

# Archaeological Survey of Timber Coulee

Ryan Letterly

Faculty Sponsor: Dr. Rober Boszhardt, MVAC

This Undergraduate Research Project was conducted to further the understanding of the archaeology in Timber Coulee, a tributary of Coon Creek. Timber Coulee is located approximately 20 to 25 miles east of La Crosse (Figure 1). The project consisted of systematic walkovers in cultivated fields and two extensive shovel testing projects. In addition, caves and rockshelters were investigated for archaeological remains and/or rock art. As a result of this survey 23 new archaeological sites have been discovered, ranging in time from late Paleo-Indian to late prehistoric Woodland cultures. A sample of lithic artifacts was collected from 21 of the 23 sites and 1 sample was gathered from a previously known site.

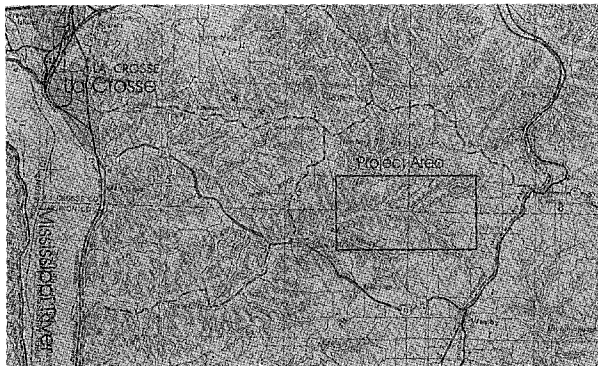


Figure 1: Project area in Timber Coulee.

## GEOGRAPHY AND GEOLOGY

Timber Coulee is a small river valley located in southwestern Wisconsin (Figure 2). This is a deeply incised drainage situated in Wisconsin's Driftless area (Van Riper 1971). In general, this unglacial landscape consists of valleys that are steep walled and flat-floored. These valleys contain

meandering streams like Timber Coulee, and usually some geomorphic terracing. The low gradient streams associated with this area generally flow south to southwest and drain into the Mississippi River. Dendritic drainage, meandering streams, alluvial (stream deposited) landforms, and colluvial (mass wasted) slopes are characteristic features common to this area. Colluvial slopes and alluvial landforms (like terraces) in the Timber Coulee are attractive spots for human settlement because they provided a dry setting to camp on. At least 7 of the 23 new archaeological sites discovered were found on colluvial slopes (Figure 3).

Colluvial slopes are formed by several geomorphic processes, but these processes differ from section to section within the same slope. The heads of hillslopes tend to experience material transportation by mass movements through flow, slide, slump and creep; plus, this portion of the slope is subject to surface and subsurface water action (Selby 1985). The mid-section of slopes tend to have material that is redeposited by the mass

movement of creep; plus surface wash and subsurface water action aid in the movement of material (Selby 1985). Finally, the toe portion of the slope experiences material transportation from mostly subsurface water action (Selby 1985). The hill-slopes in the Timber Coulee area are formed by the action of running water and mass movements of material which gravity acts upon.

The Timber Coulee Creek and many of its tributaries fluviably dissect through a variety of lower Paleozoic rocks. These rocks are mostly sandstones and carbonates. They consist of Upper Cambrian Sandstones, Lower Ordovician Carbonates, and Lower Middle Ordovician sandstones (Thompson 1993). The Upper Cambrian sandstones are associated with the Jordan Formation and this formation is made up of sandstone, siltstone, and glauconite (Figure 4). Stratigraphically the Jordan formation is located on the valley floor of Timber Coulee and when running water cuts into this formation, natural rockshelters form.

These shelters were initially created by water action, but enlarged through subsequent weathering, such as the expansion and contraction of ice or frost action (Letterly 1997). This occurs within the sand grains when water freezes, causing rock fragments to spall away from the walls and ceiling. This process helps form an incipient shelter suitable for human habitation, although in time, the roof overhangs tend to collapse under their own weight. The soils consist mostly of sand formed in residuum from the shelter's decay, and sometimes organic humus forms on top of these eroded and weathered sediments. Since sandstone rockshelters are continually depositing sediment, the site becomes ideally stratified, both archaeologically and geologically. Gastropods and pollen spores may also be present at these shelters, and provide useful information about climatic conditions at different times in the rockshelter's history. The wind that deposits or carries these

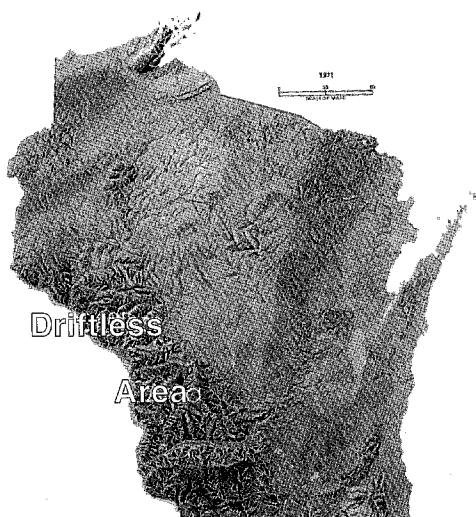


Figure 2: Map of Wisconsin showing the driftless area.

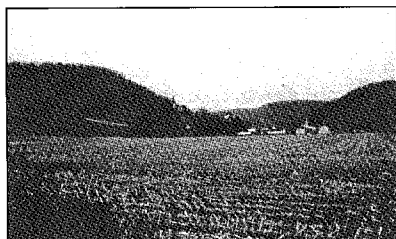
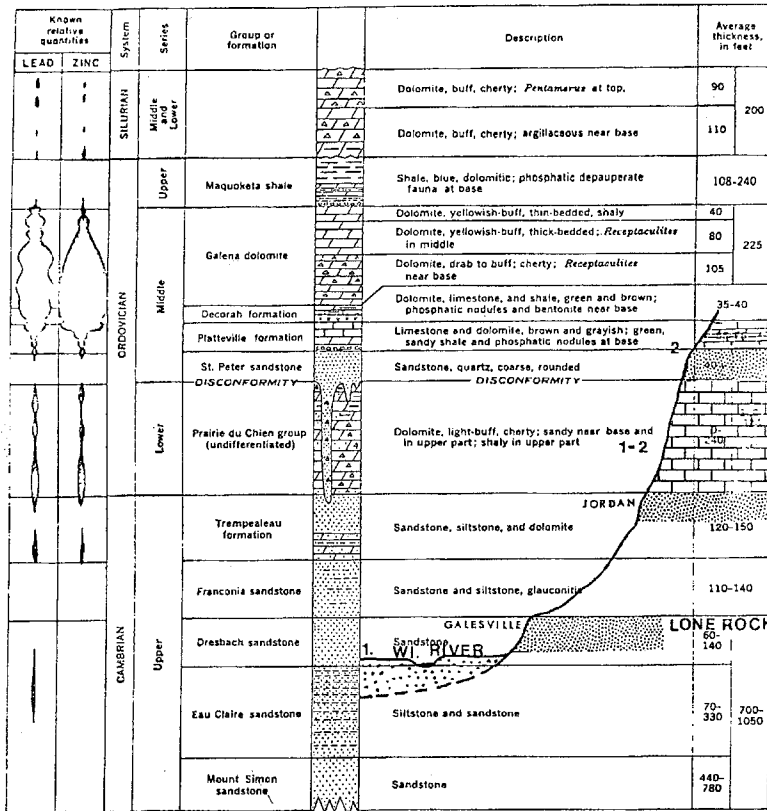


Figure 3: A colluvial slope in Timber Coulee.

pollen spores to the shelter may also transport silts or loess to the site. Sandstone rockshelters are especially susceptible to eolian (wind driven) deposits when the surrounding vegetation is low and the climate is particularly dry. Additionally, sandstone rockshelters were favorable places for prehistoric people to set up camp because these sediments made the floors relatively comfortable. Sandstone rockshelters were utilized by people throughout Wisconsin's



--Simplified stratigraphic section showing relative quantitative stratigraphic distribution of lead and zinc in the Upper Mississippi Valley District. From Heyl and others (1959, fig. 2), with addition of relative quantities of lead and zinc for this report.

Figure 4: Stratigraphic association of rocks in Timber Coulee.

prehistory and provided an excellent place to be safe from Wisconsin's variable weather, particularly during the harsh winter season.

When conducting my survey of the Timber Coulee area, I ran across several of these shelters, but only two (within the Jordan formation) revealed evidence of prehistoric activity (R.L. #22 and R.L. #24).

The Lower Ordovician Carbonates found in Timber Coulee are designated the Prairie du Chien Formation. Limestone, dolomite and chert are all found within this formation. Dolomite and limestone rocks from this geologic strata are found in Timber Coulee on archaeological sites in the form of fire cracked rock or FCR. Karst and karst topography are also associated with this formation revealed as sinkholes on top of the ridges and several caves or dissolved holes. Sinkholes are caused by the collapse of a cavern roof or by dissolution of surface rocks. Caves are formed when ground water dissolves large masses of limestone or dolomite creating subsurface voids known as caverns. Many of

the caverns within the Prairie du Chien (PdC) formation were surveyed for prehistoric activity inside my project area, and at least two were utilized, based upon the fact that the ceilings in these caves are charred from smoke (Figure 5 and 6). However, since no artifacts were found in context within these caves it is difficult to tell whether they were utilized in historic or prehistoric times.



Figure 5: Natural rockshelter in Timber Coulee.

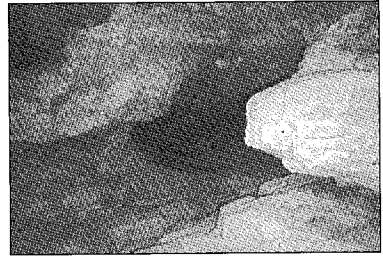


Figure 6: Charred cave ceiling in Timber Coulee.

Chert is the other rock found within this formation. It is a hard dense microcrystalline stone that results from the precipitation of silicon dioxide by either chemical or biological processes (Sawkins et. al. 1978). This rock fractures conchoidally in a somewhat predictable fashion. PdC chert is common throughout southwestern Wisconsin and is generally rather poor in quality, and no major quarry workshops have been identified, except the Dunnam workshop by Portland, Wisconsin. This survey in the Timber Coulee identified numerous PdC workshops, and massive quantities of cherty nodules were observed in eroding ravines. It appears that a better quality of PdC chert formed near Timber Coulee and this apparently contributed to the concentration of prehistoric sites around this area (Figure 7 and 8). Chert was highly sought after in prehistoric times to make stone tools, which were a necessity for subsistence.

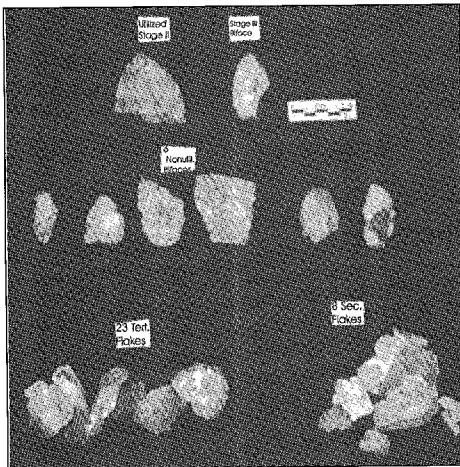


Figure 7: Lithic Material from R.L. #7, a workshop site in Timber Coulee.

The lower Middle Ordovician sandstones are attributed to the St. Peter formation, and this formation consists mostly of sandstones that have fairly

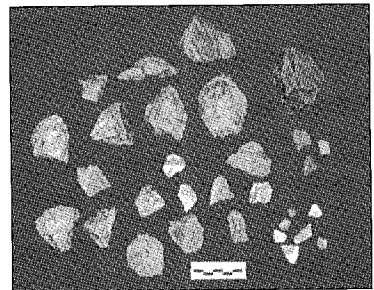


Figure 8: Lithic Material from 47Mo229, a workshop in Timber Coulee.

coarse and rounded sand grains.

The St. Peter formation around Timber Coulee forms above the PdC formation on top of some bluffs. However for the most part, this sandstone is mostly weathered away except for a few and in effect become more resistant towards weathering. The St. Peter formation is more apparent towards the Westby, Vernon County area.

### **Cultural Context**

Native Americans crossed the Bering Strait, from Northeast Asia, around 12,000 to 14,000 years ago when a good share of the earth's water was locked up in glacial ice (Jennings 1983). These first immigrants are called Paleo-Indians by archaeologists. They ventured into the Western Hemisphere in search of food, including the large ice-age mammals.

### **Paleo Indian**

This culture started approximately 11,200 Before Present (B.P.) and goes to 9,500 B.P. During this time Native Americans hunted big-game such as bison, mammoth and mastodon as their primary way of subsistence. Seasonal foods such as nuts and berries were also collected. Human populations were very sparse at this time, and generally traveled in small bands over enormous territories. Paleo-Indians may have used the atlatl or spear thrower as their primary weapon, and also had superior lithic workmanship skills. Fluted points like the Folsom and Clovis are found on early Paleo-Indian sites. These projectile points are characterized by a flute or flaked groove two thirds to three quarters of the way up the point. The Paleo-Indians probably set up base camps at hill sites around prime hunting areas, major water sources, and natural rises or overlooks. A previous survey in Coon Creek drainage located late Paleo-Indian artifacts (Sasso 1989), while early Paleo-Indian fluted points have been found in the surrounding region (Boszhardt 1991).

### **Archaic Indians**

By 9500 B.P., the Megafauna had become extinct and Native Americans shifted to hunting other animals and gathering native plant foods. Archaic peoples hunted bison, elk, and white-tailed deer during this time. Also, a greater emphasis was placed on gathering plant foods, and tool kits became more refined. These people were also nomadic and are presumed to have had an egalitarian based society. Archaic groups also set up camps near rivers, springs and lakes; especially during the arid Middle Holocene (c. 7000 to 5000 B. P.). The atlatl, or spear thrower, was the weapon of choice, but for some reason projectile points during the Archaic seem to exhibit a lesser quality of workmanship compared to many Paleo points.

Early Archaic projectile points usually are beveled from resharpening alternate edges and their bases are often ground. These points are sometimes serrated and usually have either deep, square, or corner notches on the base of the point. Some examples are Hardin Barbed, Thebes, Kirk Corner Notched, and St. Charles (Dovetail). Middle Archaic projectile points in southwestern Wisconsin tend to be side notched and are often heat-treated. These points tend to be rather crude and their bases tend to be straight or sometimes convex. Some examples are Madison Sided Notched, Godar, Raddatz and Osceola. The most common Late Archaic projectile point in southwestern Wisconsin is the Durst stemmed point. These points have rounded bases and are usually made out of PdC or orthoquartzite.

The Old Copper Culture is one manifestation of Middle to Late Archaic stages. The height of Old Copper was from 5000 to 2500 B.P. and is recognized from various copper tools, weapons, and ornaments. Copper was quarried from places like south shore of Lake Superior, the Keweenaw Peninsula, and on Isle Royale, where numerous quarries have been discovered (Jennings 1974). Here, copper occurs naturally in irregular sheets and in fissures. Then it was worked into both utilitarian and non-utilitarian artifacts by hammering and annealing. Archaeologists interpret copper artifacts found in southwestern Wisconsin as being trade objects, which originated from the Great Lakes area.

Population remained sparse during most of the Archaic, but by late Archaic times there was a significant increase. Archaic sites are relatively common throughout the Driftless Area, including the Coon Creek drainage (Sasso 1989).

### **Woodland Indian Tradition**

The Woodland Tradition (500 B.C. to A.D. 1000) is known for its important innovations in cultivating wild plants, pottery manufacture, extensive trade networks, exploitation of riverine environments, and burying their dead in earthen mounds. Over all these people were semi-sedentary horticultural groups that camped around major rivers or stream valleys. Prior study of Coon Creek drainage documented a number of Woodland camps based on both projectile points and pottery (Sasso 1989).

The most spectacular component to the Early Woodland stage is the Adena complex or culture. Experts suggest that the Adena Complex could have started as early as 1000 B.C. and ended possibly around A.D. 100 (Fagan 1995). Adena is especially known for elaborate burial customs and massive conical mounds. The heart of this mortuary practice was in the central Ohio River Valley, but burial mounds associated with the Adena complex have also been found in the western Appalachians, the central Mississippi River Valley, north into Wisconsin, and in the state of Michigan (Fagan 1995). During Early and Middle Adena times, burials were often sprinkled with red ochre along with graphite and sometimes manganese dioxide (Fagan 1995). This indicates the body was treated and painted before burial, possibly as part of their ceremonial treatment of the dead,

In southwestern Wisconsin the Early Woodland tradition is defined by Madison Thick cord-roughened pottery, straight stemmed points like Kramer and Fox Valley, and contracting stemmed projectile points like Waubesa, Dickson, and the much larger Turkey Tail and Adena points. Most of these projectile points are made out of PdC or orthoquartzite, but sometimes the Turkey Tails are made from Dongola chert. This grayish chert is sometime called hornstone and reflects a trade network from Indiana to Wisconsin. These points are often ceremonial artifacts associated with Red Ochre burials (Boszhardt and Nienow 1996).

The most spectacular component to the Middle Woodland stage is the Hopewell Culture (200 B.C. to A.D. 400). Hopewell is present over much of the Midwest, but the Ohio River Valley and the Illinois Havana are the most elaborate components. These Hopewellian cultures also have flamboyant burial systems, but the culture is especially known for its extensive exchange systems or the "Hopewell Interaction Sphere" (Green et. al. 1986). This complex exchange network traded finished artifacts and raw materials over hundreds of miles encompassing much of North America, including the Upper Mississippi River. Many of the cultural characteristics associated with Hopewell and its people were derived from the Adena culture and its peoples. The Ohio Hopewell's diet has been reconstructed from the McGraw village site. It consisted of deer, bear, turtles,

fish, turkey, river mussels, and a variety of nuts and seeds that were gardenized. There were also hundreds of mounds associated with this culture. Within these mounds individuals were sometimes buried with exotic goods like mica sheets, fresh water pearl beads, obsidian projectile points and blades, copper ear spools, copper breast plates, copper axes, marine shells, effigy platform pipes, clay human figurines, and special pottery vessels.

The Illinois Havana is the most prevalent component to the Hopewell culture in Southwestern Wisconsin. The typical features associated with this Middle Woodland culture are conical mounds and pottery decorated with “dentate stamping,” rocker stamping, cord wrapped stick stamping, and cross-hatch incising on the upper surface of the rim (Green et. al. 1986). Snyders projectile points made of Burlington chert or Knife River Flint are usually associated with these Middle Woodland sites. Middle Woodland campsites are relatively rare in the Coon Creek drainage, but a Hopewell mound group was documented at the Stoddard Terrace where Coon Creek joins the Mississippi River (Sasso 1989).

The Late Woodland stage began around A.D. 500 and ended about A.D. 1000. This culture is similar to its Woodland predecessors, but the bow and arrow replaced the atlatl, pottery vessels have thinner walls, and mounds changed to effigy forms. These mounds were used for burial and some may have marked clan territories. The most common Late Woodland projectile points in southwestern Wisconsin are, Honey Creek Corner Notched, Cahokia, and Madison Triangular. These points are usually found in context with thin walled, grit tempered, cord roughed pottery vessels like Madison and Lane Farm.

### **Oneota/Mississippian Culture**

This tradition starts around A.D. 1000 and ends during the mid 1600s with European Contact. Cultures were agricultural communities located in larger river valleys, where organically rich soils could be easily cultivated. These valleys contained a rich biomass of fish, animals and plants, which resulted in high human population densities. These people were farmers that grew maize, beans, squash and perhaps some native plants. Mississippian people supplemented their agricultural diet with waterfowl, fish and natural game like deer. Nuts were also collected in the fall, which could be stored in pits along with agricultural yields for the lean winter months. The bow and arrow was still the weapon of choice, pottery vessels were quite thin and were tempered with shell, and for the first time in prehistory large disc pipes are now found.

## **METHODS OF INVESTIGATION**

This project consisted of systematic walkovers in cultivated fields during the spring and fall months when surface visibility was high (Figure 9). Field numbers prefaced by the letters “R.L.” were assigned to new archaeological sites as they were discovered. The location to each find was reported on United States Geological Survey (USGS) topographical maps.



*Figure 9: An example of a cultivated field.*

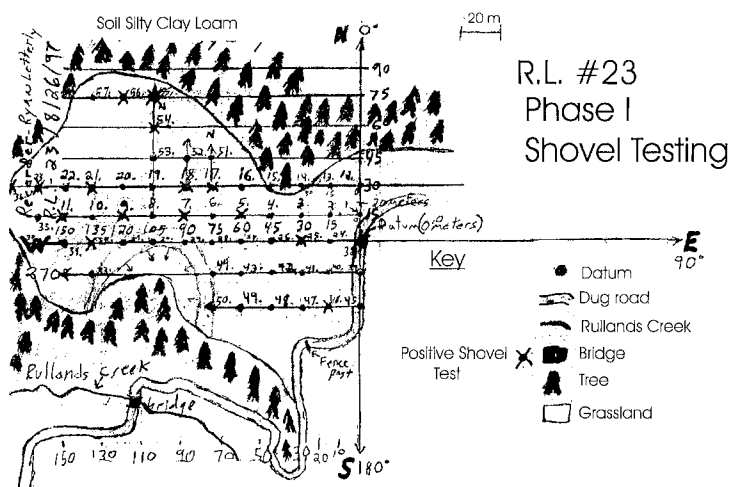


Figure 10: R.L. #23 plan map of Phase I shovel testing.

After I received oral permission from the landowners, two vegetated areas were also tested for archaeological remains. R.L. #23 was shovel tested at 15 meter intervals to determine whether or not archaeological deposits were present (Figure 10). A single shovel test was also placed at R.L. #22, along the back wall of the shelter to determine if this site was or was not occupied in prehistoric times (Figure 11).

The artifacts discovered during this survey were returned to the MVAC laboratory in La Crosse for processing and analysis. Artifacts were washed and sorted by categories such as projectile points, scrapers, cores, bifaces, and waste flakes. All of the artifacts collected in conjunction with this survey were assigned MVAC acquisition numbers and catalogued by provenience. The archaeological field work in Timber Coulee, Wisconsin was initiated in May of 1997 and was completed in July of 1998.



Figure 11: Entrance to R.L. #22.

## RESULTS

As a direct result of this survey, 23 new archaeological sites have been discovered, ranging in time from at least Late Paleo-Indian to late prehistoric Woodland cultures. Twenty are open field sites, one is a rockshelter site, and the other is a rock art site. Fifteen sites can be culturally affiliated to a specific time period as a result of this survey or because of prior field work conducted. Eight of these sites can not be dated because no diagnostic material has been found yet.

### Paleo-Indian

Two Paleo-Indian sites have been discovered in the Timber Coulee, R.L. #3 and R.L. #16. R.L. #3 is a multicomponent site, where both Paleo and Early Woodland points



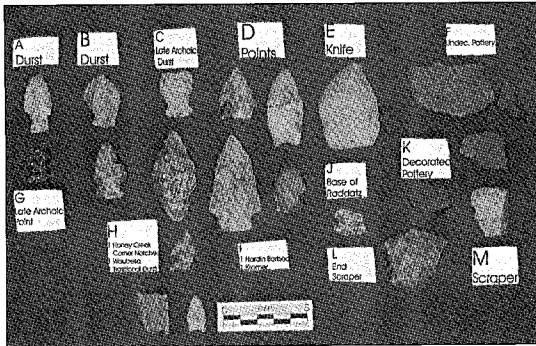


Figure 12: Lithic tools found at various sites in Timber Coulee (Letters are referred to in text.)

ered. The Paleo point found here was not in conjunction with this survey. It is made out of orthoquartzite and exhibits many of the characteristics associated with Agate Basin projectile points. This is also a Late Paleo-Indian diagnostic point circa 7500 to 7000 B.C. ( Boszhardt and Nienow 1996).

**Archaic**

Seven diagnostic Archaic points were recovered from Timber Coulee, as a direct result of this survey. An Early Archaic Hardin Barbed projectile point was recovered from R.L. # 16 (Figure 12I). This point was made out of heat-treated PdC, it is slightly beveled and the base of the point was ground. One diagnostic base to a Raddatz projectile point was recovered from R.L. #8 (Figure 12J). This is a section of a crude Middle Archaic point; it is a side-notched point that has been heat-treated.

Five Late Archaic Indian sites have also been discovered in the Timber Coulee, R.L. #5, R.L. #8, R.L. #13, R.L. #20, and R.L. #21 (Figure 12A, B, C, G, H). R.L. #5 is a Late Archaic site located in the Timber Coulee circa 1500 to 1000 B.C., and one heat-treated Durst stemmed projectile point was found here (Figure 12A).

**Woodland**

Five diagnostic Early Woodland points have been recovered from the Timber Coulee area, three of which are a direct result of this survey.

R.L. #3 is a multicomponent site found in Timber Coulee. An Early Woodland straight stemmed Kramer point was found on this site (Figure 12I). The point was found in conjunction with this survey and is made out of PdC chert. A series of projectile points, as previously mentioned, were recovered from R.L. #8, two of which are Early Woodland points. Both of these points are classified as Waubesa contracting stemmed artifacts, but the one that was found in compliance with this survey appears to be heat-treated (Figure 12B). R.L. #16 is another multicomponent site, in Timber Coulee, an Early Woodland straight stemmed Kramer point was also recovered at this site. This projectile point was found in compliance with

have been recovered. The Paleo point was found during this survey, and is made out of PdC chert. (Figure 12). This point exhibits many of the physical characteristics associated with Plainview diagnostic points. The cultural affiliation for Plainview is Late Paleo-Indian circa 7000 B.C. (Boszhardt and Nienow 1996).

R.L. #16 is also a multicomponent site, where Late Paleo, Early Archaic, and Early Woodland points have been recovered.

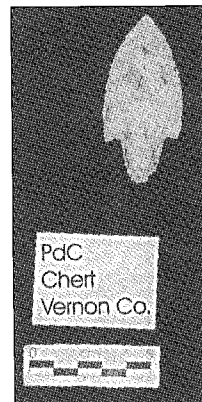


Figure 13: Waubesa made from Prairie du Chien Chert.

this survey and is made out of PdC chert (Figure 12I). R.L. #20 is also a multicomponent site, where both Late Archaic and Early Woodland points have been recovered. The Early Woodland projectile point found here was not in compliance with this survey. It is made out of high quality PdC chert and exhibits many of the characteristics associated with Waubesa contracting stemmed artifacts. (Figure 13). One Snyders point made out of Burlington chert was found in Timber Coulee on R.L. #8, but it was not in conjunction with this grant. It is also important to note that no conical mounds that could possibly be associated with Early to Middle Woodland times have been discovered in the Timber Coulee area.

Six diagnostic Late Woodland sites have been identified in the Timber Coulee area, Ve 545, Ve 1107, Mo 229, R.L. #8, R.L. #10, and R.L. #21, three of which (R.L. #8, R.L. #10 and #21) are a direct result of this survey. Ve 545 is a late Woodland site located in the Timber Coulee. One Madison Triangular projectile was found on this site. This point is made out of orthoquartzite, but was not found in conjunction with this survey. Ve 1107 is a multicomponent site found in Timber Coulee, one Late Woodland Madison Triangular point was found on this site. This is a serrated point made out of orthoquartzite, but was not found in conjunction with this survey. Mo 229 is a Late Woodland site, located in the Timber Coulee, one Madison Triangular projectile point was found on this site. This point is also made out of orthoquartzite, but was not found in conjunction with this survey. R.L. #8, as previously mentioned, is a multicomponent site located in Timber coulee, a Late Woodland Honey Creek Corner Notched projectile point was found here. This projectile point was recovered in compliance with my survey and is made out of PdC chert (Figure 12H). R.L. #10 is also a multicomponent site, where both Middle Archaic and Late Woodland artifacts have been recovered. The Late Woodland component to this site consists of several grit tempered pot sherds. R.L. #21 is another Late Woodland site found in the Timber Coulee area. Both a Madison Triangular point and grit tempered pottery were recovered from this site (Figure 12F, K). The point is made out of orthoquartzite, but was not found in conjunction with this grant.

### Rockshelters

R.L. #22 is located by the Rullands Creek, a tributary to the Timber Coulee. It is a relatively small shelter approximately 7 meters wide and 15 meters long (Figures 5 and 11). A single shovel test was placed along the back wall of this shelter, by a burned area, and this produced stone artifacts, broken mammal bone, and shell. A projectile point from this shelter is typical of styles manufactured during the Archaic tradition, from about 4000 to 6000 years ago. The broken and burnt mammal bone recovered from this site reflects the process of bone marrow extraction, typical of winter season occupations in southwestern Wisconsin.

R.L. #24 another sandstone rockshelter, was found a half mile downstream of Timber Coulee-Rullands Creek convergence point (Figure 14). This second

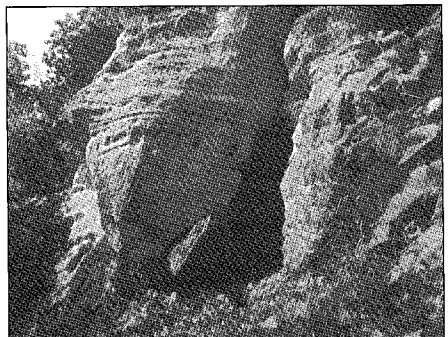


Figure 14: R.L. #24, Timber Coulee's rock art site.

rockshelter is a narrow eroded crevice in the sandstone, located 250 feet above the valley floor. It was not a winter habitation site like R.L. #22, but it does exhibit both historic and prehistoric petroglyphs. The historic glyphs consist mostly of initials, while the prehistoric glyphs consist more of abstract symbols, one vulva form and lines (Figure 15). These symbols and lines are comparable to other Native American motifs in the region.

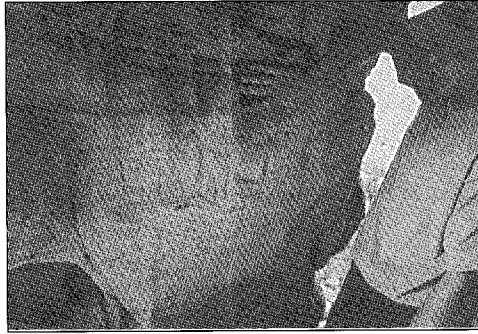


Figure 15: R.L. #24, Vulva form present at lower left of hand.

Results of artifacts found at each site can be seen on Table 1. Results of artifacts found in each shovel test pit at R.L. #23 can be seen on Table 2.

**CONCLUSIONS**

As a result of all the diagnostic artifacts recovered both from this survey and prior field work, it has been determined that Timber Coulee was occupied from at least Late Paleo-Indian times to late prehistoric Woodland times. It also appears, judging from the numbers of specific projectile points, that people congregated in this valley the most during the Middle Archaic, Late Archaic, Early Woodland, and Late Woodland times. In addition, since a high-grade variety of Prairie du Chien chert is locally available, most of these sites tend to be workshop sites, and apparently contributed to the concentration of prehistoric activity in this area. The results from the lithic analysis suggest when the high quality Prairie du Chien was discovered, even the flakes were retouched and utilized as artifacts. I recommend further archaeological investigations in this area to additionally explore the possibility that prehistoric peoples were coming to this area to exploit the local chert. In sum, Timber Coulee appears to have drawn prehistoric people for both its rich plant and animal resources as well as a source for relatively high quality Prairie du Chien chert for stone tool manufacture.

Table 1: Artifacts recovered from Timber Coulee

Field #	Site #	Stage I Biface	Stage II Biface	Stage III Biface	Biface Fragments	Points	Drills	Scrapers	Cores	Mod. Flakes	Primary Flakes	Sec. Flakes	Tert. Flakes	Chunk/ Shatter	Unwkd. Bone	Unwkd. Shell	Griff Temp. Pottery
	47Mo229	4	1		1		1		1	6		6	30				
R.L. #1	47Mo499	3	2	1						4		5	14				
R.L. #3	47Mo503	3	5	1		2	1			1	1	23	66	3			
R.L. #4	47Mo506	2										16	41				
R.L. #5	47Mo500					1						13	29	6			
R.L. #6	47Mo501	1								2		5	29	2	1		
R.L. #8	47Mo507	3	4		1	3						12	30	9			
R.L. #9	47Ve1136		2									4	34	5			
R.L. #10	47Mo502		7	1								8	12				
R.L. #11	47Ve1134			1	1				1			13	50				
R.L. #12	47Lc690	1	1								2	14	30	8			
R.L. #13	47Lc689				1	1	1					5	25	7			
R.L. #14	47Lc688	1								1		2	9	6			
R.L. #15	47Lc687	1	3		2					2		6	45	4			
R.L. #16	47Lc686	2		1	2	2				5	1	16	61				
R.L. #17	47Ve1133	1			1					1		2	17	3			
R.L. #18	47Ve1135	2			2				1	3	1	5	24				
R.L. #19	47Ve1137	1								2		3	38				
R.L. #20	47Ve1132	3	1		1	1				12		18	37	2			
R.L. #21	47Mo505					1				3	2	10	22	11			4
R.L. #22	47Mo508											1	1		16	1	

## ACKNOWLEDGEMENTS

Most importantly I would like to thank the University of Wisconsin-La Crosse and Bill Gresens, at the grants Office, for funding this project. In addition, I would also like to thank Brobert Boszhardt for supervising the entire project, and Natalie Goetz for helping with typing and illustrations.

Table 1: Artifacts recovered from TR.L. #23/Phase 1

Shovel Test Pit	Biface Frags.	Modified Flakes	Primary Flakes	Secondary Flakes	Tertiary Flakes	Chunks
5					7	
7				1		
9					1	
11		1	1			1
17	1			3	10	
18				2	3	
21				1	1	
23					1	
25					2	
32				5	14	
36				1	1	
55	1		1	6	34	
46					1	
54					2	
56				1	23	
Total	2	1	2	20	100	1

## REFERENCES CITED

1. Boszhardt R.F. and J. L. Nienow, 1996 *Chipped Stone Projectile Points of Western Wisconsin*. Mississippi Valley Archaeology Center, University of Wisconsin-La Crosse.
2. Green, Stoltman, and Kehoe, 1986 *Wisconsin Archeologist*. 67(3-4).
3. Fagan, B. M., 1995 *Ancient North America*. McGraw-Hill, Inc.
4. Jennings, D. J., 1983 *Ancient North Americans*. W. H. Freeman and Company.
5. Letterly, R., 1997 Interpreting the Geology and Archaeology of Sandstone Rockshelters. Unpublished paper for Geoarchaeology 343. University of Wisconsin-La Crosse.
6. Sawkins, Chase, Darby, and Rapp, 1978 *The Evolving Earth*. Collier McMillian Publishers, Second Edition
7. Shelby, M.J., 1985 *Earth's Changing Surface*. Clarendon Press
8. Thompson, T., 1993 *Earth Science and the Environment*. Harcourt Brace College Publishers.
9. Van Riper, E. J., 1971 *Man's Physical World*. McGraw Hill Book Company.
10. Sasso, Robert F., 1989 *Oneota Settlement Practices in the La Crosse Region: An Analysis of the Coon Creek Drainage in the Drifless Area of Western Wisconsin*. Unpublished Ph.D. Dissertation, Northwestern University, Evanston, Illinois
11. Boszhardt R.F., *Paleoindian Study Unit: Region G, Western Wisconsin* The Wisconsin Archaeologist, Vol. 72, Numbers 3-4, Sept.-Dec., 1991, pages155-201



State Historical Society of Wisconsin

816 State Street ♦ Madison, Wisconsin 53706-1488 ♦ 608/264-6400 ♦ Fax: 264-6504



Division of Historic Preservation  
608/264-6500

OFFICE OF THE STATE ARCHAEOLOGIST  
STATE SITE NUMBERS

Dear Colleague:

Here are the state site numbers for the \_30\_ site sheets you submitted on 2 July 1998. *+ 1 update*

Site Name - Institution Number	State Site Number	Site Name - Institution Number	State Site Number
Hutchens 6	LC-685	Archaic-Woodland Campsite	MO-507
Hutchens 5	LC-686	Luckasson's Rockshelter	MO-508
Hutchens 4	LC-687	Amundson's Flake Scatter	Ve-1132
Hutchens 3	LC-688	Gilbeck 3	VE-1133
Hutchens 2	LC-689	Quim's Flake Debris	VE-1134
Hutchens 1	LC-690	Gilbeck 4	VE-1135
Olsen Workshop/Nutting Stone	MO-499	Bjornstad's Levee	VE-1136
Stakston Valley Workshop	MO-500	Gilbeck 5	VE-1137
Stakston Spring Site	MO-501	Stenslien Flake Scatter	VE-1138
Olson's Rise	MO-502	Ray Weltzien I	TR-359
Lee Valley Floor Workshop	MO-503	Mike Weltzien III	TR-360
Lee Toe Slope Workshop	MO-504	Mike Weltzien I	TR-361
Bagstad	MO-505	Mike Weltzien II	TR-362
Bagstad Rise Flake Scatter	MO-506	Kube I	TR-363
		Pehler I	TR-364
		Pehler II	TR-365

[asi/numupdate/#notice.doc]

To Enhance Understanding and Appreciation of Our Local, State and National Heritage