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## The Schmitt Cave

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**SYNOPSIS.** Little has been written about the importance rock-shelters and caves played in the life of prehistoric man in Northeast Iowa. This report attempts to provide additional information as a result of a recent rockshelter excavation in Dubuque County.

Little has been written about the archeology of caves and rock shelters in Northeast Iowa. Most caves or rock shelters which have thus far been described in that part of the state could conceivably have been used by small groups as shelter, where game could be butchered and also where tools and weapons could be manufactured. Shelters where considerable cultural refuse has been excavated seem to indicate that much workshop activity took place.

### PHYSICAL SETTING

The Schmitt site is located in western Dubuque county in Taylor Township (88N-R1W-Section 31) in northeastern Iowa near the town of Farley. The area of habitation is located approximately 130 feet from the north bank of John Creek. The John Creek Valley is replete with a series of bluffs created by the Wisconsin Glaciation made of Galena Limestone. In terms of local relief several of these bluffs rise some 120 feet above the valley floor. A variety of wildlife and flora still captivates one's curiosity as it undoubtedly did in primitive times.

The identified area under study consists of a rock shelter and cave located at the base of a cliff 65 feet high and situated on a step talus slope. The opening is 4 feet high and 6 feet wide and extends into the bluff about 10 feet. At this point the passage turns into a very unstable fault before terminating near several huge boulders.

The Schmitt Cave was first discovered by Mr. James Schmitt, the owner of the site, after his curiosity was aroused by the thick ash layer which covered the shelter floor. His exploratory digging revealed a leaf-shaped knife blade. Subsequent visits made by the owner and the writer resulted in the discovery of the rim sherd of a cord marked pottery vessel. A systematic excavation of the shelter began in March of 1970.

### EXCAVATION PROCEDURE

Sediment accumulated in the main chamber of the cave as a result of erosion. In fact, erosive action at the top of the cliff caused rubble and debris to filter through the fissure mentioned previously. Ashes of campfires probably made by recent hunters added to the debris which needed to be removed initially.

A datum point was located near the center of the cave opening and a preliminary grid pattern of 2 foot squares was drawn. It was decided to arbitrarily excavate the site in six

The artifacts uncovered on the Joseph Schmitt farm included projectile points, scrapers, woodland pottery, fragments, and faunal remains. Comparisons to several rock shelter excavations in Iowa and Wisconsin are given in the report. Through future Carbon dating of the site, perhaps still more information about Woodland man's activities in Dubuque County can be ascertained.

inch levels. Difficulty was encountered almost immediately due to the large quantity of rocks eroded from the limestone facing that had fallen into the shelter area. This factor made it virtually impossible to determine any well-defined features, although several firesites near the front of the cave were barely distinguishable. Soil fluctuation and heaving during freezing and thawing periods added to the problem so that very few stratigraphic zones could be identified.

The exact position of every artifact was recorded and care was exercised to keep an accurate record of day to day activities. Soil samples were taken at 3 inch levels in several locations. All refuse bones and shells were saved in addition to artifacts according to the level where they were originally found. Charcoal samples were also recorded and kept so that future Carbon 14 dates could be derived.

### FEATURES

The only discernible feature which characterized the entire course of the excavation was the appearance of several firebeds throughout the occupied portions of the site. These firebeds followed no particular pattern or shape but were simply laid on the surface. It became apparent shortly after the excavation was begun that because of the poor stratigraphy, overlapping firebeds seemed to characterize each occupational zone. Most of these beds, however, were located near the front of the cave.

The firebeds generally contained a number of fire reddened limestone rocks. There were no artifacts associated with the firebeds except for those which were incidental with the various occupied zones.

### PROJECTILE POINTS

A total of 17 projectile points were found throughout the course of the excavation. Table 1 illustrates the frequency of points for each level of occupation. From this sampling, 3 typological categories and 1 unclassified form can be identified in Figure 1. It is worth emphasizing at this point that the triangular and notched triangular forms were found mainly in levels 1 to 3, while the expanding stem woodland forms were found in levels 4 to 6, and the side notched projectile points were found in level 6.

*Raddatz side-notched*—(Figure 1, J and K) There were two specimens excavated in level 6 which could be classified as side-notched projectile point forms. Wittry (1959) has stated that this form is associated with the Archaic rather than the Woodland Period. The relative level at which these two forms were found seems to support this view. If we can

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associate this form with the Archaic then we could expect that the date of this occupational level would be approximately 1800 B.C.

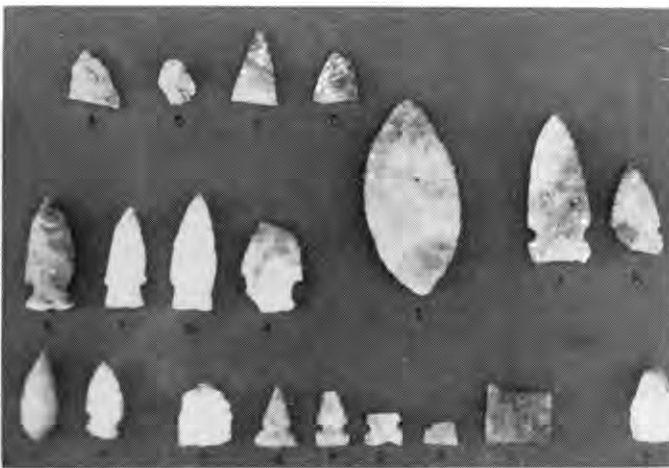


Fig. 1. Projectile Point forms from the Schmitt Site.

Figure 1J is made of local chert and does show evidence of retouching. The notch in Figure 1K is not as distinct as 1J, but still suggests the Raddatz form.

*Expanding Stem*—(Figure 1, E-H) This type of projectile point form was first identified by Joan Freeman (1969) at the Millville site, a Middle Woodland village in Grant County, Wisconsin. These points are generally long and slender with slightly barbed shoulders. Freeman identifies these points as being identical to the forms associated with the Weaver site in the lower Illinois River Valley. As a result of Radio-carbon dates taken at the Millville site, the period 200-250 A.D. seems to be the most representative time span for the association of this projectile point form.

The four examples of this point form average two inches in length and are made of various forms of local chert.

*Side-notched Triangular*—(Figure 1, N-S) A total of six triangular point forms were uncovered during the course of the excavation. Three of these forms, averaging one inch in length, were deeply notched approximately one third of the length from the base. Figures 1N and 1S represent two unfinished blanks, but clearly resemble the triangular form.

There is some agreement that the triangular form is associated with the Late Woodland or Mississippi cultures. Wittry (1959) feels that the triangular form may be a manifestation of Effigy Mound culture, and from radio-carbon dates, estimated periods of occupation would range from 776-1023 A.D.

*Unclassified*—(Figure 1, A-D, M) Figures 1 A-D are fragmentary and undiagnostic. As in the other projectile point forms, all of these examples are made of local chert. Figure 1 M is slightly side-notched and could probably be classified as an expanding stem form.

SCRAPERS

A total of 24 scrapers appeared throughout all of the occupied zones in several forms. Once again, a wide variety of local chert was utilized.

*Ovoid End Scrapers*—Fifteen scrapers were oval in outline

TABLE OF FREQUENCY OF CULTURAL REMAINS

37	22	31	28	20	6	Chert Spals
189	81	105	294	108	51	Chert Flakes
	2	2	4	2		Utilized Chert Flakes
2						Raddatz Side-notched Proj. Pts.
1	1	1		2		Expanding Stem Proj. Pts.
		1			1	Side-notched Triangular Pts.
3		1	1	2		Proj. Pt. Tip Fragments
				1		Unfinished Blanks
		1				Laurel Leaf Ovate Knives
6	2	5	5	1	2	Scrapers
	1	1				Hammerstones
	2	4	37	4		Shell Fragments
		2	3		4	Type 1 Plain Pottery
63	6	44	52	18	5	Lane Farm Cord Impressed
9	20	4	8	17	7	Type 2 Plain Pottery
2	1					Type 3 Impressed Pottery
2						Type 4 Dentate Pottery
6	5	4	3	2	1	Level

and generally measure one inch and a half in circumference. Practically all of the forms were crudely fashioned and five showed considerable wear. On four examples retouching appeared.

*Triangular Scrapers*—Two triangular scrapers were associated with level 3. One of these illustrates considerably more workmanship than many other forms and may have been an unfinished projectile point. (Figure 1,T)

*Side Scrapers*—Seven side scrapers fashioned from large chert flakes were found in a number of levels. Only one of these showed any degree of usage suggesting that perhaps these forms were briefly used and then discarded.

KNIVES

Four flakes knives showed secondary flaking and were undoubtedly used as a basic tool. An asymmetrical laurel-leaf blade was uncovered in level 3. This specimen is delicately flaked and is illustrative of excellent Woodland craftsmanship.

DRILLS

One drill was found in the fourth level (Figure 1, L). The base and tip exhibit considerable grinding and the tool undoubtedly had a variety of uses.

HAMMERSTONES

Two hammerstones were uncovered in level 4. Both show considerable wear, although one is sandstone and the other a form of limestone.

SHELL ARTIFACTS

Approximately 47 shell fragments were uncovered, most of which appeared in level 3. Because of the fragile nature of the mussel shells which were found, the original purpose they served is problematic, although it can be assumed that they served as spoons or dishes. It is also possible that many of the fragments were discarded without serving as tools.

CERAMICS

The pottery sherds from the Schmitt Cave have been divided into five groups, primarily according to decoration and

rim form. All of the sherds are grit tempered and exhibit varying forms of thickness. The identifiable rim fragments are similar in character to those found in various Iowa and Wisconsin rock shelters cited in this study. The total sample of sherds from the Schmitt site is 267 of which 21 are rim fragments. Practically all of the sherds display some form of decoration with the exception of the Type 2 Plain pottery type. Even though this represents a comparatively small sample of Woodland pottery, a surprising number of attributes can be noted.



Fig. 2. Pottery Styles.

*Type 1 Stamped*—This type is represented by two sherds (Figure 2 E). This form consists of vertical impressions on the lip extending one quarter inch from the top followed by a rocker stamp design extending 17 mm. from the facing of the vessel. The lip design is suggestive of a Middle Woodland pottery form known in Iowa as Havana Ware, according to McKusick (1964). Freeman (1969) states that this pottery is quite similar to one of the forms uncovered at the Millville site.

*Lane Farm Cord Impressed*—(Figure 2, A, F, H and J) Seven sherds of the type called Lane Farm Cord Impressed were found throughout levels 3 and 4. The incising consists of "2" twisted cord impressions beginning with diagonal forms on the lip 4 mm. long on the exterior and interior face. Horizontal cord impressions then follow with a final band of diagonal impressions 14 mm. from the lip of the vessel. Because of the cultural similarities of associated artifacts, this pottery form represents the Middle Woodland horizon in northeast Iowa. It is believed, according to Logan (1952), that forms of this design are contemporaneous with the Hopewell culture.

*Type 2 Plain*—(Figure 2, G and K) Approximately 37 fragments including two rim sherds of a plain form with no

decoration were found. These forms are identical to the Madison Plain pottery found on a number of Woodland sites in Wisconsin.

*Type 3 Impressed*—(Figure 2, D) At level 6 a number of coarsely designed cord marked sherds were uncovered. One of these showed distinct paddle marked impressions on the rim. These forms seemed to resemble the Leland Cord Impressed, a Middle Woodland pottery first identified at the Durst Rockshelter in Wisconsin.

*Type 4 Dentate*—Fifteen pottery fragments, including two rim sherds exhibited a double row of punctates extending 9 mm. from the top of the bowl. Since these forms were uncovered from level 6, it can be assumed that this pottery form was contemporaneous with the Late Archaic-Early Woodland period. It was from this same level that the side-notched projectile points were recovered.

#### CONCLUSIONS

The cultural remains from the Schmitt site indicate an occupational period spanning several centuries, beginning with the Late Archaic Period and continuing into the Woodland Period. It appears that the site served as a way station for foraging expeditions into the Iowa countryside, and was a center for considerable workshop activity where artifacts were fashioned and then carried elsewhere. This hypothesis is confirmed by the large number of chert flakes and spalls found during the course of excavation. A comparatively large number of scrapers were also found throughout the course of excavation, and there seems to be considerable evidence that much preparation of game took place at the site.

It is hoped that more rock shelter excavations and reports will be undertaken in the near future in order to increase our knowledge of the prehistory of northeast Iowa.

#### ACKNOWLEDGEMENTS

I am particularly indebted to Mr. James Schmitt for his help and cooperation. Mr. Ralph Eshelman has prepared the faunal analysis of the site and the result of his labors will enormously enhance our knowledge of the living habits of prehistoric man in northeastern Iowa. I am also indebted to Mr. Donal Burton, Mr. Robert Olds, Walt Mauer, Werner Hellmer, and students at the University of Dubuque whose untiring efforts made the excavation a success.

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