern	indeterm	Loose dirt 1 - 2 m S of 9W; 06-10-97	1
Bone, unm.	fragmentary	crania; species unknown	Loose dirt 2 - 3 m S of 10W; 06-10-97	1
Snail shell	fragmentary	indeterm	Loose dirt 2 - 3 m S of 10W; 06-10-97	1
Charcoal, not sterile	probably modern	indeterm	Loose dirt 2 - 3 m S of 10W; 06-10-97	1
Bone, rgm	fragmentary rgm on dorsal surface	long bone; species unknown	Loose dirt 4 m S of 12W; 06-10-97	2
Bone, unm.	fragmentary	indeterm	Profile 12.9 m W; 06-10-97	2
Charcoal, sterile		indeterm	Profile 12.9 m W; 06-10-97	1

Artifacts Recovered from the Collapse of Units One and Six, 1997

Identification	Comments	Material	Provenience	#
Bone, unm.	fragmentary	indeterm	U1/ west wall collapse, Zone IV-A; 06-26-97	3
Bone, unm.	fragmentary	indeterm	U1/west wall collapse, Zone V-B; 06-26-97	3
Bone, unm	fragmentary	maxilla: 3 teeth; species unknown	U1/west wall collapse, Zone V-B; 06-26-97	1
Burned bone, unm.	fragmentary	indeterm	U1/west wall collapse, Zone V-A; 06-26-97	1
Burned bone, unm.	fragmentary	indeterm	U1/west wall collapse, Zone V-B; 06-26-97	1
Mussel shell	fragmentary	indeterm	U1/west wall collapse, Zone IV-A; 06-26-97	1
Sandstone	dish-shaped	indeterm	U1/west wall collapse, Zone V-B; 06-26-97	1
Nutshell	fragemntary burned	indeterm	U1/west wall collapse, Zone V-B; 06-26-97	2
Charcoal, sterile		indeterm	U1/west wall collapse, Zone IV-A; 06-26-97	1

Charcoal, not sterile		indeterm	U1/west wall collapse, Zone IV-A; 06-26-97	1
Charcoal, sterile		indeterm	U1/west wall collapse, Zone IV-B; 06-26-97	1
Charcoal, sterile		indeterm	U1/west wall collapse, Zone V-A; 06-26-97	1
Charcoal, sterile		indeterm	U1/west wall collapse, Zone V-B; 06-26-97	1
Charcoal, not sterile		indeterm	U1/west wall collapse, Zone V-B; 06-26-97	1
Bone, unm.	fragmentary	indeterm	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	14
Burned bone, unm.	fragmentary	indeterm	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	11
Snail shell	fragmentary	indeterm	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	3
Flake, unm.		Haney Chert	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	2
Flake, unm.		Unidentified Chert	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	1
Flake, edge-modified		Haney Chert	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	1
Flake, edge-modified	heat-treated	Haney Chert	Wall collpase between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	1
Flake, edge-modified		Wyandotte Chert	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	1

Nutshell	fragmentary burned	indeterm	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	6
Charcoal, sterile		indeterm	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	1
Charcoal, not sterile		indeterm	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	1

12-Cr-59 Artifacts Recovered from Unit Three, 1997

Identification	Comments	Material	Provenience	#
Wood	fragmentary	indeterm	U3/Surface; 06-16-97	1
Charcoal, sterile		indeterm	U3/L1; 06-16-97	1
Charcoal, sterile		indeterm	U3/L2; 06-17-97	1
Charcoal, sterile		indeterm	U3/L3; 06-18-97	1
Charcoal, sterile		indeterm	U3/L4; 06-18-97	1
Charcoal, not sterile		indeterm	U3/L3; 06-18-97	1
Coprolites		species unknown	U3/Surface; 06-16-97	42
Coprolites		species unknown	U3/L3; 06-18-97	7

12-Cr-59 Artifacts Recovered from Unit Four, 1997

Identification	Comments	Material	Provenience	#
Bone, unm.	fragmentary	indeterm	U4/L1; 06-16-97	1
Bone, rgm	fragmentary rgm on distal end	long bone; species unknown	U4/L1; 06-16-97	1
Wood	fragmentary	indeterm	U4/L1; 06-16-97	98
Nutshell	fragmentary	indeterm	U4/L1; 06-16-97	2
Charcoal, sterile		indeterm	U4/L1; 06-16-97	1
Charcoal, sterile		indeterm	U4/L2; 06-17-97	1
Charcoal, sterile		indeterm	U4/L4; 06-17-97	1
Coprolites		species unknown	U4/L1; 06-16-97	40
Metal nails		indeterm	U4/L1; 06-16-97	7
Unknown		possible insect casing	U4/L1; 06-16-97	1

12-Cr-59 Artifacts Recovered by Stratigraphic Zone, 1997

Zone I	No artifacts were recovered from this zone.

Zone II	Comments	Material	Provenience	#
Bone, unm.	fragmentary	indeterminate	U5/L2; 06-23-97	4
Bone, unm.	fragmentary	indeterminate	U5/L3; 06-23-97	4
Bone, unm.	fragmentary	indeterminate	U5/L3; 06-24-97	5
Burned bone, unm.	fragmentary	indeterminate	U5/L1; 06-19-97	2
Burned bone, unm.	fragmentary	indeterminate	U5/L2; 06-23-97	6
Burned bone, unm.	fragmentary	indeterminate	U5/L3; 06-23-97	1
Bone, cut marks	fragmentary dorsal surface	long bone; species unknown	U5/L1; 06-19-97	1
Bone, rgm	fragmentary dorsal surface	long bone; species unknown	U5/L1; 06-19-97	1
Bone, rgm	fragmentary ventral surface	indeterminate	U5/L1; 06-19-97	1
Mussel shell	fragmentary; burned	indeterminate	U5/L3; 06-23-97	2
Snail shell	fragmentary	indeterminate	U5/L1; 06-19-97	2
Snail shell	fragmentary	indeterminate	U5/L3; 06-24-97	1
Flake, edge- modified		Wyandotte Chert	U5/L1; 06-19-97	1
Nutshell	burned	indeterminate	U5/L2; 06-23-97	1
Nutshell	burned	indeterminate	U5/L3; 06-23-97	1
Nutshell		indeterminate	U5/L3; 06-24-97	5
Wood	fragmentary	indeterminate	U5/L1; 06-19-97	1
Wood	fragmentary	indeterminate	U5/L3; 06-24-97	
Wood	fragmentary	indeterminate	U5/L3; 06-23-97	1
Charcoal, sterile		indeterminate	U5/L1; 06-19-97	1
Charcoal, not sterile		indeterminate	U5/L1; 06-19-97	1
Charcoal, sterile		indeterminate	U5/L1; 06-20-97	1

Charcoal, sterile		indeterminate	U5/L1; 57cm S of 1S22W, 50cm E; 15cmbd; no date	1
Charcoal, sterile		indeterminate	U5/L2; 06-23-97	1
Charcoal, not sterile		indeterminate	U5/L2; 06-23-97	1
Charcoal, sterile		indeterminate	U5/L3; 06-23-97	1
Charcoal, sterile		indeterminate	U5/L3; 06-24-97	1

Zones II & II-B	**Comments**	**Material**	**Provenience**	**#**
Bone, unm.	fragmentary	indeterminate	U5/L4; 06-24-97	2
Burned bone, unm.	fragmentary	indeterminate	U5/L4; 06-24-97	1
Bone, rgm	fragmentary dorsal surface	long bone; species unknown	U5/L4; 06-24-97	1
Flake, edge- modified		Wyandotte Chert	U5/West wall profile; 43.5 cmbd; 06-30-97	1
Mussel shell	fragmentary	indeterminate	U5/L4; 06-24-97	4
Wood	fragmentary	indeterminate	U5/L4; 06-24-97	
Charcoal, sterile		indeterminate	U5/L4; 06-24-97	1

Zones II-B & III	**Comments**	**Material**	**Provenience**	**#**
Bone, unm.	fragmentary	long bone; species unknown	U5/L5; 06-24-97	2
Bone, unm.	fragmentary	indeterminate	U5/L5; 06-26-97	3
Bone, cut marks	fragmentary white surface	indeterminate	U5/L5; 06-26-97	1
Bone, cut marks & rgm	fragmentary dorsal surface	long bone; species unknown	U5/L5; 06-24-97	1
Bone, rgm	fragmentary	indeterminate	U5/L5; 06-26-97	1
Tooth, unm.	fragmentary	rodent incisor	U5/L5; 06-24-97	1
Snail shell	fragmentary	indeterminate	U5/L5; 06-24-97	1
Nutshell		indeterminate	U5/L5; 06-26-97	1
Wood	fragmentary	indeterminate	U5/L5; 06-24-97	

Wood	fragmentary	indeterminate	U5/L5; 06-26-97	
Charcoal, sterile		indeterminate	U5/L5; 06-24-97	1
Charcoal, sterile		indeterminate	U5/L5; 06-26-97	1

Zone III	**Comments**	**Material**	**Provenience**	**#**
Bone, unm.	fragmentary	indeterminate	U5/L6; 06-26-97	6
Bone, unm.	fragmentary rust-color residue	indeterminate	U5/L6; 06-26-97	1
Flake, edge- modified		Holland or Derby Chert	U5/South wall profile; 63cmbd 06-30-97	1
Unknown	bone-like	indeterminate	U5/L6; 06-26-97	1
Wood	fragmentary	indeterminate	U5/L6; 06-26-97	
Charcoal, sterile		indeterminate	U5/L6; 06-26-97	1
Charcoal, sterile		indeterminate	U5/L6; 06-26-97 55.5-57cmbd	1

Zone IV-A	**Comments**	**Material**	**Provenience**	**#**
Bone, unm.	fragmentary	indeterminate	U1/L1; 06-12-97	8
Bone, unm.	fragmentary	indeterminate	U1/L2; 06-13-97	3
Bone, unm.	fragmentary	long bone; species unknown	U1/L3; 06-13-97	3
Bone, unm.	fragmentary	long bone, vertebra; species unknown	U1/L3; 06-15-97	7
Bone, unm.	fragmentary	long bone; bat	U1/L3; 06-15-97	1
Bone, unm.	fragmentary	indeterminate	U1/L4; 06-16-97	17
Bone, unm.	fragmentary two teeth	rodent mandible	U1/top of L4 06-16-97	1
Bone, unm.	fragmentary blade only	scapula; species unknown	U1/L4; 06-16-97 132cm S of 10W0N 60-63cm E; 137cm S of 10W0N, 64-65.5cm E	1
Bone, unm.	fragmentary	indeterminate	U1/L5; 06-18-97	21
Bone, unm.	fragmentary	bat bone	U1/L5; 06-18-97	1

Bone, unm.	fragmentary	rodent mandible	U1/L5; 06-18-97	1
Tooth, unm.	fragmentary	rodent incisor	U1/L5; 06-18-97	1
Bone, unm.	fragmentary	indeterminate	U1/L6; 06-18-97	15
Bone, unm.	fragmentary	indeterminate	U1/L7; 06-20-97	17
Bone, unm.	fragmentary	unfused epiphysis; species unknown	U1/L7; 06-20-97	1
Bone, unm.	fragmentary	indeterminate	U1/L8; 06-23-97	8
Bone, unm.	fragmentary	indeterminate	U2/L1; 06-12-97	37
Bone, unm.	fragmentary	indeterminate	U2/L1; 06-16-97	11
Bone, unm.	whole	phalange; species unknown	U2/L1; 06-16-97	1
Bone, unm.	fragmentary	proximal femur; species unknown	U2/L1; 06-12-97	1
Bone, unm.	fragmentary	indeterminate	U2/L2; 06-17-97	7
Bone, unm.	fragmentary	indeterminate	U2/L3; 06-17-97	5
Bone, unm.	whole	long bone; species unknown	U2/L11; 06-25-97	1
Bone, unm.	fragmentary	indeterminate	U2/L11; 06-26-97	3
Burned bone, unm.	fragmentary	indeterminate	U1/L1; 06-12-97	6
Burned bone, unm.	fragmentary	long bone; species unknown	U1/L2; 06-13-97	2
Burned bone, unm.	fragmentary	long bone; species unknown	U1/L3; 06-15-97	2
Burned bone, unm.	fragmentary	indeterminate	U1/L4; 06-16-97	4
Burned bone, unm.	fragmentary	indeterminate	U1/L5; 06-18-97	16
Burned bone, unm.	fragmentary	indeterminate	U1/L6; 06-18-97	26
Burned bone, unm.	fragmentary	indeterminate	U1/L7; 06-20-97	12
Burned bone, unm.	fragmentry	long bone; species unknown	U1/L7; 06-20-97 1m25cm-1m35cm S of 10W1N, 82-83cm E; 101- 104 cmbd	1
Burned bone, unm.	fragmentary	indeterminate	U1/L8; 06-23-97	5
Burned bone, unm.	fragmentary	indeterminate	U2/L1; 06-12-97	14
Burned tooth, unm.	fragmentary	molar	U2/L1; 06-12-97	1
Burned bone, unm.	fragmentary	indeterminate	U2/L1; 06-16-97	6

Burned bone, unm.	fragmentary	indeterminate	U2/L2; 06-17-97	4
Burned bone, unm.	fragmentary	indeterminate	U2/L11; 06-25-97	6
Burned bone, unm.	fragmentary	indeterminate	U2/L11; 06-26-97	2
Burned bone, unm.	fragmentary black residue on surface	indeterminate	U1/L1; 06-12-97	1
Bone, unm.	fragmentary black residue on surface	indeterminate	U1/L3; 06-15-97	1
Bone, cut marks	fragmentary ventral surface	indeterminate	U1/L2; 06-13-97	1
Bone, cut marks	fragmentary dorsal surface	indeterminate	U1/L4; 06-16-97	1
Bone, cut marks	fragmentary dorsal surface	indeterminate	U1/L5; 06-18-97 1m30cm S of 10W0N, 55-57cm E 85cmbd	1
Bone, cut marks	fragmentary on diaphysis	long bone; species unknown	U1/L7; 06-20-97	1
Bone, cut marks	fragmentary dorsal surface	indeterminate	U2/L1; 06-12-97	2
Bone, cut marks	fragmentary	indeterminate	U2/L3; 06-17-97	1
Bone, round marks	fragmentary dorsal surface	indeterminate	U2/L3; 06-17-97	1
Bone, grooved splinter	fragmentary	indeterminate	U2/L2; 06-17-97	1
Burned bone, cut marks	fragmentary dorsal surface	indeterminate	U1/L2; 06-13-97	1
Burned bone, cut marks	fragmentary distal end	long bone; species unknown	U1/L3; 06-13-97	1
Burned bone, cut marks	fragmentary distal end	long bone; species unknown	U1/L7; 06-20-97	1
Burned bone, cut marks, rgm	fragmentary dorsal, ventral	indeterminate	U1/L7; 06-20-97	1
Burned bone, cut marks, rgm	fragmentary dorsal surface	indeterminate	U1/L7; 06-20-97	1
Bone, cut marks, rgm	fragmentary dorsal surface	long bone; species unknown	U1/L7; 06-20-97	1
Burned bone, rgm	fragmentary rgm all over	deer scapula	U1/L4; 06-17-97	1
Bone, rgm	fragmentary	indeteminate	U2/L1; 06-12-97	1

Turtle carapace, unm.	fragmentary	indeterminate	U1/L3; 06-13-97	1
Turtle carapace, unm.	fragmentary	indeterminate	U1/L5; 06-18-97	2
Turtle carapace, unm.	fragmentary	indeterminate	U1/L6; 06-18-97	2
Turtle carapace, unm.	fragmentary	indeterminate	U1/L7; 06-20-97	1
Turtle carapace, unm.	fragmentary	indeterminate	U2/L1; 06-12-97	2
Turtle carapace, unm.	fragmentary	indeterminate	U2/L2; 06-17-97	1
Burned turtle carapace, unm.	fragmentary	indeterminate	U1/L7; 06-20-97	3
Burned turtle carapace, unm.	fragmentary	indeterminate	U1/L6; 06-18-97	1
Turtle carapace, cut marks	fragmentary ventral surface	indeterminate	U1/L3; 06-15-97	1
Turtle carapace, cut marks	fragmentary ventral surface	indeterminate	U1/L8; 06-23-97 1m74cm S of 10W0N, 86cm E; 108cmbd	1
Turtle carapace, cut marks	fragmentary	indeterminate	U2/L1; 06-16-97	2
Turtle carapace, cut marks	fragmentary ventral surface	indeterminate	U2/L3; 06-17-97	2
Mussel shell	fragmentary	indeterminate	U1/L1; 06-12-97	2
Mussel shell	fragmentary burned	indeterminate	U1/L4; 06-16-97	1
Mussel shell	fragmentary	indeterminate	U1/L5; 06-18-97 1m36cm S of 10W0N, 50cm E; 83.5 cmbd	1
Mussel shell	fragmentary	indeterminate	U1/L6; 06-18-97	1
Mussel shell	fragmentary burned	indeterminate	U1/L7; 06-20-97	1
Mussel shell	fragmentary	indeterminate	U1/L8; 06-23-97 1m19cm S of 10W0N, 72cm E; 113 cmbd	1
Mussel shell	fragmentary	indeterminate	U2/L1; 06-12-97	1
Mussel shell	fragmentary burned	indeterminate	U2/L1; 06-12-97	2
Mussel shell	fragmentary	indeterminate	U2/L3; 06-17-97	2
Mussel shell	fragmentary	indeterminate	U2/L11; 06-26-97	2
Snail shell	fragmentary	indeterminate	U1/L1; 06-12-97	7

Snail shell	fragmentary	indeterminate	U1/L2; 06-13-97	1
Snail shell	fragmentary	indeterminate	U1/L3; 06-15-97	2
Snail shell	whole	indeterminate	U1/L3; 06-15-97	1
Snail shell	almost whole	indeterminate	U1/L5; 06-18-97	1
Snail shell	fragmentary	indeterminate	U1/L6; 06-18-97	2
Snail shell	fragmentary	indeterminate	U1/L7; 06-20-97	1
Snail shell	fragmentary	indeterminate	U1/L8; 06-23-97	1
Snail shell	fragmentary	indeterminate	U2/L1; 06-12-97	2
Snail shell	fragmentary	indeterminate	U2/L1; 06-16-97	2
Snail shell	fragmentary	indeterminate	U2/L2; 06-17-97	1
Snail shell	fragmentary	indeterminate	U2/L3; 06-17-97	1
Marine shell	possible bead	ineterminate	U1/L2; 06-13-97	1
Bead	whole	mussel shell	U1/L8; 06-23-97	1
Flake, unm.		Haney Chert	U1/L5; 06-18-97	2
Flake, unm.		Unidentified Chert	U1/L5; 06-18-97	2
Flake, unm.		Haney Chert	U1/L6; 06-18-97	1
Flake, unm.		Unidentified Chert	U1/L6; 06-18-97	1
Flake, unm.		Allen's Creek Chert	U1/L7; 06-20-97	1
Flake, unm.		Haney Chert	U1/L8; 06-23-97	2
Flake, unm.		Allen's Creek Chert	U2/L1; 06-12-97	1
Flake, unm.	heat-damaged	Wyandotte Chert	U2/L1; 06-12-97	1
Flake, unm.		Unidentified Chert	U2/L1; 06-12-97	1
Flake, unm.		Allen's Creek Chert	U2/L1; 06-16-97	1
Flake, edge-modified		Allen's Creek Chert	U1/L1; 06-12-97	1
Flake, edge-modified		Holland or Derby Chert	U1/L2; 06-13-97	1
Flake, edge-modified		Holland or Derby Chert	U1/L3; 06-15-97	1
Flake, edge-modified		Allen's Creek Chert	U1/L4; 06-16-97	2
Flake, edge-modified		Wyandotte Chert	U1/L4; 06-16-97	1
Flake, edge-modified		Wyandotte Chert	U1/L5; 06-18-97	1

Flake, edge-modified		Haney Chert	U1/L6; 06-18-97	1
Flake, edge-modified		Haney Chert	U1/L7; 06-20-97	1
Flake, edge-modified		Haney Chert	U2/L1; 06-12-97	3
Flake, edge-modified	heat-treated	Allen's Creek Chert	U2/L1; 06-16-97	1
Flake, edge-modified		Haney Chert	U2/L1; 06-16-97	1
Flake, edge-modified		Wyandotte Chert	U2/L1; 06-16-97	2
Flake, edge-modified	black residue on surface	Wyandotte Chert	U2/L2; 06-17-97	1
Flake, edge-modified		Unidentified Chert	U2/L11,F #4; 06-25-97; 0.1m S, 13.3m W;71cmbd	1
Point	Kirk Cluster; heat-damaged	Wyandotte Chert	U1/L3; 06-13-97 61cm S of 9W2S, 23-27cm E	1
Point or biface	fragmentary	Wyandotte Chert	U1/L4; 06-16-97	1
Bipolar micro-core		Wyandotte Chert	U1/L6; 06-19-97 1m27cm S of 10W0N, 66cm E; 91cmbd	1
Point	base only Kirk Cluster?	Unidentified Chert	U2/L1; 06-12-97 44 cmbd	1
Point or biface	fragmentary tip	Allen's Creek chert	U2/L1; 06-13-97	1
Flake, blade		Unidentified Chert	U2/L1; 06-16-97	1
Point or biface	fragmentary tip	Wyandotte Chert	U2/L3; 06-17-97	1
Stone, unidentified		indeterminate	U1/L1; 06-12-97	2
Stone, unidentified		indeterminate	U1/L4; 06-16-97	1
Unknown	bone-like	indeterminate	U1/L7; 06-20-97	5
Wood	fragmentary	indeterminate	U2/L11; 06-25-97	2
Insect	millipede-like	indeterminate	U1/L7; 06-20-97	1
Fiber	no apparent weave	indeterminate	U1/L8; 06-23-97 1m56cm S of 10W0N, 74cm E 109cmbd (12W1N)	2
Nutshell	burned	indeterminate	U1/L1; 06-12-97	4
Nutshell	burned	indeterminate	U1/L2; 06-13-97	6
Nutshell	burned	indeterminate	U1/L3; 06-15-97	9
Nutshell	burned	indeterminate	U1/L4; 06-16-97	3
Nutshell	burned	indeterminate	U1/L5; 06-18-97	3
Nutshell	burned	indterminate	U1/L6; 06-18-97	5

Nutshell	burned	indeterminate	U1/L7; 06-20-97	8
Nutshell	burned	indeterminate	U2/L11; 06-26-97	2
Wood	fragmentary	indeterminate	U1/L1; 06-12-97	1
Wood	fragmentary	indeterminate	U1/L2; 06-13-97	
Wood	fragmentary	indeterminate	U1/L4; 06-16-97	
Wood	fragmentary	indeterminate	U1/L5; 06-18-97	1
Wood	fragmentary	indeterminate	U1/L5; 06-18-97 1m14cm S of 10W0N, 44cm E; 81cmbd (12W1N)	
Wood	fragmentary	indeterminate	U1/L8; 06-23-97 1m75cm S of 10W0N, 86cm E; 116cmbd (12W1N)	
Wood	fragmentary	indeterminate	U2/L1; 06-12-97	
Wood	fragmentary	indeterminate	U2/L1; 06-16-97	
Wood	fragmentary	indeterminate	U2/L2; 06-17-97	1
Wood	fragmentary	indeterminate	U2/L3; 06-17-97	
Charcoal, not sterile		indeterminate	U1/L1; 06-12-97	1
Charcoal, sterile		indeterminate	U1/L1; 06-12-97	1
Charcoal, not sterile		indeterminate	U1/L2; 06-13-97	1
Charcoal, sterile		indeterminate	U1/L2; 06-13-97 19-21cm S of 10W1S/9W1S, 12-15cm E of 10W1S	1
Charcoal, not sterile		indeterminate	U1/L3; 06-13-97	1
Charcoal, not sterile		indeterminate	U1/L3; 06-15-97	1
Charcoal, sterile		indeterminate	U1/L3; 06-13-97	1
Charcoal, sterile		indeterminate	U1/L3; 06-15-97	1
Charcoal, not sterile		indeterminate	U1/L4; 06-16-97	1
Charcoal, sterile		indeterminate	U1/L4; 06-16-97	1
Charcoal, sterile		indeterminate	U1/L4; 06-16-97 116cm S of 10W0N, 58-60cm E 68 cmbd (12W1N)	1
Charcoal, not sterile		indeterminate	U1/L5; 06-18-97	1
Charcoal, sterile		indeterminate	U1/L5; 06-17-97	1
Charcoal, sterile		indeterminate	U1/L5; 06-18-97	1

Charcoal, sterile		indeterminate	U1/L5; 06-18-97 1m34cm S of 10W0N, 71cm E	1
Charcoal, sterile		indeterminate	U1/L5; 06-18-97 1m41cm S of 10W0N, 61cm E 81cmbd (12W1N)	1
Charcoal, sterile		indeterminate	U1/L5; 06-18-97 1m55cm S of 10W0N, 58cm E 79 cmbd (12W1N)	1
Charcoal, sterile		indeterminate	U1/L6; 06-19-97	1
Charcoal, not sterile		indeterminate	U1/L7; 06-20-97	1
Charcoal, sterile		indeterminate	U1/L7; 06-20-97	1
Charcoal, sterile		indeterminate	U1/L7; 06-20-97 1m12cm S of 10W0N, 68.5-71cm E; 103cmbd (12W1N)	1
Charcoal, sterile		indeterminate	U1/L7; 06-20-97 1m19cm S of 10W0N, 80 cm E 106cmbd (12W1N)	1
Charcoal, sterile		indeterminate	U1/L8; 06-23-97	1
Charcoal, not sterile		indeterminate	U2/L1; 06-16-97	1
Charcoal, sterile		indeterminate	U2/L1; 06-12-97	1
Charcoal, sterile		indeterminate	U2/L1; 06-16-97	1
Charcoal, sterile		indeterminate	U2/L1; 06-12-97 55cm N & 19cm E of SW stake	1
Charcoal, sterile		indeterminate	U2/L3; 06-17-97	1
Charcoal, sterile		indeterminate	U2/L9; 06-23-97	1
Charcoal, sterile		indeterminate	U2/L9,F#3 06-23-97	1
Charcoal, sterile		indeterminate	U2/L10; 06-24-97	1
Charcoal, not sterile		indeterminate	U2/L11; 06-25-97	1
Charcoal, not sterile		indeterminate	U2/L11; 06-26-97	1
Charcoal, sterile		indeterminate	U2/L?; 06-12-97	1
Turtle carapace, rgm	fragmentary	indeterminate	U2/L1; 06-12-97	1

Zone IV-B	Comments	Material	Provenience	#
Bone, unm.	fragmentary	indeterminate	U1/L7; 06-20-97	1
Bone, unm.	fragmentary	long bone; species unknown	U1/L9; 06-23-97	1
Burned bone, unm.	fragmentary	indeterminate	U1/L9; 06-23-97	1
Burned bone, cut marks	fragmentary dorsal surface	long bone; species unknown	U1/L10; 06-23-97	1
Burned bone, rgm	fragmentary posterior ridge	long bone; species unknown	U1/L7; 06-20-97	1
Mussel shell	fragmentary	indterminate	U1/L7; 06-20-97	1
Snail shell	fragmentary	indeterminate	U1/L7; 06-20-97	2
Snail shell	fragmentary	indeterminate	U1/L3; 06-24-97	2
Nutshell	burned	indeterminate	U1/L7; 06-20-97	2
Wood	fragmentary	indeterminate	U1/west wall collapse, see profile; 06-26-97	
Charcoal, sterile		indeterminate	U1/L7; 06-20-97	1
Charcoal, sterile		indeterminate	U1/L9; 06-23-97	1
Charcoal, sterile		indeterminate	U1/L10; 06-23-97	1

Zone V	Comments	Material	Provenience	#
Bone, unm.	fragmentary	indeterminate	U1/L4; no date	3
Bone, unm.	fragmentary	indeterminate	U1/L5; 06-24-97	3
Bone, unm.	fragmentary	bat bones	U1/L5; 06-24-97	2
Bone, unm.	fragmentary	long bone; species unknown	U1/L6; 06-24-97	1
Bone, unm.	fragmentary	bat bone	U1/L6; 06-24-97	1
Bone, unm.	fragmentary	indeterminate	U1/L7; 06-25-97	2
Bone, unm.	fragmentary	long bone; bird	U1/L7; 06-25-97	1
Bone, unm.	fragmentary	distal humerus; bird	U1/L7; 06-25-97	1
Bone, unm.	fragmentary	distal femur bird	U1/L7; 06-25-97	1
Bone, unm.	fragmentary	proximal femur; bird	U1/L7; 06-25-97	1

Bone, unm.	fragmentary	indeterminate	U1/L8; 06-25-97	3
Bone, unm.	fragmentary	indeterminate	U1/L9; 06-26-97	1
Bone, unm.	fragmentary	long bone; species unknown	U1/L9; 06-26-97	2
Bone, unm.	fragmentary	rodent mandible	U1/L9; 06-26-97	1
Bone, unm.	fragmentary	indeterminate	U1/L10; 06-27-97	1
Bone, unm.	fragmentary	long bone; bat	U1/L10; 06-27-97	1
Bone, unm.	fragmentary	indeterminate	U1/L11; 06-27-97	1
Bone, unm.	whole	femur; species unknown	U1/L11; 06-27-97	1
Bone, unm.	fragmentary	indeterminate	U6/L1; 06-23-97	2
Bone, unm.	fragmentary	indeterminate	U6/L2; 06-23-97	2
Bone, unm.	whole	indeterminate	U6/L3; 06-24-97	1
Bone, unm.	whole	indeterminate	U6/L4; 06-24-97	1
Bone, unm.	fragmentary	indeterminate	U6/L5; 06-24-97	1
Bone, unm.	fragmentary	indeterminate	U6/L6; 06-24-97	2
Bone, unm.	fragmentary	rodent mandible	U6/L6; 06-24-97	1
Bone, unm.	fragmentary	indeterminate	U6/L7; 06-24-97	2
Bone, unm.	fragmentary	indeterminate	U6/L10; 06-25-97	3
Bone, unm.	fragmentary	indeterminate	U6/L11; 06-25-97	5
Burned bone, unm.	fragmentary	indeterminate	U1/L5; 06-24-97	1
Burned bone, unm.	fragmentary	indeterminate	U1/L6; 06-24-97	3
Burned bone, unm.	fragmentary	indeterminate	U1/L7; 06-25-97	6
Burned bone, unm.	fragmentary	indeterminate	U1/L8; 06-25-97	2
Burned bone, unm.	fragmentary	indeterminate	U1/L9; 06-26-97	2
Burned bone, unm.	fragmentary	indeterminate	U2/L12; 06-27-97	1
Burned bone, unm.	fragmentary	indeterminate	U6/L6; 06-24-97	1
Burned bone, unm.	fragmentary	indeterminate	U6/L6; 06-24-97	5
Burned bone, unm.	black residue on surface	indeterminate	U1/L8; 06-25-97	1
Burned bone, unm.	black residue on surface	indeterminate	U1/L11; 06-27-97	1

Bone, cut marks	fragmentary ventral surface	indeterminate	U1/L5; 06-24-97	1
Bone, cut marks	fragmentary broken terminus	long bone; species unknown	U1/L6; 06-24-97	1
Bone, cut marks	fragmentary polished surface	indeterminate	U1/L9; 06-26-97	1
Bone, cut marks	fragmentary dorsal surface	indeterminate	U6/L3; 06-24-97	2
Bone, ground	fragmentary	indeterminate	U6/L7; 06-24-97	1
Burned bone, rgm	fragmentary dorsal surface	indeterminate	U1/L5; 06-24-97	2
Bone, rgm	fragmentary on diaphysis	long bone; species unknown	U6/L8; 06-25-97	1
Turtle carapace, unm.	fragmentary	indeterminate	U6/L7; 06-24-97	1
Turtle carapace, unm.	fragmentary	indeterminate	U1/L9; 06-26-97	1
Mussel shell	fragmentary	indeterminate	U1/L7; 06-25-97	2
Mussel shell	fragmentary	indeterminate	U1/L9; 06-26-97	1
Mussel shell	fragmentary	indeterminate	U1/L10; 06-27-97	2
Mussel shell	fragmentary	indeterminate	U6/L5; 06-24-97	1
Mussel shell	fragmentary burned	indeterminate	U6/L7; 06-24-97	3
Mussel shell	fragmentary burned	indeterminate	U6/L11; 06-25-97	1
Snail shell	fragmentary	indeterminate	U1/L5; 06-24-97	3
Snail shell	fragmentary	indeterminate	U1/L6; 06-24-97	2
Snail shell	fragmentary	indeterminate	U1/L7; 06-25-97	2
Snail shell	fragmentary	indeterminate	U1/L8; 06-25-97	3
Snail shell	fragmentary	indeterminate	U2/L12; 06-27-97	1
Snail shell	fragmentary	indeterminate	U6/L2; 06-23-97	1
Snail shell	fragmentary	indeterminate	U6/L3; 06-24-97	1
Snail shell	fragmentary	indeterminate	U6/L4; 06-24-97	2
Snail shell	fragmentary	indeterminate	U6/L6; 06-24-97	1
Snail shell	fragmentary	indeterminate	U6/L7; 06-24-97	1
Snail shell	almost whole	indeterminate	U6/L10; 06-25-97	1

Flake, unm.		Unidentified Chert	U1/L6; 06-24-97	1
Flake, unm.		Allen's Creek Chert	U1/L11; 06-27-97	1
Flake, unm.		Wyandotte Chert	U6/L7; 06-24-97	1
Flake, unm.	heat-treated	Haney Chert	U6/L11; 06-25-97	1
Flake, edge-modified		Wyandotte Chert	U1/L8; 06-25-97	1
Flake, edge-modified	heat-treated	Allen's Creek Chert	U1/L11; 06-27-97	1
Flake, edge-modified		Wyandotte Chert	U6/L6; 06-24-97	1
Flake, edge-modified		Wyandotte Chert	U6/L7; 06-24-97	1
Block flake		Allen's Creek Chert	U6/L2; 06-23-97	1
Point or biface	fragmentary heat-damaged	Wyandotte Chert	U6/L8; 06-25-97	1
Ground stone tool fragment	one side very worn & polished	Limestone	U1/L6; 06-24-97	1
Quartzite		indeterminate	U1/L7; 06-25-97	5
Crinoid stem	possible bead	indeterminate	U1/L7; 06-25-97	1
Shale		indeterminate	U1/L11; 06-27-97	3
Unknown	wood-like	indeterminate	U1/L6; 06-24-97	5
Unknown			U2/L12; 06-27-97	4
Nutshell		indeterminate	U2/L12; 06-27-97	1
Nutshell	burned	indeterminate	U1/L4; no date	1
Nutshell	burned	indeterminate	U1/L5; 06-24-97	1
Nutshell	burned	indeterminate	U1/L6; 06-24-97	1
Nutshell	burned	indeterminate	U1/L9; 06-26-97	1
Wood	fragmentary	indeterminate	U1/L4; no date	
Wood	fragmentary	indeterminate	U1/L5; 06-24-97	
Wood	fragmentary	indeterminate	U1/L7; 06-25-97	
Wood	fragmentary	indeterminate	U1/L11; 06-27-97	
Leaves	fragmentary; probably modern	indeterminate	U1/L11; 06-27-97	
Wood	fragmentary	indeterminate	U1/west wall collapse, see profile, Zone V-B; 06-26-97	
Wood	fragmentary	indeterminate	U2/L12; no date	3

Wood	fragmentary	indeterminate	U2/L5; 06-18-97 71-74cmbd	
Wood	fragmentary historic	indeterminate	U2/L11; 06-25-97 wall of rodent run; 0.3m S of 13.08m W	1
Wood	fragmentary	indeterminate	U2/L11; 06-26-97	
Wood	post fragment, base	indeterminate	U2/L13; 06-27-97	1
Charcoal, sterile		indeterminate	U1/L3; 06-24-97	1
Charcoal, not sterile		indeterminate	U1/L4; no date	1
Charcoal, not sterile		indeterminate	U1/L5; 06-24-97	1
Charcoal, not sterile		indeterminate	U1/L6; 06-24-97	1
Charcoal, sterile		indeterminate	U1/L6; 06-24-97	1
Charcoal, sterile		indeterminate	U1/L6; 06-25-97	1
Charcoal, sterile		indeterminate	U1/L7; 06-25-97	1
Charcoal, sterile		indeterminate	U1/L8; 06-25-97	1
Charcoal, sterile		indeterminate	U1/L9; 06-26-97	1
Charcoal, not sterile		indeterminate	U1/L10; 06-27-97	1
Charcoal, sterile		indeterminate	U1/L10; 06-27-97	1
Charcoal	probably modern	indeterminate	U1/L11; 06-27-97	1
Charcoal, sterile		indeterminate	U1/L11; 06-27-97	1
Charcoal, not sterile		indeterminate	U2/L12; 06-27-97	1
Charcoal, sterile		indeterminate	U2/L12; 06-30-97 South wall profile	1
Charcoal, sterile		indeterminate	U6/Surface 06-23-97	1
Charcoal, sterile		indeterminate	U6/L1; 06-23-97	1
Charcoal, sterile		indeterminate	U6/L2; 06-23-97	1
Charcoal, sterile		indeterminate	U6/L3; 06-24-97	1
Charcoal, sterile		indeterminate	U6/L4; 06-24-97	1
Charcoal, not sterile		indeterminate	U6/L4; 06-24-97	1
Charcoal, sterile		indeterminate	U6/L5; 06-24-97	1
Charcoal, sterile		indeterminate	U6/L6; 06-24-97	1
Charcoal, sterile		indeterminate	U6/L7; 06-24-97	1

Charcoal, sterile		indeterminate	U6/L8; 06-25-97	1
Charcoal, sterile		indeterminate	U6/L9; 06-25-97	1
Charcoal, sterile		indeterminate	U6/L10; 06-25-97	1
Charcoal, sterile		indeterminate	U6/L11; 06-25-97	1

Zone VI	**Comments**	**Material**	**Provenience**	**#**
Bone, unm.	fragmentary	indeterminate	U6/L12; 06-25-97	1
Bone, unm.	fragmentary	indeterminate	U6/L12; 06-26-97	20
Bone, unm.	fragmentary	indeterminate	U6/L12; 06-27-97	3
Bone, unm.	fragmentary	cf. human; long bone	U6/L12; 06-27-97	2
Bone, unm.	fragmentary	long bone; species unknown	U6/L13; 06-27-97	5
Bone, unm.	fragmentary	indeterminate	U6/L13; 06-30-97	9
Tooth, unm.	fragmentary	deer molar	U6/L13; 06-30-97	1
Bone, unm.	fragmentary	indeterminate	U6/L14; 06-30-97	6
Bone, unm.	whole/frag	long bone; species unknown	U6/L14; 06-30-97	2
Bone, unm.	fragmentary	indeterminate	U6/L15; 06-30-97	3
Bone, unm.	fragmentary	indeterminate	U6/pedastal under rock in west wall, see profile; 06-30-97	2
Bone, unm.	fragmentary	human; long bone	U6/east profile wall, remainder left in place; 06-30-97	3
Burned bone, unm.	fragmentary	indeterminate	U6/L12; 06-26-97	4
Burned bone, unm.	fragmentary	indeterminate	U6/L12; 06-27-97	1
Burned tooth, unm.	fragmentary	deer	U6/L12; 06-26-97	1
Burned bone, unm.	fragmentary	long bone; species unknown	U6/L13; 06-30-97	7
Burned bone, unm.	fragmentary	indeterminate	U6/L12&13, between the levels; no date	1
Burned bone, unm.	fragmentary	indeterminate	U6/L14; 06-30-97	7

Burned bone, unm.	fragmentary	indeterminate	U6/L15; 06-30-97	1
Bone, ground splinter	fragmentary	indeterminate	U6/L12; 06-27-97	1
Bone, cut marks	fragmentary dorsal surface	indeterminate	U6/L12; 06-27-97	1
Bone, cut marks	fragmentary dorsal surface	long bone; species unknown	U6/L13; 06-27-97	2
Bone, cut marks	fragmentary dorsal surface	indeterminate	U6/L12&13, between the levels; no date	1
Bone tool	awl	indeterminate	U6/L12&13, between the levels; no date	2
Bone, rgm	fragmentary dorsal	indeterminate	U6/L13; 06-27-97	1
Mussel shell	fragmentary	indeterminate	U6/L12; 06-25-97	1
Mussel shell	fragmentary	indeterminate	U6/L12; 06-26-97	5
Mussel shell	fragmentary burned	indeterminate	U6/L13; 06-27-97	4
Snail shell	fragmentary	indeterminate	U6/L12; 06-27-97	1
Flake, unm.		Haney Chert	U6/L12; 06-26-97	1
Flake, unm.	heat-damaged	Unidentified Chert	U6/L12; 06-26-97	1
Flake, unm.		Haney Chert	U6/L12; 06-27-97	1
Flake, unm.		Unidentified Chert	U6/L13; 06-27-97	1
Flake, unm.		Allen's Creek Chert	U6/L13; 06-30-97	1
Flake, unm.	heat-treated	Allen's Creek Chert	U6/L13; 06-30-97	1
Flake, unm.		Wyandotte Chert	U6/L13; 06-30-97	1
Flake, unm.		Allen's Creek Chert	U6/L15; 06-30-97	2
Flake, unm.		Allen's Creek Chert	U6/pedastal under rock in west wall, see profile; 06-30-97	1
Flake, edge-modified		Allen's Creek Chert	U6/L12; 06-25-97	1
Flake, edge-modified		Dolonite or limestone	U6/L12; 06-26-97	1
Flake, edge-modified		Haney Chert	U6/L12; 06-26-97	1
Flake, edge-modified	heat-treated	Haney Chert	U6/L12; 06-26-97	2
Flake, edge-modified		Wyandotte Chert	U6/L12; 06-26-97	2
Flake, edge-modified		Wyandotte Chert	U6/L13; 06-27-97	1
Flake, edge-modified		Allen's Creek Chert	U6/L13; 06-30-97	1

Flake, edge-modified		Wyandotte Chert	U6/L14; 06-30-97	1
Flake, edge-modified		Haney Chert	U6/L15; 06-30-97	1
Flake, edge-modified	heat-damaged	Wyandotte Chert	U6/L15; 06-30-97	2
Flake, edge-modified		Wyandotte Chert	U6/pedastal under rock in west wall, see profile; 06-30-97	1
Point or biface	fragment; heat-damaged	Unientified Chert	U6/L13; 06-30-97	1
Biface	heat-treated	Haney Chert	U6/L15; 06-30-97	1
Slate		indeterminate	U6/L13; 06-30-97	4
Stone, unidentified		indeterminate	U6/L12; 06-26-97	7
Stone, unidentified	very course	indeterminate	U6/L13; 06-27-97	1
Stone, unidentified		indeterminate	U6/L15; 06-30-97	3
Unknown	insect casing?	indeterminate	U6/L12; 06-26-97	2
Charcoal, not sterile		indeterminate	U6/L12; 06-26-97	1
Charcoal, not sterile		indeterminate	U6/L12; 06-27-97 bottom 2cm of level	1
Charcoal, sterile		indeterminate	U6/L12; 06-25-97	1
Charcoal, sterile		indeterminate	U6/L12; 06-27-97	1
Charcoal, sterile		indeterminate	U6/L13; 06-30-97	1
Charcoal, sterile		indeterminate	U6/L13; 06-30-97	1
Charcoal, sterile		indeterminate	U6/L13; 06-27-97	1
Charcoal, sterile		indeterminate	U6/L14; 06-30-97	1
Charcoal, not sterile		indeterminate	U6/L14; 06-30-97	1
Charcoal, sterile		indeterminate	U6/L15; 06-30-97	1
Charcoal, sterile		indeterminate	U6/pedastal under rock in west wall, see profile; 06-30-97	1
Charcoal, sterile		indeterminate	U6/L?; 06-26-97	1

Appendix F: Artifacts from 12-Cr-59, 1998

Artifacts Recovered from Unit 14W/4.5N, 1998

Identification	Comments	Material	Provenance	#
Bone, RGM	fragmentary	long bone; species unknown	L1; 05-20-98	2
Bone, unm.	whole	phalange; species unknown	L1; 05-20-98	1
Bone, unm.	fragmentary	femur; species unknown	L1; 05-20-98	1
Snail shell	fragmentary	indeterminate	L1; 05-20-98	1
Container glass	clear; fire-exposed	rim	L1; 05-20-98	1
Container glass	olive	body	L1; 05-20-98	1
Cigarette butt	used		L1; 05-20-98	3
Match			L1; 05-20-98	1
Wood	fragmentary	indeterminate	L1; 05-20-98	2
Coprolite		indeterminate	L1; 05-20-98	15
Nutshell	fragmentary	indeterminate	L1; 05-20-98	13
Burned nutshell, not sterile	fragmentary	indeterminate	L1; 05-20-98	2
Charcoal, not sterile		indeterminate	L1; 05-20-98	1
Wood	fragmentary	indeterminate	L2; 05-26-98	6
Coprolite		indeterminate	L2; 05-26-98	20
Nutshell	fragmentary	indeterminate	L2; 05-26-98	7
Charcoal, not sterile		indeterminate	L2; 05-26-98	1

12-Cr-59 Artifacts Recovered by Stratigraphic Zone, 1998

Zone V

Identification	Comments	Material	Provenance	#
Flake, unm.		Haney chert	12W/3S, L4; 05-21-98	1
Flake, unm.		Holland or Derby chert	12W/3S, L4; 05-21-98	1
Flake, unm.		Wyandotte chert	12W/3S, L4; 05-21-98	1

Flake, edge-modified		Wyandotte chert	12W/3S, L4; 05-21-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L4; 05-21-98	1
Bone, unm.	fragmentary	vertebra; species unknown	12W/3S, L4; 05-21-98	2
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L4; 05-21-98	6
Wood	fragmentary	indeterminate	12W/3S, L4; 05-21-98	10
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L4; 05-21-98	6
Unknown		nutshell and vine	12W/3S, L4; 05-21-98	1
Charcoal, not sterile		indeterminate	12W/3S, L4; 05-21-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L5; 05-22-98	6
Bone, unm.	fragmentary	rodent maxilla	12W/3S, L5; 05-22-98	1
Bone, unm.	fragmentary	vertebra; species unknown	12W/3S, L5; 05-22-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L5; 05-22-98	1
Snail shell	fragmentary	indeterminate	12W/3S, L5; 05-22-98	1
Root mat	flat	indeterminate	12W/3S, L5; 05-22-98	1
Wood	fragmentary	indeterminate	12W/3S, L5; 05-22-98	12
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L5; 05-22-98	3
Charcoal, not sterile		indeterminate	12W/3S, L5; 05-22-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L6; 05-22-98	2
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L6; 05-22-98	2
Wood	fragmentary	indeterminate	12W/3S, L6; 05-22-98	15
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L6; 05-22-98	2
Charcoal, not sterile		indeterminate	12W/3S, L6; 05-22-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L7; 05-26-98	3
Wood	fragmentary	indeterminate	12W/3S, L7; 05-26-98	12
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L7; 05-26-98	4
Charcoal, not sterile		indeterminate	12W/3S, L7; 05-26-98	1
Flake, unm.		Haney chert	12W/3S, L8; 05-26-98	1
Flake, unm.		Wyandotte chert	12W/3S, L8; 05-26-98	1

Bone, unm.	fragmentary	indeterminate	12W/3S, L8; 05-26-98	1
Turtle carapace, unm.	fragmentary	indeterminate	12W/3S, L8; 05-26-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L8; 05-26-98	2
Wood	fragmentary	indeterminate	12W/3S, L8; 05-26-98	5
Burned sandstone		Tick Ridge	12W/3S, L8; 05-26-98	2
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L8; 05-26-98	5
Charcoal, not sterile		indeterminate	12W/3S, L8; 05-26-98	1
Flake, unm.		Haney chert	12W/3S, L9; 05-26-98	2
Bone, unm.	fragmentary	indeterminate	12W/3S, L9; 05-26-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L9; 05-26-98	4
Snail shell	fragmentary	indeterminate	12W/3S, L9; 05-26-98	2
Wood	fragmentary	indeterminate	12W/3S, L9; 05-26-98	3
FCR		indeterminate	12W/3S, L9; 05-26-98	1
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L9; 05-26-98	2
Charcoal, not sterile		indeterminate	12W/3S, L9; 05-26-98	1
Flake, unm.		Wyandotte chert	12W/3S, L10; 05-27-98	1
Bone, unm.	fragmentary	long bone; species unknown	12W/3S, L10; 05-27-98	2
Bone, unm.	whole	humerus; species unknown	12W/3S, L10; 05-27-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L10; 05-27-98	1
Wood	fragmentary	indeterminate	12W/3S, L10; 05-27-98	12
Nutshell	fragmentary	indeterminate	12W/3S, L10; 05-27-98	2
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L10; 05-27-98	4
Charcoal, not sterile		indeterminate	12W/3S, L10; 05-27-98	1
Flake, unm.		Allen's Creek chert	12W/3S, L11; 05-27-98	1
Flake, unm.		Haney chert	12W/3S, L11; 05-27-98	1
Flake, unm.		Wyandotte chert	12W/3S, L11; 05-27-98	1
Flake, unm.	heat-damaged	Wyandotte chert	12W/3S, L11; 05-27-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L11; 05-27-98	2

Tooth, unm	fragmentary	deer	12W/3S, L11; 05-27-98	1
Bone, cut & polish	fragmentary	indeterminate	12W/3S, L11; 05-27-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L11; 05-27-98	2
Wood	fragmentary	indeterminate	12W/3S, L11; 05-27-98	14
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L11; 05-27-98	6
Charcoal, not sterile		indeterminate	12W/3S, L11; 05-27-98	1
Flake, unm.	heat-treated	Haney chert	12W/3S, L12; 05-28-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L12; 05-28-98	3
Bone, unm.	whole	vertebra; species unknown	12W/3S, L12; 05-28-98	1
Bone, unm.	whole	femur; species unknown	12W/3S, L12; 05-28-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L12; 05-28-98	4
Burned bone, unm.	fragmentary	long bone; species unknown	12W/3S, L12; 05-28-98	1
Snail shell	fragmentary	indeterminate	12W/3S, L12; 05-28-98	1
Wood	fragmentary	indeterminate	12W/3S, L12; 05-28-98	4
Burned sandstone		Tick Ridge	12W/3S, L12; 05-28-98	1
Nutshell	fragmentary	indeterminate	12W/3S, L12; 05-28-98	1
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L12; 05-28-98	3
Charcoal, not sterile		indeterminate	12W/3S, L12; 05-28-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L13; 05-28-98	1
Bone, unm.	whole	vertebra; species unknown	12W/3S, L13; 05-28-98	1
Burned bone, unm.	fragmentary	indterminate	12W/3S, L13; 05-28-98	1
Lint	red	indeterminate	12W/3S, L13; 05-28-98	1
Plastic	red and black	indeterminate	12W/3S, L13; 05-28-98	1
Wood	fragmentary	indeterminate	12W/3S, L13; 05-28-98	5
Burned sandstone		Tick Ridge	12W/3S, L13; 05-28-98	4
Nutshell	fragmentary	indeterminate	12W/3S, L13; 05-28-98	4
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L13; 05-28-98	1
Charcoal, not sterile		indeterminate	12W/3S, L13; 05-28-98	1

Flake, unm.	heat-treated	Allen's Creek chert	12W/3S, L14; 05-28-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L14; 05-28-98	2
Bone, unm.	whole	tibia; species unknown	12W/3S, L14; 05-28-98	1
Snail shell	fragmentary	indeterminate	12W/3S, L14; 05-28-98	2
Wood	fragmentary	indeterminate	12W/3S, L14; 05-28-98	4
Burned sandstone		Tick Ridge	12W/3S, L14; 05-28-98	2
Charcoal, not sterile		indeterminate	12W/3S, L14; 05-28-98	1
Charcoal, not sterile		indeterminate	12W/3S, L15; 05-29-98	1
Bone, unm.	whole	indeterminate	12W/3S, Wall scraping ca. L12; 05-29-98	1
Bone, polish/striated	fragmentary	indeterminate	12W/3S, Wall scraping ca. L12; 05-29-98	1

Zone VI

Identification	Comments	Material	Provenance	#
Flake, unm.		Allen's Creek chert	11W/4S, L2; 06-08-98	1
Flake, unm.	heat-treated	Allen's Creek chert	11W/4S, L2; 06-08-98	1
Bone, unm.	fragmentary	indeterminate	11W/4S, L2; 06-08-98	2
Bone, unm.	whole	long bone; species unknown	11W/4S, L2; 06-08-98	1
Bone, unm.	fragmentary	long bone; species unknown	11W/4S, L2; 06-08-98	1
Burned bone, unm.	fragmentary	indeterminate	11W/4S, L2; 06-08-98	2
Mussel shell	fragmentary	indeterminate	11W/4S, L2; 06-08-98	1
Charcoal, not sterile		indeterminate	11W/4S, L2; 06-08-98	1
Biface	fragmentary	Wyandotte chert	11W/4S, L3; 06-09-98	1
Biface	fragmentary; heat-damaged	Wyandotte chert	11W/4S, L3; 06-09-98	1
Flake, unm.		Allen's Creek chert	11W/4S, L3; 06-09-98	1
Flake, unm.	heat-treated	Allen's Creek chert	11W/4S, L3; 06-09-98	1

Flake, unm.		Wyandotte chert	11W/4S, L3; 06-09-98	2
Flake, unm.	heat-treated	Unidentified chert	11W/4S, L3; 06-09-98	1
Flake, edge-modified		Wyandotte chert	11W/4S, L3; 06-09-98	1
Bone, unm.	fragmentary	indeterminate	11W/4S, L3; 06-09-98	2
Bone, unm.	fragmentary	human cervical vertebra	11W/4S, L3; 06-09-98	1
Bone, unm.	whole	indeterminate	11W/4S, L3; 06-09-98	1
Bone, unm.	fragmentary	long bone; species unknown	11W/4S, L3; 06-09-98	2
Bone, cut marks	fragmentary; dorsal surface	indeterminate	11W/4S, L3; 06-09-98	1
Turtle carapace	fragmentary	worked	11W/4S, L3; 06-09-98	1
Burned bone, unm.	fragmentary	indeterminate	11W/4S, l3; 06-09-98	4
Snail shell	fragmentary	indeterminate	11W/4S, L3; 06-09-98	5
Charcoal, not sterile		indeterminate	11W/4S, L3; 06-09-98	1
Flake, edge-modified		Wyandotte chert	11W/4S, West wall scraping; 06-04-98	1
Flake, unm.		Haney chert	12W/3S, L16; 06-01-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L16; 06-01-98	1
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L16; 06-01-98	5
Charcoal, not sterile		indeterminate	12W/3S, L16; 06-01-98	1
Flake, unm.		Holland or Derby chert	12W/3S, L17; 06-01-98	1
Flake, unm.		Wyandotte chert	12W/3S, L17; 06-01-98	4
Bone, unm.	fragmentary	indeterminate	12W/3S, L17; 06-01-98	8
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L17; 06-01-98	11
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L17; 06-01-98	13
Charcoal, not sterile		indeterminate	12W/3S, L17; 06-01-98	1
Point	fragmentary	Holland or Derby chert	12W/3S, L18; 06-01-98	1
Flake, unm.		Holland or Derby chert	12W/3S, L18; 06-01-98	1
Flake, unm.		Wyandotte chert	12W/3S, L18; 06-01-98	6
Flake, edge-modified		Wyandotte chert	12W/3S, L18; 06-01-98	1

Container glass	clear	indeterminate	12W/3S, L18; 06-01-98	1
Flake, unm.		Allen's Creek chert	12W/3S, L19; 06-02-98	9
Flake, unm.	heat-treated	Allen's Creek chert	12W/3S, L19; 06-02-98	3
Flake, unm.	heat-treated	Haney chert	12W/3S, L19; 06-02-98	1
Flake, unm.		Holland or Derby chert	12W/3S, L19; 06-02-98	1
Flake, unm.		Wyandotte chert	12W/3S, L19; 06-02-98	3
Flake, unm.	heat-damaged	Wyandotte chert	12W/3S, L19; 06-02-98	5
Flake, unm.	heat-treated	Unidentified chert	12W/3S, L19; 06-02-98	2
Flake, edge-modified		Wyandotte chert	12W/3S, L19; 06-02-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L19; 06-02-98	18
Bone, unm.	fragmentary	human cervical vertebra	12W/3S, L19; 06-02-98	1
Bone, unm.	whole	long bone; species unknown	12W/3S, L19; 06-02-98	1
Tooth, unm.	whole	bear canine	12W/3S, L19; 06-02-98	1
Tooth, unm.	fragmentary	rodent	12W/3S, L19; 06-02-98	1
Tooth, RGM	fragmentary	rodent	12W/3S, L19; 06-02-98	1
Bone, RGM	fragmentary	indeterminate	12W/3S, L19; 06-02-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L19; 06-02-98	29
Burned bone, cut marks	fragmentary	indeterminate	12W/3S, L19; 06-02-98	1
Fossil	fragmentary; fire-exposed?	crinoid stem	12W/3S, L19; 06-02-98	1
Burned sandstone		Tick Ridge	12W/3S, L19; 06-02-98	3
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L19; 06-02-98	41
Charcoal, not sterile		indeterminate	12W/3S, L19; 06-02-98	1
Flake, unm.		Wyandotte chert	12W/3S, L20; 06-03-98	1
Flake, unm.		Unidentified chert	12W/3S, L20; 06-03-98	1
Flake, edge-modified		Wyandotte chert	12W/3S, L20; 06-03-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L20; 06-03-98	2
Bone, unm.	whole	femur; species unknown	12W/3S, L20; 06-03-98	1

Bone, RGM	fragmentary	human metaphysis	12W/3S, L20; 06-03-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L20; 06-03-98	10
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L20; 06-03-98	7
Charcoal, not sterile		indeterminate	12W/3S, L20; 06-03-98	1
Flake, unm.		Allen's Creek chert	12W/3S, L21; 06-03-98	3
Flake, unm.		Holland or Derby chert	12W/3S, L21; 06-03-98	1
Bone, unm.	whole	long bone; species unknown	12W/3S, L21; 06-03-98	1
Bone, cut marks	fragmentary; dorsal surface	metaphysis of humerus; human	12W/3S, L21; 06-03-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L21; 06-03-98	4
Burned sandstone		Tick Ridge	12W/3S, L21; 06-03-98	1
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L21; 06-03-98	7
Charcoal, not sterile		indeterminate	12W/3S, L21; 06-03-98	1
Flake, unm.		Allen's Creek chert	12W/3S, L22; 06-03-98	4
Flake, unm.	heat-treated	Allen's Creek chert	12W/3S, L22; 06-03-98	1
Flake, unm.		Holland or Derby chert	12W/3S, L22; 06-03-98	2
Flake, unm.		Wyandotte chert	12W/3S, L22; 06-03-98	2
Flake, unm.	heat-damaged	Wyandotte chert	12W/3S, L22; 06-03-98	2
Bone, unm.	fragmentary	long bone; species unknown	12W/3S, L22; 06-03-98	4
Bone, unm.	whole	vertebra; species unknown	12W/3S, L22; 06-03-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L22; 06-03-98	3
Charcoal, not sterile		indeterminate	12W/3S, L22; 06-03-98	1
Point	fragmentary	Wyandotte chert	12W/3S, L23; 06-04-98	1
Point	fragmentary; heat-damaged	Wyandotte chert	12W/3S, L23; 06-04-98	1
Point	fragmentary; heat-damaged	Wyandotte chert	12W/3S, L23; 06-04-98	1

Biface	heat-treated	Allen's Creek chert	12W/3S, L23; 06-04-98	1
Biface	fragmentary; heat-treated	Allen's Creek chert	12W/3S, L23; 06-04-98	1
Core		Allen's Creek chert	12W/3S, L23; 06-04-98	2
Flake, unm.		Allen's Creek chert	12W/3S, L23; 06-04-98	46
Flake, unm.	heat-treated	Allen's Creek chert	12W/3S, L23; 06-04-98	1
Flake, unm.	heat-damaged	Allen's Creek chert	12W/3S, L23; 06-04-98	1
Flake, unm.		Haney chert	12W/3S, L23; 06-04-98	10
Flake, unm.		Holland or Derby chert	12W/3S, L23; 06-04-98	7
Flake, unm.		Wyandotte chert	12W/3S, L23; 06-04-98	42
Flake, unm.	heat-damaged	Wyandotte chert	12W/3S, L23; 06-04-98	9
Flake, unm.		Unidentified chert	12W/3S, L23; 06-04-98	2
Flake, unm.	heat-treated	Unidentified chert	12W/3S, L23; 06-04-98	2
Flake, edge-modified		Allen's Creek chert	12W/3S, L23; 06-04-98	1
Flake, edge-modified	heat-damaged	Holland or Derby chert	12W/3S, L23; 06-04-98	1
Flake, edge-modified		Wyandotte chert	12W/3S, L23; 06-04-98	4
Flake, edge-modified	heat-damaged	Wyandotte chert	12W/3S, L23; 06-04-98	3
Flake, edge-modified		Unidentified chert	12W/3S, L23; 06-04-98	1
Block flake		Haney chert	12W/3S, L23; 06-04-98	1
Block flake	heat-treated	Holland or Derby chert	12W/3S, L23; 06-04-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L23; 06-04-98	1
Bone, cut marks	fragmentary	indeterminate	12W/3S, L23; 06-04-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L23; 06-04-98	21
Burned tooth, unm.	fragmentary	indeterminate	12W/3S, L23; 06-04-98	1
Burned sandstone		Tick Ridge	12W/3S, L23; 06-04-98	15
Charcoal, not sterile		indeterminate	12W/3S, L23; 06-04-98	1
Flake, unm.		Wyandotte chert	12W/3S, West wall scraping; 06-08-98	3

Bone, unm.	fragmentary	indeterminate	12W/3S, West wall scraping; 06-08-98	2
Burned bone, unm.	fragmentary	indeterminate	12W/3S, West wall scraping; 06-08-98	2
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, West wall scraping; 06-08-98	7
Charcoal, not sterile		indeterminate	12W/3S, West wall scraping; 06-08-98	1

Sand				
Identification	**Comments**	**Material**	**Provenance**	**#**
Flake, unm.		Holland or Derby chert	12W/3S, L24; 06-09-98	1
Flake, unm.		Wyandotte chert	12W/3S, L24; 06-09-98	1
Flake, edge-modified	heat-treated	Holland or Derby chert	12W/3S, L24; 06-09-98	1
Bone, unm.	fragmentary	long bone; species unknown	12W/3S, L24; 06-09-98	1
Wood	fragmentary	indeterminate	12W/3S, l24; 06-09-98	1
Roots	fragmentary	indeterminate	12W/3S, L24; 06-09-98	1
Charcoal, not sterile		indeterminate	12W/3S, L24; 06-09-98	1

Disturbed (by unit)				
Identification	**Comments**	**Material**	**Provenance**	**#**
Flake, unm.		Wyandotte chert	12W/3S, L2; 05-20-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L2; 05-20-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L2; 05-20-98	1
Plastic	black	indeterminate	12W/3S, L2; 05-20-98	1
Wood	fragmentary	indeterminate	12W/3S, L2; 05-20-98	11
Coprolite	fragmentary	indeterminate	12W/3S, L2; 05-20-98	1
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L2; 05-20-98	2
Charcoal, not sterile		indeterminate	12W/3S, l2; 05-20-98	1

Flake, unm.	heat-damaged	Wyandotte chert	12W/3S, l3; 05-21-98	1
Bone, unm.	whole	vertebra; species unknown	12W/3S, L3; 05-21-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L3; 05-21-98	3
Foil	fragmentary	aluminum	12W/3S, L3; 05-21-98	1
Plastic	black	indeterminate	12W/3S, L3; 05-21-98	2
Pull tab	whole	metal	12W/3S, L3; 05-21-98	1
Wood	fragmentary	indeterminate	12W/3S, L3; 05-21-98	7
Wood	fragmentary; charred	indeterminate	12W/3S, L3; 05-21-98	3
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, L3; 05-21-98	3
Charcoal, not sterile		indeterminate	12W/3S, L3; 05-21-98	1
Bone, unm.	fragmentary	long bone; species unknown	12W/3S, West wall collapse; 05-26-98	2
Burned bone, unm.	fragmentary	indeterminate	12W/3S, West wall collapse; 05-26-98	1
Container glass	clear	indeterminate	12W/3S, West wall collapse; 05-26-98	1
Nutshell	fragmentary	indeterminate	12W/3S, West wall collapse; 05-26-98	2
Wood	fragmentary	indeterminate	12W/3S, West wall collapse; 05-26-98	18
Burned nutshell, not sterile	fragmentary	indeterminate	12W/3S, West wall collapse; 05-26-98	1
Charcoal, not sterile		indeterminate	12W/3S, West wall collapse; 05-26-98	1

Alluvial				
Identification	**Comments**	**Material**	**Provenance**	**#**
Point	fragmentary; notched	Holland or Derby chert	12.25W/11.5S, L1; 05-20-98	1
Biface	fragmentary	Wyandotte chert	12.25W/11.5S, L1; 05-20-98	1

Edge-modified uniface		Holland or Derby chert	12.25W/11.5S, L1; 05-20-98	1
Core		Allen's Creek chert	12.25W/11.5S, L1; 05-20-98	2
Flake, unm.		Allen's Creek chert	12.25W/11.5S, L1; 05-20-98	19
Flake, unm.	heat-treated	Allen's Creek chert	12.25W/11.5S, L1; 05-20-98	2
Flake, unm.		Haney chert	12.25W/11.5S, L1; 05-20-98	6
Flake, unm.	heat-treated	Haney chert	12.25W/11.5S, L1; 05-20-98	1
Flake, unm.		Holland or Derby chert	12.25W/11.5S, L1; 05-20-98	11
Flake, unm.		Wyandotte chert	12.25W/11.5S, L1; 05-20-98	15
Flake, unm.	heat-damaged	Wyandotte chert	12.25W/11.5S, L1; 05-20-98	4
Flake, unm.		Unidentified chert	12.25W/11.5S, L1; 05-20-98	1
Flake, edge-modified		Allen's Creek chert	12.25W/11.5S, L1; 05-20-98	1
Flake, edge-modified	heat-treated	Haney chert	12.25W/11.5S, L1; 05-20-98	1
Flake, edge-modified		Wyandotte chert	12.25W/11.5S, L1; 05-20-98	6
Flake, edge-modified		Unidentified chert	12.25W/11.5S, L1; 05-20-98	2
Mussel shell	fragmentary	indeterminate	12.25W/11.5S, L1; 05-20-98	1
Fossil	fragmentary	indeterminate	12.25W/11.5S, L1; 05-20-98	1
Container glass	clear	indeterminate	12.25W/11.5S, L1; 05-20-98	1
Container glass	amber	indeterminate	12.25W/11.5S, L1; 05-20-98	1
Point	fragmentary	Haney chert	12.25W/11.5S, L2; 05-20-98	1
Point	fragmentary; retouched	Holland or Derby chert	12.25W/11.5S, L2; 05-20-98	1

Endscraper		Holland or Derby chert	12.25W/11.5S, L2; 05-20-98	1
Core		Allen's Creek chert	12.25W/11.5S, L2; 05-20-98	1
Core		Holland or Derby chert	12.25W/11.5S, L2; 05-20-98	1
Core		Wyandotte chert	12.25W/11.5S, L2; 05-20-98	1
Flake, unm.		Allen's Creek chert	12.25W/11.5S, L2; 05-20-98	53
Flake, unm.	heat-treated	Allen's Creek chert	12.25W/11.5S, L2; 05-20-98	7
Flake, unm.		Haney chert	12.25W/11.5S, L2; 05-20-98	6
Flake, unm.	heat-treated	Haney chert	12.25W/11.5S, L2; 05-20-98	2
Flake, unm.		Holland or Derby chert	12.25W/11.5S, L2; 05-20-98	14
Flake, unm.	heat-treated	Holland or Derby chert	12.25W/11.5S, L2; 05-20-98	1
Flake, unm.	heat-damaged	Holland or Derby chert	12.25W/11.5S, L2; 05-20-98	4
Flake, unm.		Wyandotte chert	12.25W/11.5S, L2; 05-20-98	34
Flake, unm.	heat-damaged	Wyandotte chert	12.25W/11.5S, L2; 05-20-98	5
Flake, edge-modified		Allen's Creek chert	12.25W/11.5S, L2; 05-20-98	1
Flake, edge-modified		Haney chert	12.25W/11.5S, L2; 05-20-98	1
Flake, edge-modified		Holland or Derby chert	12.25W/11.5S, L2; 05-20-98	1
Flake, edge-modified	heat-damaged	Holland or Derby chert	12.25W/11.5S, L2; 05-20-98	1
Flake, edge-modified		Wyandotte chert	12.25W/11.5S, L2; 05-20-98	4
Flake, edge-modified	heat-damaged	Wyandotte chert	12.25W/11.5S, L2; 05-20-98	2
Block flake	heat-treated	Holland or Derby chert	12.25W/11.5S, L2; 05-20-98	1

Burned bone, unm.	fragmentary	indeterminate	12.25W/11.5S, L2; 05-20-98	13
Fossil	fragmentary	indeterminate	12.25W/11.5S, L2; 05-20-98	1
Fossil	fragmentary	crinoid stem	12.25W/11.5S, L2; 05-20-98	1
Container glass	clear	bottle	12.25W/11.5S, L2; 05-20-98	4
Spent flash bulb		indeterminate	12.25W/11.5S, L2; 05-20-98	1
Point	fragmentary; base	Holland or Derby chert	12.25W/11.5S, L3; 05-21-98	1
Core		Wyandotte chert	12.25W/11.5S, L3; 05-21-98	1
Flake, unm.		Allen's Creek chert	12.25W/11.5S, L3; 05-21-98	11
Flake, unm.		Haney chert	12.25W/11.5S, L3; 05-21-98	6
Flake, unm.	heat-treated	Haney chert	12.25W/11.5S, L3; 05-21-98	2
Flake, unm.		Holland or Derby chert	12.25W/11.5S, L3; 05-21-98	10
Flake, unm.	heat-treated	Holland or Derby chert	12.25W/11.5S, L3; 05-21-98	1
Flake, unm.		Wyandotte chert	12.25W/11.5S, L3; 05-21-98	5
Flake, unm.	heat-damaged	Wyandotte chert	12.25W/11.5S, L3; 05-21-98	3
Flake, unm.		Unidentified chert	12.25W/11.5S, L3; 05-21-98	1
Flake, edge-modified		Wyandotte chert	12.25W/11.5S, L3; 05-21-98	1
Block flake		Allen's Creek chert	12.25W/11.5S, L3; 05-21-98	1
Burned bone, unm.	fragmentary	indeterminate	12.25W/11.5S, L3; 05-21-98	5
Container glass	clear	indeterminate	12.25W/11.5S, L3; 05-21-98	1
Point	fragmentary	Wyandotte chert	12.25W/11.5S, L4; 05-21-98	1

Core		Allen's Creek chert	12.25W/11.5S, L4; 05-21-98	1
Core	heat-treated	Allen's Creek chert	12.25W/11.5S, L4; 05-21-98	3
Core		Holland or Derby chert	12.25W/11.5S, L4; 05-21-98	1
Flake, unm.		Allen's Creek chert	12.25W/11.5S, L4; 05-21-98	5
Flake, unm.	heat-treated	Allen's Creek chert	12.25W/11.5S, L4; 05-21-98	1
Flake, unm.		Haney chert	12.25W/11.5S, L4; 05-21-98	4
Flake, unm.	heat-treated	Haney chert	12.25W/11.5S, L4; 05-21-98	2
Flake, unm.		Holland or Derby chert	12.25W/11.5S, L4; 05-21-98	3
Flake, unm.	heat-treated	Holland or Derby chert	12.25W/11.5S, L4; 05-21-98	1
Flake, unm.		Wyandotte chert	12.25W/11.5S, L4; 05-21-98	4
Flake, unm.	heat-damaged	Wyandotte chert	12.25W/11.5S, L4; 05-21-98	2
Flake, edge-modified		Allen's Creek chert	12.25W/11.5S, L4; 05-21-98	1
Flake, edge-modified		Holland or Derby chert	12.25W/11.5S, L4; 05-21-98	3
Burned bone, unm.	fragmentary	indeterminate	12.25W/11.5S, L4; 05-21-98	18
Fossil	fragmentary	indeterminate	12.25W/11.5S, L4; 05-21-98	1
Fossil	fragmentary	crinoid stem	12.25W/11.5S, L4; 05-21-98	2
Flake, unm.		Allen's Creek chert	12.25W/11.5S, L5; 05-22-98	1
Flake, unm.		Holland or Derby chert	12.25W/11.5S, L5; 05-22-98	1
Fossil	fragmentary	indeterminate	12.25W/11.5S, L5; 05-22-98	2
Fossil	fragmentary	crinoid stem	12.25W/11.5S, L5; 05-22-98	1

Wood	fragmentary	indeterminate	12.25W/11.5S, I5; 05-22-98	1
Flake, unm.		Allen's Creek chert	12.25W/11.5S, L6, N1/2; 05-26-98	1
Flake, unm.		Allen's Creek chert	12.25W/11.5S, L7; 05-27-98	1
Sandstone "hollow"		Tick Ridge	12.25W/11.5S, North wall; 05-27-98	1
Biface	fragmentary	Holland or Derby chert	12.25W/11.5S, South wall; 05-27-98	1
Flake, unm.		Allen's Creek chert	12.25W/11.5S, South wall; 05-27-98	1
Flake, unm.		Holland or Derby chert	12.25W/11.5S, South wall; 05-27-98	1
Flake, unm.	heat-damaged	Holland or Derby chert	12.25W/11.5S, South wall; 05-27-98	1
Flake, unm.		Wyandotte chert	12.25W/11.5S, South wall; 05-27-98	1
Flake, unm.		Wyandotte chert	12.25W/11.5S, East wall; 05-27-98	1
Flake, unm.		Holland or Derby chert	12.25W/11.5S, West wall; 05-27-98	1

Hard Swirled Deposit/Rodent Run

Identification	Comments	Material	Provenance	#
Bone unm.	fragmentary	indeterminate	16W/8.5N, L3; 05-21-98	2
Bone, unm.	fragmentary	human crania	16W/8.5N, L3; 05-21-98	1
Juicy Fruit wrapper	fragmentary		16W/8.5N, L3; 05-21-98	1
Nutshell	fragmentary	indeterminate	16W/8.5N, L3; 05-21-98	19
Wood	fragmentary	indeterminate	16W/8.5N, L3; 05-21-98	67
Coprolite		indeterminate	16W/8.5N, L3; 05-21-98	15
Charcoal, not sterile		indeterminate	16W/8.5N, L3; 05-21-98	1
Bone, unm.	fragmentary	indeterminate	16W/8.5N, L4; 05-21-98	2
Bone, unm.	whole	long bone; species unknown	16W/8.5N, L4; 05-21-98	1

Bone, unm.	fragmentary	long bone; species unknown	16W/8.5N, L4; 05-21-98	3
Bone, unm.	whole	crania; species unknown	16W/8.5N, L4; 05-21-98	1
Bone, unm.	fragmentary	crania; species unknown	16W/8.5N, L4; 05-21-98	2
Bone, unm.	fragmentary	rodent mandible	16W/8.5N, L4; 05-21-98	1
Bone, unm.	fragmentary	femur; species unknown	16W/8.5N, L4; 05-21-98	1
Bone, unm.	fragmentary	rib; species unknown	16W/8.5N, L4; 05-21-98	2
Bone, unm.	fragmentary	innominate; species unknown	16W/8.5N, L4; 05-21-98	1
Snail shell	fragmentary	indeterminate	16W/8.5N, L4; 05-21-98	5
Bead	whole	Anculosa shell	16W/8.5N, L4; 05-21-98	1
Wood	fragmentary	indeterminate	16W/8.5N, L4; 05-21-98	110
Coprolite		indeterminate	16W/8.5N, L4; 05-21-98	18
Nutshell	fragmentary	indeterminate	16W/8.5N, L4; 05-21-98	20
Charcoal, not sterile		indeterminate	16W/8.5N, L4; 05-21-98	1
Bone, unm.	fragmentary	temporal? species unknown	16W/8.5N, L5; 05-22-98	1
Bone, unm.	whole	long bone; species unknown	16W/8.5N, L5; 05-22-98	1
Bone, unm.	fragmentary	long bone; species unknown	16W/8.5N, L5; 05-22-98	1
Mussel shell	fragmentary	indeterminate	16W/8.5N, L5; 05-22-98	1
Wood	fragmentary	indeterminate	16W/8.5N, L5; 05-22-98	20
Nutshell	fragmentary	indeterminate	16W/8.5N, L5; 05-22-98	4
Charcoal, not sterile		indeterminate	16W/8.5N, L5; 05-22-98	1
Flake, unm.		Allen's Creek chert	16W/8.5N, L6; 05-22-98	2
Flake, unm.		Wyandotte chert	16W/8.5N, L6; 05-22-98	1
Bone, unm.	fragmentary	long bone; species unknown	16W/8.5N, L6; 05-22-98	1
Bone, unm.	fragmentary	cranial; species unknown	16W/8.5N, L6; 05-22-98	4

Bone, unm.	fragmentary	rib; species unknown	16W/8.5N, L6; 05-22-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L6; 05-22-98	3
Burned bone, unm.	fragmentary	long bone; species unknown	16W/8.5N, L6; 05-22-98	2
Burned bone, cut marks	fragmentary; dorsal surface	long bone; species unknown	16W/8.5N, L6; 05-22-98	1
Snail shell	fragmentary	indeterminate	16W/8.5N, L6; 05-22-98	11
Wood	fragmentary	indeterminate	16W/8.5N, L6; 05-22-98	16
Coprolite		indeterminate	16W/8.5N, L6; 05-22-98	1
Nutshell	fragmentary	indeterminate	16W/8.5N, L6; 05-22-98	13
Charcoal, not sterile		indeterminate	16W/8.5N, L6; 05-22-98	1
Biface	fragmentary	Holland or Derby chert	16W/8.5N, L7; 05-26-98	1
Flake, unm.		Allen's Creek chert	16W/8.5N, L7; 05-26-98	1
Bone, unm.	fragmentary	rib; species unknown	16W/8.5N, L7; 05-26-98	1
Turtle carapace, unm.	fragmentary	indeterminate	16W/8.5N, L7; 05-26-98	1
Snail shell	fragmentary	species unknown	16W/8.5N, L7; 05-26-98	2

Rodent Run

Identification	Comments	Material	Provenance	#
Flake, unm.		Allen's Creek chert	16W/8.5N, L8; 05-27-98	1
Flake, unm.	heat-treated	Holland or Derby chert	16W/8.5N, L8; 05-27-98	1
Flake, edge-modified		Wyandotte chert	16W/8.5N, L8; 05-27-98	1
Bone, unm.	fragmentary	indeterminate	16W/8.5N, L8; 05-27-98	3
Bone, unm.	fragmentary	rodent mandible	16W/8.5N, L8; 05-27-98	1
Bone, unm.	whole	humerus; species unknown	16W/8.5N, L8; 05-27-98	1
Bone, unm.	whole	scapula; species unknown	16W/8.5N, L8; 05-27-98	2

Bone, unm.	fragmentary	rib; species unknown	16W/8.5N, L8; 05-27-98	2
Bone, unm.	whole	vertebra; species unknown	16W/8.5N, L8; 05-27-98	2
Bone, unm.	whole	innominate; species unknown	16W/8.5N, L8; 05-27-98	2
Bone, unm.	whole	femur; species unknown	16W/8.5N, L8; 05-27-98	1
Bone, unm.	whole	tibia; species unknown	16W/8.5N, L8; 05-27-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L8; 05-27-98	27
Snail shell	fragmentary	indeterminate	16W/8.5N, L8; 05-27-98	3
Wood	fragmentary	indeterminate	16W/8.5N, L8; 05-27-98	1
Burned nutshell, not sterile	fragmentary	indeterminate	16W/8.5N, L8; 05-27-98	31
Charcoal, not sterile		indeterminate	16W/8.5N, L8; 05-27-98	1

Rodent Run/Break Down

Identification	Comments	Material	Provenance	#
Flake, unm.		Allen's Creek chert	16W/8.5N, L9; 05-27-98	1
Flake, unm.		Wyandotte chert	16W/8.5N, L9; 05-27-98	1
Bone, unm.	whole	humerus; species unknown	16W/8.5N, L9; 05-27-98	2
Bone, unm.	whole	scapula; species unknown	16W/8.5N, L9; 05-27-98	1
Bone, unm.	whole	femur; species unknown	16W/8.5N, L9; 05-27-98	1
Bone, unm.	whole	tibia; species unknown	16W/8.5N, L9; 05-27-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L9; 05-27-98	10
Snail shell	fragmentary	indeterminate	16W/8.5N, L9; 05-27-98	2
Burned nutshell, not sterile	fragmentary	indeterminate	16W/8.5N, L9; 05-27-98	3
Charcoal, not sterile		indeterminate	16W/8.5N, L9; 05-27-98	1

Flake, unm.		Allen's Creek chert	16W/8.5N, L10; 05-28-98	2
Bone, unm.	fragmentary	indeterminate	16W/8.5N, L10; 05-28-98	2
Bone, cut marks	fragmentary	indeterminate	16W/8.5N, L10; 05-28-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L10; 05-28-98	1
Burned nutshell, not sterile	fragmentary	indeterminate	16W/8.5N, L10; 05-28-98	6
Charcoal, not sterile		indeterminate	16W/8.5N, L10; 05-28-98	1

Break Down				
Identification	**Comments**	**Material**	**Provenance**	**#**
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L11; 05-29-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L12; 05-29-98	2
Nutshell	fragmentary	indeterminate	16W/8.5N, L13; 06-01-98	2
Sandstone "cast"	fragmentary	Tick Ridge	16W/8.5N, L13; 06-01-98	5
Wood	fragmentary	indeterminate	16W/8.5N, L15; 06-02-98	3

Unknown				
Identification	**Comments**	**Material**	**Provenance**	**#**
Bone, unm.	fragmentary	indeterminate	16W/8.5N, L?	2
Bone, unm.	fragmentary	cranial; species unknown	16W/8.5N, L?	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L?	1
Snail shell	fragmentary	species unknown	16W/8.5N, L?	2
Nail	whole	wire	16W/8.5N, L?	1
Coprolite		indeterminate	16W/8.5N, L?	4

Nutshell	fragmentary	indeterminate	16W/8.5N, L?	9
Wood	fragmentary	indeterminate	16W/8.5N, L?	32

Cemented Deposit				
Identification	**Comments**	**Material**	**Provenance**	**#**
Bone, unm.	whole	femur; species unknown	18.4W/3S, L1; 06-01-98	1
U.S. penny	1890		18.4W/3S, L1; 06-01-98	1
Twist tie	blue	paper and wire	18.4W/3S, L1; 06-01-98	1
Filter	fragmentary	indeterminate	18.4W/3S, L1; 06-01-98	1
Wood	fragmentary	indeterminate	18.4W/3S, L1; 06-01-98	5
Coprolite		indeterminate	18.4W/3S, L1; 06-01-98	5
Charcoal, not sterile		indeterminate	18.4W/3S, L1; 06-01-98	1

Mixed				
Identification	**Comments**	**Material**	**Provenance**	**#**
Bone, unm.	fragmentary	indeterminate	18.4W/3S, L2; 06-01-98	1
Bone, unm.	fragmentary	long bone; species unknown	18.4W/3S, L2; 06-01-98	1
Bone, unm.	fragmentary	femur; species unknown	18.4W/3S, L2; 06-01-98	1
Wood	fragmentary	indeterminate	18.4W/3S, L2; 06-01-98	3
Coprolite		indeterminate	18.4W/3S, L2; 06-01-98	11
Nutshell	fragmentary	indeterminate	18.4W/3S, L2; 06-01-98	2
Charcoal, not sterile		indeterminate	18.4W/3S, L2; 06-01-98	1
Point	Kirk Stemmed?	Holland or Derby chert	18.4W/3S, L3; 06-01-98	1
Bone, RGM	fragmentary	long bone; deer	18.4W/3S, L3; 06-01-98	1
Turtle carapace, unm.	fragmentary	indeterminate	18.4W/3S, L3; 06-01-98	1
Snail shell	fragmentary	indeterminate	18.4W/3S, L3; 06-01-98	1
Wood	fragmentary	indeterminate	18.4W/3S, L3; 06-01-98	27
"Fibrous" material	fragmentary	indeterminate	18.4W/3S, l3; 06-01-98	3

Burned sandstone		Tick Ridge	18.4W/3S, L3; 06-01-98	3
Charcoal, not sterile		indeterminate	18.4W/3S, L3; 06-01-98	1
Flake, unm.		Allen's Creek chert	18.4W/3S, L4; 06-03-98	1
Flake, unm.		Wyandotte chert	18.4W/3S, L4; 06-03-98	1
Bone, unm.	fragmentary	indeterminate	18.4W/3S, L4; 06-03-98	3
Bone, RGM	fragmentary	long bone; species unknown	18.4W/3S, L4; 06-03-98	1
Burned bone, unm.	fragmentary	indeterminate	18.4W/3S, L4; 06-03-98	1
Snail shell	fragmentary	indeterminate	18.4W/3S, L4; 06-03-98	4
Wood	fragmentary	indeterminate	18.4W/3S, L4; 06-03-98	12
Coprolite		indeterminate	18.4W/3S, L4; 06-03-98	3
Nutshell	fragmentary	indeterminate	18.4W/3S, L4; 06-03-98	1
Burned nutshell, not sterile	fragmentary	indeterminate	18.4W/3S, L4; 06-03-98	1
Charcoal, not sterile		indeterminate	18.4W/3S, L4; 06-03-98	1
Flake, unm.		Allen's Creek chert	18.4W/3S, L5; 06-04-98	1
Flake, unm.	heat-treated	Haney chert	18.4W/3S, L5; 06-04-98	1
Bone, unm.	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	3
Bone, unm.	fragmentary	long bone; species unknown	18.4W/3S, L5; 06-04-98	3
Bone, unm.	whole	phalange; deer	18.4W/3S, 15; 06-04-98	1
Turtle carapace, unm.	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	3
Burned bone, unm.	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	2
Burned bone, unm.	fragmentary	long bone; species unknown	18.4W/3S, L5; 06-04-98	1
Burned turtle carapace, unm.	fragmentary	indeterminate	18.4W/3S, 15; 06-04-98	1
Burned bone, cut marks	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	1
Burned bone, RGM	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	1
Snail shell	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	1
Wood	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	22
Burned sandstone		Tick Ridge	18.4W/3S, L5; 06-04-98	6

Burned nutshell, not sterile	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	3
Charcoal, not sterile		indeterminate	18.4W/3S, L5; 06-04-98	1
C-14 sample	sterile	indeterminate	18.4W/3S, L5; 60cm E, 50cm S, 51cmbd; 06-04-98	1

Mixed/Rodent Run

Identification	Comments	Material	Provenance	#
Bone, unm.	fragmentary	indeterminate	18.4W/3S, L6; 06-08-98	1
Burned bone, unm.	fragmentary	indeterminate	18.4W/3S, L6; 06-04-98	2
Wood	fragmentary	indeterminate	18.4W/3S, L6; 06-08-98	10
Coprolite		indeterminate	18.4W/3S, L6; 06-08-98	2
Burned nutshell, not sterile	fragmentary	indeterminate	18.4W/3S, L6; 06-04-98	5
Charcoal, not sterile		indeterminate	18.4W/3S, L6; 06-08-98	1
Burned bone, unm.	fragmentary	indeterminate	18.4W/3S, L7; 06-09-98	3
Snail shell	fragmentary	indeterminate	18.4W/3S, L7; 06-09-98	1
Wood	fragmentary	indeterminate	18.4W/3S, L7; 06-09-98	64
Nutshell	fragmentary	indeterminate	18.4W/3S, L7; 06-09-98	2
Burned nutshell, not sterile	fragmentary	indeterminate	18.4W/3S, L7; 06-09-98	1
Charcoal, not sterile		indeterminate	18.4W/3S, L7; 06-09-98	1
Point	fragmentary; corner-notched	Wyandotte chert	18.4W/3S, L8; 06-10-98	1
Turtle carapace, unm.	fragmentary	indeterminate	18.4W/3S, L8; 06-10-98	1
Duct tape			18.4W/3S, L8; 06-10-98	1
Wood	fragmentary	indeterminate	18.4W/3S, L8; 06-10-98	108
Wood	fragmentary	indeterminate	18.4W/3S, L8; West wall pedestal; 06-11-98	1
Nutshell	fragmentary	indeterminate	18.4W/3S, L8; 06-10-98	2
Burned nutshell, not sterile	fragmentary	indeterminate	18.4W/3S, L8; 06-10-98	3
Charcoal, not sterile		indeterminate	18.4W/3S, L8; 06-10-98	1

Appendix G: Faunal Remains from 12-Cr-59, 1997

Faunal Remains from 12-Cr-59

Identification	Comments	Material	Provenience	#
Bone, unm.	fragmentary	indeterminate	Drainage; 07-01-97	1
Bone, unm.	fragmentary	indeterminate	Profile 1 - 2 m S of 9W; 06-10-97	10
Bone, unm.	fragmentary	cranial; species unknown	Loose dirt 2 - 3 m S of 10W; 06-10-97	1
Bone, unm.	fragmentary	indeterminate	Profile 12.9 m W; 06-10-97	2
Bone, unm.	fragmentary	indeterminate	U1/West wall collapse, Zone IV-A; 06-26-97	3
Bone, unm.	fragmentary	indeterminate	U1/West wall collapse, Zone V-B; 06-26-97	3
Bone, unm.	fragmentary	maxilla, three teeth; species unknown	U1/West wall collapse, Zone V-B; 06-26-97	1
Bone, unm.	fragmentary	indeterminate	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	14
Bone, unm.	fragmentary	indeterminate	U5/L2, Zone II; 06-23-97	4
Bone, unm.	fragmentary	indeterminate	U5/L3, Zone II; 06-23-97	4
Bone, unm.	fragmentary	indeterminate	U5/L3, Zone II; 06-24-97	5
Bone, unm.	fragmentary	indeterminate	U5/L4, Zones II & II-B; 06-24-97	2
Bone, unm.	fragmentary	long bone; species unknown	U5/L5, Zones II-B & III; 06-24-97	2
Bone, unm.	fragmentary	indeterminate	U5/L5, Zones II-B & III; 06-26-97	3
Bone, unm.	fragmentary	indeterminate	U5/L6, Zone III; 06-26-97	6

Bone, unm.	fragmentary; rust-color residue on surface	indeterminate	U5/L6, Zone III; 06-26-97	1
Bone, unm.	fragmentary	indeterminate	U1/L1, Zone IV-A; 06-12-97	8
Bone, unm.	fragmentary	indeterminate	U1/L2, Zone IV-A; 06-13-97	3
Bone, unm.	fragmentary	long bone; species unknown	U1/L3, Zone IV-A; 06-13-97	3
Bone, unm.	fragmentary	long bone, vertebra; species unknown	U1/L3, Zone IV-A; 06-15-97	7
Bone, unm.	fragmentary	long bone; bat	U1/L3, Zone IV-A; 06-15-97	1
Bone, unm.	fragmentary	indeterminate	U1/L4, Zone IV-A; 06-16-97	17
Bone, unm.	fragmentary	rodent mandible, two teeth	U1/top of L4, Zone IV-A; 06-16-97	1
Bone, unm.	fragmentary	scapula blade; species unknown	U1/L4, Zone IV-A; 06-16-97	1
Bone, unm.	fragmentary	indeterminate	U1/L5, Zone IV-A; 06-18-97	21
Bone, unm.	fragmentary	bat	U1/L5, Zone IV-A; 06-18-97	1
Bone, unm.	fragmentary	rodent mandible	U1/L5, Zone IV-A; 06-18-97	1
Bone, unm.	fragmentary	indeterminate	U1/L6, Zone IV-A; 06-18-97	15
Bone, unm.	fragmentary	indeterminate	U1/L7, Zone IV-A; 06-20-97	17
Bone, unm.	fragmentary	unfused epiphysis; species unknown	U1/L7, Zone IV-A; 06-20-97	1
Bone, unm.	fragmentary	indeterminate	U1/L8, Zone IV-A; 06-23-97	8
Bone, unm.	fragmentary	indeterminate	U2/L1, Zone IV-A; 06-12-97	37
Bone, unm.	fragmentary	indeterminate	U2/L1, Zone IV-A; 06-16-97	11
Bone, unm.	whole	phalange; species unknown	U2/L1, Zone IV-A; 06-16-97	1

Bone, unm.	fragmentary	proximal femur; species unknown	U2/L1, Zone IV-A; 06-12-97	1
Bone, unm.	fragmentary	indeterminate	U2/L2, Zone IV-A; 06-17-97	7
Bone, unm.	fragmentary	indeterminate	U2/L3, Zone IV-A; 06-17-97	5
Bone, unm.	whole	long bone; species unknown	U2/L11, Zone IV-A; 06-25-97	1
Bone, unm.	fragmentary	indeterminate	U2/L11, Zone IV-A; 06-26-97	3
Bone, unm.	fragmentary; black residue on surface	indeterminate	U1/L3, Zone IV-A; 06-15-97	1
Bone, unm.	fragmentary	indeterminate	U1/L7, Zone IV-B; 06-20-97	1
Bone, unm.	fragmentary	long bone; species unknown	U1/L9, Zone IV-B; 06-23-97	1
Bone, unm.	fragmentary	indeterminate	U1/L4, Zone V; no date	3
Bone, unm.	fragmentary	indeterminate	U1/L5, Zone V; 06-24-97	3
Bone, unm.	fragmentary	bat	U1/L5, Zone V; 06-24-97	2
Bone, unm.	fragmentary	long bone; species unknwon	U1/L6, Zone V; 06-24-97	1
Bone, unm.	fragmentary	bat	U1/L6, Zone V; 06-24-97	1
Bone, unm.	fragmentary	indeterminate	U1/L7, Zone V; 06-25-97	2
Bone, unm.	fragmentary	long bone; bird	U1/L7, Zone V; 06-25-97	1
Bone, unm.	fragmentary	distal humerus; bird	U1/L7, Zone V; 06-25-97	1
Bone, unm.	fragmentary	distal femur; bird	U1/L7, Zone V; 06-25-97	1
Bone, unm.	fragmentary	proximal femur; bird	U1/L7, Zone V; 06-25-97	1
Bone, unm.	fragmentary	indeterminate	U1/L8, Zone V; 06-25-97	3
Bone, unm.	fragmentary	indeterminate	U1/L9, Zone V; 06-26-97	1

Bone, unm.	fragmentary	long bone; species unknown	U1/L9, Zone V; 06-26-97	2
Bone, unm.	fragmentary	rodent mandible	U1/L9, Zone V; 06-26-97	1
Bone, unm.	fragmentary	indeterminate	U1/L10, Zone V; 06-27-97	1
Bone, unm.	fragmentary	long bone; bat	U1/L10, Zone V; 06-27-97	1
Bone, unm.	fragmentary	indeterminate	U1/L11, Zone V; 06-27-97	1
Bone, unm.	whole	femur; species unnown	U1/L11, Zone V; 06-27-97	1
Bone, unm.	fragmentary	indeterminate	U6/L1, Zone V; 06-23-97	2
Bone, unm.	fragmentary	indeterminate	U6/L2, Zone V; 06-23-97	2
Bone, unm.	whole	indeterminate	U6/L3, Zone V; 06-24-97	1
Bone, unm.	whole	indeterminate	U6/L4, Zone V; 06-24-97	1
Bone, unm.	fragmentary	indeterminate	U6/L5, Zone V; 06-24-97	1
Bone, unm.	fragmentary	indeterminate	U6/L6, Zone V; 06-24-97	2
Bone, unm.	fragmentary	rodent mandible	U6/L6, Zone V; 06-24-97	1
Bone, unm.	fragmentary	indeterminate	U6/L7, Zone V; 06-24-97	2
Bone, unm.	fragmentary	indeterminate	U6/L10, Zone V; 06-25-97	3
Bone, unm.	fragmentary	indeterminate	U6/L11, Zone V; 06-25-97	5
Bone, unm.	fragmentary	indeterminate	U6/L12, Zone VI; 06-25-97	1
Bone, unm.	fragmentary	indeterminate	U6/L12, Zone VI; 06-26-97	20
Bone, unm.	fragmentary	indeterminate	U6/L12, Zone VI; 06-27-97	5
Bone, unm.	fragmentary	long bone; species unknown	U6/L13, Zone VI; 06-27-97	5
Bone, unm.	fragmentary	indeterminate	U6/L13, Zone VI; 06-30-97	9

Bone, unm.	fragmentary	indeterminate	U6/L14, Zone VI; 06-30-97	6
Bone, unm.	whole & fragmentary	long bone; species unknown	U6/L14, Zone VI; 06-30-97	2
Bone, unm.	fragmentary	indeterminate	U6/L15, Zone VI; 06-30-97	3
Bone, unm.	fragmentary	indeterminate	U6/pedastal under rock in West wall, see profile, Zone VI; 06-30-97	2
Bone, unm.	fragmentary	long bone; species unknown	U6/East wall profile, remainder left *in situ*, Zone VI; 06-30-97	3
Burned bone, unm.	fragmentary	indeterminate	Drainage; 07-01-97	2
Burned bone, unm.	fragmentary	indeterminate	Backdirt of pot-hunter's hole, see map; 06-09-97	1
Burned bone, unm.	fragmentary	indeterminate	Profile 1 - 2 m S of 9W; 06-10-97	4
Burned bone, unm.	fragmentary	indeterminate	U1/West wall collapse, Zone V-A; 06-26-97	1
Burned bone, unm.	fragmentary	indeterminate	U1/West wall collapse, Zone V-B; 06-26-97	1
Burned bone, unm.	fragmentary	indeterminate	Wall collapse between U1 & U6, in U6 after the collapse; mixed levels & zones; 06-26-97	11
Burned bone, unm.	fragmentary	indetermiante	U5/L1, Zone II; 06-19-97	2
Burned bone, unm.	fragmentary	indeterminate	U5/L2, Zone II; 06-23-97	6
Burned bone, unm.	fragmentary	indeterminate	U5/L3, Zone II; 06-23-97	1
Burned bone, unm.	fragmentary	indeterminate	U5/L4, Zones II & II-B; 06-24-97	1

Burned bone, unm.	fragmentary	indeterminate	U1/L1, Zone IV-A; 06-12-97	6
Burned bone, unm.	fragmentary	long bone; species unknown	U1/L2, Zone IV-A; 06-13-97	2
Burned bone, unm.	fragmentary	long bone; species unknown	U1/L3, Zone IV-A; 06-15-97	2
Burned bone, unm.	fragmentary	indeterminate	U1/L4, Zone IV-A; 06-16-97	4
Burned bone, unm.	fragmentary	indeterminate	U1/L5, Zone IV-A; 06-18-97	16
Burned bone, unm.	fragmentary	indeterminate	U1/L6, Zone IV-A; 06-18-97	26
Burned bone, unm.	fragmentary	indeterminate	U1/L7, Zone IV-A; 06-20-97	12
Burned bone, unm.	fragmentary	long bone; species unknown	U1/L7, Zone IV-A; 06-20-97	1
Burned bone, unm.	fragmentary	indeterminate	U1/L8, Zone IV-A; 06-23-97	5
Burned bone, unm.	fragmentary	indeterminate	U2/L1, Zone IV-A; 06-16-97	6
Burned bone, unm.	fragmentary	indeterminate	U2/L2, Zone IV-A; 06-17-97	4
Burned bone, unm.	fragmentary	indeterminate	U2/L11, Zone IV-A; 06-25-97	6
Burned bone, unm.	fragmentary	indeterminate	U2/L11, Zone IV-A; 06-26-97	2
Burned bone, unm.	fragmentary; black residue on surface	indeterminate	U1/L1, Zone IV-A; 06-12-97	1
Burned bone, unm.	fragmentary	indeterminate	U1/L9, Zone IV-B; 06-23-97	1
Burned bone, unm.	fragmentary	indeterminate	U1/L5, Zone V; 06-24-97	1
Burned bone, unm.	fragmentary	indeterminate	U1/L6, Zone V; 06-24-97	3
Burned bone, unm.	fragmentary	indeterminate	U1/L7, Zone V; 06-25-97	6
Burned bone, unm.	fragmentary	indeterminate	U1/L8, Zone V; 06-25-97	2
Burned bone, unm.	fragmentary	indeterminate	U1/L9, Zone V; 06-26-97	2

Burned bone, unm.	fragmentary	indeterminate	U2/L12, Zone V; 06-27-97	1
Burned bone, unm.	fragmentary	indeterminate	U6/L6, Zone V; 06-24-97	1
Burned bone, unm.	fragmentary	indeterminate	U6/L6, Zone V; 06-24-97	5
Burned bone, unm.	fragmentary; black residue on surface	indeterminate	U1/L8, Zone V; 06-25-97	1
Burned bone, unm.	fragmentary; black residue on surface	indeterminate	U1/L11, Zone V; 06-27-97	1
Burned bone, unm.	fragmentary	indeterminate	U6/L12, Zone VI; 06-26-97	4
Burned bone, unm.	fragmentary	indeterminate	U6/L12, Zone VI; 06-27-97	1
Burned bone, unm.	fragmentary	long bone; species unknown	U6/L13, Zone VI; 06-30-97	7
Burned bone, unm.	fragmentary	indeterminate	U6/between L12 & L13, Zone VI; no date	1
Burned bone, unm.	fragmentary	indeterminate	U6/L14, Zone VI; 06-30-97	7
Burned bone, unm.	fragmentary	indeterminate	U6/L15, Zone VI; 06-30-97	1
Bone, cut marks	fragmentary; on dorsal surface	long bone; species unknown	U5/L1, Zone II; 06-19-97	1
Bone, cut marks	fragmentary; on white surface	indeterminate	U5/L5, Zones II-B & III; 06-26-97	1
Bone, cut marks	fragmentary; on ventral surface	indeterminate	U1/L2, Zone IV-A; 06-13-97	1
Bone, cut marks	fragmentary; on dorsal surface	indeterminate	U1/L4, Zone IV-A; 06-16-97	1
Bone, cut marks	fragmentary; on dorsal surface	indeterminate	U1/L5, Zone IV-A; 06-18-97	1
Bone, cut marks	fragmentary; on diaphysis	long bone; species unknown	U1/L7, Zone IV-A; 06-20-97	1

Bone, cut marks	fragmentary; on dorsal surface	indeterminate	U2/L1, Zone IV-A; 06-12-97	2
Bone, cut marks	fragmentary	indeterminate	U2/L3, Zone IV-A; 06-17-97	1
Bone, cut marks	fragmentary; on ventral surface	indeterminate	U1/L5, Zone V; 06-24-97	1
Bone, cut marks	fragmentary; on broken terminus	long bone; species unknown	U1/L6, Zone V; 06-24-97	1
Bone, cut marks	fragmentary; on polished surface	indeterminate	U1/L9, Zone V; 06-26-97	1
Bone, cut marks	fragmentary; on dorsal surface	indeterminate	U6/L3, Zone V; 06-24-97	2
Bone, cut marks	fragmentary; on dorsal surface	indeterminate	U6/L12, Zone VI; 06-27-97	1
Bone, cut marks	fragmentary; on dorsal surface	long bone; species unknown	U6/L13, Zone VI; 06-27-97	2
Bone, cut marks	fragmentary; on dorsal surface	indeterminate	U6/between L12 & L13, Zone VI; no date	1
Burned bone, cut marks	fragmentary; on dorsal surface	indeterminate	Loose dirt 1 - 2 m S of 9W; 06-10-97	1
Burned bone, cut marks	fragmentary; on dorsal surface	indeterminate	U1/L2, Zone IV-A; 06-13-97	1
Burned bone, cut marks	fragmentary; on distal end	long bone; species unknown	U1/L3, Zone IV-A; 06-13-97	1
Burned bone, cut marks	fragmentary; on distal end	long bone; species unknown	U1/L7, Zone IV-A; 06-20-97	1
Burned bone, cut marks	fragmentary; on dorsal surface	long bone; species unknown	U1/L10, Zone IV-B; 06-23-97	1
Bone, cut marks & rgm	fragmentary; on dorsal surface	long bone; species unknown	U5/L5, Zones II-B & III; 06-24-97	1

Bone, cut marks & rgm	fragmentary; on dorsal surface	long bone; species unknown	U1/L7, Zone IV-A; 06-20-97	1
Burned bone, cut marks & rgm	fragmentary; on dorsal & ventral surfaces	indeterminate	U1/L7, Zone IV-A; 06-20-97	1
Burned bone, cut marks & rgm	fragmentary; on dorsal surface	indeterminate	U1/L7, Zone IV-A; 06-20-97	1
Bone, rgm	fragmentary; on dorsal surface	long bone; species unknown	Loose dirt 4 m S of 12W; 06-10-97	2
Bone, rgm	fragmentary; on dorsal surface	long bone; species unknown	U5/L1, Zone II; 06-19-97	1
Bone, rgm	fragmentary; on ventral surface	indeterminate	U5/L1, Zone II; 06-19-97	1
Bone, rgm	fragmentary; on dorsal surface	long bone; species unknown	U5/L4, Zones II & II-B; 06-24-97	1
Bone, rgm	fragmentary	indeterminate	U5/L5, Zones II-B & III; 06-26-97	1
Bone, rgm	fragmentary	indeterminate	U2/L1, Zone IV-A; 06-12-97	1
Bone, rgm	fragmentary; on diaphysis	long bone; species unknown	U6/L8, Zone V; 06-25-97	1
Bone, rgm	fragmentary; on dorsal surface	indeterminate	U6/L13, Zone VI; 06-27-97	1
Burned bone, rgm	fragmentary; all over	deer scapula	U1/L4, Zone IV-A; 06-17-97	1
Burned bone, rgm	fragmentary; posterior ridge	long bone; species unknown	U1/L7, Zone IV-B; 06-20-97	1
Burned bone, rgm	fragmentary; on dorsal surface	indeterminate	U1/L5, Zone V; 06-24-97	2
Bone, round marks	fragmentary; on dorsal surface	indeterminate	U2/L3, Zone IV-A; 06-17-97	1

Bone, grooved splinter	fragmentary; possible needle or fish hook	indeterminate	U2/L2, Zone IV-A; 06-17-97	1
Bone, ground	fragmentary	indeterminate	U6/L7, Zone V; 06-24-97	1
Bone, ground splinter	fragmentary	indeterminate	U6/L12, Zone VI; 06-27-97	1
Bone tool	fragmentary; awl	indeterminate	U6/between L12 & L13, Zone VI; no date	2
Tooth, unm.	fragmentary	rodent incisor	U5/L5, Zones II-B & III; 06-24-97	1
Tooth, unm.	fragmentary	rodent incisor	U1/L5, Zone IV-A; 06-18-97	1
Tooth, unm.	fragmentary	deer molar	U6/L13, Zone VI; 06-30-97	1
Burned tooth, unm.	fragmentary	rodent incisor	Profile 1 - 2 m S of 9W; 06-10-97	1
Burned tooth, unm.	fragmentary	molar; species unknown	U2/L1, Zone IV-A; 06-12-97	1
Burned tooth, unm.	fragmentary	deer	U6/L12, Zone VI; 06-26-97	1
Turtle carapace, unm.	fragmentary	indeterminate	U1/L3, Zone IV-A; 06-13-97	1
Turtle carapace, unm.	fragmentary	indeterminate	U1/L5, Zone IV-A; 06-18-97	2
Turtle carapace, unm.	fragmentary	indeterminate	U1/L6, Zone IV-A; 06-18-97	2
Turtle carapace, unm.	fragmentary	indeterminate	U1/L7, Zone IV-A; 06-20-97	1
Turtle carapace, unm.	fragmentary	indeterminate	U2/L1, Zone IV-A; 06-12-97	2
Turtle carapace, unm.	fragmentary	indeterminate	U2/L2, Zone IV-A; 06-17-97	1
Burned turtle carapace, unm.	fragmentary	indeterminate	U1/L7, Zone IV-A; 06-20-97	3
Burned turtle carapace, unm.	fragmentary	indeterminate	U1/L6, Zone IV-A; 06-18-97	1
Turtle carapace, cut marks	fragmentary; on ventral surface	indeterminate	U1/L3, Zone IV-A; 06-15-97	1

Turtle carapace, cut marks	fragmentary; on ventral surface	indeterminate	U1/L8, Zone IV-A; 06-23-97	1
Turtle carapace, cut marks	fragmentary	indeterminate	U2/L1, Zone IV-A; 06-16-97	2
Turtle carapace, cut marks	fragmentary; on ventral surface	indeterminate	U2/L3, Zone IV-A; 06-17-97	2
Turtle carapace, rgm	fragmentary	indeterminate	U2/L1, Zone IV-A; 06-12-97	1
Turtle carapace, unm.	fragmentary	indeterminate	U6/L7, Zone V; 06-24-97	1
Turtle carapace, unm.	fragmentary	indeterminate	U1/L9, Zone V; 06-26-97	1

Appendix H: Faunal Remains from 12-Cr-59 (Garniewicz 1998)

Faunal remains from Indian Cave (12 Cr 59)
Rexford C. Garniewicz

Description of sample submitted for analysis:

Zone VI was hypothesized by the principle investigator to be the only intact cultural zone excavated within the rockshelter. As a result, only material from this zone was submitted to the author for analysis. Material from Zone VI was derived from three units: Unit 6 (60X100 cm.); Unit 12W/3S (100X200 cm.); and Unit 11W/4S (100X100 cm). Unit 6 was excavated in 1997 and Zone VI consists of four arbitrary 10 cm. levels (12-15). The 1997 sample submitted for analysis contained material recovered by screening matrix through 1/4" hardware cloth and from the flotation of subsamples of the matrix. Units 12W/3S was excavated in 1998 and Zone VI consists of eight arbitrary 10 cm levels. Unit 11W/4S was excavated in 1998 and Zone VI consists of two arbitrary 10 cm levels. The 1998 samples submitted for analysis contained material recovered by screening matrix through 1/4" hardware cloth and from the water screening a subsample of the matrix through window screen.

The entire sample analyzed by the author consisted of 862 specimens weighing a total of 100.2 grams. Many of these specimens were extremely small fragments (less than 0.1g) and may have not been included in the calculation of the number of fragments of faunal material during cataloging. During cataloging of all material from 12 Cr 59 a total of 581 fragments from the 1997 excavation and 396 fragments from the 1998 excavation were counted.

Bone tools:

Four of the fragments which were submitted were significantly modified and are classified here as tools. One fragment of drilled turtle shell (resembling box turtle) was recovered from 11W/4S, Level 3. Two awl fragments were recovered from Unit 6, one from a large mammal long bone shaft, (Level 12) and one from a deer metapodial (base of Level 12, top of Level 13). There was also a longitudinally scored and snapped deer metapodial from 12W/3S, Level 19 which is refuse from bone tool manufacturing.

Cutmarks:

Four specimens had definitive cutmarks. Several other specimens had apparent cutmarks but these were rejected upon microscopic examination and are not included here. Bones with cutmarks are as follows: large mammal shaft fragments; Unit 6, Level 13; medium-large mammal rib shaft fragment; 12W/3S, Level 19; deer antler shaft fragment , Unit 6, Level 12; human long bone shaft fragment 12W/3S, Level 20.

Burning:

The relative degrees of burning and the proportions of faunal material in each category is represented below in Table 1. NISP represents number of specimens, "g" represents the weight of this material in grams, % represents percentage of total. Bone which exhibited any white burning surfaces was called calcined; bone which was burned black on any surface but which did not exhibit any calcining was called charred. Indeterminate burning was a catch-all category for material which was so small it was only identifiable as vertebrate. Overall, calculations based on weight appear to be most accurate. According to these calculations 73.8% of the material was unburned, 21.3% was calcined, 3.8% was charred, and 1.1 % was indeterminate.

Table 1. Proportions of burned material

Burning	NISP	%NISP	Grams	% grams
absent	232	26.9	74	73.8
calcined	331	38.4	21.3	21.3
charred	18	2.1	3.8	3.8
indeterminate	281	32.6	1.1	1.1
total	862	100	100.2	100

Gnawing:

One specimen exhibited evidence for carnivore gnawing (12W/3S level 23 deer rib, shaft fragment) and this is probably attributable to domestic dog or coyote. Two specimens exhibited evidence for rodent gnawing (Unit 6 Level 12 groundhog, nasal bone; 12W/3S Level 19, medium-large bird shaft fragment). This degree of carnivore ravaging and rodent gnawing would be considered extremely light for a rockshelter situation and probably represents a situation where faunal material was rapidly buried.

Species representation

Due to its fragmentary nature, much of the material could only be sorted into major taxonomic groups and general size classes within these. Specimens with diagnostic morphology were given genus or species names. The designation cf. indicates that the specimen strongly resembled this genus or species; however, a definitive identification could not be made. The numbers of identified specimens (NISP) and their total weight in grams are presented in Table 2. Due to the small size of this sample minimum numbers of individuals (MNI) are not presented. No species had a MNI greater than one.

By count, 244 specimens (28.3%) were only identifiable as vertebrate, by weight these comprise only 1.1 g. (1.1%) of the assemblage, an indication of their extremely small size. By count, 512 specimens (59.4 %) were identifiable as mammal, by weight these comprise 80.7 g. (80.5%) of the assemblage. The increase in percentage when considering weight indicates the relatively larger size of mammalian fragments. By count 65 (7.5 %) specimens were identified as bird, by weight these comprise 6.2 g. (6.2%) of the assemblage. By count 15 (1.7%) of the specimens were reptiles and amphibians, by weight these comprise 2.3 g (2.3%) of the assemblage. Three specimens (0.3%) were identified as fish, by weight these comprise 0.2 g. (0.2%) of the assemblage. By count, 19 specimens (2.2%) were molluscan remains, by weight these comprise 8.2 g. (8.2%) of the assemblage.

Mammals:

Out of a total of 515 specimens (80.7g) identified as mammal, the vast majority of fragments were unidentifiable at any level other than size class. Thus there are a total of 437 specimens (34.6 g.) which are only identified as mammal. A smaller group of specimens, the *Cricetidae* consisted of 16 specimens (1.4g.) was not identified past the family level. These are New World rats and mice; probably natural inhabitants of the shelter. A few specimens were human and will be discussed in the section below on human remains. The remainder of the faunal specimens were identifiable to genus or species and will be discussed below under the probable origin (anthropogenic or natural accumulation).

Human remains.

There were a number of fragments within the assemblage which were identifiable as human (*Homo sapiens*) or as strongly resembling human (*cf. Homo sapiens*). The former exhibit either diagnostic morphology or are large shaft fragments which are clearly human. The latter are much smaller shaft fragments which are identified as human based on the texture and thickness of cortical bone and the structure of trabecular bone. One human cervical vertebra fragment from 12W/3S Zone 6 Level 19 refits with a fragment from 11W/4S Zone 6 Level 3. An additional fragment of human cervical vertebra was recovered from Unit 6 Zone 6 Level 13 (flotation). This specimen is probably from the same cervical vertebra as the two specimens which refit; however abrasion of the surfaces required for a refit analysis precludes a positive refit.

Other than these three cervical vertebra fragments, and one cranial specimen which was removed from the sample prior to analysis by the author, all of the remaining fragments of human bone are long bone shaft fragments. One of these fragments from Unit 6 Level 14 includes a complete cross section and is identifiable as a humerus shaft fragment. One other long bone shaft fragment is not identifiable to element but is worthy of note. The specimen of human bone from 12W/3S Zone 6 Level 21 exhibits distinct cutmarks. Under microscopic examination, parallel striations within the grooves of these cutmarks indicate that they were made by stone tools and not caused by excavation or cleaning procedures.

Based on the distribution of human remains, their relatively low frequency, the unusually high proportion of refits and the presence of prehistoric cutmarks, it is the conclusion of the author that all of the human remains come from a single secondary inhumation. At some point in prehistory, these remains were at least partially disturbed and a portion of them was scattered across the site. The presence of cutmarks is most likely the result of prehistoric processing of the burial when the bones were removed from a primary inhumation, cleaned and placed in a bundle burial (secondary inhumation).

Anthropogenic fauna.

Of the mammalian fauna which was probably brought to the site by human inhabitants, white-tail deer (*Odocoileus virginianus*) it the most important, with 22 specimens weighing 13.2 grams. The presence of bear is of questionable origin, since this species is uncommon in faunal assemblages prior to the Late Prehistoric. I have placed it in the anthropogenic category since the only elements represented are a canine tooth and a small fragment of alveolar bone. Teeth were commonly transformed into artifacts; although this specimen was not modified, the absence of any postcranial bone suggests it is not derived from a the natural death of a bear at the site.

Smaller mammals, including raccoon (*Procyon lotor*), muskrat (*Ondatra zibethicus*), grey squirrel (*Sciurus carolinensis*) and rabbit (*Sylvilagus sp.)* were popular food items prehistorically and were present in the faunal assemblage at this site.

Natural fauna.

A number of mammalian species which were present are unlikely to have been used as prehistoric food items. These include the bats; the big brown bat (*Eptesicus fuscus*), the little brown bat (*cf. Myotis lucifugus*), and specimens from the genus *Myotis* (*Myotis sp.).* Also recovered was a specimen of a vole (*Microtus sp.),* a flying squirrel (*Claucomys volans*), and a specimen resembling chipmunk (*cf. Tamias striatus*). Several specimens of the Eastern mole (*Scalopus aquaticus*) are probably natural; although these have been recorded as food items at

other prehistoric sites in the Midwestern U.S.

Fish:

Three specimens of fish were recovered. Only one of these was identifiable to species. The identifiable specimen is a scale from a member of the gar family (*Lepisosteidae*). Two other fragments of cycloid scales were from a medium sized bony fish (*Osteichthyes*).

Birds:

Nearly all of the *Aves* fragments were long bone shaft fragments with no diagnostic morphology. Nineteen specimens (2.2g) were classified as large bird indeterminate. Although no identifiable turkey was present, this is a common prehistoric food item and its presence would be expected. It is therefore probable that some of these large fragments are from turkey. Three cranial fragments are from a juvenile, possibly flightless, Great Horned Owl (*Bubo virginianus*), are likely due to a nestling death at or near the rockshelter.

Amphibians and reptiles:

Of the amphibian remains several were identified as toad family (*Bufo sp.*) and it is likely that other specimens identified as *Anura* (frogs and toads) or as *Amphibia* are also fragments of toad. Toads were likely to be natural inhabitants of the cave and were unlikely to have been part of the human diet.

Mollusca:

Only one specimen within this taxon was sufficiently well preserved to be identified to species. All of the fragments of freshwater mussel (*Pelecypoda*) are probably derived from the human occupation at the site. Unfortunately none of these specimens had any portion of the hinge or margin preserved so there is no possibility of identifying species or seasonality.

One nearly complete gastropod from Level 3 of 11W/4S has been identified as *Polygyra profunda profunda* (Say). The presence of a preserved wide brown band just above the periphery of the body whorl permits identification to the subspecies level. Its usual habitat is in moist woodlands of oak, hickory and birch where there is an abundance of fallen timber. It is currently uncommon south of Indianapolis; but was widespread prehistorically.

Conclusions:

Overall, this seems to be an assemblage composed of both natural and culturally derived faunal material. Due to the limited size and mixed nature of the sample, there is no evidence for seasonality and reconstruction of subsistence practices would be very speculative. All of the original data (except for the presence of tools, cutmarks, and gnawing - which is completely covered above) is presented as Table 3, so that future studies can incorporate the data from the 1997 and 1998 excavations.

Table 2. Taxonomic representation, NISP and weight of faunal material from 12 Cr 59

Vertebrates, class indeterminate			**Osteichthyes**		
NISP	grams	taxon	NISP	grams	taxon
244	1.1	Vertebrata	1	0.1	Lepisosteidae
244	1.1	total vertebrata	2	0.1	Osteichthyes (Medium)
			3	0.2	total fish
Mammalia					
NISP	grams	taxon	**Aves**		
176	1.2	Mammalia	NISP	grams	taxon
43	0.8	Mammalia (Micro)	2	0.1	Aves
3	0.2	Mammalia (Micro/small)	19	2.2	Aves (Large)
7	0.9	Mammalia (Small)	5	0.3	Aves (Medium)
76	3.4	Mammalia (Small/medium)	1	0.3	Aves (Medium/large)
12	2.6	Mammalia (Medium)	13	0.6	Aves (Small)
17	1.4	Mammalia (Medium/large)	22	1.1	Aves (Small/medium)
103	24.11	Mammalia (Large)	3	1.6	Bubo sp.
1	0.1	Cricetidae	65	6.2	total aves
11	1	Cricetidae (Small)			
4	0.3	Cricetidae (Medium)	**Amphibians and Reptiles**		
4	0.4	Eptesicus fuscus	NISP	grams	taxon
1	0.1	Glaucomys volans	5	0.3	Amphibia
9	14.6	Homo sapiens sapiens	1	0.1	Anura
6	2.4	cf. Homo sapiens sapiens	2	0.2	Bufo sp.
3	0.4	Marmota monax	1	0.1	Colubridae
1	0.1	Microtus sp.	1	0.1	Emydidae
1	0.1	Myotis sp.	3	1.2	Terrapene sp.
1	0.1	cf. Myotis lucifugus	2	0.3	cf. Terrapene sp.
22	13.21	Odocoileus virginianus	15	2.3	Total amphibians and reptiles
1	0.1	Ondatra zibethicus			
2	0.2	Procyon lotor	**Mollusc**		
2	0.2	Scalopus aquaticus	NISP	grams	taxon
1	0.1	Sciurus carolinensis	11	6.6	Pelecypoda
2	0.2	Sylvilagus sp.	8	1.6	Gastropoda
1	0.1	cf. Tamias striatus	1	1.1	Polygyra profunda profunda (Say)
2	12.4	Ursus americanus	19	8.2	Total mollusca
512	80.72	Total mamallian			

Table 3. Raw data from 12 Cr 59 faunal analysis.

Unit	Rec.	Z	L	SPECIES	ELEMENT	PORTION	Side	Burning	NISP	grams
11W/4S	1/4"	6	2	Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	2	0.6
11W/4S	1/4"	6	2	Mammalia (Medium)	Cranium	Fragment	indet.	absent	1	0.1
11W/4S	1/4"	6	2	Mammalia (Medium/large)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
11W/4S	1/4"	6	2	Mammalia (Small)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
11W/4S	1/4"	6	2	Myotis sp.	Humerus	Complete shaft	right	absent	1	0.1
11W/4S	1/4"	6	2	Pelecypoda	Indeterminate	Fragment	indet.	absent	1	4.6
11W/4S	1/4"	6	3	Aves (Large)	Long bone	Diaphyseal fragment	indet.	absent	2	0.7
11W/4S	1/4"	6	3	Gastropoda	Indeterminate	Fragment	indet.	absent	1	1.1
11W/4S	1/4"	6	3	Homo sapiens sapiens	Cervical vertebra	Spinous process	axial	absent	1	0.4
11W/4S	1/4"	6	3	Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
11W/4S	1/4"	6	3	Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	4	1.3
11W/4S	1/4"	6	3	Odocoileus virginianus	Antler	Fragment	indet.	absent	1	0.5
11W/4S	1/4"	6	3	Terrapene sp.	Scapula	Complete or nearly complete	right	absent	1	0.4
11W/4S	1/4"	6	3	cf. Terrapene sp.	Pleural	Fragment	indet.	absent	1	0.1
12W/3S	1/4"	6		Mammalia (Medium)	Long bone	Diaphyseal fragment	indet.	charred	1	0.6
12W/3S	1/4"	6		Odocoileus virginianus	Proximal phalange	Distal articular condyle	indet.	calcined	1	0.3
12W/3S	1/4"	6	16	Odocoileus virginianus	Fused metacarpal	Diaphyseal fragment	indet.	absent	1	0.2
12W/3S	1/4"	6	17	Aves (Large)	Long bone	Diaphyseal fragment	indet.	calcined	4	0.1
12W/3S	1/4"	6	17	Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	absent	2	0.6
12W/3S	1/4"	6	17	Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	1	0.1
12W/3S	1/4"	6	17	Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	charred	3	0.7
12W/3S	1/4"	6	17	Mammalia (Medium/large)	Flat bone	Fragment	indet.	calcined	1	0.1
12W/3S	1/4"	6	17	Mammalia (Micro)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
12W/3S	1/4"	6	17	Pelecypoda	Indeterminate	Fragment	indet.	absent	2	0.1
12W/3S	1/4"	6	17	cf. Homo sapiens sapiens	Long bone	Diaphyseal fragment	indet.	absent	4	1.2
12W/3S	1/4"	6	19	Aves (Large)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
12W/3S	1/4"	6	19	Aves (Large)	Long bone	Diaphyseal fragment	indet.	calcined	2	0.1
12W/3S	1/4"	6	19	Aves (Large)	Long bone	Diaphyseal fragment	indet.	charred	1	0.1
12W/3S	1/4"	6	19	Aves (Medium/large)	Long bone	Diaphyseal fragment	indet.	absent	1	0.3
12W/3S	1/4"	6	19	Aves (Small/medium)	Long bone	Diaphyseal fragment	indet.	absent	3	0.2

12W/3S	1/4"	6	19 Cricetidae (Small)	Permanent tooth	Upper I1	right	absent	1	0.1
12W/3S	1/4"	6	19 Homo sapiens sapiens	Cervical vertebra	Saggital split, right portion	right	absent	1	1
12W/3S	1/4"	6	19 Mammalia (Large)	Flat bone	Fragment	indet.	calcined	4	0.2
12W/3S	1/4"	6	19 Mammalia (Large)	Flat bone	Fragment	indet.	charred	2	0.5
12W/3S	1/4"	6	19 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	absent	11	2.6
12W/3S	1/4"	6	19 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	12	2.3
12W/3S	1/4"	6	19 Mammalia (Large)	Rib	Shaft fragment	indet.	absent	1	0.1
12W/3S	1/4"	6	19 Mammalia (Medium/large)	Cranium	Fragment	indet.	calcined	3	0.2
12W/3S	1/4"	6	19 Mammalia (Medium/large)	Rib	Shaft fragment	indet.	calcined	1	0.1
12W/3S	1/4"	6	19 Marmota monax	Permanent tooth	Upper I1	left	absent	1	0.2
12W/3S	1/4"	6	19 Odocoileus virginianus	Antler	Fragment	indet.	calcined	3	0.4
12W/3S	1/4"	6	19 Odocoileus virginianus	Metapodial	Diaphyseal fragment	indet.	calcined	1	1
12W/3S	1/4"	6	19 Sylvilagus sp.	Metacarpal	Complete or nearly complete	indet.	absent	1	0.1
12W/3S	1/4"	6	19 Ursus americanus	Mandible	Alveolar ridge fragment	indet.	charred	1	0.3
12W/3S	1/4"	6	19 Ursus americanus	Permanent tooth	Lower C	right	absent	1	12.1
12W/3S	1/4"	6	20 Aves (Small)	Femur	Complete shaft	right	absent	1	0.1
12W/3S	1/4"	6	20 Glaucomys volans	Femur	Complete minus dist. epiphy.	left	absent	1	0.1
12W/3S	1/4"	6	20 Homo sapiens sapiens	Long bone	Diaphyseal fragment	indet.	absent	1	1.5
12W/3S	1/4"	6	20 Mammalia (Large)	Flat bone	Fragment	indet.	calcined	1	0.1
12W/3S	1/4"	6	20 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	absent	1	0.3
12W/3S	1/4"	6	20 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	3	0.2
12W/3S	1/4"	6	20 Mammalia (Medium)	Flat bone	Fragment	indet.	calcined	1	0.1
12W/3S	1/4"	6	20 Mammalia (Small)	Long bone	Diaphyseal fragment	indet.	calcined	1	0.1
12W/3S	1/4"	6	21 Homo sapiens sapiens	Long bone	Diaphyseal fragment	indet.	absent	1	1.6
12W/3S	1/4"	6	21 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	2	0.3
12W/3S	1/4"	6	21 Mammalia (Large)	Long bone	Fragment	indet.	calcined	1	0.1
12W/3S	1/4"	6	21 Procyon lotor	Mandible	Mandibular condyle	right	calcined	1	0.1
12W/3S	1/4"	6	22 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	absent	1	0.2
12W/3S	1/4"	6	22 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	3	0.8
12W/3S	1/4"	6	22 Mammalia (Medium)	Long bone	Diaphyseal fragment	indet.	absent	1	1
12W/3S	1/4"	6	22 Mammalia (Small)	Long bone	Diaphyseal fragment	indet.	absent	1	0.6
12W/3S	1/4"	6	22 Marmota monax	Caudal vertebra	Complete or nearly complete	indet.	absent	1	0.1
12W/3S	1/4"	6	23 Aves (Large)	Long bone	Diaphyseal fragment	indet.	calcined	1	0.1

12W/3S	1/4"	6	23 Mammalia (Large)	Flat bone	Fragment	indet.	calcined	2	0.6
12W/3S	1/4"	6	23 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	16	3.5
12W/3S	1/4"	6	23 Mammalia (Large)	Rib	Shaft fragment	indet.	calcined	1	0.2
12W/3S	1/4"	6	23 Odocoileus virginianus	Fused metacarpal	Proximal anterior end	right	absent	1	1.6
12W/3S	1/4"	6	23 Odocoileus virginianus	Rib	Shaft fragment	left	absent	1	2.2
12W/3S	1/4"	6	23 Odocoileus virginianus	Tooth, perm./decid.	Enamel fragment	indet.	absent	1	0.1
12W/3S	1/4"	6	23 Small vertebrate, class ind.	Long bone	Diaphyseal fragment	indet.	calcined	1	0.1
Unit 6	1/4"	6	0 Homo sapiens sapiens	Long bone	Diaphyseal fragment	indet.	absent	3	1.9
Unit 6	1/4"	6	0 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	absent	1	0.9
Unit 6	1/4"	6	0 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	1	0.3
Unit 6	1/4"	6	12 Aves (Large)	Long bone	Diaphyseal fragment	indet.	absent	2	0.2
Unit 6	1/4"	6	12 Aves (Large)	Long bone	Diaphyseal fragment	indet.	calcined	3	0.5
Unit 6	1/4"	6	12 Aves (Small)	Humerus	Complete or nearly complete	right	absent	1	0.1
Unit 6	1/4"	6	12 Aves (Small/medium)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
Unit 6	1/4"	6	12 Aves (Small/medium)	Sternum	Sternal body segment	axial	absent	1	0.1
Unit 6	1/4"	6	12 Bubo sp.	Cranium	Parietal	left	absent	1	0.7
Unit 6	1/4"	6	12 Bufo sp.	Procelous vertebra	Complete or nearly complete	axial	absent	1	0.1
Unit 6	1/4"	6	12 Gastropoda	Indeterminate	Fragment	indet.	absent	2	1.1
Unit 6	1/4"	6	12 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	absent	2	1
Unit 6	1/4"	6	12 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	5	0.5
Unit 6	1/4"	6	12 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	charred	1	0.3
Unit 6	1/4"	6	12 Mammalia (Small/medium)	Cranium	Fragment	indet.	absent	1	0.7
Unit 6	1/4"	6	12 Mammalia (Small/medium)	Flat bone	Fragment	indet.	absent	4	0.2
Unit 6	1/4"	6	12 Odocoileus virginianus	Antler	Fragment	indet.	absent	2	1.4
Unit 6	1/4"	6	12 Odocoileus virginianus	Permanent tooth	Lower I2	right	absent	1	0.2
Unit 6	1/4"	6	12 Odocoileus virginianus	Ulna	Diaphyseal fragment	right	calcined	1	0.4
Unit 6	1/4"	6	12 Pelecypoda	Indeterminate	Fragment	indet.	absent	5	1.5
Unit 6	1/4"	6	12 Terrapene sp.	Hyoplastron	Fragment	right	absent	1	0.4
Unit 6	1/4"	6	12 cf. Homo sapiens sapiens	Long bone	Diaphyseal fragment	indet.	absent	2	1.2
Unit 6	1/4"	6	12 cf. Tamias striatus	Cranium	Frontal fragment	left	absent	1	0.1
Unit 6	1/4"	6	12 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	charred	1	0.4
Unit 6	1/4"	6	12 Odocoileus virginianus	Fused metatarsal	Diaphyseal fragment	indet.	charred	1	0.3
Unit 6	1/4"	6	12 Odocoileus virginianus	Fused metatarsal	Diaphyseal fragment	right	absent	1	3.1

Unit 6	1/4"	6	13 Aves (Large)	Long bone	Diaphyseal fragment	indet.	calcined	1	0.1
Unit 6	1/4"	6	13 Aves (Large)	Long bone	Diaphyseal fragment	indet.	charred	1	0.1
Unit 6	1/4"	6	13 Bubo sp.	Cranium	Fragment	indet.	absent	1	0.2
Unit 6	1/4"	6	13 Bubo sp.	Cranium	Parietal	right	absent	1	0.7
Unit 6	1/4"	6	13 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	absent	2	3.2
Unit 6	1/4"	6	13 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	8	1.3
Unit 6	1/4"	6	13 Mammalia (Medium)	Long bone	Diaphyseal fragment	indet.	absent	1	0.4
Unit 6	1/4"	6	13 Marmota monax	Cranium	Nasal	right	absent	1	0.1
Unit 6	1/4"	6	13 Medium vertebrate	Flat bone	Fragment	indet.	absent	2	0.1
Unit 6	1/4"	6	13 Odocoileus virginianus	Accessory carpal	Complete or nearly complete	right	calcined	1	0.2
Unit 6	1/4"	6	13 Odocoileus virginianus	Antler	Fragment	indet.	absent	2	0.5
Unit 6	1/4"	6	13 Odocoileus virginianus	Permanent tooth	Lower M1 or 2	left	absent	1	0.5
Unit 6	1/4"	6	13 Pelecypoda	Indeterminate	Fragment	indet.	absent	1	0.2
Unit 6	1/4"	6	13 Pelecypoda	Indeterminate	Fragment	indet.	calcined	1	0.1
Unit 6	1/4"	6	13 Sylvilagus sp.	Metacarpal	Distal end	indet.	absent	1	0.1
Unit 6	1/4"	6	14 Aves (Small/medium)	Rib	Sternal end & portion of shaft	indet.	absent	1	0.1
Unit 6	1/4"	6	14 Emydidae	Carapace fragment	Fragment	indet.	absent	1	0.1
Unit 6	1/4"	6	14 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	absent	2	0.4
Unit 6	1/4"	6	14 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	3	0.2
Unit 6	1/4"	6	14 Mammalia (Medium/large)	Flat bone	Fragment	indet.	absent	5	0.3
Unit 6	1/4"	6	14 Scalopus aquaticus	Tibia	Complete or nearly complete	right	absent	1	0.1
Unit 6	1/4"	6	15 Mammalia (Medium/large)	Cranium	Fragment	indet.	absent	1	0.2
Unit 6	1/4"	6	15 Mammalia (Medium/large)	Long bone	Diaphyseal fragment	indet.	calcined	1	0.1
Unit 6	1/4"	6	15 Medium vertebrate	Long bone	Diaphyseal fragment	indet.	calcined	1	0.1
Unit 6	1/4"	6	15 cf. Terrapene sp.	Pleural	Fragment	indet.	absent	1	0.2
11W/4S	CVS	6	2 Colubridae	Procelous vertebra	Centrum and neural area	axial	absent	1	0.1
11W/4S	CVS	6	2 Cricetidae (Medium)	Tooth, perm./decid..	Enamel fragment	indet.	calcined	2	0.1
11W/4S	CVS	6	2 Mammalia (Small/medium)	Flat bone	Fragment	indet.	absent	2	0.1
11W/4S	CVS	6	2 Mammalia (Small/medium)	Flat bone	Fragment	indet.	calcined	4	0.1
11W/4S	CVS	6	2 Mammalia (Small/medium)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
11W/4S	CVS	6	2 Mammalia (Small/medium)	Long bone	Diaphyseal fragment	indet.	calcined	4	0.1
11W/4S	CVS	6	2 Vertebrata	Indeterminate	Fragment	indet.	indet.	9	0.1
11W/4S	CVS	6	3 Aves (Small)	Long bone	Diaphyseal fragment	indet.	calcined	2	0.1

11W/4S	CVS	6	3 Cricetidae (Small)	Metatarsal	Complete or nearly complete	indet.	absent	1	0.1
11W/4S	CVS	6	3 Cricetidae (Small)	Phalange	Complete or nearly complete	indet.	absent	1	0.1
11W/4S	CVS	6	3 Cricetidae (Small)	Rib	Shaft fragment	right	absent	1	0.1
11W/4S	CVS	6	3 Mammalia	Flat bone	Fragment	indet.	absent	13	0.1
11W/4S	CVS	6	3 Mammalia	Flat bone	Fragment	indet.	calcined	6	0.1
11W/4S	CVS	6	3 Mammalia	Long bone	Diaphyseal fragment	indet.	absent	2	0.1
11W/4S	CVS	6	3 Mammalia	Long bone	Diaphyseal fragment	indet.	calcined	10	0.1
11W/4S	CVS	6	3 Mammalia (Large)	Flat bone	Fragment	indet.	charred	1	0.1
11W/4S	CVS	6	3 Microtus sp.	Permanent tooth	Upper I1	left	absent	1	0.1
11W/4S	CVS	6	3 Odocoileus virginianus	Antler	Fragment	indet.	calcined	1	0.2
11W/4S	CVS	6	3 Sciurus carolinensis	Cranium	Occipital	axial	absent	1	0.1
12W/3S	CVS	6	16 Amphibia	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
12W/3S	CVS	6	16 Aves (Medium)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
12W/3S	CVS	6	16 Aves (Medium)	Long bone	Diaphyseal fragment	indet.	calcined	2	0.1
12W/3S	CVS	6	16 Eptesicus fuscus	Mandible	Ramus complete	indet.	absent	1	0.1
12W/3S	CVS	6	16 Eptesicus fuscus	Metatarsal	Distal end	indet.	absent	1	0.1
12W/3S	CVS	6	16 Gastropoda	Indeterminate	Fragment	indet.	calcined	1	0.1
12W/3S	CVS	6	16 Mammalia	Long bone	Diaphyseal fragment	indet.	absent	4	0.1
12W/3S	CVS	6	16 Mammalia	Long bone	Diaphyseal fragment	indet.	calcined	27	0.2
12W/3S	CVS	6	16 Mammalia	Long bone	Diaphyseal fragment	indet.	charred	1	0.1
12W/3S	CVS	6	16 Mammalia (Micro/small)	Tooth, perm./decid.	Enamel fragment	indet.	absent	1	0.1
12W/3S	CVS	6	16 Vertebrata	Indeterminate	Fragment	indet.	indet.	62	0.2
12W/3S	CVS	6	17 Aves (Small)	Indeterminate	Fragment	indet.	absent	5	0.1
12W/3S	CVS	6	17 Cricetidae	Rib	Complete or nearly complete	indet.	absent	1	0.1
12W/3S	CVS	6	17 Mammalia (Micro)	Flat bone	Fragment	indet.	charred	2	0.1
12W/3S	CVS	6	17 Mammalia (Micro)	Long bone	Diaphyseal fragment	indet.	calcined	10	0.1
12W/3S	CVS	6	17 Mammalia (Micro)	Long bone	Fragment	indet.	absent	5	0.1
12W/3S	CVS	6	17 Ondatra zibethicus	Permanent tooth	Upper I1	indet.	absent	1	0.1
12W/3S	CVS	6	17 Vertebrata	Indeterminate	Fragment	indet.	indet.	53	0.1
12W/3S	CVS	6	18 Amphibia	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
12W/3S	CVS	6	18 Aves (Small)	Long bone	Diaphyseal fragment	indet.	calcined	2	0.1
12W/3S	CVS	6	18 Cricetidae (Small)	Cranium	Fragment	indet.	absent	1	0.1
12W/3S	CVS	6	18 Cricetidae (Small)	Tooth, perm./decid.	Enamel fragment	indet.	absent	2	0.1

12W/3S	CVS	6	18 Gastropoda	Indeterminate	Fragment	indet.	absent	2	0.1
12W/3S	CVS	6	18 Mammalia (Small/medium)	Flat bone	Fragment	indet.	absent	3	0.1
12W/3S	CVS	6	18 Mammalia (Small/medium)	Flat bone	Fragment	indet.	calcined	5	0.1
12W/3S	CVS	6	18 Mammalia (Small/medium)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
12W/3S	CVS	6	18 Mammalia (Small/medium)	Long bone	Diaphyseal fragment	indet.	calcined	6	0.1
12W/3S	CVS	6	18 Odocoileus virginianus	Tooth, perm./decid.	Enamel fragment	indet.	absent	1	0.1
12W/3S	CVS	6	19 Anura	Procelous vertebra	Centrum and neural area	axial	absent	1	0.1
12W/3S	CVS	6	19 Aves (Small)	Long bone	Diaphyseal fragment	indet.	absent	2	0.1
12W/3S	CVS	6	19 Aves (Small/medium)	Long bone	Diaphyseal fragment	indet.	calcined	4	0.1
12W/3S	CVS	6	19 Cricetidae (Small)	Cranium	Fragment	indet.	absent	1	0.1
12W/3S	CVS	6	19 Gastropoda	Indeterminate	Fragment	indet.	calcined	1	0.1
12W/3S	CVS	6	19 Lepisosteidae	Ganoid scale	Fragment	indet.	absent	1	0.1
12W/3S	CVS	6	19 Mammalia	Indeterminate	Fragment	indet.	indet.	38	0.1
12W/3S	CVS	6	19 Mammalia (Medium/large)	Flat bone	Fragment	indet.	calcined	3	0.1
12W/3S	CVS	6	19 Mammalia (Micro/small)	Long bone	Diaphyseal fragment	indet.	absent	2	0.1
12W/3S	CVS	6	19 Mammalia (Small)	Long bone	Diaphyseal fragment	indet.	calcined	4	0.1
12W/3S	CVS	6	19 Mammalia (Small/medium)	Flat bone	Fragment	indet.	absent	4	0.1
12W/3S	CVS	6	20 Amphibia	Long bone	Diaphyseal fragment	indet.	absent	3	0.1
12W/3S	CVS	6	20 Aves	Long bone	Diaphyseal fragment	indet.	calcined	2	0.1
12W/3S	CVS	6	20 Eptesicus fuscus	Metatarsal	Complete or nearly complete	indet.	absent	1	0.1
12W/3S	CVS	6	20 Mammalia (Micro)	Long bone	Fragment	indet.	calcined	18	0.1
12W/3S	CVS	6	21 Aves (Large)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
12W/3S	CVS	6	21 Aves (Small/medium)	Long bone	Diaphyseal fragment	indet.	calcined	1	0.1
12W/3S	CVS	6	21 Mammalia	Long bone	Fragment	indet.	calcined	15	0.1
12W/3S	CVS	6	21 Mammalia (Micro)	Long bone	Diaphyseal fragment	indet.	absent	2	0.1
12W/3S	CVS	6	21 Terrapene sp.	Carapace fragment	Fragment	indet.	absent	1	0.4
12W/3S	CVS	6	22 Mammalia	Long bone	Fragment	indet.	calcined	52	0.1
12W/3S	CVS	6	23 Eptesicus fuscus	Metatarsal	Complete or nearly complete	indet.	absent	1	0.1
12W/3S	CVS	6	23 Gastropoda	Indeterminate	Fragment	indet.	absent	1	0.1
12W/3S	CVS	6	23 Mammalia	Long bone	Diaphyseal fragment	indet.	calcined	8	0.1
12W/3S	CVS	6	23 Mammalia (Large)	Flat bone	Fragment	indet.	absent	1	0.1
12W/3S	CVS	6	23 Mammalia (Micro)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
12W/3S	CVS	6	23 Mammalia (Micro)	Long bone	Fragment	indet.	calcined	4	0.1

Unit 6	Flot.	6	12 Aves (Small/medium)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
Unit 6	Flot.	6	12 Cricetidae (Medium)	Tooth, perm./decid.	Enamel fragment	indet.	absent	1	0.1
Unit 6	Flot.	6	12 Cricetidae (Small)	Cervical vertebra	Centrum and neural area	indet.	absent	1	0.1
Unit 6	Flot.	6	12 Gastropoda	Indeterminate	Fragment	indet.	absent	1	0.1
Unit 6	Flot.	6	12 Mammalia (Large)	Long bone	Diaphyseal fragment	indet.	calcined	1	0.1
Unit 6	Flot.	6	12 Mammalia (Small/medium)	Flat bone	Fragment	indet.	absent	2	0.1
Unit 6	Flot.	6	12 Mammalia (Small/medium)	Flat bone	Fragment	indet.	calcined	1	0.1
Unit 6	Flot.	6	12 Mammalia (Small/medium)	Long bone	Diaphyseal fragment	indet.	calcined	5	0.1
Unit 6	Flot.	6	12 Mammalia (Small/medium)	Long bone	Fragment	indet.	absent	1	0.1
Unit 6	Flot.	6	12 Mammalia (Small/medium)	Long bone	Fragment	indet.	calcined	1	0.1
Unit 6	Flot.	6	12 Osteichthyes (Medium)	Cycloid scale	Fragment	indet.	absent	2	0.1
Unit 6	Flot.	6	12 Pelecypoda	Indeterminate	Fragment	indet.	absent	1	0.1
Unit 6	Flot.	6	12 Vertebrata	Indeterminate	Fragment	indet.	indet.	21	0.1
Unit 6	Flot.	6	13 Aves (Small/medium)	Long bone	Diaphyseal fragment	indet.	absent	3	0.1
Unit 6	Flot.	6	13 Aves (Small/medium)	Long bone	Diaphyseal fragment	indet.	calcined	4	0.1
Unit 6	Flot.	6	13 Cricetidae (Small)	Cranium	Fragment	indet.	charred	1	0.1
Unit 6	Flot.	6	13 Homo sapiens sapiens	Cervical vertebra	Saggital split, right portion	left	absent	1	0.1
Unit 6	Flot.	6	13 Mammalia (Small/medium)	Flat bone	Fragment	indet.	absent	1	0.1
Unit 6	Flot.	6	13 Mammalia (Small/medium)	Flat bone	Fragment	indet.	calcined	2	0.1
Unit 6	Flot.	6	13 Mammalia (Small/medium)	Flat bone	Fragment	indet.	charred	1	0.1
Unit 6	Flot.	6	13 Mammalia (Small/medium)	Long bone	Diaphyseal fragment	indet.	absent	2	0.1
Unit 6	Flot.	6	13 Mammalia (Small/medium)	Long bone	Diaphyseal fragment	indet.	calcined	7	0.1
Unit 6	Flot.	6	13 Mammalia (Small/medium)	Long bone	Fragment	indet.	absent	8	0.1
Unit 6	Flot.	6	13 Mammalia (Small/medium)	Long bone	Fragment	indet.	calcined	3	0.1
Unit 6	Flot.	6	13 Procyon lotor	Permanent tooth	Lower I1	left	calcined	1	0.1
Unit 6	Flot.	6	13 Scalopus aquaticus	Tibia	Distal end	right	absent	1	0.1
Unit 6	Flot.	6	13 Vertebrata	Indeterminate	Fragment	indet.	indet.	32	0.1
Unit 6	Flot.	6	14 Aves (Medium)	Long bone	Diaphyseal fragment	indet.	calcined	2	0.1
Unit 6	Flot.	6	14 Bufo sp.	Procelous vertebra	Centrum and neural area	axial	absent	1	0.1
Unit 6	Flot.	6	14 Cricetidae (Medium)	Tibia	Distal end	left	absent	1	0.1
Unit 6	Flot.	6	14 Cricetidae (Small)	Vertebra	Centrum and neural area	axial	absent	1	0.1
Unit 6	Flot.	6	14 Homo sapiens sapiens	Humerus	Diaphyseal fragment	indet.	absent	1	8.1
Unit 6	Flot.	6	14 Mammalia (Medium)	Flat bone	Fragment	indet.	absent	2	0.1

Unit 6	Flot.	6	14 Mammalia (Medium)	Flat bone	Fragment	indet.	calcined	4	0.2
Unit 6	Flot.	6	14 Mammalia (Medium)	Long bone	Diaphyseal fragment	indet.	absent	1	0.1
Unit 6	Flot.	6	14 Mammalia (Medium/large)	Long bone	Diaphyseal fragment	indet.	calcined	1	0.2
Unit 6	Flot.	6	14 Vertebrata	Indeterminate	Fragment	indet.	indet.	49	0.3
Unit 6	Flot.	6	14 cf. Myotis lucifugus	Mandible	Horizontal ramus portion	right	absent	1	0.1
Unit 6	Flot.	6	15 Aves (Small/medium)	Long bone	Diaphyseal fragment	indet.	calcined	3	0.1
Unit 6	Flot.	6	15 Mammalia (Small/medium)	Flat bone	Fragment	indet.	absent	2	0.1
Unit 6	Flot.	6	15 Mammalia (Small/medium)	Flat bone	Fragment	indet.	calcined	1	0.1
Unit 6	Flot.	6	15 Mammalia (Small/medium)	Long bone	Diaphyseal fragment	indet.	absent	2	0.1
Unit 6	Flot.	6	15 Mammalia (Small/medium)	Long bone	Diaphyseal fragment	indet.	calcined	2	0.1
Unit 6	Flot.	6	15 Vertebrata	Indeterminate	Fragment	indet.	indetermi nate	17	0.1

Appendix I: Faunal Remains from 12-Cr-59, 1998

Faunal Remains Recovered from 12-Cr-59: 1998

Identification	Comments	Material	Provenance	#
Bone, unm.	fragmentary	indeterminate	11W/4S, L2; 06-08-98	2
Bone, unm.	whole	long bone; species unknown	11W/4S, L2; 06-08-98	1
Bone, unm.	fragmentary	long bone; species unknown	11W/4S, L2; 06-08-98	1
Burned bone, unm.	fragmentary	indeterminate	11W/4S, L2; 06-08-98	2
Bone, unm.	fragmentary	indeterminate	11W/4S, L3; 06-09-98	2
Bone, unm.	whole	indeterminate	11W/4S, L3; 06-09-98	1
Bone, unm.	fragmentary	long bone; species unknown	11W/4S, L3; 06-09-98	2
Bone, cut marks	fragmentary; dorsal surface	indeterminate	11W/4S, L3; 06-09-98	1
Turtle carapace	fragmentary	worked	11W/4S, L3; 06-09-98	1
Burned bone, unm.	fragmentary	indeterminate	11W/4S, L3; 06-09-98	4
Bone, unm.	fragmentary	indeterminate	12W/3S, L2; 05-20-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L2; 05-20-98	1
Bone, unm.	whole	vertebra; species unknown	12W/3S, L3; 05-21-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L3; 05-21-98	3
Bone, unm.	fragmentary	indeterminate	12W/3S, L4; 05-21-98	1
Bone, unm.	fragmentary	vertebra; species unknown	12W/3S, L4; 05-21-98	2
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L4; 05-21-98	6
Bone, unm.	fragmentary	indeterminate	12W/3S, L5; 05-22-98	6
Bone, unm.	fragmentary	rodent maxilla	12W/3S, L5; 05-22-98	1
Bone, unm.	fragmentary	vertebra; species unknown	12W/3S, L5; 05-22-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L5; 05-22-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L6; 05-22-98	2
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L6; 05-22-98	2
Bone, unm.	fragmentary	indeterminate	12W/3S, L7; 05-26-98	3

Bone, unm.	fragmentary	indeterminate	12W/3S, L8; 05-26-98	1
Turtle carapace, unm.	fragmentary	indeterminate	12W/3S, L8; 05-26-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L8; 05-26-98	2
Bone, unm.	fragmentary	indeterminate	12W/3S, L9; 05-26-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L9; 05-26-98	4
Bone, unm.	fragmentary	long bone; species unknown	12W/3S, L10; 05-27-98	2
Bone, unm.	whole	humerus; species unknown	12W/3S, L10; 05-27-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L10; 05-27-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L11; 05-27-98	2
Tooth, unm.	fragmentary	deer	12W/3S, L11; 05-27-98	1
Bone, cut and polish	fragmentary	indeterminate	12W/3S, L11; 05-27-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L11; 05-27-98	2
Bone, unm.	fragmentary	indeterminate	12W/3S, L12; 05-28-98	3
Bone, unm.	whole	vertebra; species unknown	12W/3S, L12; 05-28-98	1
Bone, unm.	whole	femur; species unknown	12W/3S, L12; 05-28-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L12; 05-28-98	4
Burned bone, unm.	fragmentary	long bone; species unknown	12W/3S, L12; 05-28-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L13; 05-28-98	1
Bone, unm.	whole	vertebra; species unknown	12W/3S, L13; 05-28-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L13; 05-28-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L14; 05-28-98	2
Bone, unm.	whole	tibia; species unknown	12W/3S, L14; 05-28-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L16; 06-01-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L17; 06-01-98	4
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L17; 06-01-98	11
Bone, unm.	fragmentary	indeterminate	12W/3S, L19; 06-02-98	18

Bone, unm.	whole	long bone; species unknown	12W/3S, L19; 06-02-98	1
Tooth, unm.	whole	bear canine	12W/3S, L19; 06-02-98	1
Tooth, unm.	fragmentary	rodent	12W/3S, L19; 06-02-98	1
Tooth, RGM	fragmentary	rodent	12W/3S, L19; 06-02-98	1
Bone, RGM	fragmentary	indeterminate	12W/3S, L19; 06-02-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L19; 06-02-98	28
Burned bone, scored	fragmentary	long bone	12W/3S, L19; 06-02-98	1
Burned bone, cut marks	fragmentary	indeterminate	12W/3S, L19; 06-02-98	1
Bone, unm.	fragmentary	indeterminate	12W/3S, L20; 06-03-98	2
Bone, unm.	whole	femur; species unknown	12W/3S, L20; 06-03-98	1
Bone, RGM	fragmentary	long bone; species unknown	12W/3S, L20; 06-03-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L20; 06-03-98	10
Bone, unm.	whole	long bone; species unknown	12W/3S, L21; 06-03-98	1
Bone, cut marks	fragmentary; dorsal surface	long bone; species unknown	12W/3S, L21; 06-03-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L21; 06-03-98	4
Bone, unm.	fragmentary	long bone; species unknown	12W/3S, L22; 06-03-98	4
Bone, unm.	whole	vertebra; species unknown	12W/3S, L22; 06-03-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L22; 06-03-98	3
Bone, unm.	fragmentary	indeterminate	12W/3S, L23; 06-04-98	1
Bone, cut marks	fragmentary	indeterminate	12W/3S, L23; 06-04-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, L23; 06-04-98	21
Burned tooth, unm.	fragmentary	indeterminate	12W/3S, L23; 06-04-98	1
Bone, unm.	fragmentary	long bone; species unknown	12W/3S, L24; 06-09-98	1
Bone, unm.	whole	indeterminate	12W/3S, Wall scraping ca. L12; 05-29-98	1

Bone, polished and striated	fragmentary	indeterminate	12W/3S, Wall scraping ca. L12; 05-29-98	1
Burned bone, unm.	fragmentary	indeterminate	12W/3S, West wall scraping, Zone VI; 06-08-98	2
Bone, unm.	fragmentary	long bone; species unknown	12W/3S, West wall collapse; 05-26-98	2
Burned bone, unm.	fragmentary	indeterminate	12W/3S, West wall collapse; 05-26-98	1
Burned bone, unm.	fragmentary	indeterminate	12.25W/11.5S, L2; 05-20-98	13
Burned bone, unm.	fragmentary	indeterminate	12.25W/11.5S, L3; 05-21-98	5
Burned bone, unm.	fragmentary	indeterminate	12.25W/11.5S, L4; 05-21-98	18
Bone, RGM	fragmentary	long bone; species unknown	14W/4.5N, L1; 05-20-98	2
Bone, unm.	whole	phalange; species unknown	14W/4.5N, L1; 05-20-98	1
Bone, unm.	fragmentary	femur; species unknown	14W/4.5N, L1; 05-20-98	1
Bone, unm.	fragmentary	indeterminate	16W/8.5N, L3; 05-21-98	2
Bone, unm.	fragmentary	indeterminate	16W/8.5N, L4; 05-21-98	2
Bone, unm.	whole	long bone; species unknown	16W/8.5N, L4; 05-21-98	1
Bone, unm.	fragmentary	long bone; species unknown	16W/8.5N, L4; 05-21-98	3
Bone, unm.	whole	crania; species unknown	16W/8.5N, L4; 05-21-98	1
Bone, unm.	fragmentary	crania; species unknown	16W/8.5N, L4; 05-21-98	2
Bone, unm.	fragmentary	rodent mandible	16W/8.5N, L4; 05-21-98	1
Bone, unm.	fragmentary	femur; species unknown	16W/8.5N, L4; 05-21-98	1
Bone, unm.	fragmentary	rib; species unknown	16W/8.5N, L4; 05-21-98	2
Bone, unm.	fragmentary	innominate; species unknown	16W/8.5N, L4; 05-21-98	1

Bone, unm.	fragmentary	temporal? species unknown	16W/8.5N, L5; 05-22-98	1
Bone, unm.	whole	long bone; species unknown	16W/8.5N, L5; 05-22-98	1
Bone, unm.	fragmentary	long bone; species unknown	16W/8.5N, L5; 05-22-98	1
Bone, unm.	fragmentary	long bone; species unknown	16W/8.5N, L6; 05-22-98	1
Bone, unm.	fragmentary	cranial; species unknown	16W/8.5N, L6; 05-22-98	4
Bone, unm.	fragmentary	rib; species unknown	16W/8.5N, L6; 05-22-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L6; 05-22-98	3
Burned bone, unm.	fragmentary	long bone; species unknown	16W/8.5N, L6; 05-22-98	2
Burned bone, cut marks	fragmentary; dorsal surface	long bone; species unknown	16W/8.5N, L6; 05-22-98	1
Bone, unm.	fragmentary	rib; species unknown	16W/8.5N, L7; 05-26-98	1
Turtle carapace, unm.	fragmentary	indeterminate	16W/8.5N, L7; 05-26-98	1
Bone, unm.	fragmentary	indeterminate	16W/8.5N, L8; 05-27-98	3
Bone, unm.	fragmentary	rodent mandible	16W/8.5N, L8; 05-27-98	1
Bone, unm.	whole	humerus; species unknown	16W/8.5N, L8; 05-27-98	1
Bone, unm.	whole	scapula; species unknown	16W/8.5N, L8; 05-27-98	2
Bone, unm.	fragmentary	rib; species unknown	16W/8.5N, L8; 05-27-98	2
Bone, unm.	whole	vertebra; species unknown	16W/8.5N, L8; 05-27-98	2
Bone, unm.	whole	innominate; species unknown	16W/8.5N, L8; 05-27-98	2
Bone, unm.	whole	femur; species unknown	16W/8.5N, L8; 05-27-98	1
Bone, unm.	whole	tibia; species unknown	16W/8.5N, L8; 05-27-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L8; 05-27-98	27

Bone, unm.	whole	humerus; species unknown	16W/8.5N, L9; 05-27-98	2
Bone, unm.	whole	scapula; species unknown	16W/8.5N, L9; 05-27-98	1
Bone, unm.	whole	femur; species unknown	16W/8.5N, L9; 05-27-98	1
Bone, unm.	whole	tibia; species unknown	16W/8.5N, L9; 05-27-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L9; 05-27-98	10
Bone, unm.	fragmentary	indeterminate	16W/8.5N, L10; 05-28-98	2
Bone, cut marks	fragmentary	indeterminate	16W/8.5N, L10; 05-28-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L10; 05-28-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L11; 05-29-98	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L12; 05-29-98	2
Bone, unm.	fragmentary	indeterminate	16W/8.5N, L?;	2
Bone, unm.	fragmentary	cranial; species unknown	16W/8.5N, L?	1
Burned bone, unm.	fragmentary	indeterminate	16W/8.5N, L?	1
Bone, unm.	whole	scapula; species unknown	16W/8.5N, North wall scraping; 06-01-98	1
Bone, unm.	whole	femur; species unknown	18.4W/3S, L1; 06-01-98	1
Bone, unm.	fragmentary	indeterminate	18.4W/3S, L2; 06-01-98	1
Bone, unm.	fragmentary	long bone; species unknown	18.4W/3S, L2; 06-01-98	1
Bone, unm.	fragmentary	femur; species unknown	18.4W/3S, L2; 06-01-98	1
Bone, RGM	fragmentary	long bone; deer	18.4W/3S, L3; 06-01-98	1
Turtle carapace, unm.	fragmentary	indeterminate	18.4W/3S, L3; 06-01-98	1
Bone, unm.	fragmentary	indeterminate	18.4W/3S, L4; 06-03-98	3
Bone, RGM	fragmentary	long bone; species unknown	18.4W/3S, L4; 06-03-98	1
Burned bone, unm.	fragmentary	indeterminate	18.4W/3S, L4; 06-03-98	1
Bone, unm.	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	3

Bone, unm.	fragmentary	long bone; species unknown	18.4W/3S, L5; 06-04-98	3
Bone, unm.	whole	deer phalange	18.4W/3S, L5; 06-04-98	1
Turtle carapace, unm.	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	3
Burned bone, unm.	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	2
Burned bone, unm.	fragmentary	long bone; species unknown	18.4W/3S, L5; 06-04-98	1
Burned turtle carapace, unm.	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	1
Burned bone, cut marks	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	1
Burned bone, RGM	fragmentary	indeterminate	18.4W/3S, L5; 06-04-98	1
Bone, unm.	fragmentary	indeterminate	18.4W/3S, L6; 06-08-98	1
Burned bone, unm.	fragmentary	indeterminate	18.4W/3S, L6; 06-04-98	2
Burned bone, unm.	fragmentary	indeterminate	18.4W/3S, L7; 06-09-98	3
Turtle carapace, unm.	fragmentary	indeterminate	18.4W/3S, L8; 06-10-98	1

Appendix J: Botanical Remains from 12-Cr-59 (Bush 1997)

Botanical remains from the Indian Cave site, 12 Cr 59

Leslie L. Bush

Background

The Indian Cave site is a rockshelter located in the Hoosier National Forest, Crawford County, Indiana. The shelter is situated on a ridge spur and faces roughly southeast. At least a dozen other archaeological sites have been identified along this topographic feature (GBL site files, 1997). The nearest water sources to the rock shelter are an intermittent stream approximately 100 meters to the south and Otter Creek, approximately 1100 meters to the northeast. The site is located within the Crawford Upland physiographic zone (Schneider 1966). The region is characterized by a western mesophytic forest in which microclimates strongly shape local forest communities (Braun 1967:141).

Methods

Botanical remains were recovered using three different methods: dry screening of most sediments through 1/4" hardware mesh, waterscreening of 3.0 liter samples through 1.0 mm mesh, and flotation of 3.0 liter samples. Botanical remains recovered by all three methods are reported here, with emphasis on the flotation material.

All remains from Zone VI recovered through dry screening and waterscreening were sorted and identified. Remains from 1/4" screen were examined under bright light with a hand lens at 4x magnification. Remains from waterscreening were gently sieved through 2 mm mesh. Remains larger than 2 mm were completely sorted under a dissection microsope at 7-30x magnification. Remains smaller than 2 mm were scanned for Fagaceae family nutshell, seeds and other plant remains but not otherwise sorted. Results from the waterscreening are therefore roughly comparable to that for flotation processing -- at least for more durable plant remains.

Twelve light fraction flotation samples were selected for analysis in an attempt to gain a representative understanding of the culture-bearing stratigraphic zones encountered during excavation, with special emphasis on Zone VI. The samples represent five zones and were selected from four different excavation units. Each sample had a volume of 3 liters. Table 1 shows the context of flotation samples chosen for analysis.

Flotation samples were processed at Ball State University in a Flote-tech flotation machine with heavy fraction mesh of 1.0 mm and light fraction mesh of .325 mm (Dausman 1989). After drying, all light and heavy fractions were bagged and sent to the Glenn A. Black Laboratory of Archaeology for sorting and analysis. Poor separation during flotation required the examination of botanical materials that had been hand-sorted from heavy fractions by Ball State personnel.

Each light fraction and all botanical material from heavy fractions were gently sieved through a series of geologic mesh (2 mm, 1.4 mm and .71 mm) and sorted under a dissection microscope at 7-30x magnification. All materials that did not pass through the 2 mm mesh were

sorted completely, counted and weighed. Only botanical remains other than wood and nutshell were removed from size fractions smaller than 2 mm, which are collectively referred to as the "residue." Because acorn family (Fagaceae) nutshell is more delicate than other types of nutshell such as hickory and hazelnut, it has a greater tendency to break apart in the soil. Therefore, following Fritz (1996) and Scarry (1986), acorn family nutshell was removed from both the 2 mm and 1.4 mm size fractions rather just the 2 mm size fraction.

Although some investigators adjust their data to reflect estimated wood charcoal and nutshell smaller than 2 mm, most do not. The data in Tables 5-8 therefore represent counts and weights without estimated adjustments for materials smaller than 2 mm that were present but not pulled. Identifications were made using the reference collection of the Glenn A. Black Laboratory of Archaeology and standard reference works (Martin and Barkley 1961; Montgomery 1977; Schopmeyer 1974).

On most sites in the eastern woodlands, any uncharred botanical materials can be assumed to be modern contaminants (Lopinot and Brussel 1982; Minnis 1981). The Indian Cave shelter, however, is somewhat protected, making long-term preservation of botanical materials possible at the site. Fresh bone, hair and fiber were recovered from test units. For this project, uncharred remains were identified, counted and weighed. The possible cultural or natural origin of these remains is discussed below. Many insect body parts were also observed and noted on laboratory forms but were not otherwise quantified.

Wood charcoal fragments were identified from four samples containing three grams or more of wood charcoal. Identification was attempted only on wood charcoal fragments that did not pass through a 2 mm mesh and was performed at 45-100x magnification. Wood charcoal fragments were selected at random until a total of 30 identifiable fragments was reached. As with the other botanical items, identifications were made using the reference collection of the Glenn A. Black Laboratory of Archaeology and standard reference works (Core et al. 1979; Hoadley 1990). Identification was originally done only on wood charcoal from light fraction material. After it was determined that heavy fractions also contained significant amounts of botanical material, additional identification was performed on the heavy fraction wood charcoal from Unit 6, Level 13. The additional material did not substantially change the wood charcoal profile, as determined from the light fraction material -- except to dramatically increase the number of unidentified fragments. Therefore, no heavy fraction material was examined for the other samples.

Results

Tables 2A and 2B show identification of material recovered through 1/4" mesh. Tables 3 and 4 provide the data for waterscreened material. Identification of materials recovered through flotation are given in Tables 5-9. Table 5 shows charred remains by count; Table 6 shows charred remains by weight. Tables 7 and 8 show uncharred remains by count and weight, respectively. Table 9 provides the results of wood charcoal identification.

Discussion

1/4" screen material

Results from the 1/4" screen samples (Table 2) reflect the general composition of Zone VI botanical remains and contain moderate amounts of wood charcoal and nutshell. Nutshell is dominated by hickory (*Carya* spp.), with some walnut (*Juglans nigra*) also present. Acorn family (Fagaceae) nutshell is notably absent from the 1/4" screen samples, reflecting that taxa's more delicate character. Acorn family nutshell is present in both waterscreen and flotation samples.

Waterscreened material

Not surprisingly, waterscreened material reflects a wider range of botanical taxa than does the 1/4" screen material. Among the charred remains, butternut, hazelnut and acorn nutshell are present, along with acorn meat, a grape seed and one unidentifiable seed fragment. The nutshell/wood ratio is consistent with that of the flotation material from Zone VI. The nutshell profile is also similar to that reflected in the flotation material, with nutshell strongly dominated by members of the hickory-walnut (Juglandaceae) family, especially hickory (*Carya* spp.).

Many uncharred botanical remains were recorded in the waterscreened samples. These include fragments of wood tissue, leaves and rootlets, along with seeds such as pokeweed and tulippoplar. While conditions in the Indian Cave shelter leave open the possibility that fresh botanical remains may be preserved for very long periods of time, caution must be exercised in interpreting all such remains as ancient. A study of botanical material at an Indiana rockshelter not occupied by humans demonstrated that natural processes (e.g., wind, water movement, animal transport) result in the deposition of many fresh botanical remains in rockshelters (Bush 1993). Fresh wood was the most common taxon recovered at that shelter, and, of particular interest here, an average of 1.7 tulippoplar seeds per square meter were also recovered. Thus, while it is certainly possible that fresh botanical remains may be ancient, they probably do not all represent cultural introductions into the shelter.

A single fragment of two-ply S-twisted fiber from Level 23 of Unit 12W/3S is certainly of cultural origin, however, and merits special discussion here. The fragment is approximately 80 mm in length; width varies from approximately 0.4 to 0.9 mm. One end appears to have been cut, the other to have been pulled or frayed apart. The fragment is in excellent condition and feels like natural fiber to the touch. Visual examination at 100x magnification supports this identification, with the specimen comparing favorably to a modern cotton string. It is clearly not comparable to a modern synthetic string. The fiber's context and uneven width suggest an origin prior to industrial string production, perhaps even contemporary with the human occupation that produced Zone VI. While such an interpretation is certainly tempting, it cannot be conclusively argued, however: The presence of a piece of red plastic in that waterscreen sample indicates that the level does contain some thoroughly modern material. Two other fragments of twisted fiber were recovered through flotation and are discussed below.

Flotation processed material

Flotation processed material was the only recovery method for which remains other than Zone VI were analyzed. Four radiocarbon dates from the Indian Cave site place all three dated zones (Zones II, IV and VI) in the Late Archaic period. Some temporal separation of the zones is indicated, however, by the full meter of deposits (Zone V) which separates Zones IV and VI.

Fresh remains

Like the waterscreened samples, the flotation samples produced many uncharred botanical remains. A variety of taxa are represented, including some with obvious food uses (e.g., hickory, blackberry, grape). Other plant remains, such as tulippolar and rootlets, seem more likely to have been introduced to the shelter by natural agents. In general, fresh botanical remains account for only a tiny fraction of total remains (See Table 7). As noted above, Indiana rockshelters do contain a variety of naturally introduced botanical remains. Because of the equivocal nature of their origin, and because fresh remains account for such a small fraction of total botanical remains, with one exception they will not be discussed further here.

Two fragments of twisted fiber merit special attention because of the presence of fiber in the waterscreened remains. The white fiber from Unit 5 Level 2 is clearly modern, with synthetic fibers netted over a core of straight fibers. The fiber from Unit 5 Level 5 is a two-ply, Z-twisted fiber that is light brown in color. It is approximately 10 mm long and approximately .5 mm wide. It appears to have been frayed off at both ends. While its off-white color and narrow width suggest a possible ancient origin, at 100x magnification the fibers appear suspiciously smooth and nearly transparent. While no attempt was made to identify the actual origin of the fiber (e.g., through even higher magnification or chemical analysis), its appearance at 100x magnification suggests a synthetic origin.

Charred remains

The total number of charred botanical remains recovered was relatively small, making fine distinctions among the zones based on their botanical remains unfeasible. One distinction involving Zone VI should be noted, however. Material from this zone has a higher nutshell/wood charcoal ratio than other zones (Figure 1; Zone VI in crosshatching). In general, however, this discussion will address all botanical remains as representing undifferentiated Late Archaic deposits.

Wood charcoal and nut remains dominate the charred botanical assemblage from Indian Cave. Other than these types of remains, only one seed (actually a fruit segment) and one cucurbit rind fragment were recovered. The fruit is that of tick-trefoil, also called tickclover (*Desmodium* sp.). The fruits of these plants break off into segments that easily attach to fur and clothing, so it seems likely that the presence of charred *Desmodium* at Indian Cave reflects disposal of a nuisance plant.

Cucurbit remains

The earliest archaeological cucurbit remains in the eastern woodlands are from the Koster and Napoleon Hollow sites in Illinois and the Windover site in Florida. They suggest that cucurbit use in this region dates to approximately 7,000 BP (Asch and Asch 1985b; Hart and Sidell 1997). Cucurbit use does not become common in the eastern woodlands until approximately 4,000 BP (Fritz 1990). Cucurbits may be divided into bottle gourds (*Lagenaria siceraria*) and squashes (*Cucurbita* spp.). Thinner-shelled members of the latter group are often referred to as gourds. Bottle gourds are not known in the wild, so their status as a cultivated or domesticated plant in the mid-Holocene is uncertain. Squashes, on the other hand, occur in the wild in some parts of the eastern United States. Their presence outside these areas as early as 5,000 BP suggests that the plant may have been cultivated by at least this time period (Peterson and Sidell 1996). Under what has become known as "King's Rule," squashes are considered domesticated if their rind is 2 mm or more in thickness. Squash remains of this dimension are not found in the eastern woodlands until approximately 3,000 BP (Hart and Sidell 1997; Smith 1992:41). Prior to this time period, the thin rinds of these squashes were presumably more likely to have been used as containers than as food products. The seeds of these thin-shelled squashes may have been used for food, however, as the paleofeces from Salts Cave attest (Yarnall 1969).

The single cucurbit rind fragment recovered at the Indian Cave site may be assigned to *Cucurbita* spp. (squashes) on the basis of the distinctive cellular structure visible on the interior surface and cross-section and the presence of white cystolith deposits on the outer surface (Asch and Asch 1985b). That a cucurbit rind was recovered from such a small sample suggests that squash was a relatively common plant at Indian Cave in the Late Archaic period, a finding consistent with the four radiocarbon dates that place the occupations yielding botanical remains in the late second or early third millennium BC. The maximum thickness of the cucurbit rind, 1.36 mm, is also consistent with these dates. As noted above, the presence of this relatively thin-shelled cucurbit may reflect cultivation of the plant by the occupants of Indian Cave. Unlike the tick-trefoil fruit, its presence almost certainly reflects use of the plant, as a container, a food item, or both.

Nutshell

The charred nut remains at Indian Cave consist of thick-shelled hickory, walnut, butternut, acorn and chestnut. Most of the nutshell is identifiable to genus, but interior shell fragments of members of the hickory-walnut family cannot be reliably distinguished from each other. Such fragments are identified only to family (Juglandaceae), but, given the taxonomic distribution of identifiable shell fragments, they most likely represent thick-shelled hickory (*Carya* spp.). Including the fragments identified only as Juglandaceae, members of the hickory-walnut family dominate the nutshell assemblage, being 89% by count and 99% by weight. No sample contains more acorn than hickory, though Level 5 of Unit 5 contains equal amounts of both by weight. Two fragments of acorn nutmeat were recovered from Unit 9 of Level 1. Because acorn nutmeat contains more carbohydrate and less oil than does hickory nutmeat, it is more likely to be preserved through charring. No other nutmeats were recovered from Indian Cave.

The hickory-to-acorn ratio at Indian Cave is consistent with that of other Late Archaic sites (Yarnall and Black 1985) -- but then again, it is also consistent with that of most sites prior

to the Mississippian period (Chapman and Shea 1981). The relatively small absolute number and weight of nut remains from Indian Cave is simply too small for significant conclusions to be drawn.

Wood charcoal

Asch and Asch have proposed a principle known as the Firewood Indifference Hypothesis, which states that, "economy of effort dictated the use of the nearest available deadwood for the everyday cooking and heating fires that would have produced the bulk of the wood charcoal preserved at a site" (Asch and Asch 1985a:346). Thus, while differences in deadwood production by different tree species and the cultural preferences of wood-gatherers will skew archaeological samples, archaeological wood charcoal remains will in general reflect local forest composition. The Firewood Indifference Hypothesis is the basis for interpretation of wood charcoal remains at Indian Cave.

Most wood charcoal fragments from Indian Cave can be identified to at least the genus level. Thirteen fragments of what are probably white oak are simply too slow-growing for identification to be made beyond the family level and so are identified only as Fagaceae. (Usually, latewood pores in these fragments are difficult or impossible to see, making it unclear whether the wood represents a ring-porous *Quercus* or a diffuse-porous member of the same family. Occasionally, the large rays characteristic of *Quercus* are absent, making *Castanea*, also a member of the Fagaceae, a possible alternative identification.) Due to the limited magnification available, the three gymnosperm fragments could not be identified beyond the taxonomic level of order. However, it is likely that two of the three represent eastern hemlock (*Tsuga canadensis*), a species known to occur locally in Indiana Hill Section forests (Braun 1967:142). The absence of resin canals in these fragments is consistent with an identification of hemlock.

The wood charcoal remains at Indian Cave are dominated by red and white oak, which comprise 53% of the assemblage (including fragments identified as Fagaceae). The next most common taxon is walnut/butternut, which makes up 9% of the wood charcoal fragments. In descending order of frequency, maple, hickory, ash, black locust, dogwood, plum/cherry, American hornbeam, sweetgum, beech and ironwood were the other taxa identified. Identification of only thirteen taxa many seem like a narrow charcoal spectrum, but it should be remembered that western mesophytic forests tend to be dominated by a few species (Braun 1967:123). The south-facing slope immediately outside the Indian Cave shelter would have provided a fairly xeric environment, making it likely that oaks, walnut and hickories would have dominated slope. Maples and beech prefer darker, moister environments. Thus, the wood charcoal spectrum at Indian Cave seems to accurately reflect deadwood collected for burning from the immediate area of the Indian Cave shelter.

Conclusion

In sum, the botanical remains from the Indian Cave reflect a typical Late Archaic plant subsistence pattern based on the collection of wild plant foods (in this case, hickory and acorn

nuts) and the possible cultivation of thin-shelled squash for food or containers. Wood charcoal from the site reflects the probable western mesophytic composition of the local forest immediately outside the shelter opening.

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Appendix J: Botanical Remains from 12-Cr-59 (Bush 1997)

Table 1
Flotation samples analyzed (by cultural zone)

Zone	Sub-zone	Unit	Level
Zone II		Unit 5	Level 2
Zone II	B	Unit 5	Level 5
Zone III		Unit 5	Level 6
Zone IV		Unit 2	Level 2
Zone IV	A	Unit 1	Level 6
Zone IV	B	Unit 1	Level 9
Zone V		Unit 1	Level 9
Zone V		Unit 6	Level 7
Zone VI		Unit 6	Level 12
Zone VI		Unit 6	Level 13
Zone VI		Unit 6	Level 14
Zone VI		Unit 6	Level 15

Table 5												
Indian Cave (12 Cr 59) Fresh Botanical Remains												
Raw Weights*												
	Unit 1	Unit 1	Unit 1	Unit 2	Unit 5	Unit 5	Unit 5	Unit 6	Unit 6	Unit 6		
	Level 6	Level 9	Level 9	Level 2	Level 2	Level 5	Level 6	Level 7	Level 12	Level 13		
	Zone 4A	Zone 4B	Zone 5	Zone 4	Zone 2	Zone 2B	Zone 3	Zone 5	Zone 6	Zone 6	TOTAL	
Liters processed (l)	3	3	3	3	3	3	3	3	3	3	30	Liters processed (l)
Total light fraction weight (g)	6.95	9.75	2.75	8.67	2.74	4.34	1.94	1.17	1.97	4.32	44.60	Total light fraction weight (g)
Residue (<2mm) weight (g)	3.18	5.17	1.48	3.53	1.39	2.88	1.00	1.03	1.29	2.10	23.05	Residue (<2mm) weight (g)
Total fresh remains >2mm (g)	0.22	0.12	0.16	0.40	0.20	0.90	0.36	<0.01	0.07	0.09	2.52	Total fresh remains >2mm (g)
Nutshell												Nutshell
Carya spp.	0.03		0.02	0.15			<0.01			<0.01	0.20	Hickory
Juglandaceae			<0.01		0.01					<0.01	0.01	Hickory/walnut family
Quercus spp.	0.03			0.07			<0.01				0.10	Acorn
Seeds >0.01g												Seeds
Vitis sp.				0.01							0.01	Grape
*materials smaller than 2 mm and weighing less than 0.01 g are not included												

Table 6

Indian Cave (12 Cr 59) Charred Botanical Remains

Wood Charcoal identification

	Unit 1		Unit 1		Unit 2		Unit 6				
	Level 6		Level 9		Level 2		Level 13				
	Zone 4A		Zone 4B		Zone 4		Zone 6		TOTAL		
Liters processed (l)		3		3		3		3		12	Liters processed (l)
Wood charcoal >2mm (g)		3.01		4.14		4.02		1.98		13.15	Wood charcoal >2mm (g)
Taxon	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Acer spp.	2	6.67%			1	3.33%	4	13.33%	7	5.83%	Maple
Carpinus caroliniana					1	3.33%			1	0.83%	American hornbeam
Carya spp.	1	3.33%	1	3.33%			2	6.67%	4	3.33%	Hickory/pecan
Cornus sp.					2	6.67%	1	3.33%	3	2.50%	Dogwood
Fraxinus spp.			3	10.00%					3	2.50%	Ash
Juglans spp.	7	23.33%	5	16.67%	1	3.33%			13	10.83%	Walnut/butternut
Liquidambar styraciflua							1	3.33%	1	0.83%	Sweetgum
Ostrya virginiana			1	3.33%					1	0.83%	Ironwood
Prunus sp.					2	6.67%			2	1.67%	Plum/cherry
Quercus spp.			1	3.33%					1	0.83%	Oak
Quercus spp. (red)			1	3.33%	3	10.00%	2	6.67%	6	5.00%	Red oak
Quercus spp. (white)	14	46.67%	14	46.67%	8	26.67%	12	40.00%	48	40.00%	White oak
Fagaceae					6	20.00%	7	23.33%	13	10.83%	Oak/beech family
Robinia pseudoacacia			1	3.33%	3	10.00%			4	3.33%	Black locust
Ring-porous angiosperm	5	16.67%			2	6.67%			7	5.83%	hardwood
Diffuse-porous angiosperm	1	3.33%	2	6.67%	1	3.33%			4	3.33%	hardwood
Gymnosperm			1	3.33%			1	3.33%	2	1.67%	softwood
Unidentifiable	5		10		6	20.00%	4	13.33%	25		Unidentifiable
Total identifiable	30		30		30		30		120		Total identifiable

Appendix K: Botanical Remains from 12-Cr-59 (Bush 1998)

Botanical remains from the Indian Cave site, 12 Cr 59

Leslie L. Bush

Background

The Indian Cave site is a rock shelter located in the Hoosier National Forest, Crawford County, Indiana. The shelter is situated on a ridge spur and faces roughly southeast. At least a dozen other archaeological sites have been identified along this topographic feature (GBL site files, 1997). The nearest water sources to the rock shelter are an intermittent stream approximately 100 meters to the south and Otter Creek, approximately 1100 meters to the northeast. The site is located within the Crawford Upland physiographic zone (Schneider 1966). The region is characterized by a western mesophytic forest in which microclimates strongly shape local forest communities (Braun 1967:141).

Methods

Ten light fraction flotation samples were selected for analysis in an attempt to gain a representative understanding of the culture-bearing stratigraphic zones encountered during excavation. The samples represent five zones and were selected from four different excavation units. Each sample had a volume of 3 liters. Table 1 shows the context of flotation samples chosen for analysis.

Table 1: Flotation samples analyzed (by cultural zone)

Zone	Sub-zone	Unit	Level
Zone 2		Unit 5	Level 2
	B	Unit 5	Level 5
Zone 3		Unit 5	Level 6
Zone 4		Unit 2	Level 2
	A	Unit 1	Level 6
	B	Unit 1	Level 9
Zone 5		Unit 1	Level 9
		Unit 6	Level 7
Zone 6		Unit 6	Level 12
		Unit 6	Level 13

Samples were processed at Ball State University in a Flote-tech flotation machine with heavy fraction mesh of 1.0 mm and light fraction mesh of .325 mm (Dausman 1989). After drying, light fractions were bagged and sent to the Glenn A. Black Laboratory of Archaeology for sorting and analysis.

Each light fraction was gently sieved through a series of geologic mesh (2 mm, 1.4 mm and .71 mm) and sorted under a dissecting microscope at 7-30x magnification. All materials that did not pass through the 2 mm mesh were sorted completely, counted and weighed. Only charred botanical remains other than wood and nutshell were removed from size fractions smaller than 2 mm, which are collectively referred to as the "residue." Because acorn nutshell is more delicate than other types of nutshell such as hickory and hazelnut, it has a greater tendency to break apart in the soil. Therefore, following Fritz 1996 and Scarry 1986, acorn nutshell was removed from both the 2 mm and 1.4 mm size fractions rather just the 2 mm size fraction.

Although some investigators adjust their data to reflect estimated wood charcoal and nutshell smaller than 2 mm, most do not. The data in Tables 2-5 therefore represent counts and weights without estimated adjustments for materials smaller than 2 mm that were present but not pulled. Identifications were made using the reference collection of the Glenn A. Black Laboratory of Archaeology and standard reference works (Martin and Barkley 1961, Montgomery 1977, Schopmeyer 1974).

On most sites in the eastern woodlands, any uncharred botanical materials can be assumed to be modern contaminants (Lopinot and Brussel 1982, Minnis 1981). The Indian Cave site is typical and fits none of the criteria for possible long-term preservation of uncharred remains. Therefore, the uncharred botanical remains at the site most likely represent modern vegetation. For this project, uncharred remains were identified, counted and weighed as indicators of disturbance. The presence of insect body parts, also presumably an indicator of disturbance, was observed and noted on laboratory forms but not otherwise quantified.

Wood charcoal fragments were identified from the four samples containing two grams or more of wood charcoal. Identification was attempted only on wood charcoal fragments that did not pass through a 2 mm mesh and was performed at 45-100x magnification. Wood charcoal fragments were selected at random until a total of 30 identifiable fragments was reached. As with the other botanical items, identifications were made using the reference collection of the Glenn A. Black Laboratory of Archaeology and standard reference works (Core, et al. 1979, Hoadley 1990).

Results

Results of botanical analysis are given in Tables 2-6. Table 2 shows charred remains by count; Table 3 shows charred remains by weight. Tables 4 and 5 show uncharred remains by

count and weight, respectively. Table 6 provides the results of wood charcoal identification.

Discussion

Four radiocarbon dates from the Indian Cave site place all three dated zones (Zones 2, 4 and 6) in the Late Archaic period. Some temporal separation of the zones is indicated, however, by the full meter of deposits (Zone 5) which separates Zones 4 and 6. The total number of charred botanical remains recovered was relatively small, making fine distinctions among the zones based on their botanical remains unfeasible. Therefore, this discussion will address all botanical remains as representing undifferentiated Late Archaic deposits.

Wood charcoal and nut remains dominate the charred botanical assemblage from Indian Cave. Other than these types of remains, only one seed (actually a fruit segment) and one cucurbit rind fragment were recovered. The fruit is that of tick-trefoil, also called tickclover (*Desmodium* sp.). The fruits of these plants break off into segments that easily attach to fur and clothing, so it seems likely that the presence of charred *Desmodium* at Indian Cave reflects disposal of a nuisance plant.

Cucurbit remains

The earliest archaeological cucurbit remains in the eastern woodlands are from the Koster and Napoleon Hollow sites in Illinois and the Windover site in Florida. They suggest that cucurbit use in this region dates to approximately 7,000 BP (Asch and Asch 1985b, Hart and Sidell 1997). Cucurbit use does not become common in the eastern woodlands until approximately 4,000 BP (Fritz 1990). Cucurbits may be divided into bottle gourds (*Lagenaria siceraria*) and squashes (*Cucurbita* spp.). Thinner-shelled members of the latter group are often referred to as gourds. Bottle gourds are not known in the wild, so their status as a cultivated or domesticated plant in the mid-Holocene is uncertain. Squashes, on the other hand, occur in the wild in some parts of the eastern United States. Their presence outside these areas as early as 5,000 BP suggests that the plant may have been cultivated by at least this time period (Peterson and Sidell 1996). Under what has become known as "King's Rule," squashes are considered domesticated if their rind is 2 mm or more in thickness. Squash remains of this dimension are not found in the eastern woodlands until approximately 3,000 BP (Hart and Sidell 1997, Smith 1992:41). Prior to this time period, the thin rinds of these squashes were presumably more likely to have been used as containers than as food products. The seeds of these thin-shelled squashes may have been used for food, however, as the paleofeces from Salts Cave attest (Yarnall 1969).

The single cucurbit rind fragment recovered at the Indian Cave site may be assigned to *Cucurbita* spp. (squashes) on the basis of the distinctive cellular structure visible on the interior surface and cross-section and the presence of white cystolith deposits on the outer surface (Asch and Asch 1985b). That a cucurbit rind was recovered from such a small sample suggests that

squash was a relatively common plant at Indian Cave in the Late Archaic period, a finding consistent with the four radiocarbon dates that place the occupations yielding botanical remains in the late second or early third millennium BC. The maximum thickness of the cucurbit rind, 1.36 mm, is also consistent with these dates. As noted above, the presence of this relatively thin-shelled cucurbit may reflect cultivation of the plant by the occupants of Indian Cave. Unlike the tick-trefoil fruit, its presence almost certainly reflects use of the plant, as a container, a food item, or both.

Nutshell

The charred nut remains at Indian Cave consist of thick-shelled hickory and acorn. Most of the nutshell is identifiable to genus (*Carya* or *Quercus*), but interior shell fragments of members of the hickory/walnut family cannot be reliably distinguished from each other. Such fragments are identified only to family (Juglandaceae), but, given the taxonomic distribution of identifiable shell fragments, they most likely represent thick-shelled hickory (*Carya* spp.). Including the fragments identified as Juglandaceae, hickory dominates the nutshell assemblage, being 69% by count and 95% by weight. Two samples contain more acorn than hickory. The first is Level 5 of Unit 5, which yielded only a single acorn shell fragment. The second is Level 9 of Unit 1, where a total of ten nutsehll fragments weighing <0.01 g were recovered. The higher acorn ratio in both samples may be due to small sample size, but it is worth noting that two fragments of acorn nutmeat were also recovered from Unit 9 of Level 1. Because acorn nutmeat contains more carbohydrate and less oil than does hickory nutmeat, it is more likely to be preserved through charring. No other nutmeats were recovered from Indian Cave.

The hickory-to-acorn ratio at Indian Cave is consistent with that of other Late Archaic sites (Yarnall and Black 1985) -- but then again, it is also consistent with that of most sites prior to the Mississippian period (Chapman and Shea 1981). The relatively small absolute number and weight of nut remains from Indian Cave is simply too small for significant conclusions to be drawn.

Wood charcoal

Asch and Asch have proposed a principle known as the Firewood Indifference Hypothesis, which states that, "economy of effort dictated the use of the nearest available deadwood for the everyday cooking and heating fires that would have produced the bulk of the wood charcoal preserved at a site" (Asch and Asch 1985a:346). Thus, while differences in deadwood production by different tree species and the cultural preferences of wood-gatherers will skew archaeological samples, archaeological wood charcoal remains will in general reflect local forest composition. The Firewood Indifference Hypothesis has wide support among archaeologists and is the basis for interpretation of wood charcoal remains at Indian Cave.

Most wood charcoal fragments from Indian Cave can be identified to at least the genus level. Thirteen fragments of what are probably white oak are simply too slow-growing for

identification to be made beyond the family level and so are identified only as Fagaceae. (Usually, latewood pores in these fragments are difficult or impossible to see, making it unclear whether the wood represents a ring-porous *Quercus* or a diffuse-porous member of the same family. Occasionally, the large rays characteristic of *Quercus* are absent, making *Castanea*, also a member of the Fagaceae, a possible alternative identification.) Due to the limited magnification available, the two gymnosperm fragments could not be identified beyond the taxonomic level of order. However, it is likely that they represent eastern hemlock (*Tsuga canadensis*), a species known to occur locally in Indiana Hill Section forests (Braun 1967:142). The absence of resin canals in these fragments is consistent with an identification of hemlock.

The wood charcoal remains at Indian Cave are dominated by red and white oak, which comprise 57% of the assemblage (including fragments identified as Fagaceae). The next most common taxon is walnut/butternut, which makes up 11% of the wood charcoal fragments. This finding is somewhat surprising given the apparent lack of walnut shell among the nut remains at the site. In descending order of frequency, maple, hickory, black locust, dogwood, ash, plum/cherry, American hornbeam, sweetgum and ironwood were the other taxa identified. Identification of only twelve taxa many seem like a narrow charcoal spectrum, but it should be remembered that western mesophytic forests tend to be dominated by a few species (Braun 1967:123). The south-facing slope immediately outside the Indian Cave shelter would have provided a fairly xeric environment, making it likely that oaks, walnut and hickories would have dominated slope. Maples and beech prefer darker, moister environments. Thus, the wood charcoal spectrum at Indian Cave seems to accurately reflect deadwood collected for burning from the immediate area of the Indian Cave shelter.

Conclusion

In sum, the botanical remains from the Indian Cave reflect a typical Late Archaic plant subsistence pattern based on the collection of wild plant foods (in this case, hickory and acorn nuts) and the possible cultivation of thin-shelled squash for food or containers. Wood charcoal from the site reflects the probable western mesophytic composition of the local forest immediately outside the shelter opening.

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Table 2												
Indian Cave (12 Cr 59) Charred Botanical Remains												
Raw Counts												
	Unit 1	Unit 1	Unit 1	Unit 2	Unit 5	Unit 5	Unit 5	Unit 6	Unit 6	Unit 6		
	Level 6	Level 9	Level 9	Level 2	Level 2	Level 5	Level 6	Level 7	Level 12	Level 13		
	Zone 4A	Zone 4B	Zone 5	Zone 4	Zone 2	Zone 2B	Zone 3	Zone 5	Zone 6	Zone 6	TOTAL	
Liters processed (l)	3	3	3	3	3	3	3	3	3	3	30	Liters processed (l)
Total light fraction weight (g)	6.95	9.75	2.75	8.67	2.74	4.34	1.94	1.17	1.97	4.32	44.60	Total light fraction weight (g)
Residue (<2mm) weight (g)	3.18	5.17	1.48	3.53	1.39	2.88	1.00	1.03	1.29	2.10	23.05	Residue (<2mm) weight (g)
Charred Remains >2mm (g)	3.36	4.26	1.02	4.32	1.03	0.37	0.48	0.07	0.52	2.03	17.46	Charred Remains >2mm (g)
Wood charcoal >2mm (g)	3.01	4.14	0.99	4.02	1.02	0.36	0.44	0.07	0.50	1.98	16.53	Wood charcoal >2mm (g)
Nutshell												Nutshell
Carya spp.	17	1	2	18	1		2		2	6	49	Hickory
Juglandaceae	7	2		10	3						22	Hickory/walnut family
Quercus spp.	7	8	2	9	3	1	2				32	Acorn
Nutmeat												Nutmeat
Quercus sp.		2									2	Acorn
Cucurbita pepo (rind)				1							1	Squash/gourd rind
Seeds												Seeds
Desmodium nudiflorum										1	1	Tick-trefoil
Bud	1										1	Bud
Monocot stem					2						2	Monocot stem
Unidentifiable	8	1		8	2		3			4	26	Unidentifiable
Total nutshell counts	31	11	4	37	7	1	4	0	2	6	103	Total nutshell counts
% Juglandaceae	77%	27%	50%	76%	57%	0%	50%		100%	100%	69%	Hickory/hickory family
% Quercus	23%	73%	50%	24%	43%	100%	50%		0%	0%	31%	Acorn
Nutshell/wood ratio (#/g)	10.30	2.66	4.04	9.20	6.86	2.78	9.09	0.00	4.00	3.03	6.23	Nutshell/wood ratio (#/g)

Table 3

Indian Cave (12 Cr 59) Charred Botanical Remains

Raw Weights

	Unit 1 Level 6 Zone 4A	Unit 1 Level 9 Zone 4B	Unit 1 Level 9 Zone 5	Unit 2 Level 2 Zone 4	Unit 5 Level 2 Zone 2	Unit 5 Level 5 Zone 2B	Unit 5 Level 6 Zone 3	Unit 6 Level 7 Zone 5	Unit 6 Level 12 Zone 6	Unit 6 Level 13 Zone 6	TOTAL	
Liters processed (l)	3	3	3	3	3	3	3	3	3	3	30	Liters processed (l)
Total light fraction weight (g)	6.95	9.75	2.75	8.67	2.74	4.34	1.94	1.17	1.97	4.32	44.60	Total light fraction weight (g)
Residue (<2mm) weight (g)	3.18	5.17	1.48	3.53	1.39	2.88	1.00	1.03	1.29	2.10	23.05	Residue (<2mm) weight (g)
Total charred remains >2mm (g)	3.36	4.26	1.02	4.32	1.03	0.37	0.48	0.07	0.52	2.03	17.46	Total charred remains >2mm (g)
Wood charcoal >2mm (g)	3.01	4.14	0.99	4.02	1.02	0.36	0.44	0.07	0.50	1.98	16.53	Wood charcoal >2mm (g)
Nutshell												Nutshell
Carya spp.	0.27	<0.01	0.03	0.24		<0.01	0.02		0.02	0.04	0.62	Hickory
Juglandaceae	0.02		<0.01	0.01		<0.01					0.03	Hickory/walnut family
Quercus spp.	0.01	<0.01	<0.01	0.02	<0.01	0.01		<0.01			0.04	Acorn
Nutmeat												Nutmeat
Quercus sp.		0.12									0.12	Acorn
Cucurbita pepo (rind)					<0.01						<0.01	Squash/gourd rind
Seeds												Seeds
Desmodium nudiflorum										<0.01	<0.01	Tick-trefoil
Bud		<0.01									<0.01	Bud
Monocot stem						<0.01					<0.01	Monocot stem
Unidentifiable	0.03		<0.01	0.03	0.01		0.02			0.01	0.10	Unidentifiable
Total nut weight	0.30	<0.01	0.03	0.27	<0.01	0.01	0.02	0.00	0.02	0.04	0.69	Total nut weight
% Juglandaceae	97%		99%	93%		0%	99%		100%	100%	94%	% Hickory/hickory family
% Quercus	3%		1%	7%		100%	1%		0%	0%	6%	% Acorn
Nut/wood ratio (g/g)	0.10	0.00	0.03	0.07	0.00	0.03	0.05	0.00	0.04	0.02	0.04	Nut/wood ratio (g/g)

Table 4

Indian Cave (12 Cr 59) Fresh Botanical Remains

Raw Counts

	Unit 1	Unit 1	Unit 1	Unit 2	Unit 5	Unit 5	Unit 5	Unit 6	Unit 6	Unit 6		
	Level 6	Level 9	Level 9	Level 2	Level 2	Level 5	Level 6	Level 7	Level 12	Level 13		
	Zone 4A	Zone 4B	Zone 5	Zone 4	Zone 2	Zone 2B	Zone 3	Zone 5	Zone 6	Zone 6	TOTAL	
Liters processed (l)	3	3	3	3	3	3	3	3	3	3	30	Liters processed (l)
Total light fraction weight (g)	6.95	9.75	2.75	8.67	2.74	4.34	1.94	1.17	1.97	4.32	44.60	Total light fraction weight (g)
Residue (<2mm) weight (g)	3.18	5.17	1.48	3.53	1.39	2.88	1.00	1.03	1.29	2.10	23.05	Residue (<2mm) weight (g)
Total fresh remains >2mm (g)	0.22	0.12	0.16	0.40	0.20	0.90	0.36	<0.01	0.07	0.09	2.52	Total fresh remains >2mm (g)
Nutshell												Nutshell
Carya spp.	8		3	11		1			1		24	Hickory
Juglandaceae		1			1					2	4	Hickory/walnut family
Quercus spp.	1			3		1					5	Acorn
Seeds												Seeds
Rubus spp.		1				2			1	1	5	Blackberry/raspberry
Liriodendron tulipifera				1						1	2	Tuliptree
Cyperaceae			1							1	2	Sedge family
Unidentified									2		2	Unidentified
Vitis sp.				1							1	Grape
Rudbeckia sp.								1			1	Coneflower
Poaceae (Panicoid)										1	1	Panicoid grass
Fresh remains as a % of total light fraction (g)	3%	1%	6%	5%	7%	21%	19%	0%	4%	2%	6%	Fresh remains as a % of total light fraction (g)

Table 2

Table 2A
Indian Cave (12Cr59)
Botanical remains from 1/4" screen
Raw counts

		Charred----------		
		Nutshell ----------		Fresh
		Hickory	Walnut	Wood
Unit	Level			
12W/3S	16	6		
12W/3S	17	16	1	
12W/3S	18	21	3	
12W/3S	19	45		1
12W/3S	20	11		
12W/3S	21	7	3	
12W/3S	22	5		
12W/3S	23	1		
12W/3S	w. wall scrapings	10		
11W/4S	2	8	1	
11W/4S	3	5		1
Unit 6	12			
Unit 6	13			
Unit 6	14			

Table 2B
Indian Cave (12Cr59)
Botanical remains from 1/4" screen
Raw weights (in grams)

		Charred----------			
		Wood	Nutshell ----------		Fresh
		Charcoal	Hickory	Walnut	Wood
Unit	Level				
12W/3S	16	0.98	0.56		
12W/3S	17	5.85	0.99	0.14	
12W/3S	18	25.53	1.49	0.35	
12W/3S	19	29.67	4.76		0.06
12W/3S	20	2.57	0.79		
12W/3S	21	3.52	0.36	0.30	
12W/3S	22	2.11	0.53		
12W/3S	23	3.54	0.07		
12W/3S	w. wall scrapings	3.15	0.78		
11W/4S	2	2.45	0.53	0.01	
11W/4S	3	6.90	0.44		0.04
Unit 6	12	0.09			
Unit 6	13	0.12			
Unit 6	14	0.06			

Table 3
Indian Cave (12Cr59)
Waterscreen samples
Raw counts

Unit	12W/3S	12W/3S	12W/3S	12W/3S	12W/3S	12W/3S	12W/3S	12W/3S	11W/4S	11W/4S		Unit
Level	16	17	18	19	20	21	22	23	2	3	TOTAL	Level
Volume (liters)	3	3	3	3	3	3	3	3	3	3	30	Volume (liters)
Charred botanical remains												**Charred botanical remains**
Wood charcoal (g)	1.34	1.33	1.40	2.06	0.77	1.19	1.00	0.64	0.31	0.57	10.61	Wood charcoal (g)
Bark			1								1	Bark
Nutshell												Nutshell
Carya sp.	36	40	18	38	33	13	23	9	14	22	246	Hickory
Juglans nigra		4			2		1			10	17	Walnut
Juglandaceae	7	3		6	7		2	3		8	36	Hickory-walnut family
Quercus spp.	2			2	2		4		2	4	16	Acorn
Corylus sp.							2				2	Hazelnut
Nutmeat												Nutmeat
Quercus sp.									1		1	Acorn
"Seeds"												"Seeds"
Vitis sp.	1										1	Grape
Unidentifiable seed fragment	2			1							3	Unidentifiable seed fragment
Unidentified			1*	1#	1^			1&			4	Unidentified
Unidentifiable				3	1		2			1	7	Unidentifiable
Uncharred botanical remains												**Uncharred botanical remains**
Wood tissue			13				7	3	88	3	114	Wood tissue
Leaf frags, rootlets			15	5			4	13	5	11	53	Leaf frags, rootlets
Seed heads					5			2			7	Seed heads
Phytolacca americana			2	1							3	Pokeweed
Liriodendron tulipifera							1				1	Tulippoplar
Compositae			1								1	Daisy family
S-twisted fiber								1			1	**S-twisted fiber**
Rock	5	1	7	1	3	4	12	2	7	3	45	**Rock**
Fauna	2		1	6	1		11		2		23	**Fauna**
Plastic								1			1	**Plastic**
Total nutshell	45	47	18	46	44	13	32	12	16	44	317	Total nutshell
%hickory	96%	100%	100%	96%	95%	100%	81%	100%	88%	91%	94%	%hickory family
% acorn	4%	0%	0%	4%	5%	0%	13%	0%	13%	9%	5%	% acorn family

* wrinkled on one side, veined on the other, not cucurbita
\# outside rind, tuber?
^ long fibers, tuber?
& possible fungus fragment

Table 4
Indian Cave (12Cr59)
Waterscreen samples
Raw weights

Unit	12W/3S	12W/3S	12W/3S	12W/3S	12W/3S	12W/3S	12W/3S	12W/3S	11W/4S	11W/4S		Unit
Level	16	17	18	19	20	21	22	23	2	3	TOTAL	Level
Volume												Volume
Charred botanical remains												**Charred botanical remains**
Wood charcoal (g)	1.34	1.33	1.40	2.06	0.77	1.19	1.00	0.64	0.31	0.57	10.61	Wood charcoal (g)
Bark			0.03								0.03	Bark
Nutshell												Nutshell
Carya sp.	0.52	0.91	0.36	0.8	0.4	0.13	0.31	0.25	0.32	0.3	4.3	Hickory
Juglans nigra		0.22			0.03		0.04			0.07	0.36	Walnut
Juglandaceae	0.06	0.04		0.4	0.06		0.01	0.02		0.07	0.66	Hickory-walnut family
Quercus spp.	0.01			<0.01	<0.01		0.02		0.01	<0.01	0.04	Acorn
Corylus sp.							0.03				0.03	Hazelnut
Nutmeat												Nutmeat
Quercus sp.									0.07		0.07	Acorn
"Seeds"												"Seeds"
Vitis sp.	<0.01										<0.01	Grape
Unidentifiable seed fragment	0.01			<0.01							0.01	Unidentifiable seed fragment
Unidentified			<0.01	<0.01	<0.01			0.01			0.01	Unidentified
Unidentifiable				0.02	<0.01		0.01			<0.01	0.03	Unidentifiable
Uncharred botanical remains												**Uncharred botanical remains**
Wood tissue			0.11				0.04	0.1	0.18	<0.01	0.43	Wood tissue
Leaf frags, rootlets			0.02	<0.01			0.02	0.05	<0.01	0.01	0.1	Leaf frags, rootlets
Seed heads					<0.01			<0.01			<0.01	Seed heads
Phytolacca americana			<0.01	<0.01							<0.01	Pokeweed
Liriodendron tulipifera							<0.01				<0.01	Tulippoplar
Compositae			<0.01								<0.01	Daisy family
S-twisted fiber								<0.01			<0.01	**S-twisted fiber**
Rock	0.2	0.03	0.22	0.03	0.11	0.05	0.21	0.13	0.08	0.05	1.11	**Rock**
Fauna	0.01		<0.01	<0.01	<0.01		0.01		<0.01		0.02	**Fauna**
Plastic								<0.01			<0.01	**Plastic**
Nutshell/wood (grams)	0.44	0.88	0.26	0.58	0.64	0.11	0.41	0.42	1.06	0.77	0.51	Nutshell/wood (grams)
Total nutshell	0.59	1.17	0.36	1.2	0.49	0.13	0.41	0.27	0.33	0.44	5.39	Total nutshell
% Juglandaceae	98%	100%	100%	100%	100%	100%	88%	100%	97%	100%	99%	% hickory-walnut family
% Fagaceae	2%	0%	0%	0%	0%	0%	5%	0%	3%	0%	1%	% acorn family

Table 5
Indian Cave (12 Cr 59) Charred Botanical Remains from flotation
Raw Counts

	Unit 1 Level 6 Zone IVA	Unit 1 Level 9 Zone IVB	Unit 1 Level 9 Zone V	Unit 2 Level 2 Zone IV	Unit 5 Level 2 Zone II	Unit 5 Level 5 Zone IIB	Unit 5 Level 6 Zone III	Unit 6 Level 7 Zone V	Unit 6 Level 12 Zone VI	Unit 6 Level 13 Zone VI	Unit 6 Level 14 Zone VI	Unit 6 Level 15 Zone VI	TOTAL	
Liters processed (l)	3	3	3	3	3	3	3	3	3	3	3	3	36	Liters processed (l)
Total light fraction weight (g)*	8.30	11.12	3.34	10.32	3.42	4.54	2.57	1.82	3.72	8.9	7.53	4.58	70.16	Total light fraction weight (g)
Residue (<2mm) weight (g)	3.71	5.45	1.65	3.81	1.65	2.98	1.09	1.24	1.62	2.57	1.49	1.39	28.65	Residue (<2mm) weight (g)
<u>Charred Remains >2mm (g)</u>	4.07	5.33	1.44	5.71	1.44	0.43	1.00	0.50	1.78	5.76	4.59	2.77	34.82	<u>Charred Remains >2mm (g)</u>
Wood charcoal >2mm (g)	3.15	4.31	1.08	4.27	1.07	0.39	0.60	0.37	1.20	3.90	2.99	1.97	25.30	Wood charcoal >2mm (g)
Bark												2		
Nutshell														**Nutshell**
Carya spp.	57	39	11	87	16	1	13	3	42	102	79	42	492	Hickory
Juglans nigra	5	6	2			1	1			6	2	7	30	Walnut
Juglans cinerea		8								2			10	Butternut
Juglandaceae	15	27	4	32	9		1	3	5	17	6	2	121	Hickory-walnut family
Quercus spp.	10	23	4	15	3	1	3			4	8	7	78	Acorn
Fagaceae									3	1			4	Acorn-chestnut family
Castanea dentata										2			2	Chestnut
Nutmeat														**Nutmeat**
Quercus sp.		2											2	Acorn
Cucurbita pepo (rind)				1									1	**Squash/gourd rind**
Seeds														**Seeds**
Desmodium nudiflorum										1			1	Tick-trefoil
Fungus		1										1	2	Fungus
Bud	1												1	Bud
Monocot stem					2								2	Monocot stem
Unidentifiable	10	1		12	2	2	4	2	3	4	14	5	59	Unidentifiable
Total nutshell counts	87	103	21	134	28	3	18	6	50	134	95	58	737	Total nutshell counts
% Juglandaceae	89%	78%	81%	89%	89%	67%	83%	100%	94%	95%	92%	88%	89%	Hickory-walnut family
% Fagaceae	11%	22%	19%	11%	11%	33%	17%	0%	6%	5%	8%	12%	11%	Acorn-chestnut family
Nutshell/wood ratio (#/g)	27.62	23.90	19.44	31.38	26.17	7.69	30.00	16.22	41.67	34.36	31.77	29.44	29.13	Nutshell/wood ratio (#/g)

* includes botanical material hand-picked from heavy fraction

Table 6
Indian Cave (12 Cr 59) Charred Botanical Remains from flotation
Raw Weights

	Unit 1 Level 6 Zone IVA	Unit 1 Level 9 Zone IVB	Unit 1 Level 9 Zone V	Unit 2 Level 2 Zone IV	Unit 5 Level 2 Zone II	Unit 5 Level 5 Zone IIB	Unit 5 Level 6 Zone III	Unit 6 Level 7 Zone V	Unit 6 Level 12 Zone VI	Unit 6 Level 13 Zone VI	Unit 6 Level 14 Zone VI	Unit 6 Level 15 Zone VI	TOTAL	
Liters processed (l)	3	3	3	3	3	3	3	3	3	3	3	3	36	Liters processed (l)
Total light fraction weight (g)*	8.30	11.12	3.34	10.32	3.42	4.54	2.57	1.82	3.72	8.90	7.53	4.58	70.16	Total light fraction weight (g)
Residue (<2mm) weight (g)	3.71	5.45	1.65	3.81	1.65	2.98	1.09	1.24	1.62	2.57	1.49	1.39	28.65	Residue (<2mm) weight (g)
Total charred remains >2mm (g)	4.07	5.33	1.44	5.71	1.44	0.43	1.00	0.50	1.78	5.76	4.58	2.77	34.81	Total charred remains >2mm (g)
Wood charcoal >2mm (g)	3.15	4.31	1.08	4.27	1.07	0.39	0.6	0.37	1.20	3.90	2.99	1.97	25.30	Wood charcoal >2mm (g)
Nutshell														**Nutshell**
Carya spp.	0.76	0.39	0.03	1.16	0.31	0.01	0.27	0.07	0.52	1.59	1.36	0.71	7.18	Hickory
Juglans nigra	0.05	0.10				<0.01	0.10			0.06	0.08	0.07	0.46	Walnut
Juglans cinerea		0.24								0.09			0.33	Butternut
Juglandaceae	0.04	0.13		0.16	0.02		<0.01	0.02	0.03	0.11	0.07	<0.01	0.58	Hickory-walnut family
Quercus spp.	0.02	0.04	<0.01	0.03	<0.01	0.01	<0.01			<0.01	0.02	0.01	0.13	Acorn
Castanea dentata										<0.01			<0.01	Chestnut
Fagaceae										<0.01			<0.01	Acorn-chestnut family
Nutmeat														**Nutmeat**
Quercus sp.		0.12											0.12	Acorn
Cucurbita pepo (rind)				<0.01									<0.01	**Squash/gourd rind**
Seeds														**Seeds**
Desmodium nudiflorum										<0.01			<0.01	Tick-trefoil
Fungus		<0.01												
Bud	<0.01												<0.01	Bud
Monocot stem					<0.01								<0.01	Monocot stem
Unidentifiable	0.03	<0.01		0.05	0.01	0.02	0.02	0.04	0.01	0.01	0.06	<0.01	0.25	Unidentifiable
Total nut weight	0.87	0.90	0.03	1.35	0.33	0.02	0.37	0.09	0.55	1.85	1.53	0.79	8.68	Total nut weight
% Juglandaceae	98%	96%	100%	98%	100%	50%	100%	100%	100%	100%	99%	99%	99%	% hickory-walnut family
% Fagaceae	2%	4%	0%	2%	0%	50%	0%	0%	0%	0%	1%	1%	1%	%acorn-chestnut family
Nut/wood ratio (g/g)	0.28	0.00	0.03	0.32	0.00	0.05	0.62	0.24	0.46	0.47	0.51	0.40	0.34	Nut/wood ratio (g/g)

* includes botanical material hand-picked from heavy fraction

Table 7
Indian Cave (12 Cr 59) Fresh Botanical Remains from flotation
Raw Counts

	Unit 1 Level 6 Zone IVA	Unit 1 Level 9 Zone IVB	Unit 1 Level 9 Zone V	Unit 2 Level 2 Zone IV	Unit 5 Level 2 Zone II	Unit 5 Level 5 Zone IIB	Unit 5 Level 6 Zone III	Unit 6 Level 7 Zone V	Unit 6 Level 12 Zone VI	Unit 6 Level 13 Zone VI	Unit 6 Level 14 Zone VI	Unit 6 Level 15 Zone VI	TOTAL	
Liters processed (l)	3	3	3	3	3	3	3	3	3	3	3	3	36	Liters processed (l)
Total light fraction weight (g)*	8.3	11.12	3.34	10.32	3.42	4.54	2.57	1.82	3.72	8.9	7.53	4.58	70.16	Total light fraction weight (g)
Residue (<2mm) weight (g)	3.71	5.45	1.65	3.81	1.65	2.98	1.09	1.24	1.62	2.57	1.49	1.39	28.65	Residue (<2mm) weight (g)
Total fresh remains >2mm (g)**	0.03	0.01	0.04	0.09	0.03	0.14	0.05	<0.01	0.01	0.11	0.08	0.01	0.59	**Total fresh remains >2mm (g)**
Wood tissue			1			4		1		5	7	1		
Nutshell														**Nutshell**
Carya spp.	8		3	11		1			1			2	26	Hickory
Juglandaceae		1			1					2			4	Hickory-walnut family
Quercus spp.	1			3		1							5	Acorn
Seeds														**Seeds**
Liriodendron tulipifera				1						1	5	1	8	Tuliptree
Rubus spp.		1				2			1	1			5	Blackberry/raspberry
Cyperaceae			1							1	2		4	Sedge family
Ranunculus									2				2	Buttercup
Vitis sp.				1									1	Grape
Chenopodium											1		1	Goosefoot
Rudbeckia sp.								1					1	Coneflower
Portulaca oleracea							1							
Poaceae (Panicoid)										1			1	Panicoid grass
Leaf fragments, rootlets, stems			3	10	5	3	13	3	9	24	26	2	98	Leaf fragments, rootlets, stems
Modern string					1									Modern string
2-ply fiber, Z twist						1								2-ply fiber, Z twist
Fresh remains as a % of total light fraction (g)	0%	0%	1%	1%	1%	3%	2%	0%	0%	1%	1%	0%	1%	Fresh remains as a % of total light fraction (g)

* includes botanical material hand-picked from heavy fraction

** Fresh botanical and non-botanical remains were not weighed separately in samples analyzed in 1997. Weights of botanical remains are estimated based on the percentage of botanial remains present among all fresh remains in the 1998 samples.

Table 8
Indian Cave (12 Cr 59) Fresh Botanical Remains from flotation
Raw Weights*

	Unit 1 Level 6 Zone IVA	Unit 1 Level 9 Zone IVB	Unit 1 Level 9 Zone V	Unit 2 Level 2 Zone IV	Unit 5 Level 2 Zone II	Unit 5 Level 5 Zone IIB	Unit 5 Level 6 Zone III	Unit 6 Level 7 Zone V	Unit 6 Level 12 Zone VI	Unit 6 Level 13 Zone VI	Unit 6 Level 14 Zone VI	Unit 6 Level 15 Zone VI	TOTAL	
Liters processed (l)	3	3	3	3	3	3	3	3	3	3			30	Liters processed (l)
Total light fraction weight (g)**	8.30	11.12	3.34	10.32	3.42	4.54	2.57	1.82	3.72	8.9	7.53	4.58	70.16	Total light fraction weight (g)
Residue (<2mm) weight (g)	3.71	5.45	1.65	3.81	1.65	2.98	1.09	1.24	1.62	2.57	1.49	1.39	28.65	Residue (<2mm) weight (g)
Total fresh remains >2mm (g)***	0.03	0.01	0.04	0.09	0.03	0.14	0.05	<0.01	0.01	0.11	0.08	0.01	0.59	**Total fresh remains >2mm (g)**
Wood tissue			<0.01			0.03		<0.01	<0.01	<0.01	0.04	<0.01		**Wood tissue**
Nutshell														**Nutshell**
Carya spp.	0.03		0.02	0.15		<0.01			<0.01				0.20	Hickory
Juglandaceae		<0.01			0.01					0.02			0.03	Hickory-walnut family
Quercus spp.	0.03			0.07		<0.01							0.10	Acorn
Seeds >0.01g														**Seeds**
Vitis sp.				0.01									0.01	Grape
Liriodendron tulipifera											0.01			Tulippoplar
Leaf fragments, rootlets, stems			0.02	0.04	0.03		0.02	<0.01	<0.01	0.08	0.03	<0.01		Leaf fragments, rootlets, stems
Modern string					<0.01									Modern string
2-ply fiber, Z twist						<0.01								2-ply fiber, Z twist

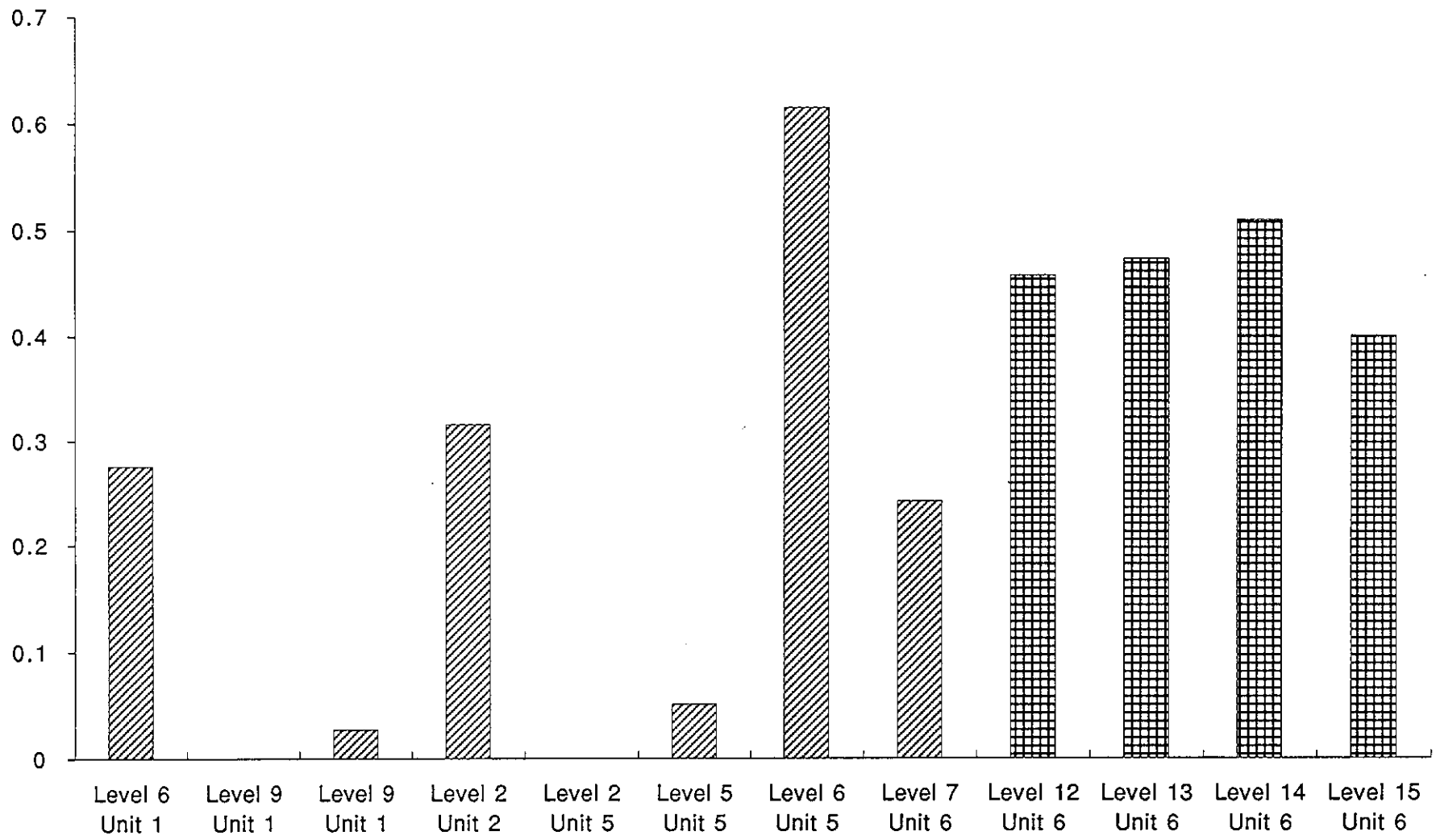
*materials smaller than 2 mm and weighing less than 0.01 g are not included
** includes botanical material hand-picked from heavy fraction
*** Fresh botanical and non-botanical remains were not weighed separately in samples analyzed in 1997. Weights of botanical remains are estimated based on the percentage of botanial remains present among all fresh remains in the 1998 samples.

Table 9
Indian Cave (12 Cr 59) Charred Botanical Remains from Flotation
Wood Charcoal Identification

	Unit 1 Level 6 Zone IVA	Unit 1 Level 9 Zone IVB	Unit 2 Level 2 Zone IV	Light Fraction Unit 6 Level 13 Zone VI	Heavy Fraction Unit 6 Level 13 Zone VI	TOTAL
Liters processed (l)	3	3	3	3	3	12 Liters processed (l)
Wood charcoal >2mm (g)	3.15	4.31	4.27	1.98	1.92	13.71 Wood charcoal >2mm (g)

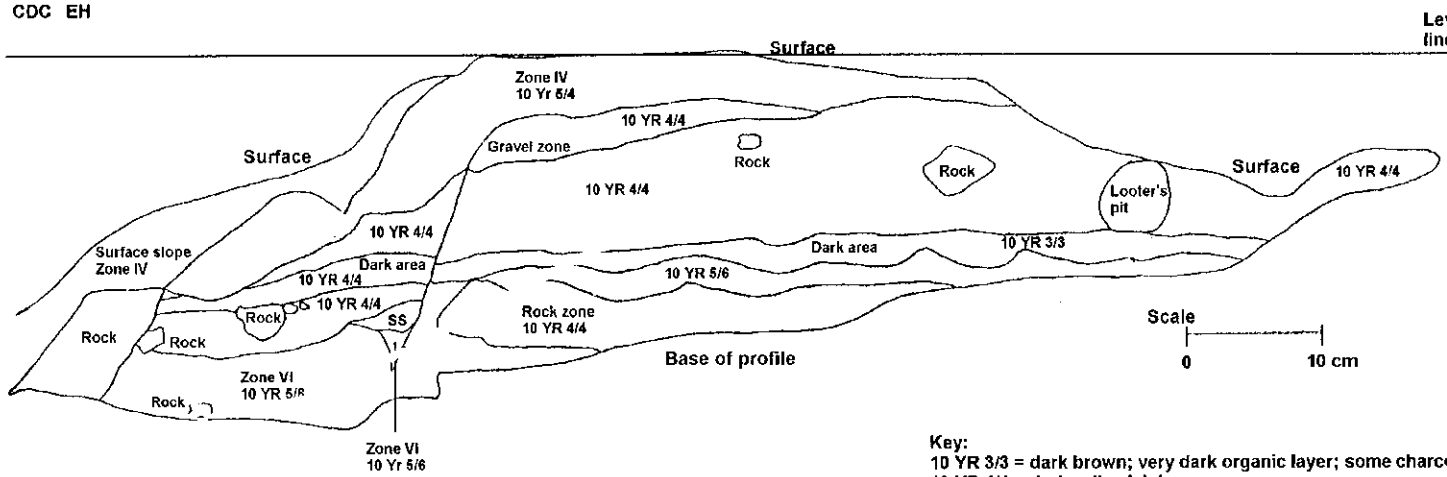
Taxon	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Acer spp.	2	6.67%			1	3.33%	4	13.33%	3	10.00%	10	6.67%	Maple
Carpinus caroliniana					1	3.33%					1	0.67%	American hornbeam
Carya spp.	1	3.33%	1	3.33%			2	6.67%	4	13.33%	8	5.33%	Hickory/pecan
Cornus sp.					2	6.67%	1	3.33%	1	3.33%	4	2.67%	Dogwood
Fraxinus spp.			3	10.00%					2	6.67%	5	3.33%	Ash
Juglans spp.	7	23.33%	5	16.67%	1	3.33%			1	3.33%	14	9.33%	Walnut/butternut
Liquidambar styraciflua							1	3.33%			1	0.67%	Sweetgum
Ostrya virginiana			1	3.33%							1	0.67%	Ironwood
Prunus sp.					2	6.67%					2	1.33%	Plum/cherry
Quercus spp.			1	3.33%							1	0.67%	Oak
Quercus spp. (red)			1	3.33%	3	10.00%	2	6.67%	1	3.33%	7	4.67%	Red oak
Quercus spp. (white)	14	46.67%	14	46.67%	8	26.67%	12	40.00%	11	36.67%	59	39.33%	White oak
Fagus grandifolia									1	3.33%	1	0.67%	Beech
Fagaceae					6	20.00%	7	23.33%			13	8.67%	Oak-beech family
Robinia pseudoacacia			1	3.33%	3	10.00%					4	2.67%	Black locust
Ring-porous angiosperm	5	16.67%			2	6.67%			1	3.33%	8	5.33%	hardwood
Diffuse-porous angiosperm	1	3.33%	2	6.67%	1	3.33%			4	13.33%	8	5.33%	hardwood
Gymnosperm			1	3.33%			1	3.33%	1	3.33%	3	2.00%	softwood
Unidentifiable	5		10		6		4		11		36		Unidentifiable
Total identifiable	30		30		30		30		30		150		Total identifiable

Figure 1: Nutshell/Wood charcoal (grams)



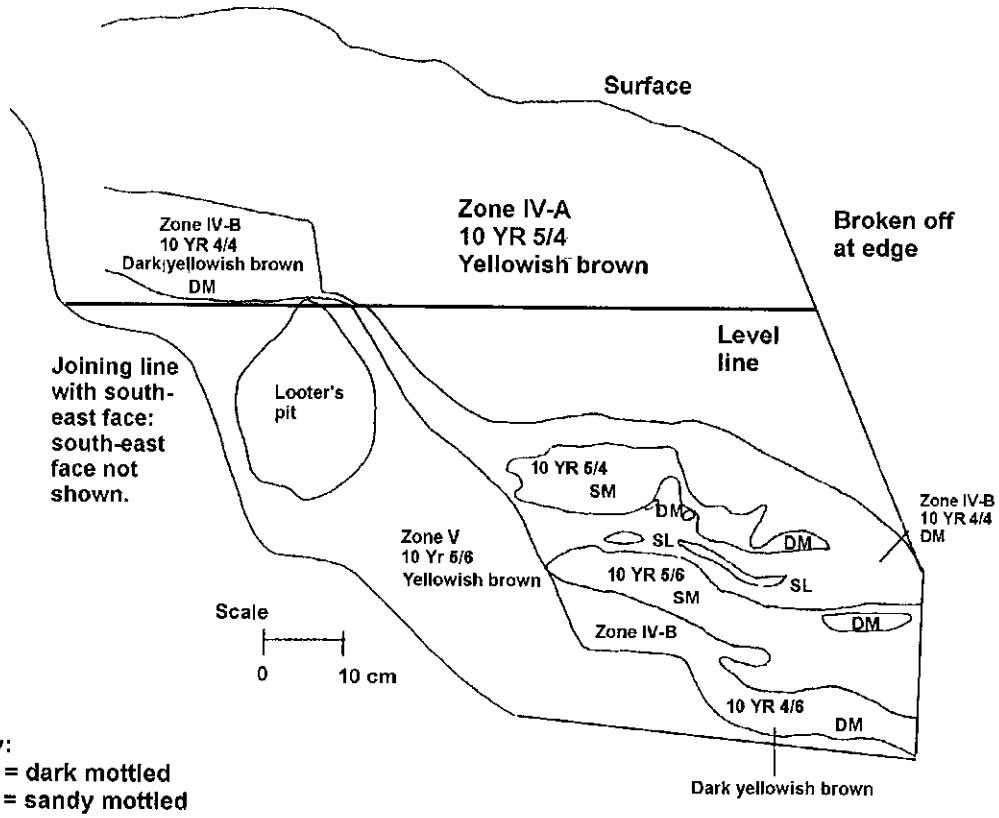
Appendix L: Unit Profiles, 1997

12-Cr-59
06-10-97
Profile: north
90 cm N of 12 W
CDC EH



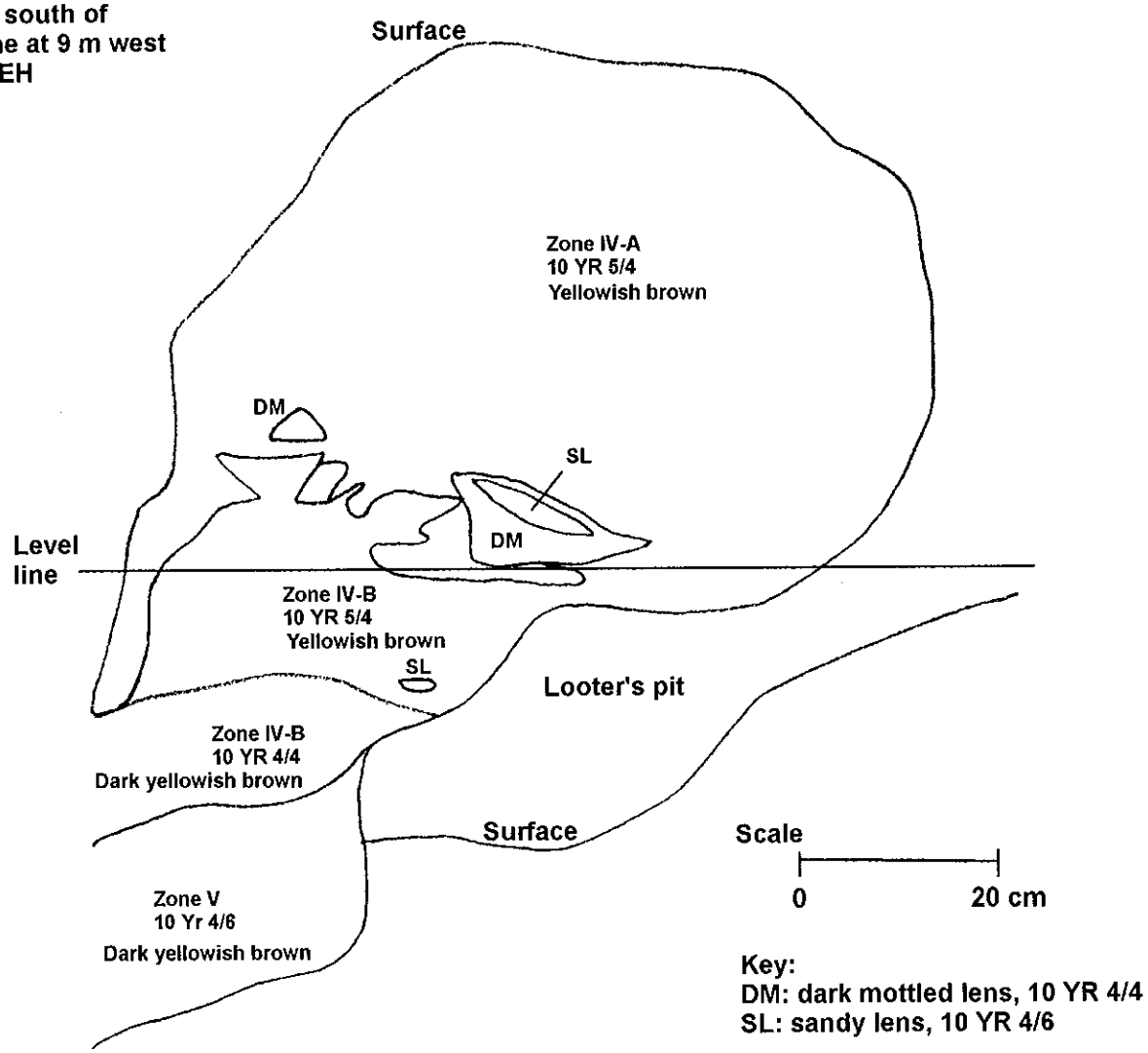
Key:
10 YR 3/3 = dark brown; very dark organic layer; some charcoal
10 YR 4/4 = dark yellowish brown
10 YR 5/4 = yellowish brown; compact and mottled with charcoal
10 YR 5/6 = yellowish brown; loose sand, minimal charcoal
SS= sandstone

12-Cr-59
06-11-97
Profile: south
2 m S at 9 - 10 m W
NAW EH

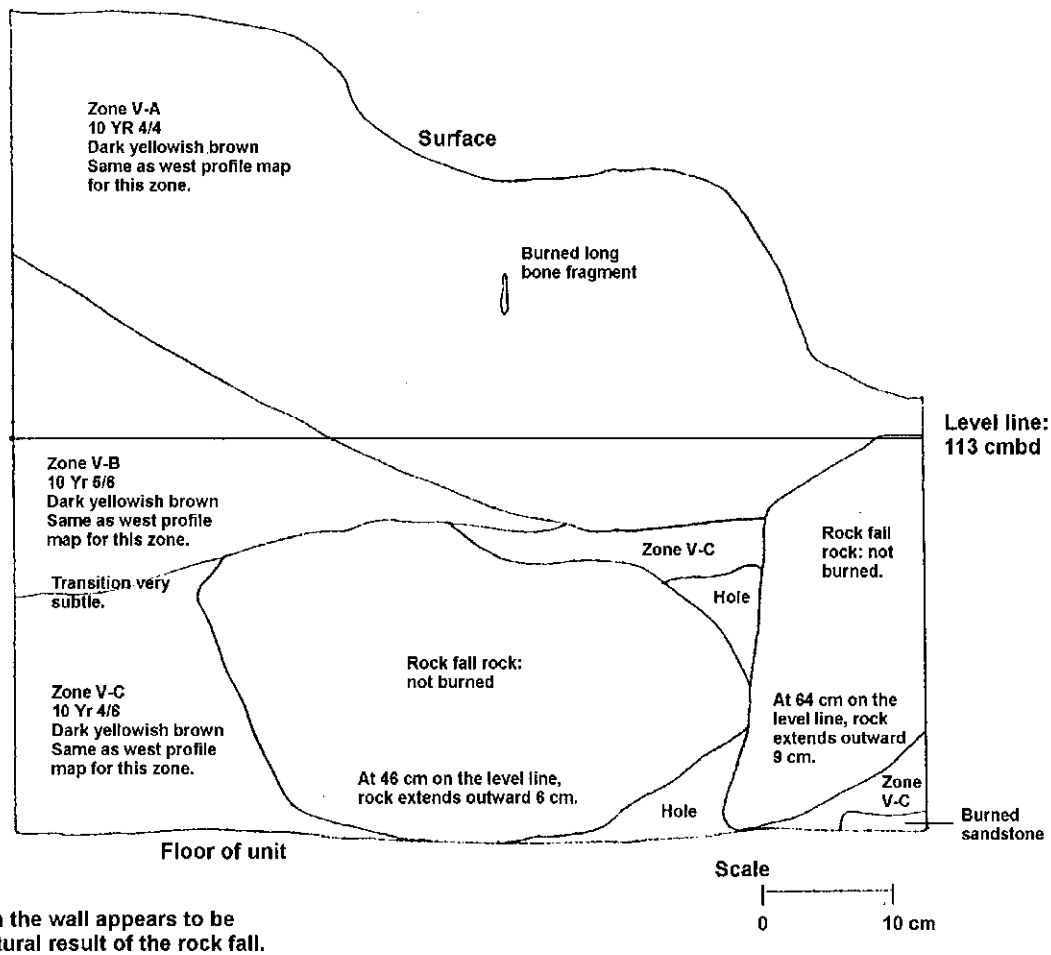


Key:
DM = dark mottled
SM = sandy mottled
SL = sandy lens

12-Cr-59
06-11-97
Profile: east face
1 - 2 m south of
baseline at 9 m west
NAW EH

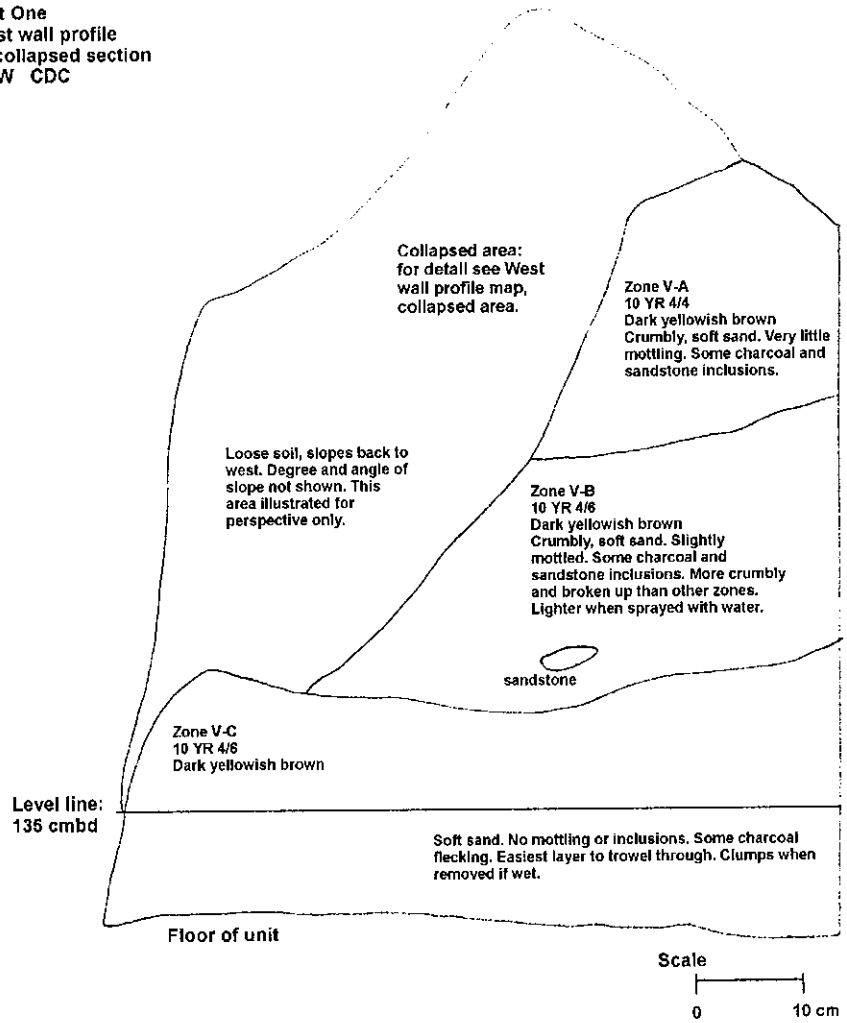


12-Cr-59
07-01-97
Unit One
North wall profile
NAW

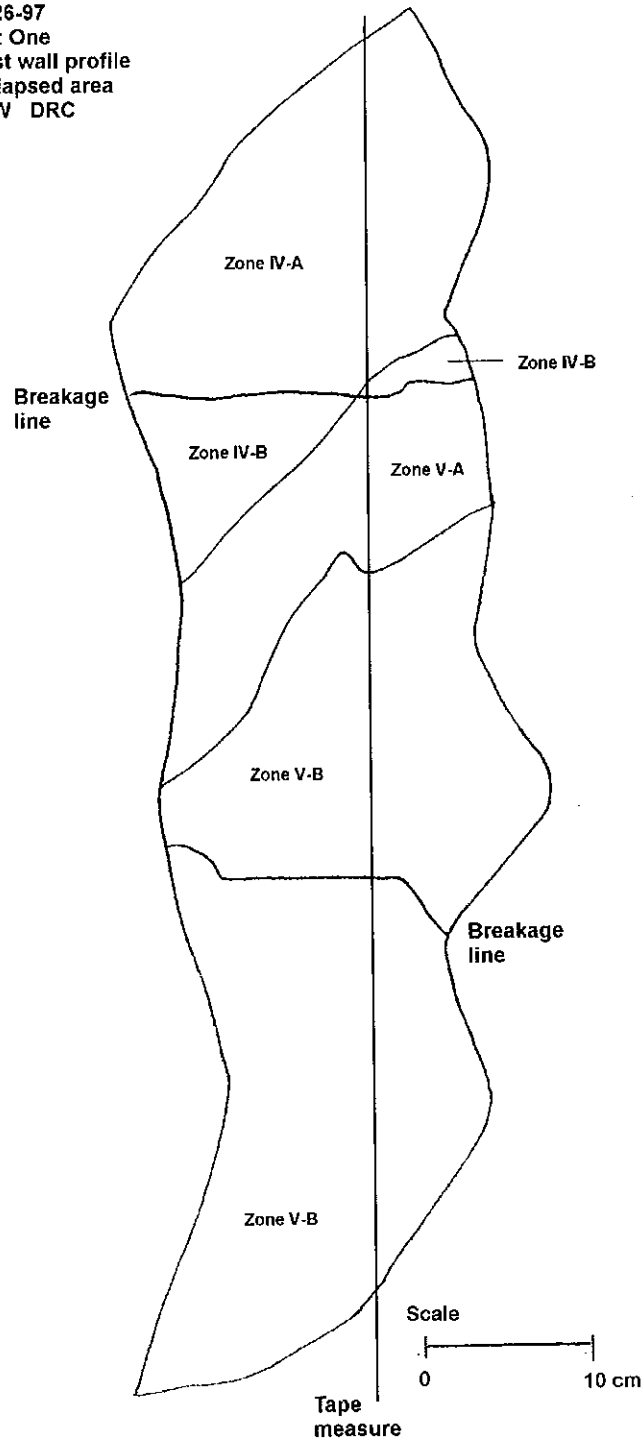


Hole in the wall appears to be the natural result of the rock fall.

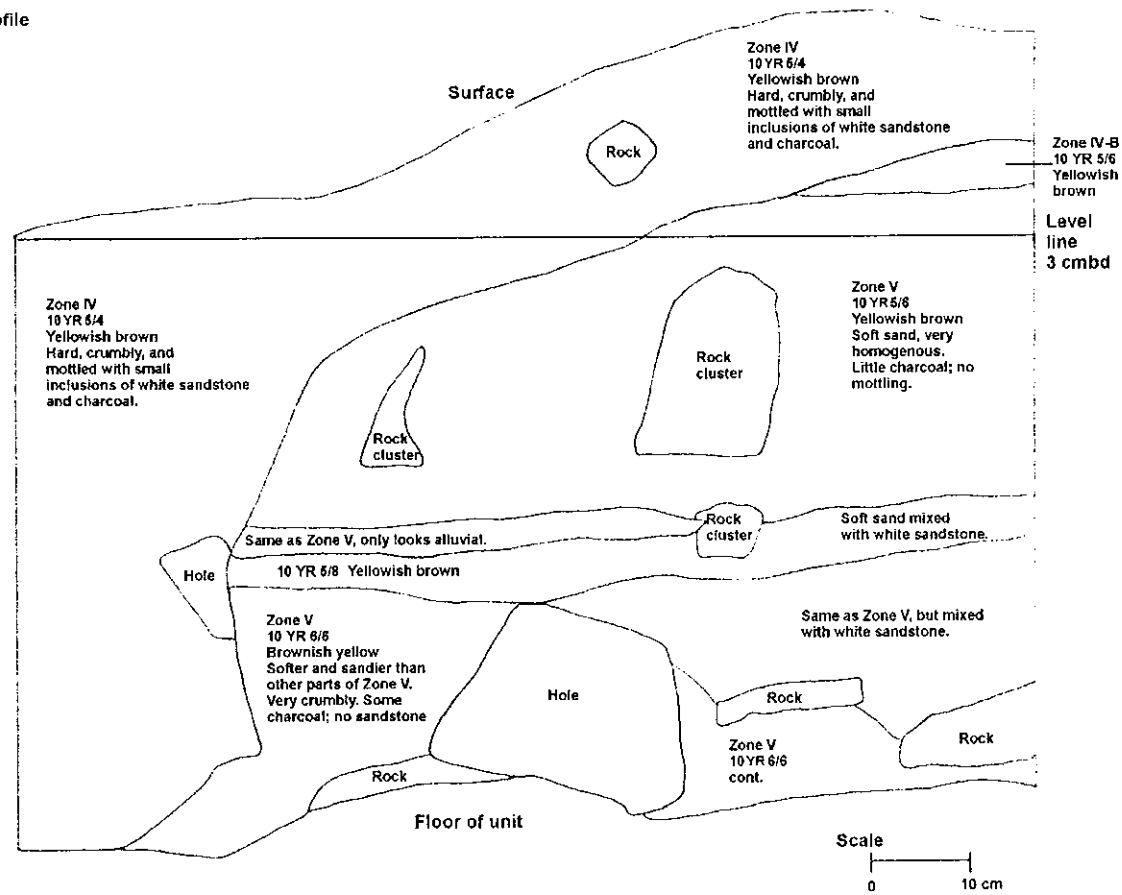
12-Cr-59
07-01-97
Unit One
West wall profile
Uncollapsed section
NAW CDC



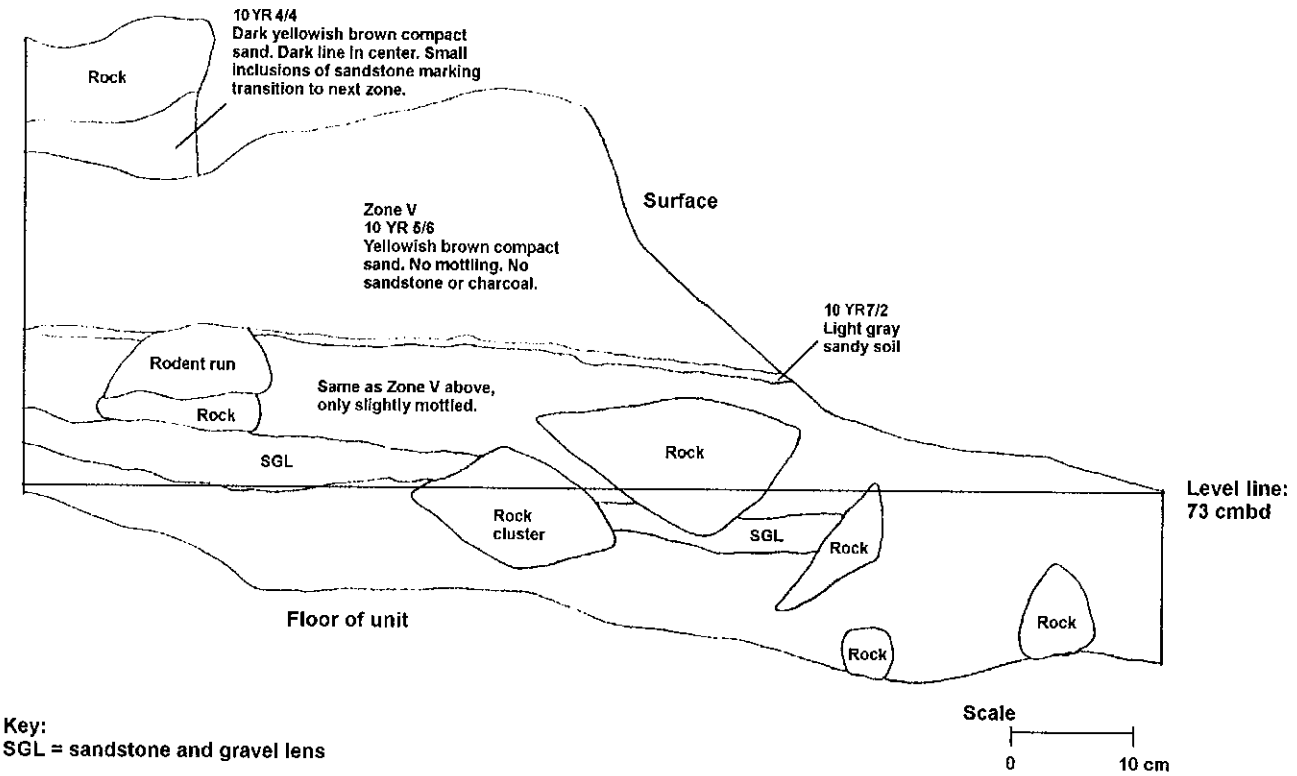
12-Cr-59
06-26-97
Unit One
West wall profile
Collapsed area
NAW DRC



12-Cr-59
06-30-97
Unit Two
North wall profile
NAW CDC

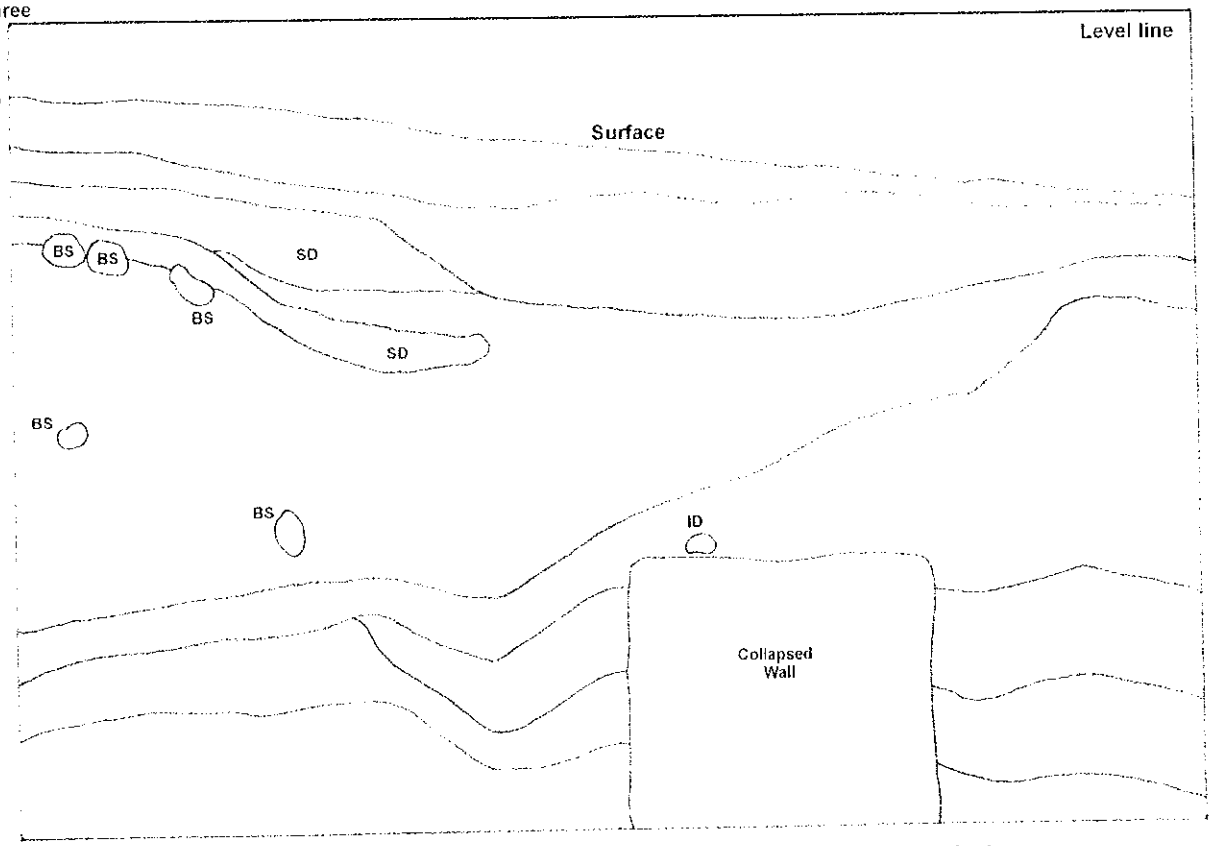


12-Cr-59
06-30-97
Unit Two
East wall profile
CDC NAW



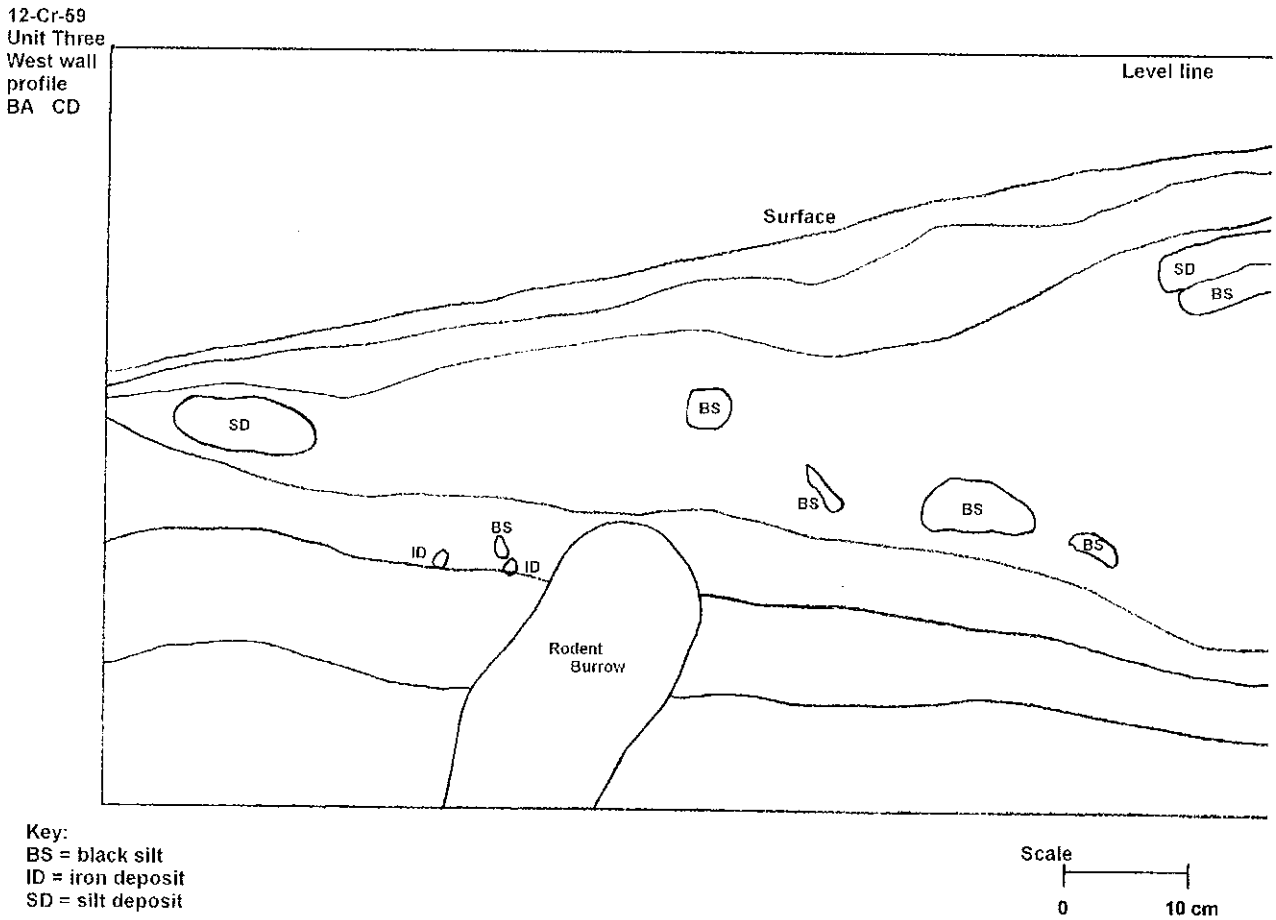
Key:
SGL = sandstone and gravel lens

12-Cr-59
Unit Three
North
wall
profile
BA CD

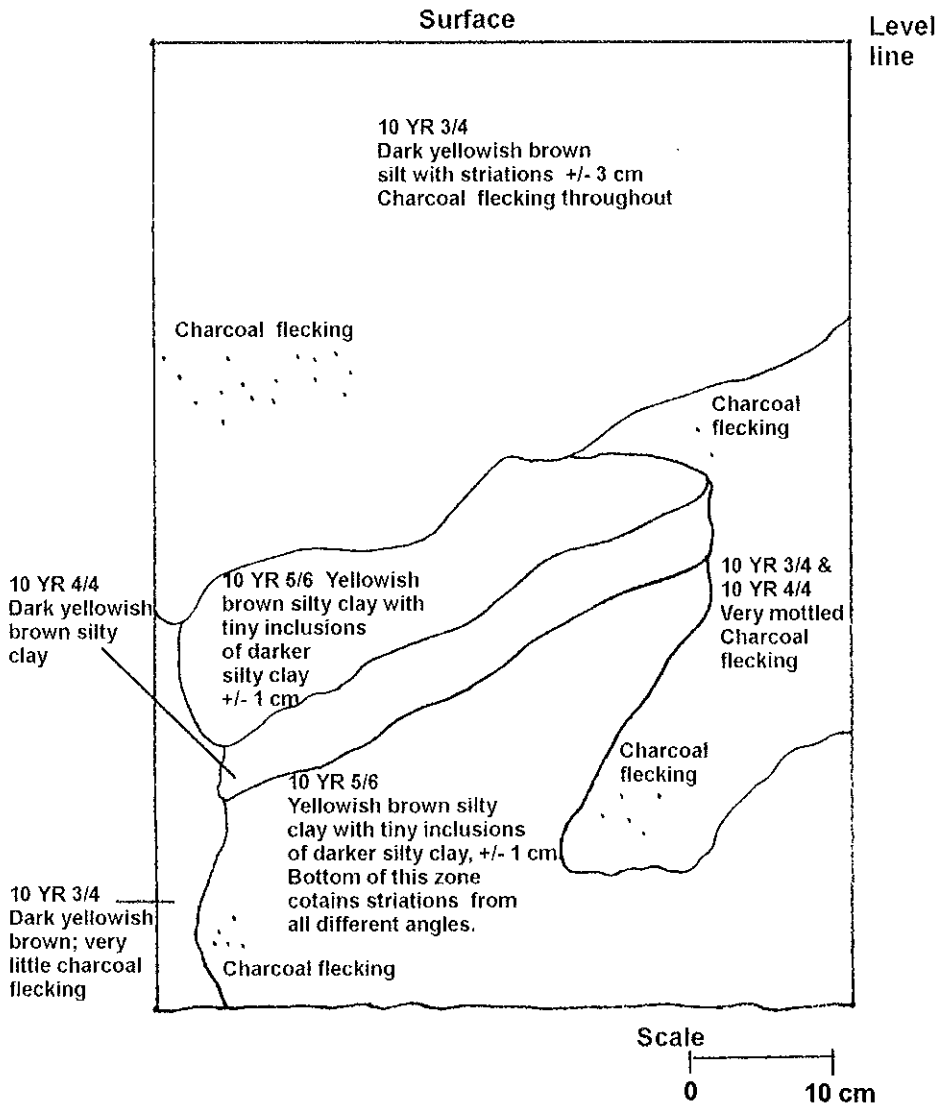


Key:
BS = black silt
ID = iron deposit
SD = silt deposit

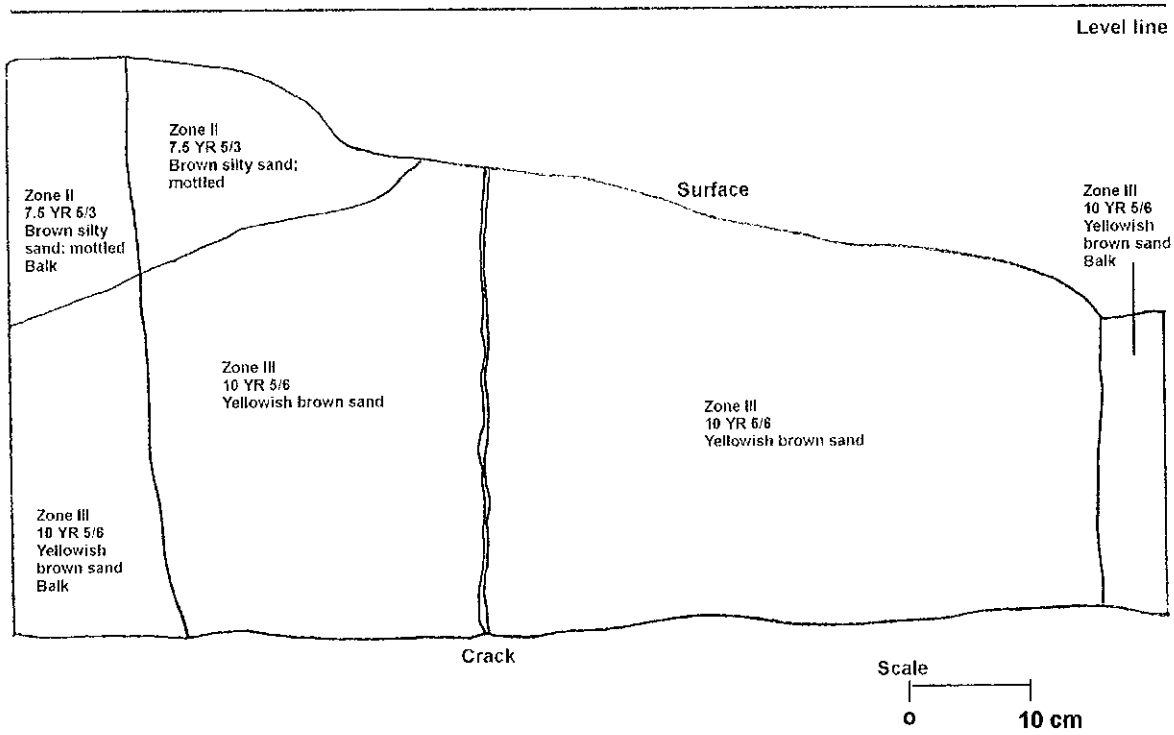
Scale
0 10 cm


12-Cr-59
Unit Three
West wall
profile
BA CD
Level line
Surface
SD
BS
SD
BS
BS
BS
BS
BS
ID
ID
Rodent
Burrow
Key:
BS = black silt
ID = iron deposit
SD = silt deposit
Scale
0
10 cm

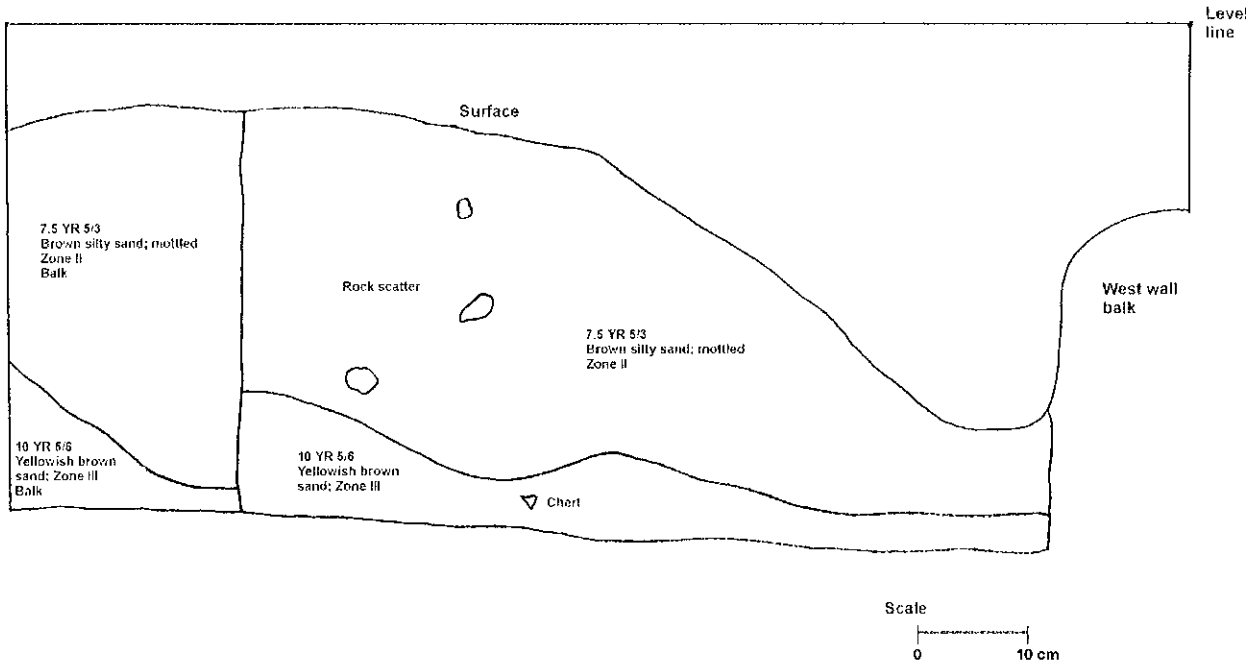
12-Cr-59
06-18-97
Unit Four
West wall profile
JZ JB



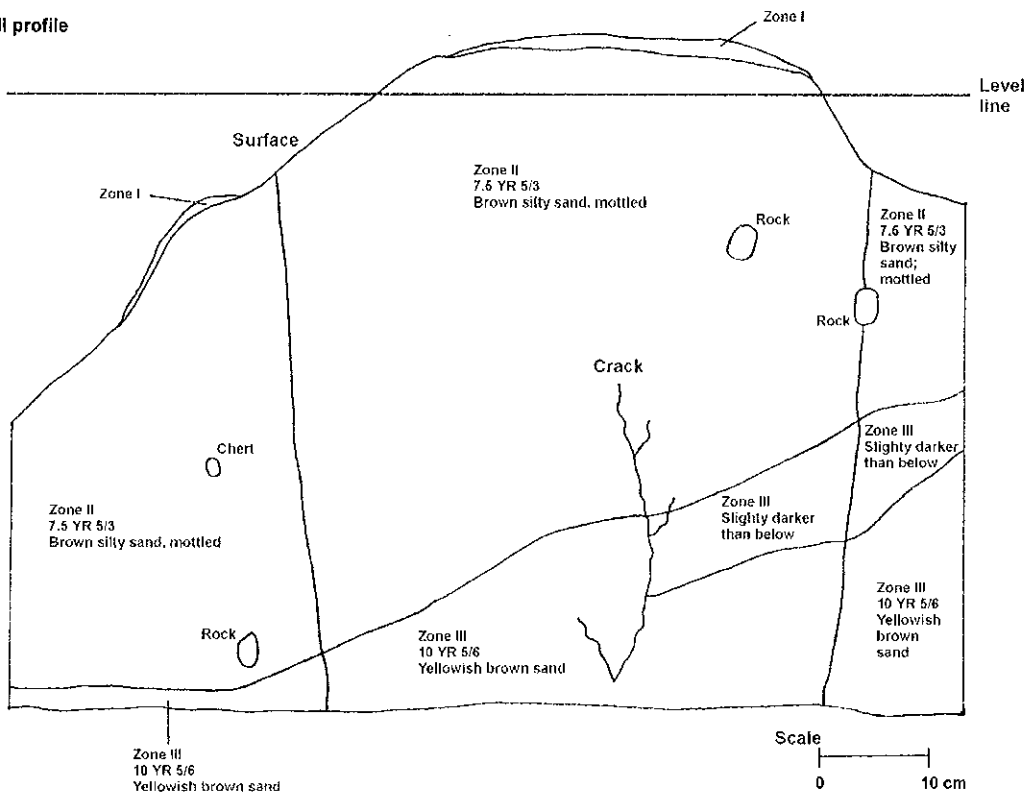
12-Cr-59
06-30-97
Unit Five
North wall profile
ARK

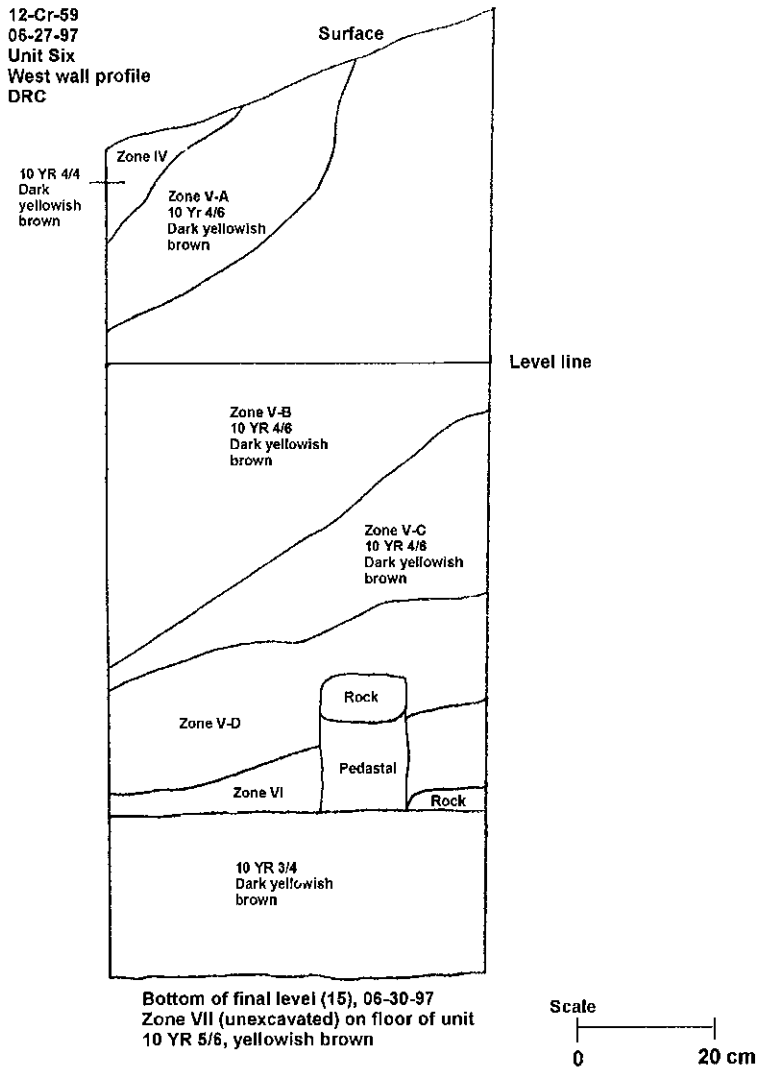


12-Cr-59
06-30-97
Unit Five
South wall profile
ARK



12-Cr-59
06-27-97
Unit Five
West wall profile
ARK

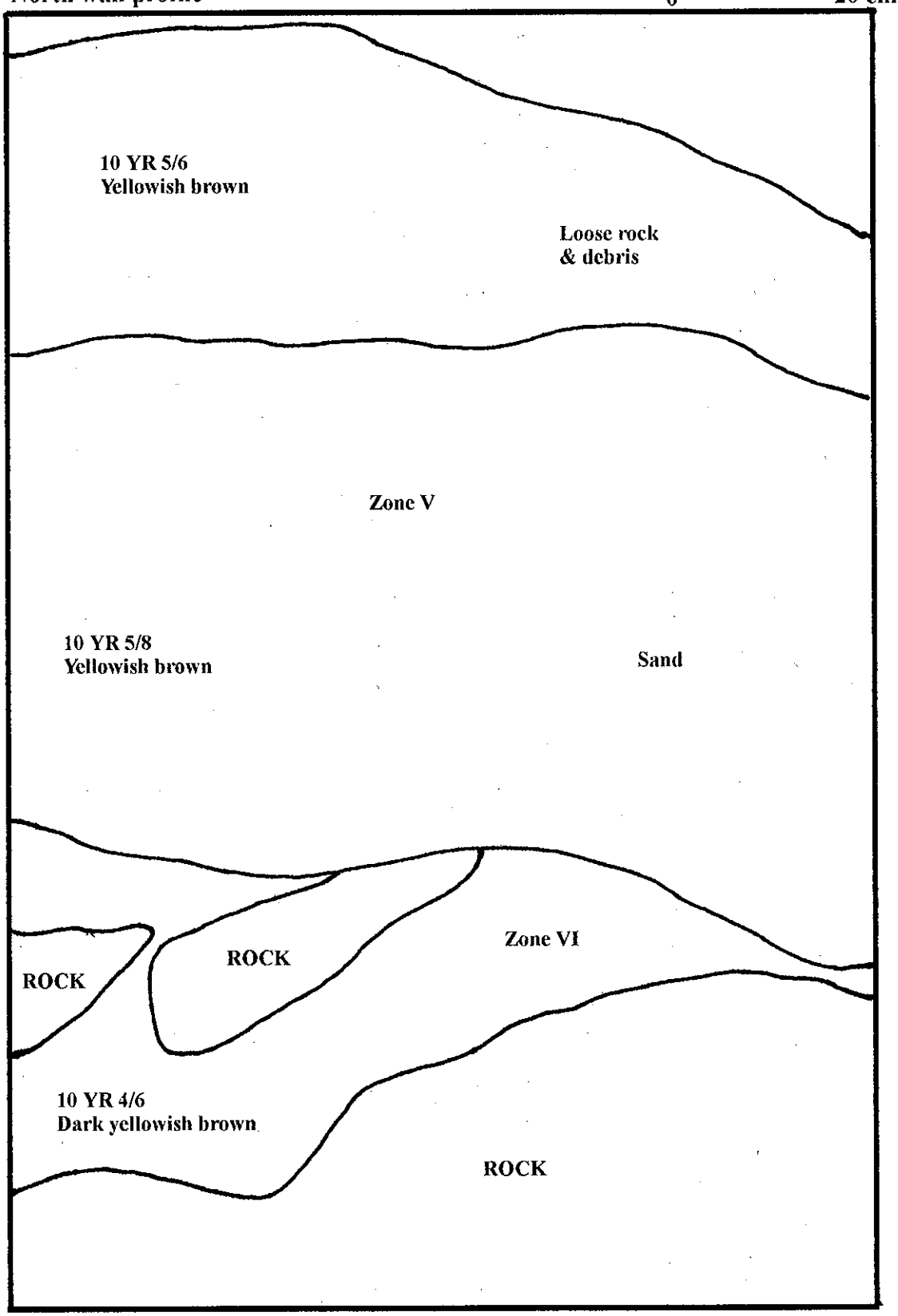



12-Cr-59
06-27-97
Unit Six
West wall profile
DRC
Surface
Zone IV
10 YR 4/4
Dark
yellowish
brown
Zone V-A
10 Yr 4/6
Dark yellowish
brown
Level line
Zone V-B
10 YR 4/6
Dark yellowish
brown
Zone V-C
10 YR 4/6
Dark yellowish
brown
Rock
Zone V-D
Pedastal
Zone VI
Rock
10 YR 3/4
Dark yellowish
brown
Bottom of final level (15), 06-30-97
Zone VII (unexcavated) on floor of unit
10 YR 5/6, yellowish brown
Scale
0
20 cm

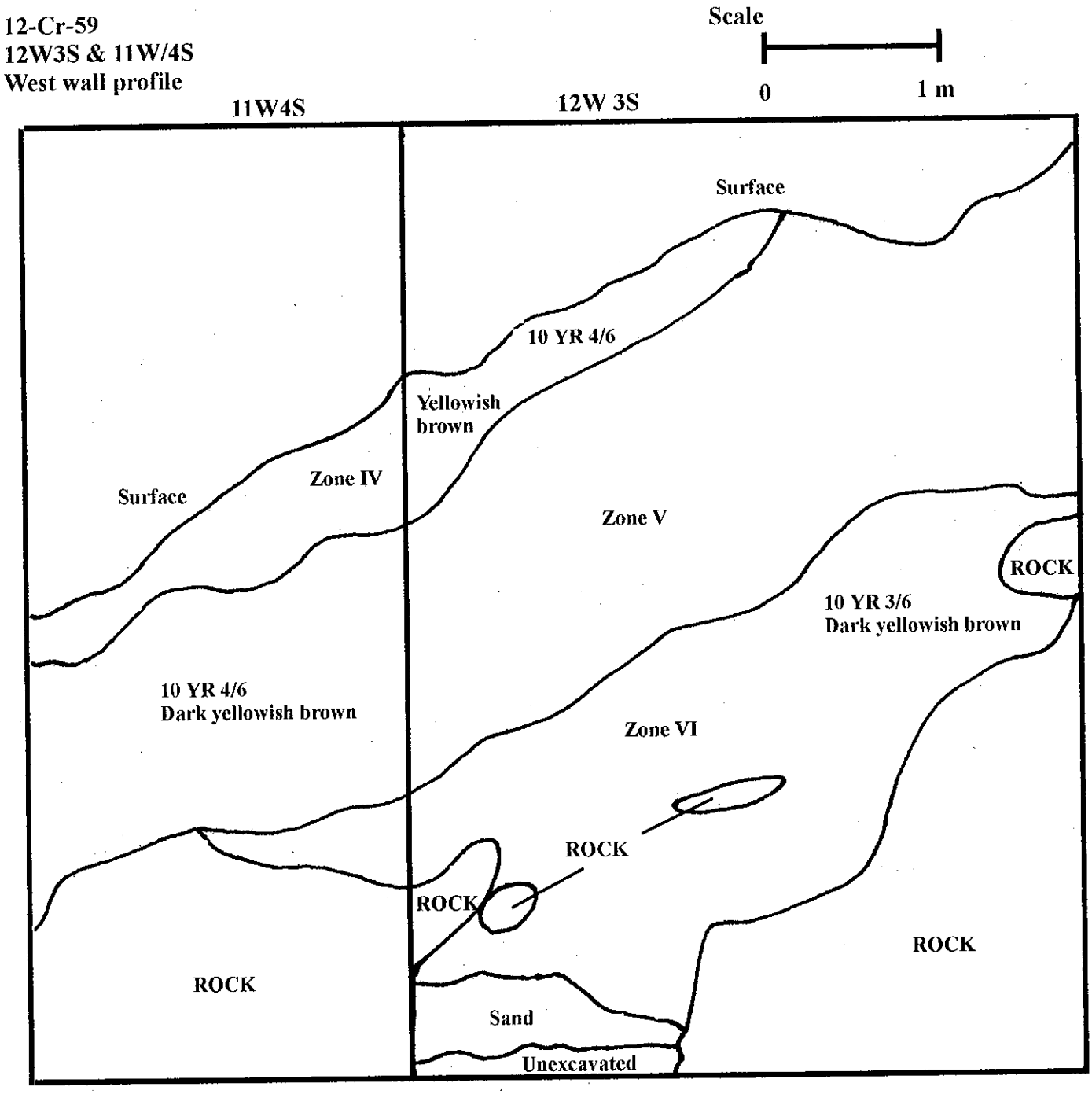
Appendix M: Unit Profiles, 1998

12-Cr-59
12W 3S
North wall profile

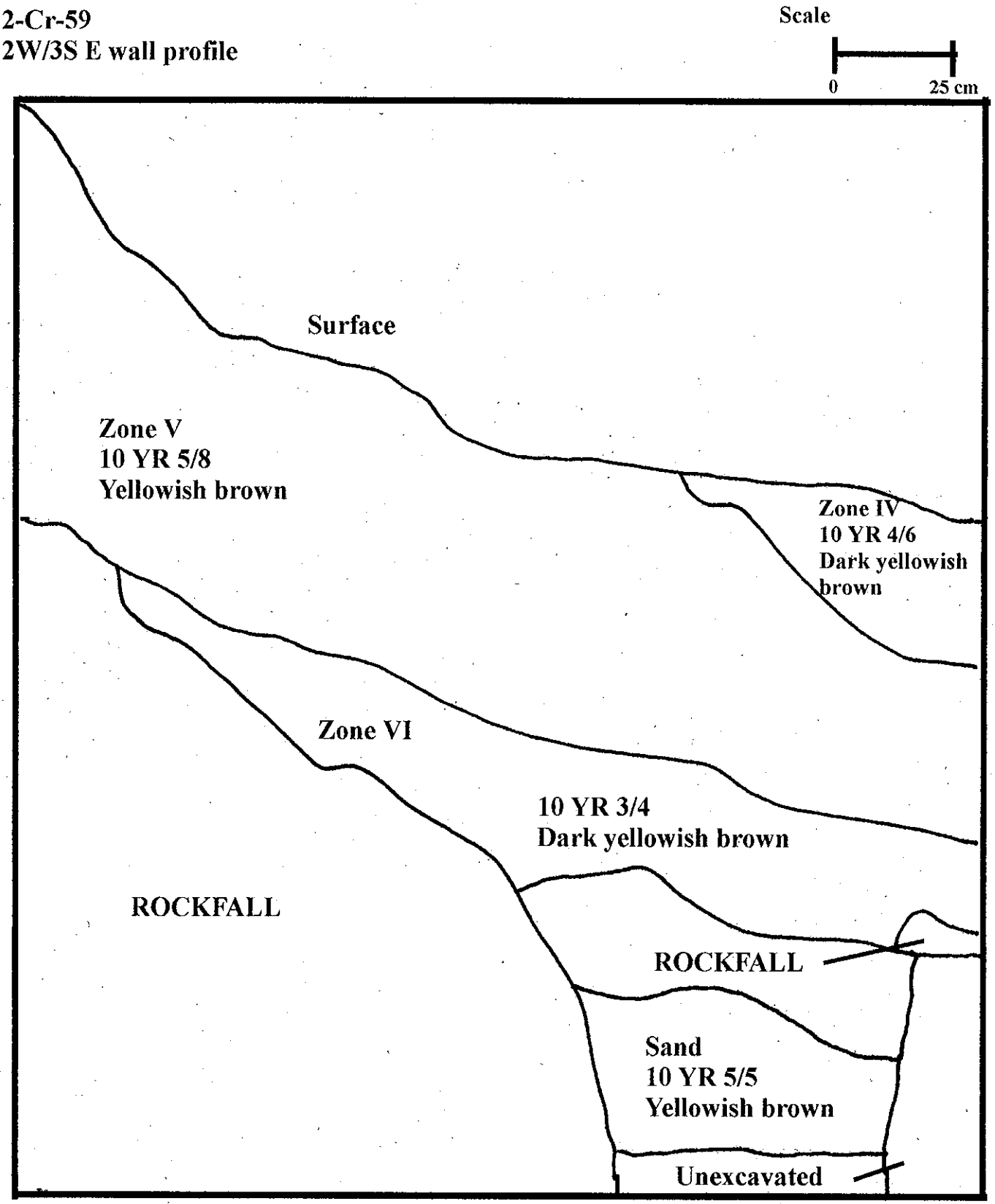
Scale
0 20 cm

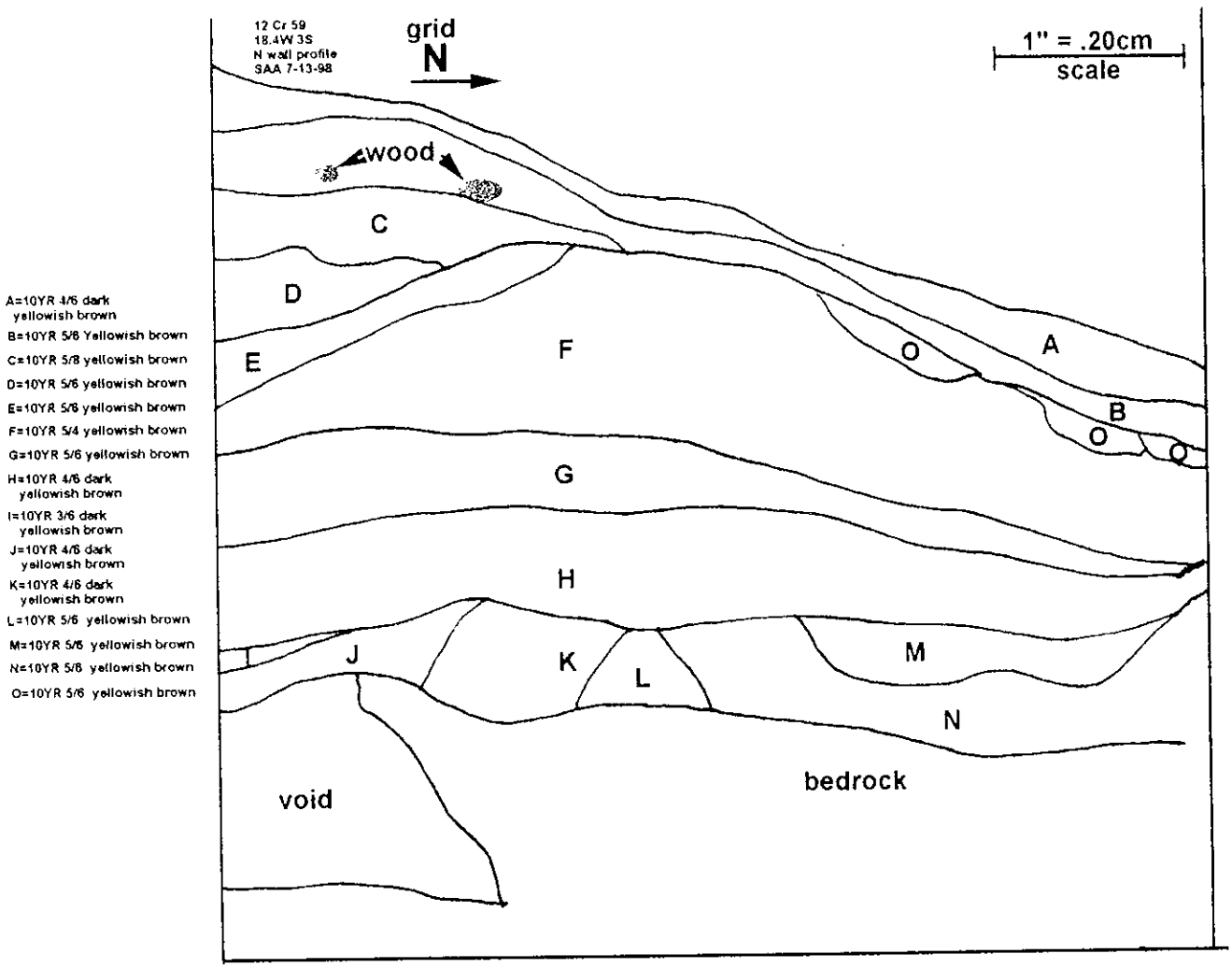


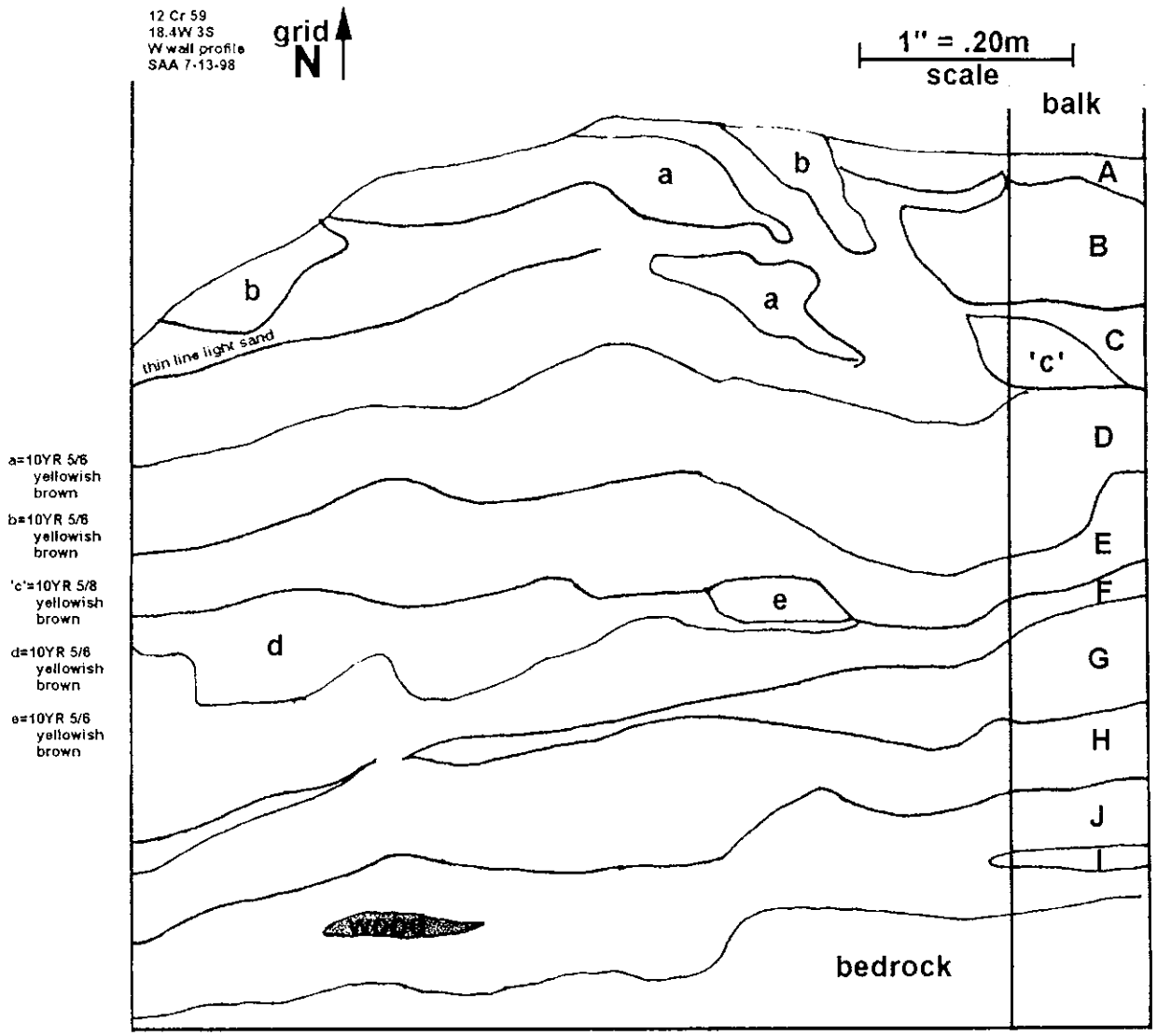
12-Cr-59
12W3S & 11W/4S
West wall profile



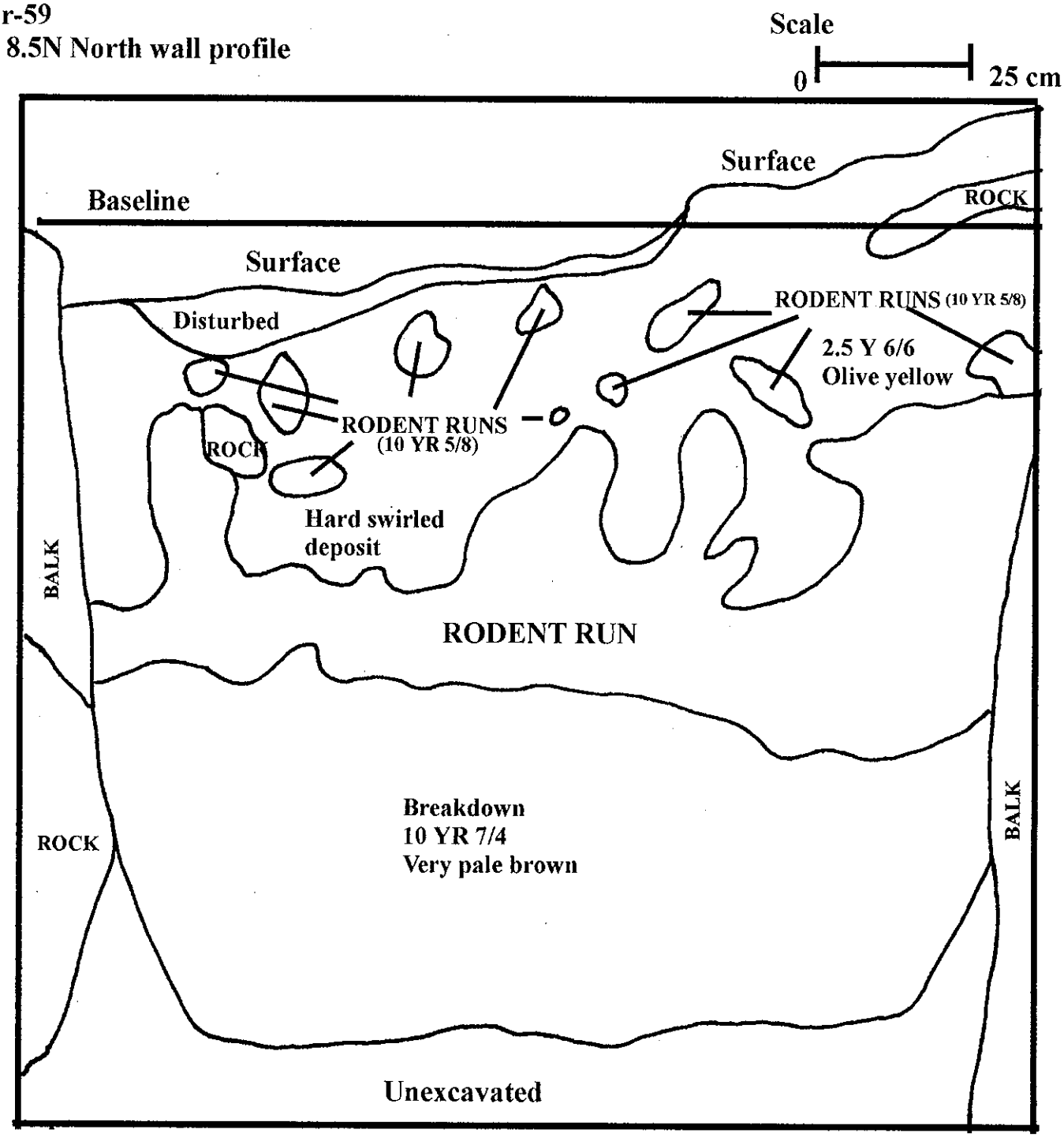
12-Cr-59
12W/3S E wall profile



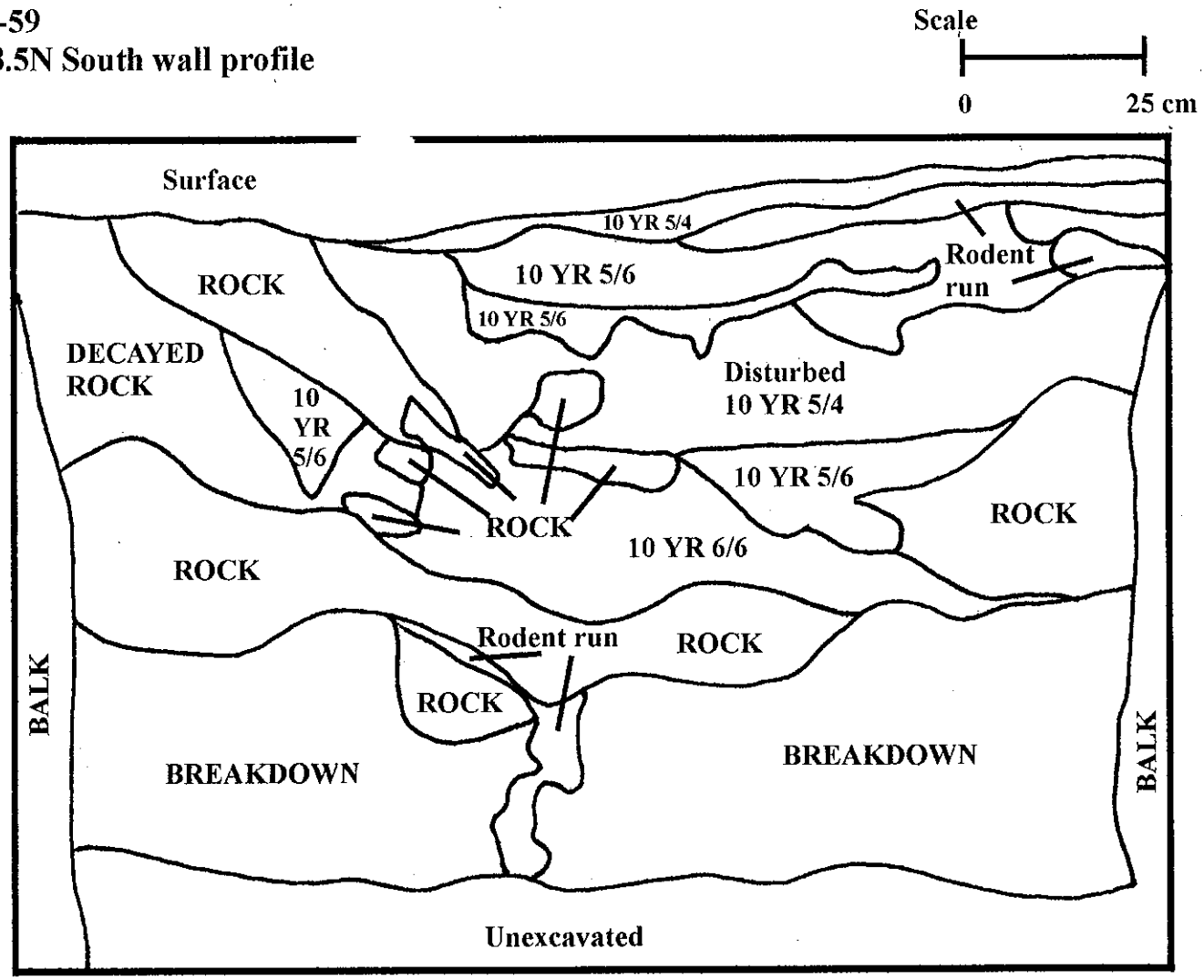

12 Cr 59
18.4W 3S
N wall profile
SAA 7-13-98
grid
N
1" = .20cm
scale
wood
A=10YR 4/6 dark yellowish brown
B=10YR 5/6 Yellowish brown
C=10YR 5/8 yellowish brown
D=10YR 5/6 yellowish brown
E=10YR 5/6 yellowish brown
F=10YR 5/4 yellowish brown
G=10YR 5/6 yellowish brown
H=10YR 4/6 dark yellowish brown
I=10YR 3/6 dark yellowish brown
J=10YR 4/6 dark yellowish brown
K=10YR 4/6 dark yellowish brown
L=10YR 5/6 yellowish brown
M=10YR 5/6 yellowish brown
N=10YR 5/6 yellowish brown
O=10YR 5/6 yellowish brown
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
O
O
void
bedrock


12 Cr 59
18.4W 3S
W wall profile
SAA 7-13-98
grid N
1" = .20m
scale
balk
a
b
b
a
b
thin line light sand
A
B
C
'c'
D
E
e
F
d
G
H
J
I
bedrock
a=10YR 5/6 yellowish brown
b=10YR 5/6 yellowish brown
'c'=10YR 5/8 yellowish brown
d=10YR 5/6 yellowish brown
e=10YR 5/6 yellowish brown

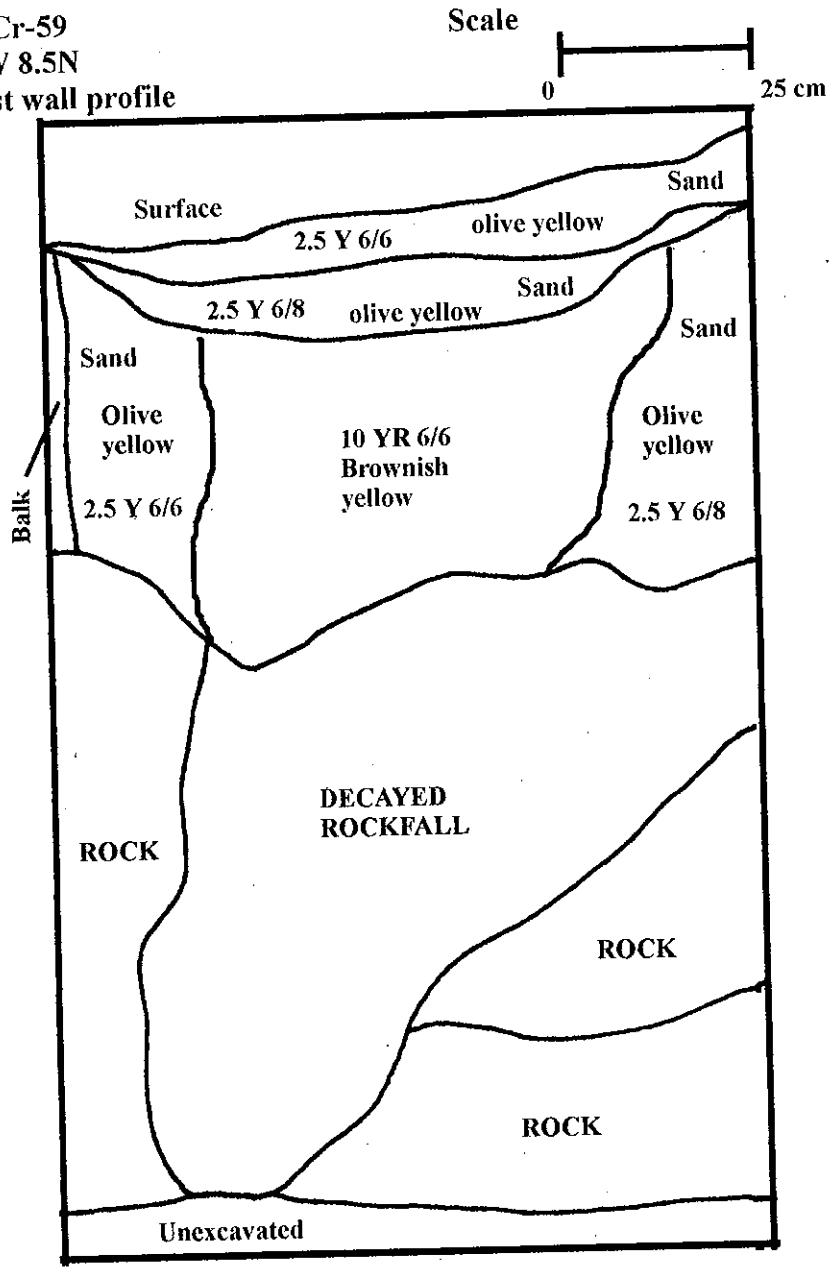
12-Cr-59
16W 8.5N North wall profile



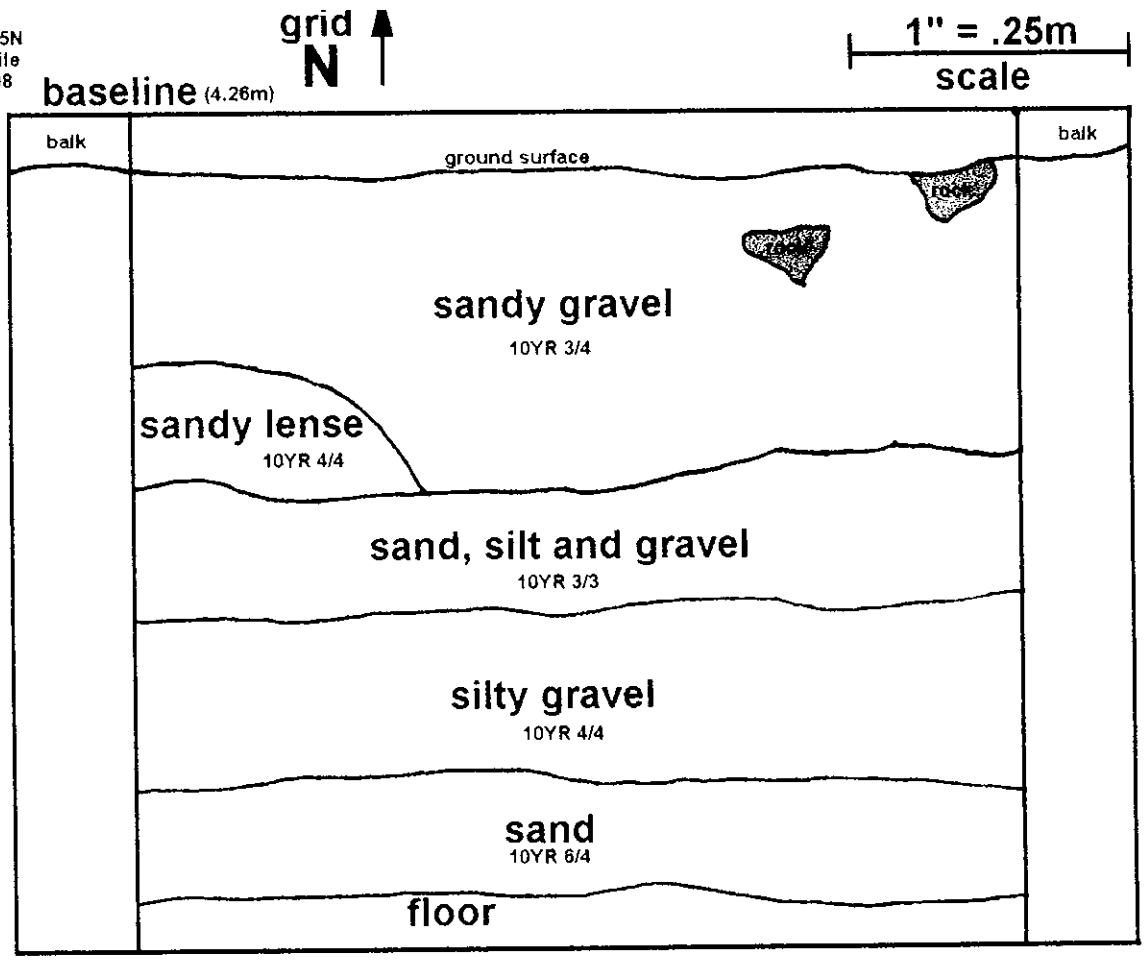
12-Cr-59
16W 8.5N South wall profile



12-Cr-59
16W 8.5N
West wall profile

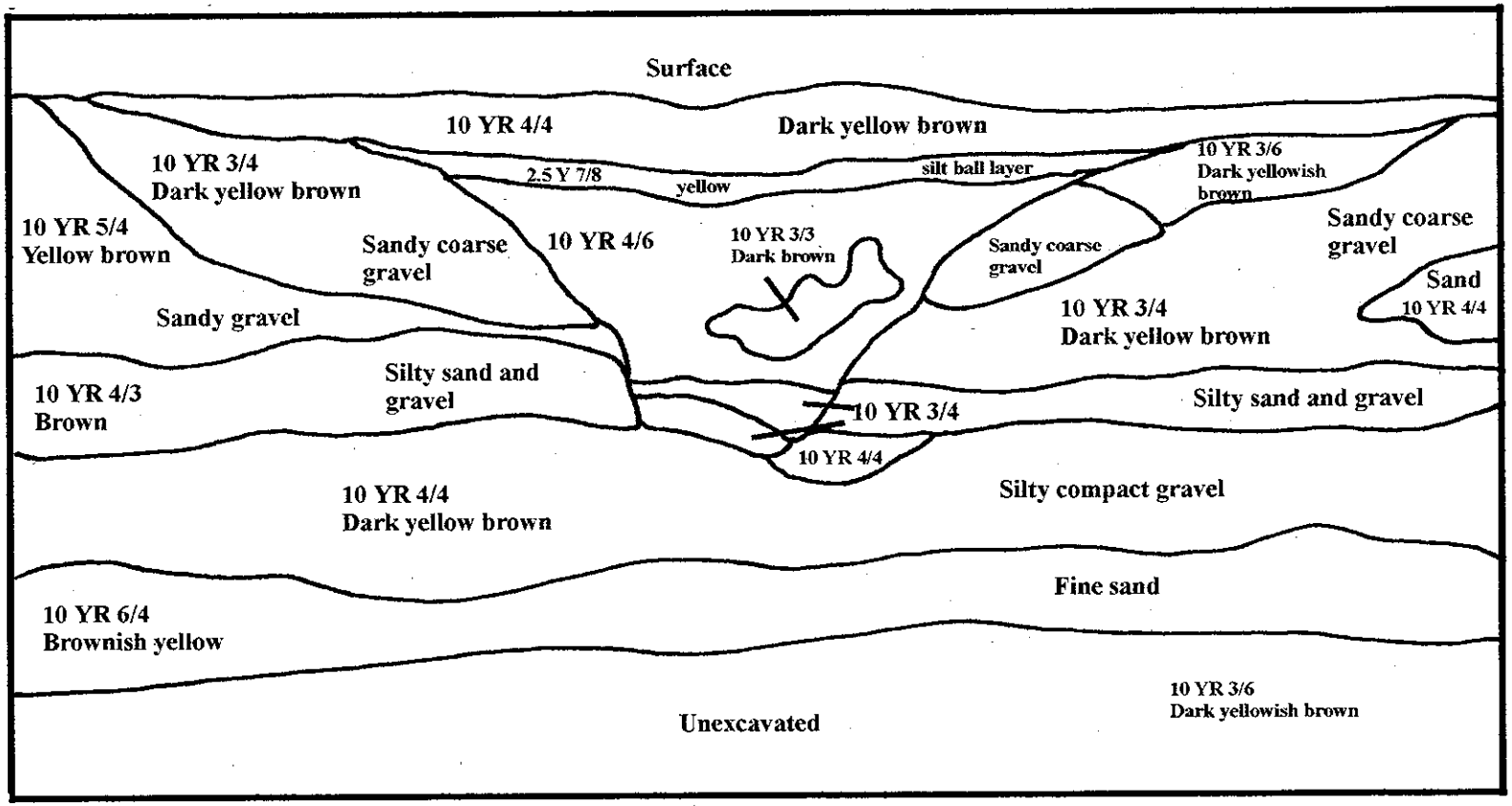


12 Cr 59
12.25W 11.5N
N wall profile
SAA 7-14-98

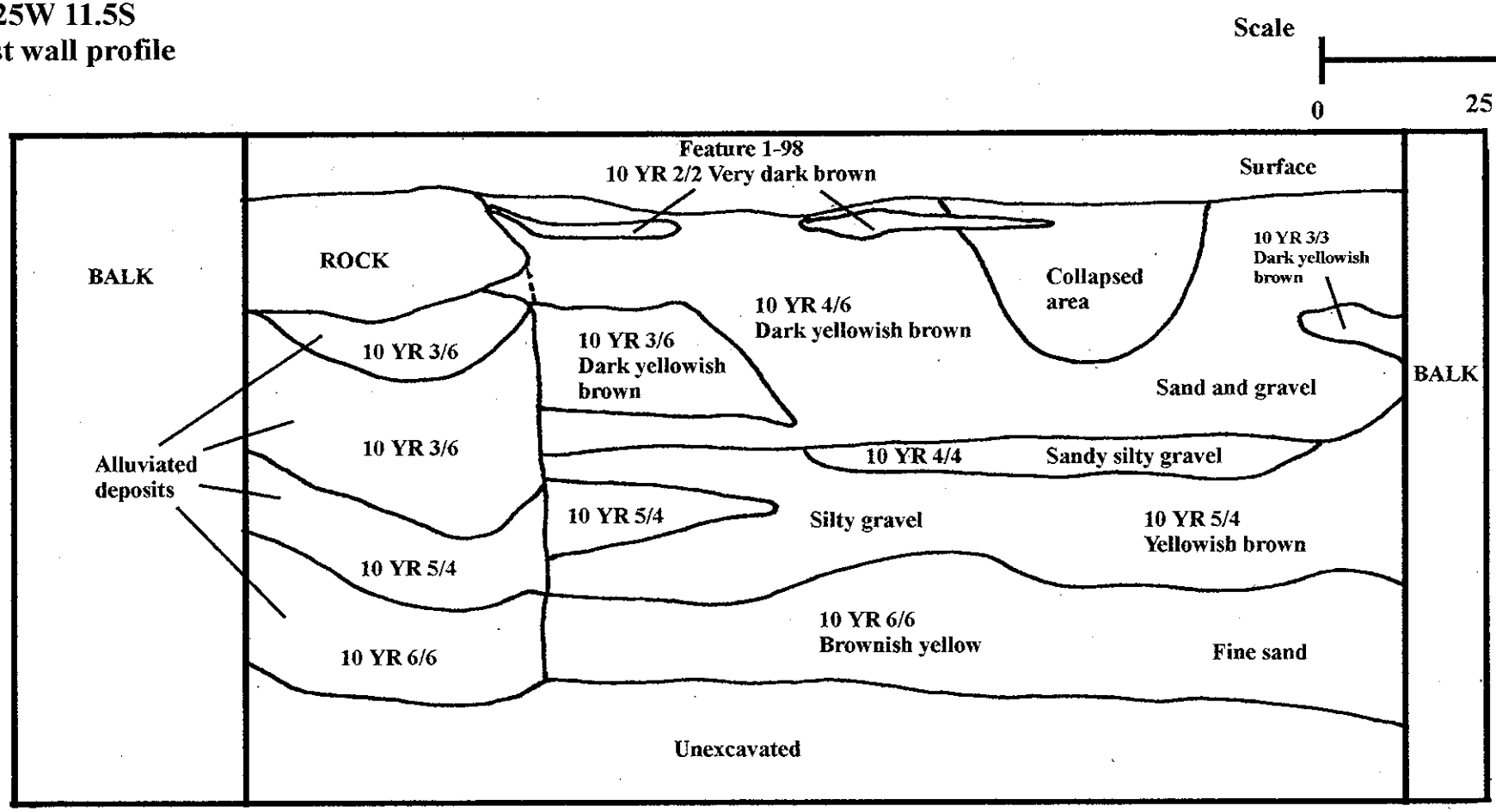


12-Cr-59
12.25W 11.5S
West wall profile

Scale
0 25 cm



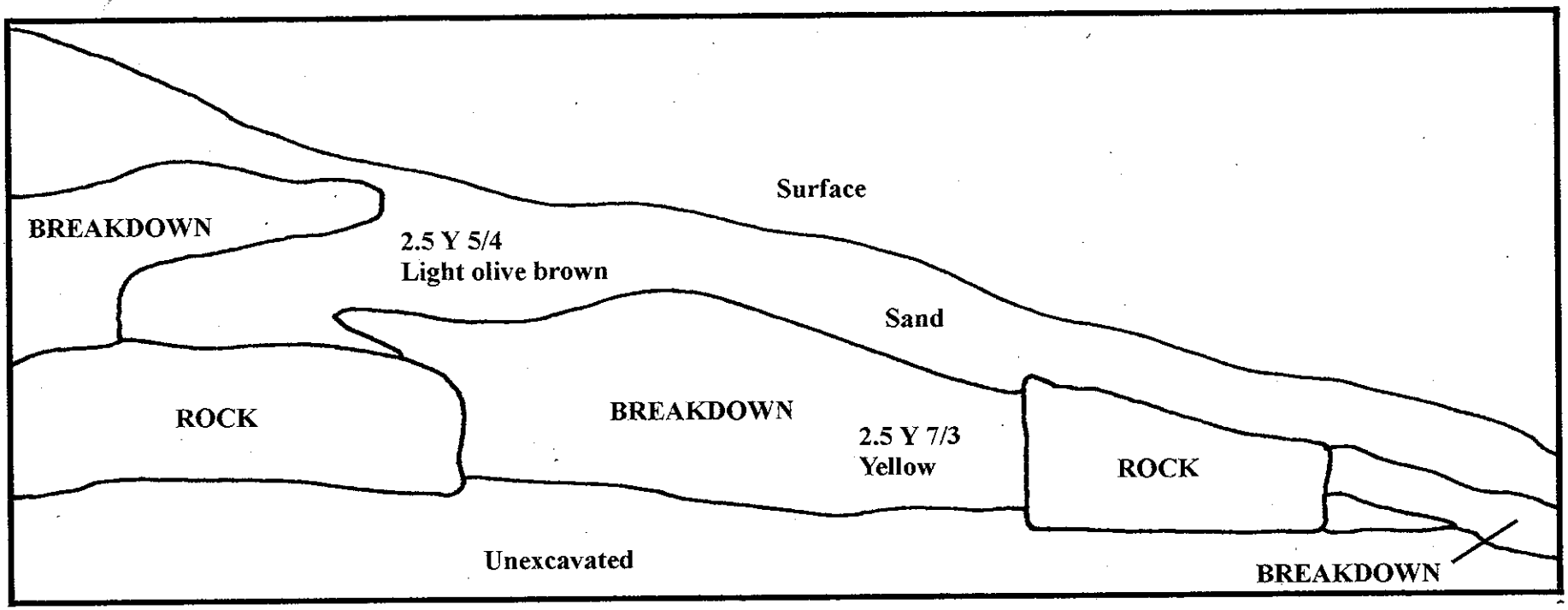
12-Cr-59
12.25W 11.5S
East wall profile



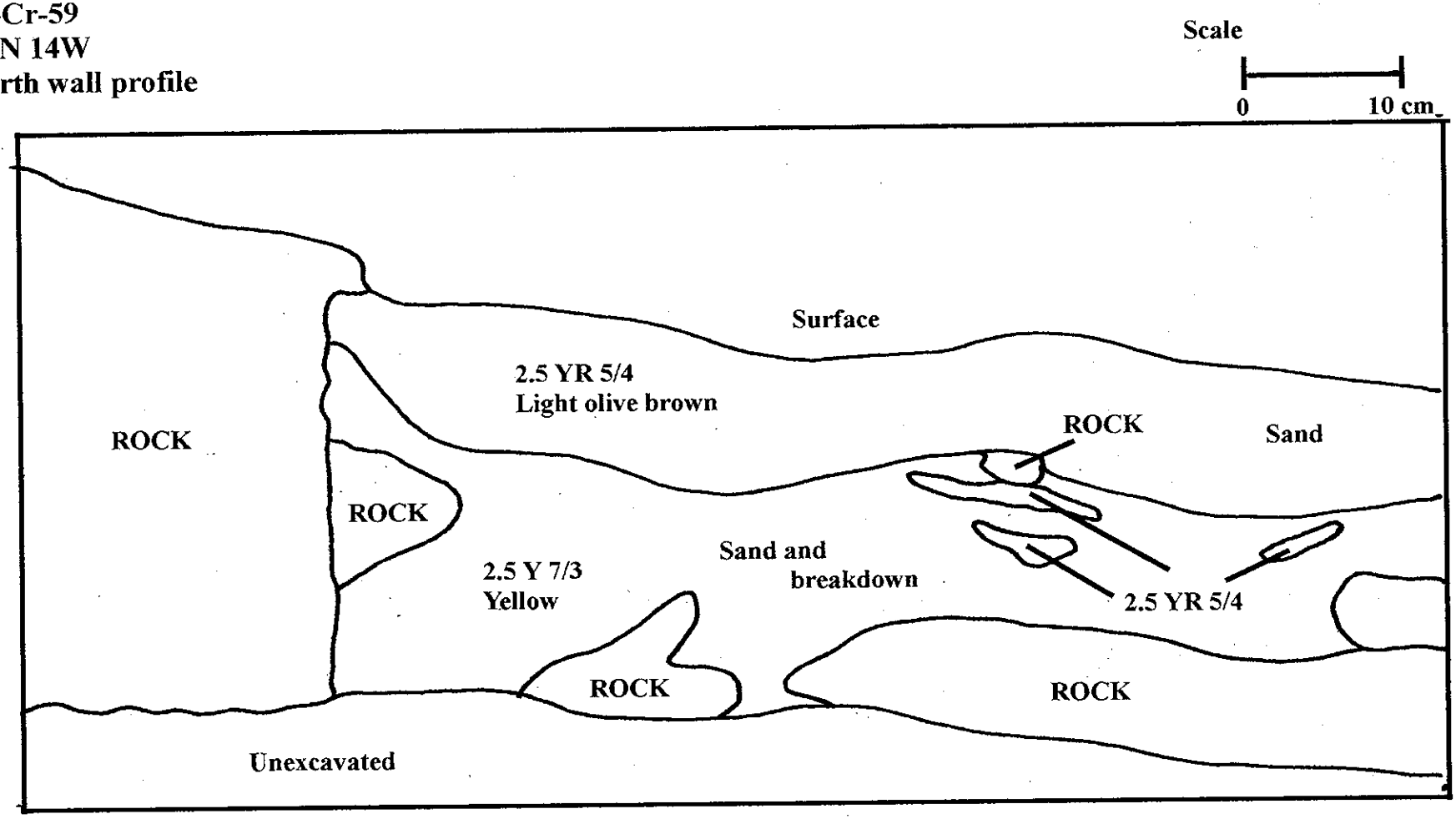
12-Cr-59
4.5N 14W
East wall profile

Scale

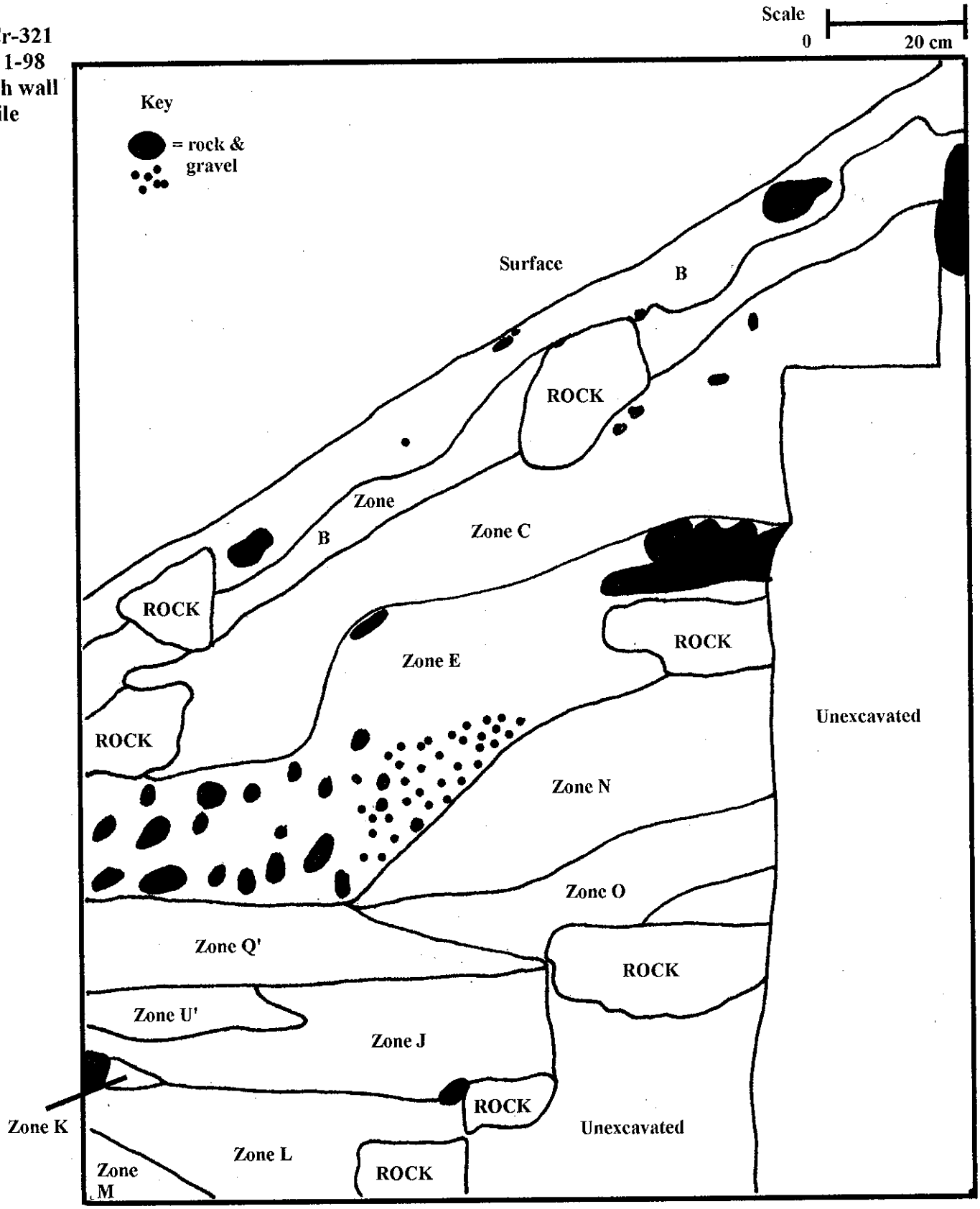
0 10 cm



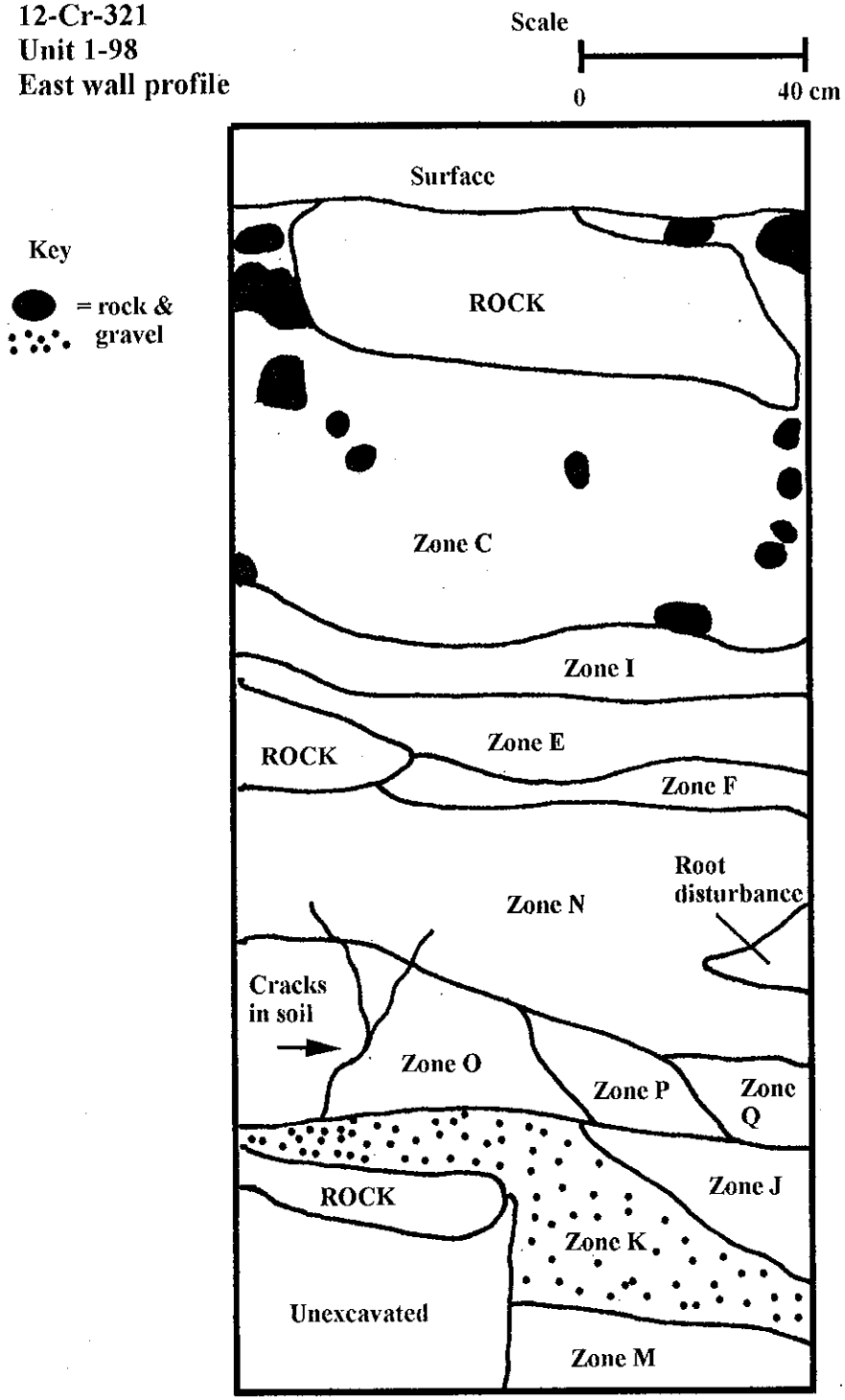
12-Cr-59
4.6N 14W
North wall profile



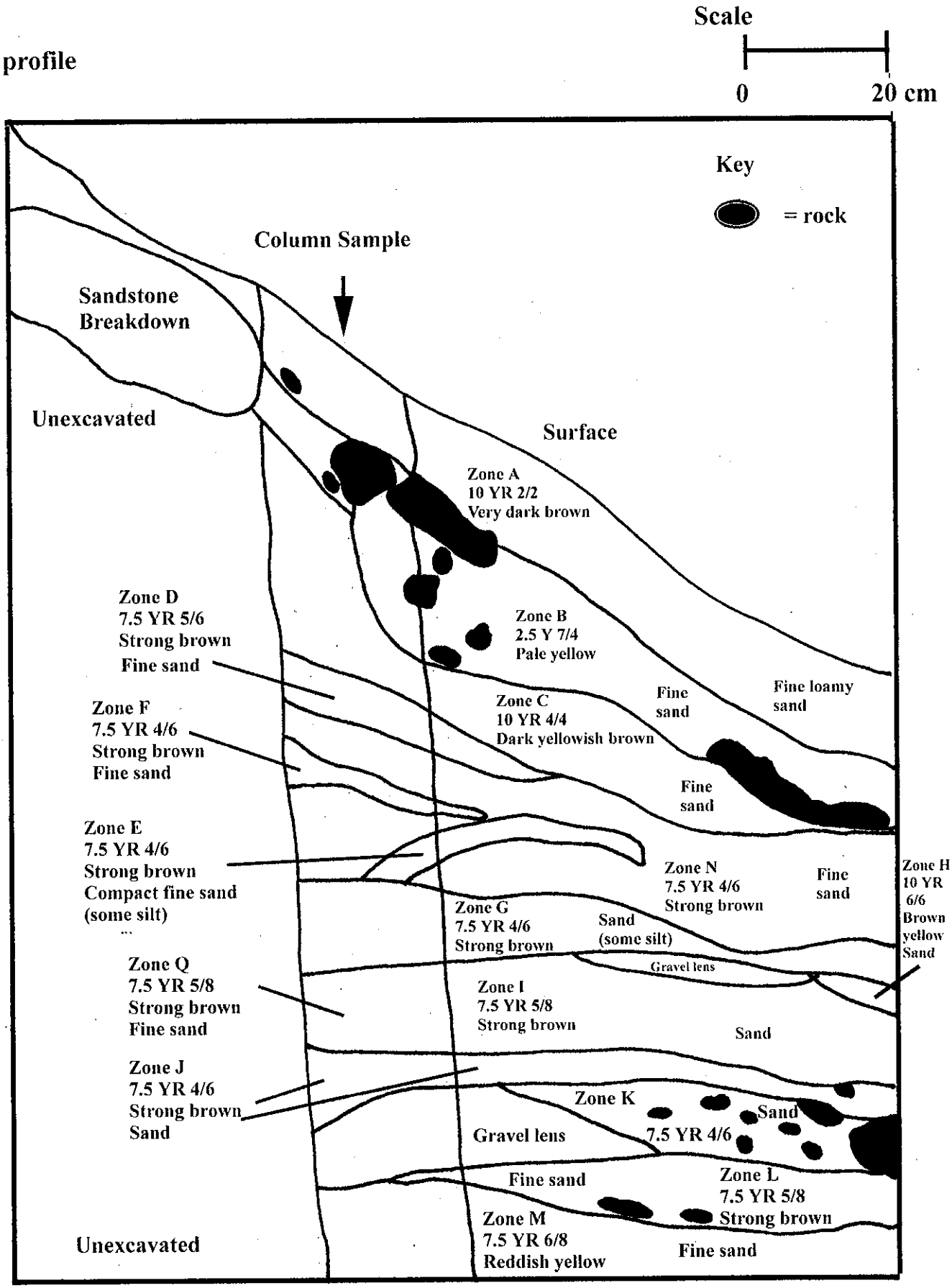
12-Cr-321
Unit 1-98
North wall
profile



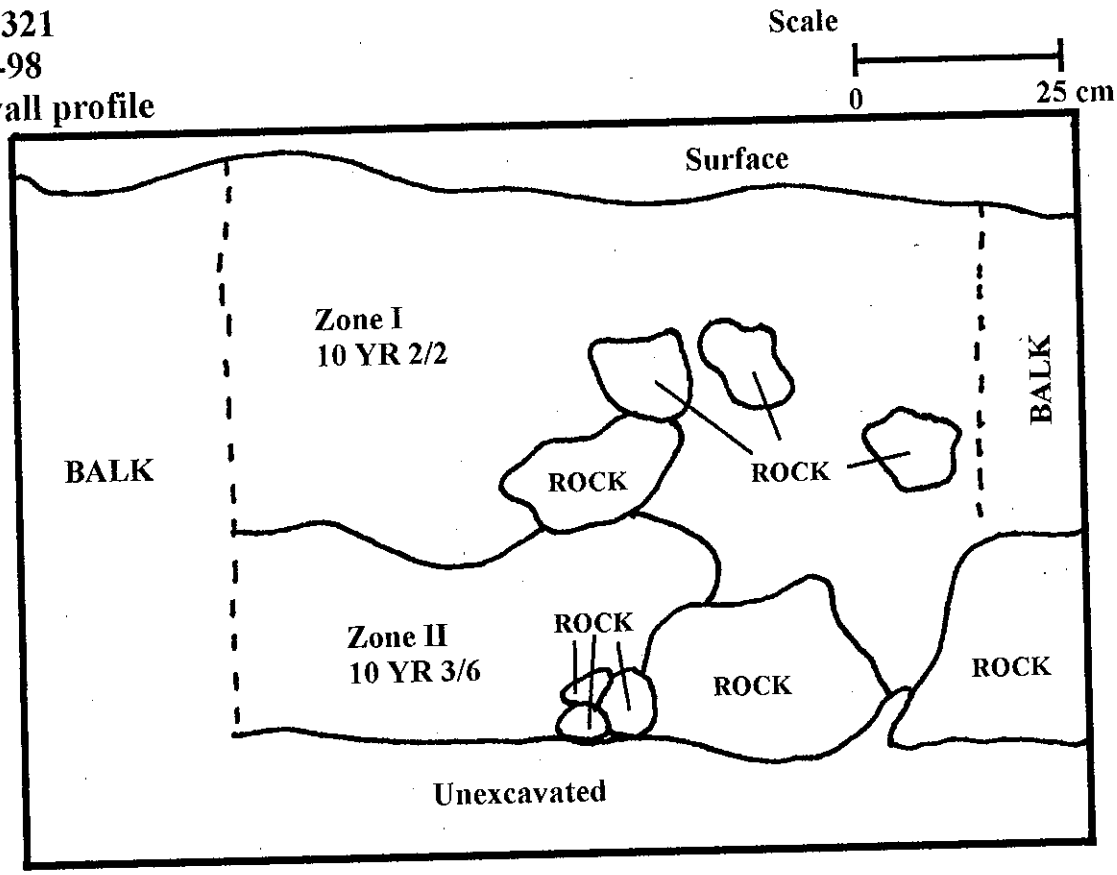
12-Cr-321
Unit 1-98
East wall profile

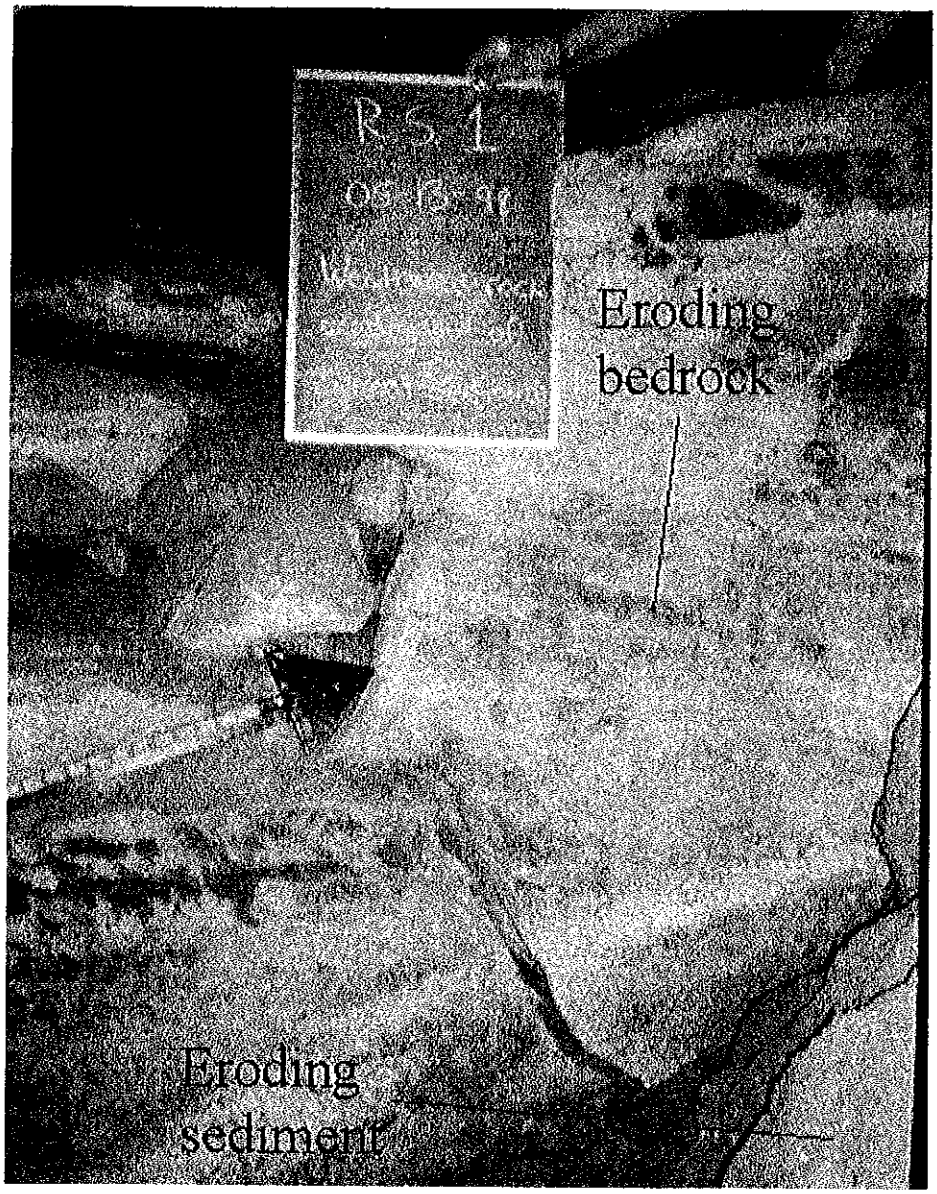


12-Cr-321
Unit 1-98
South wall profile



12-Cr-321
Unit 2-98
East wall profile




Eroding bedrock
Eroding sediment