

Larry: Great to have you along here on the Ideas Network of Wisconsin public radio. Hi, Larry Meiller here and we're going to begin our program today by taking a look at the archaeology of our state with Tom Pleger, Dean and Campus Executive Officer and associate professor of anthropology and archaeology at the UW Baraboo-Sauk County Campus.

Larry: It's great to have Tom back and certainly, if you have a question about the archeology of our state I hope you'll join in. Lots to talk about here.

Larry: Give us a call at 1-800-642-1234 or you can email us at talk@wpr.org. We'd love to hear from you.

Larry: Tom Pleger, with us by phone today.

Larry: Tom, hi, thanks for taking time to be with us.

Tom: Hello Larry, always great to be on the program. I'm excited to talk about Wisconsin prehistory and Wisconsin archeology again.

Larry: Have you been doing a little work this summer of your own in Milwaukee?

Tom: Well, we've been working on, with one of my colleagues, Janet Speth, a write-up from a field project that we did in 2006 in Trempealeau, County. But the campus, the University of Wisconsin, Baraboo-Sauk County held a field school over in Trempealeau County this summer where we were working with the University of Illinois on some Mississippian sites and had students from across the state in that project. I was at least able to get out and visit, but didn't participate directly in the excavations this summer.

Larry: We talked about, actually talked, with a couple folks last week about that project. It sounds like it was really interesting. How long have people been in Wisconsin preceding European arrival?

Tom: We know that people entered Wisconsin at least 12-13,000 years ago. The earliest dates on archeological, or what is believed to be archeological deposits associated with the Schaefer Mammoth site over in Kenosha County date to that 13,000 plus range of age.

Tom: I think most archeologists are very comfortable with a 12,000 year prehistory, if not earlier, in our region. It's amazing to think about that, for 99.9% of that spectrum of time or that, passage of time, that we don't have any written record of the peoples who lived here. Archeology and the oral tradition of native peoples are the primary way to learn about those cultures that preceded Europeans in our region.

Larry: It really is amazing, it's kinda sorta like a little, you have to be kinda of a detective when you're an archeologist, don't you?

Tom: It is, a lot of the techniques that we use are similar to crime scene investigation. The complexity of archeology, what makes it very different, is that the clues are buried. In

many cases you have multiple crime scenes stacked on top of one another. That complicates things. Then of course, in some cases, thousands of years of natural processes that can change the geology and the geography and the topography, coupled with human interaction. Often it's a very complex process of collecting artifacts and clues and piecing together what happened in terms of the geo-, or the landscape setting over a period of time, to interpret how people lived on that landscape.

Larry: What is, are there things that are unique to Wisconsin, or is this, is that kinda, too much to ask in a way, compared to other states in the Great Lakes-

Tom: Wisconsin does have an amazing archeology and archeological record. It's been attracting scholars for over a 150 years. Some of the very first professional publications about eastern North America that were published by the Smithsonian, either dealt specifically with Wisconsin archeology, in the case of Increase Lapham's Antiquities of Wisconsin or other publications that reference the uniqueness of the archeology of our state.

Tom: We certainly have some distinctive mound building cultures, effigy mound building, which is late woodland, is unique to primarily Wisconsin, Minnesota, Iowa, and a little bit in Illinois. We have some of the oldest mound working sites in the Americas located here in Wisconsin.

Tom: It's a state that's, it's a region, of the country that's attracted people for thousands of years, because of our natural resources and beauty.

Larry: Steven Madison has a question or comment. Steve, hi, thank you for calling.

Steven: Thank you for taking my call. I had a question about the Isthmus here in Madison, just about the historical significance, just because of its geographic beauty and just in between two lakes like that. What was exactly the history behind that special spot that is the Isthmus?

Tom: The Madison area has been attracting people for thousands of years. There are Paleo Indian sites in the Madison area surrounding the lakes. Of course, in late prehistory, native peoples that were involved in mound construction occupied the Madison area extensively. The University of Wisconsin, Madison campus has one of the greatest density of archeological sites of any of the Big 10 campuses. It's a region where obviously you have a dense concentration of natural resources connected with the lakes. You have the Yahara River, it's an area that has been very attractive.

Tom: There's a great new book out by Bob Birmingham on the mounds of the Madison area that I would refer you to. I'm sure if you just did a web search on his name and mounds and Madison, you'd come across that. That details what we know about the mound building cultures that existed in the Madison region.

Steven: Great, well it's a wonderful program. Thank you.

Larry: Alright, thanks a lot for calling, appreciate your call.

Larry: What differentiates, we have prehistory from history in the Great Lakes region?

Tom: I get asked this question quite a bit as an archeologist. Sometimes people think of archeology as history. Generally there's a dichotomy, or division, between prehistory and history. In our region, and in much of the world, but particularly in the Great Lakes, it's marked by the development of, in the presence of written records describing peoples and their daily activities, interactions.

Tom: In our region that is marked by the appearance of Europeans. First the French and English, then later Euro-Americans and of course the formation of our country. Prior to that, the archeological record prehistory is limited to studying the archeological materials, the artifacts that people left behind.

Tom: There's no written account of these cultures. So that's really the dividing line is the presences of written records and that coincides with the arrival of Europeans. Native peoples in eastern North America did not possess written languages, or did not have a written languages to record their history. There was some pictograph and symbolic representation of stories. But there is no written account. So archeology or, accessing the oral tradition of the native peoples are really the primary sources for understanding what native lives were like in our region prior to the arrival of Europeans and the records that they left behind.

Larry: You know it'd be interesting to know, and maybe, perhaps I should say, how much do we know or what have archeologists learned about the changes in native american culture after European contact.

Tom: Dramatic changes. Again, this window of time that native peoples have been here for at least 12,000 years in a landscape and of course they are here today. You have, you can see that through the archeological record the development of new technologies, and life-ways and increasing populations. As soon as Europeans arrive you see a wide spread dissemination of European technology. Things like iron, even though native peoples had been using metal in the region, in the form of copper, for 6,000 years.

Tom: Iron has the ability to hold a much more durable edge. It can be cast and massed and mass produced items. So you see the distribution and the diffusion of axes and woodworking tools and weaponry made out of iron. The importation of glass technologies, brass, as well as fire-arms, of course alcohol. All of these are European practices and traits that entered into our region, dramatically changed native peoples, their economy and their life-ways. European diseases, of course, in the form of small pox and other diseases that native peoples did not have any previous experience with, swept across the Great Lakes region and caused a dramatic de-populations in a relatively short period of time.

Tom: That window of 1634 up until the late 1700's, really 1800's is really the most dramatic and pronounced changes that native peoples experienced in the time period that they had been here in eastern North America.

Larry: Tom Pleger, our guest, and Campus Executive Officer, associate professor of anthropology and archeology, at the UW Barboe-Sauk County campus, as we talk with him about the archeology of our state. You can join in at 1-800-642-1234 or email at talk@wpr.org.

Larry: [inaudible 00:09:09]Michaels in Hillsboro next. Hi Michael, thank you for calling.

Michael: Thank you for taking my call. It's nice to talk with someone from BooU. I was there in 1970 and 71.

Tom: Great to hear from an alum.

Michael: Thank you. I read a book, not long ago, about Colonel Custer and his adventures out by the Little Big Horn in 1873. Of course, he came to a bad end. He discovered a lot more hostels than he ever expected to find. It was positive, in the book that I read, they were still at a gathering point that was traditional for the summer solstice, which generally falls around June 21st.

Michael: And of course he met his end on June the 24th, I think. There's evidence in that end that there are these gathering points where the Native Americans celebrated events, such as the summer solstice. I'm curious to know if there is any evidence in Wisconsin, that there were any places like that here?

Tom: Interesting question, there clearly is connections between native peoples and celestial alignments and special times of the year, such as the solstices. We have a number of archeological sites, many of our mound sites seem to reflect this certainly as to land. These times of year, may have been important particularly for agricultural societies to gauge the passage of time and to sort of mark the new beginnings of seasons or the harvest in the fall.

Tom: We do have a number of archeological sites that have these types of alignments, Aztalan is one that certainly people gathered during these special times. How far back it extends in time in prehistory, we don't know. It is certainly present with the mound building cultures that existed on our landscape.

Larry: Horican, that area was that a gathering place? It certainly was a trade center, if I'm not mistaken.

Tom: The importance was likely different during certain times in prehistory and the historic times. The Horican marsh area certainly has a significant number of archeological sites, particularly mound building sites. It's a region that would have produced a significant amount of food in terms of the marsh wetland resources of migratory waterfowl and aquatic plant resources that people utilized that landscape for a long period of time.

Tom: As I mentioned, there's a fairly significant distribution of archeological sites, particularly mound sites in that region of the state.

Larry: Chris in Lacrosse. Let's turn to you now.

Larry: Hi, Chris.

Chris: Hello.

Larry: Thanks for calling.

Chris: I've been working in archeology for years now. It's been about the two worst years I can remember for actually doing CRM archeology. I know it's not quite his field, he's not in the CRM. I just wondered if he saw a little better business in the coming year.

Larry: What do you mean by CRM? Tom, maybe you can explain.

Tom: Sure, the term CRM, refers to cultural resource management. I have spent quite a few years doing that type of archeology. You can differentiate two major areas that archeological research are done in our region and in North America.

Tom: One, is academic archeology that is done predominantly for research purposes through Universities specifically for research or learning purposes. The other is cultural resource management.

Tom: Sometimes the two overlap and can go hand-in-hand and compliment one another. Cultural resource management archeology is archeology that's done to comply with laws that protect archeological sites and archeological resources. It's a way to manage, and protect, our cultural resources across the United States.

Tom: When you tend to see an increase in the amount of cultural resource management archeology done it's directly related, in my opinion, for the years I've been involved in it, to the economy. When there is a lot of construction and a lot of earth moving there is a need to do more of this type of archeology to make certain that roads and housing developments and construction is done in such a way so that it has a minimal impact on important archeological resources.

Tom: The archeology that is being referred to by the caller is archeology that is done to make certain that development and construction takes place in such a way, so as to, have as minimal of impact on archeological resources as possible.

Larry: I got it.

Tom: That would not surprise me that we're seeing a slight decrease, or maybe even a significant decrease in the amount of cultural resource management archeology that is being done right now. I would predict as more road construction takes place and potentially as we see stimulus money entering the department of transportation

funding, and so forth, that there is more road construction that there could be more work done.

Tom: It comes and goes in cycles. If we are at a low point now, as the economy improves, potentially you'll see more archeology done.

Larry: There you have it. Thanks a lot for calling Chris. Tom Pleger, our guest today anthropologies and associate professor of anthropology and archeology at the UW Baraboo-Sauk County campus. I'm Larry Meiller. Jim Packard, our producer here on the Ideas network of Wisconsin public radio.

Larry: We'll take some more calls as we talk about the archeology of our state with Tom Pleger. Our next caller is Lynn in Rushford, Minnesota.

Larry: Hi Lynn.

Lynn: Hi, thank you. I wondered if you could discuss a bit how you think the glaciers and the melting of the glaciers back 13,000 years ago or so could have impacted human life as well as other life in this area.

Tom: The term that archeologists use to refer to the very first native peoples in North America and in our region is the term Paleo-Indian, or Paleo-Indian tradition. It's divided into early and late stages.

Tom: In the early Paleo-Indian stage refers to the peoples that would have been here when, in the case of Wisconsin, at least the northern third of the state was covered by ice. Certainly the upper peninsula of Michigan. It would have been a landscape very different from what we are familiar with today. Different types of plants and animals on the landscape mammoth and mastodon, other mega fauna species. There was a very large beaver, the size of perhaps a small black bear in Wisconsin. The plant life would have looked different.

Tom: As these glacial sheets receded, through a process of melting, you would have had a series of ecological zones that likely preceded north and opened up new landscapes. For people that entered Wisconsin during this time period, they were on the edge of the known world, so to speak. It would have been possible, potentially to visit this boundary between glacial ice and glacial run off, then a series of ecological zones south of that.

Tom: People explored the upper Great Lakes as it became ice free. Consequently, the oldest archeological sites for the most part in the upper peninsula of Michigan are younger than the earliest archeological sites in the southern Great Lakes and then southern Wisconsin.

Tom: This was a period of significant environmental change, and one that we know the peoples that were here were well adapted. Their technologies allowed them to be quite successful in this environment. A very small numbers of people in a very sparsely populated region. A people moving constantly over very large distances.

Larry: Interesting. Thanks for calling Lynn. Let's turn to Margaret in Delafield next.

Larry: Hi Margaret.

Margaret: Oh, hi there. Professor, tell me, has there been any findings of Indian mounds or Paleo artifacts in the Kettle Moraine.

Tom: There are archeological sites in the Kettle Moraine region.

Margaret: Where are [crosstalk 00:17:21]

Tom: Well, there are quite a number distributed across the region, the Wisconsin, the State Archeologists Office maintains a data base. There are over, and it's been sometime since I've looked at the total, but over 20,000 known archeological and historic archeological properties. That was some years ago. No one in the state in the numbers likely significantly higher. It's that offices' job to maintain those records and to make certain that work done in the parks were in preserved state and public lands in the state of Wisconsin are done in such a way, work is done in such a way, that development to preserve these archeological sites.

Larry: Thank you for calling. Mark in Iowa, is actually driving through, I believe.

Larry: Mark, hello

Mark: Yes, good morning, I guess it still is or good afternoon. Quick question, I drive up to Menominee from Waterloo, Iowa, three/four times a week. I've noticed, on Route 25, I think it's call the Waubeek Mound, W-a-u-b-e-k. The sheer size of that thing, a) is it an actual native american mound and if you know that for sure, b) comment on the size of that thing.

Mark: If that is indeed an Indian mound, it's striking.

Tom: That name does not ring an immediate bell with me in terms of recognition of a mound. There are thousands of known mound groups, or mounds in Wisconsin. We estimate about 80% of the original mounds that once existed are destroyed. I don't know all of the mounds sites. That's a name that doesn't immediately [crosstalk 00:19:01] jump out at me.

Tom: There are also some natural geological features that are sometimes given the term mound that may not relate to being constructed by human beings. From an archeological view, when you use the term mound, we are referring to something that was built by people. This just doesn't, this is something I can't comment on because the name doesn't immediately draw up to mind a site in my recollection.

Tom: Mound size varies significantly. Some of the largest mounds in Wisconsin, in terms of conical mounds are in excess of three or four meters high and 60 plus feet across at the

base, these large conicals. They're even bigger, in the Ohio River Valley area. Of course, some of our effigy mounds can be quite massive of hundreds of feet in size.

Tom: So I can't answer your question specific to this particular place because it simply does not ring a bell with me.

Mark: Alright, well thank you for your time.

Larry: Thank you for calling. We'll take some more calls.

Larry: Let's go to Daniel in Rice Lake next.

Larry: Hi Daniel.

Daniel: Hello. I've been to the Pipestone Quarry site many times. Has that ancient Pipestone Quarry site, east of Rice Lake, sacred to the native Americans, been extensively studied by archeologists?

Tom: Good question. There are a number of pipestone sources in the upper Midwest. You mentioned, the most famous, the Catlinite Quarry in Minnesota. Which produced a red, orangess, red, soap stone or stiatatlite [phonetic 00:20:43] material that was used soft. That was often used by native peoples for constructing or manufacturing smoking pipes.

Tom: Smoking pipes are found all over Wisconsin, particularly in late prehistoric cultures made from that material. There's also a quarry in northern Wisconsin that you mentioned, I believe in the Rice Lake area, that there has been some initial work done. I think John Broihahn, the state archeologist, investigated that. The Baraboo area, there are also a number of places where there was a purple, soft soapstone like material that was also used by native peoples for the production of smoking pipes.

Tom: So we have at least three primary sources in our region and there may have been others. Archeologists are very interested in mapping out trade networks and the distribution of artifacts made from these particular locations to get some idea of how great an area native peoples were interacting over a different times throughout history.

Larry: Thanks again for that call. Jeff in Superior, we're on to you now.

Larry: Hi, Jeff.

Jeff: Great, thank you.

Jeff: I want to take you back to a time before there was contact with Europeans and the native peoples here and their lifestyle if they needed to eat, or find something they just went out and got it.

Jeff: What I'm curious of, how do we assign meaning to their, the, things that you find in an archeological site from that period-of-time. Where they'd have meaning, such as, a good

luck charm or a religious item of some kind, that to us would be, in our culture, something that would be a connection to them.

Tom: Excellent question. The primary means for doing that is the discovery of archeological materials in what we call primary context. Where they're recovered in the ground with association with other artifacts that could allow you to make some inferences as to their function and their use. Then even better, if those materials are found in association with some type of organic material; charcoal or bone or something that can be radio carbon dated.

Tom: What you're looking for are patterns of association that can be dated and then observed in multiple locations to make some sense out of the prehistoric record.

Tom: The hardest types of artifacts, the hardest types of material culture, the things that people produced to get it and to understand are those that often have religious or ceremonial significance. The meaning can be lost throughout time. Without some specific finding them and some specific order, or in situation where you couldn't make some inferences as to their function, it's difficult to do.

Tom: The archeological record is filled with descriptions of objects that are described as ceremonial and often those are things where we believe that they have some religious, or special purpose. What exactly their function may have been remains a mystery.

Tom: That is truly, you asked a question about the hardest component of culture to get at in societies in where you don't have a written record or written description of the account. You are dealing only with the things that they produced are questions about religion and ideology are difficult to interpret.

Jeff: Okay, thank you.

Larry: Thanks very much for calling.

Larry: You can join in too, by-the-way, at 1-800-642-1234 or email us at talk@wpr.org.

Larry: What are the hottest topics going on in Wisconsin archeology these days, Tom?

Tom: There are a lot of interesting areas that are being investigated. Of course, the earliest archeology in North America, and in Wisconsin is always a hot topic.

Tom: What are the earliest sites, when were the first people here, and what direction did they come from?

Tom: The development of mound building cultures in our region, and particularly effigy mound culture. Which exist from, maybe, AD 700 to about AD 1250, somewhere in that range. As to why effigy mounds were constructed and there's a great deal of research centered around this; their function, their meaning and what happened to effigy mound

culture. Why did it stop, in terms of a recognizable culture in the archeological record around AD 1200, AD 1250 or so.

Tom: How are effigy mounds related or connected to historic Indian populations and ethnic groups. I think that's a hot topic.

Tom: The Mississippian presence in Wisconsin, you referenced the excavations that our campus was involved with Robert Boszhardt, Ernie Boszhardt and Daniel Bendin, DW Madison over in Trempealeau County and Timpocotate. The understanding of this influx of people from the American bottoms about a thousand years ago who are foreign to the area and how they interacted with native peoples here in places like Aztalan, sites in Trempealeau and the Red Wing area.

Tom: Why were they built and what were these people who were not native immediately to Wisconsin doing up here and how are they interacting with the local effigy mound cultures. Eventually, what caused the collapse of sites like Aztalan and Cahokia and the American bottoms, also another hot topic.

Tom: Finally, I think where we're really going to see some exciting research in the future, is a greater understanding of connecting late prehistoric native cultures to historic Indian groups. That is something, that as we have new techniques and things like genetic analysis of skeleton material where I think we will see greater resolution, and a greater understanding of what historic Indian group is related to what particular archeological culture in prehistory.

Larry: Pretty cool.

Larry: David in Madison. We are on to you now.

Larry: Hi David.

David: Hi, thank you so much. Terrific program as usual. My point was related to this, closer related, I'm reading a book now called, Black Hawk.

David: The name of the book is Black Hawk. Of course, the Indian Chief, the Native American Chief Black Hawk. Written in 2006 by a UW Manitowoc professor, history professor, who I think is recently retired, and his last name, I don't have the book in front of me.

Tom: Kerry Trask.

David: Oh, it's a fabulous book. He makes great use of the archeological evidence to put together just a marvelous narrative. Anyone interested in this history and this area of Wisconsin, should read the book, Black Hawk by this professor.

David: If you have anything to add to that insight he offers, I'd appreciate hearing about that. Thanks.

Tom: Sure, the Black Hawk War, of course is well known native battle, really a tragedy involving the Sauk, Fox, and some Meskwaki, here in Wisconsin that took place in 1832. Really was the last native battle, or war fought, I believe east of the Mississippi River and eventually led to the opening of Wisconsin for surveying and settlement and eventually statehood.

Tom: It's a sad story in terms of the loss of life on the Native American side, and the condition that the Black Hawks band was in. Very interesting story in terms of the dilemma that native peoples were in during this time period. The Black Hawk band was allied with the British, yet they were inside a US territory. You can imagine the tensions that that created here in our region.

Tom: The Sauk, Fox and Meskwaki, originally, likely came, from lower Michigan, ended up in the Wisconsin, I believe in the 1600s in the Fox Valley. Eventually migrated down into the southern part of the state. The Black Hawk War really is a tragic story of what happened to this particular band of these people.

Tom: I'm familiar with Trask's book it's a very well written and a great story about this part of our past in Wisconsin.

Larry: Thank you David for calling.

Larry: Bill in Boaz, your turn.

Larry: Hi Bill.

Bill: Hello. I have a question. I'm about six miles northwest of the Boaz mastodon site. On my property I have a 40-60 foot gully, that runs up from my property below, up to the ridge. There's a lot worked pieces of flint in the area. When they built the house that I previously, presently, live in, there's a lot of this scattered around.

Bill: I've picked up buckets full, but I can't find any artifacts, like knives or that sort of thing. I'm wondering are, is there any value to these sites or [crosstalk 00:29:34]

Tom: There's great value. The Boaz Mastodon's a very significant site, It's a one of the few, well preserved, ice age elephants that been discovered in the state and excavated by the University of Wisconsin, Madison.

Tom: It's on display at the geology museum in Madison and may have been connected with native peoples. There was allegedly a fluted early Paleo-Indian stone pipe, point, that was found with the mastodon. This was excavated before 1900, it was before we knew that there were connections between human beings and ice age, mammals in our region. But that area has a significant amount of archeology there are resources of people that you can contact. The University of Wisconsin, La Crosse. The Mississippi Valley Archeology Center at UW La Crosse has a very active program that extends down into the Richland area.

Tom: Our campus, here at the University of Wisconsin Baraboo-Sauk County, The University of Wisconsin Madison, the state is, The Wisconsin Historical Society and the State Archeologist office. These are all people, where they're archeologists who are working in this part of the state would be very interested in learning about your discoveries.

Bill: Okay, well maybe I could get a hold of people at La Crosse then. If that would be the most, efficient

Larry: Probably the closet.

Bill: Or I could give you a call sometimes when [crosstalk 00:30:49]

Larry: Sure, I would encourage you, if you have access to the web, to just go to the University of Wisconsin La Crosse website and type in archeology. You find a connection to the Mississippi Valley Archeology Center there.

Larry: I'd be happy to talk with you as well.

Bill: Alright, thank you very much.

Tom: Thank you.

Larry: Thanks a lot for calling. Tom in Luck, Wisconsin, go to you now.

Larry: Hi Tom.

Luck WI: Hello. Say, I've got a question. I've got a piece of bone that I found that appears to be a tibia. It's rather large.

Luck WI: Here's my question. This piece of bone has the consistency of stone now. What I'm curious about is how long would it take for a piece of bone to become somewhat petrified? In other words, what would be the youngest, if that could possibly [crosstalk 00:31:33] condition.

Tom: The process that you are talking about is fossilization. Which we're getting now into a paleontology and geological topic. Fossilization is where the organic component of bone is replaced through a mineralization process.

Tom: Full fossilized bone can be almost entirely turned into a stone-like consistency. The mineralization process can begin, as we've seen, for example, ice age elephant remains come in that are partially mineralized, but not turned entirely to a fossil but yet, the mineralization process, this process leading to that is already starting to take place.

Tom: It's something I'm not expert in, but I can tell you that in Wisconsin we have seen animal remains dating to the end of the ice age where this mineralization process is already well underway. But yet, we're not dealing with fossilized bone.

Luck WI: What I'm trying to eliminate is the possibility that it's some, 2-300 year old butchering site, that perhaps Europeans would have been responsible for.[crosstalk 00:32:44]

Tom: What would be important would to have the species identified as to what type of animal you're dealing with. If it's a domesticated animal then it's something post European contacts.

Tom: If you're dealing with a horse or cattle, something like that. If it's not one of those species and it's something native to the region then it could potentially be prehistoric. Of course if it's something that dates to the end of the ice age a species that's now extinct gives us some immediate indication as to it's antiquity in age.

Tom: Far as some places where you might be able to go to, the Milwaukee Public Museum, The Kenosha Public Museum in Kenosha. Both have ice age mammals on display and have someone there who could potentially point you in the right direction as to getting this identified.

Luck WI: The other question I've got is how long would it take for the impression of a tomahawk to be formed into a piece of granite

Tom: I think what you're asking is about the process for manufacturing a stone ax.

Luck WI: No, I've got a piece of stone where you can see the outline of a tomahawk in it. The tomahawk is not there.

Tom: Okay, I'm not sure without looking at the piece but we know that native peoples made axes and adzes and things like tomahawks or tomahawks out of ground stone, which is a process that involves pecking and grinding. It was intentionally done by native peoples in where they would peck and grind away the surface to produce the ax.

Tom: It's fairly lengthy process, something that can be accomplished by a person, certainly within several days time of applying this pecking and grinding and polishing process depending on the size of tool and what the end product is going to be.

Luck WI: The odd thing about this is that it's not just the head of the tomahawk it's also the handle, is impressed into this piece of granite,

Tom: That'd be very unusual to see a monolithic type form where the handle and the ax are one piece. That's very rare and occurs only in certain types of cultures in late prehistory.

Luck WI: This thing is just puzzling as to how it could have, how that impression could have gotten into that hard a piece of rock.

Larry: You might want to go to the Milwaukee Public Museum with that and take a look and see what they think. It would certainly be worth following up, wouldn't it, Tom?

Tom: Yeah, it's something that you could, another possibility would be to take some digital photographs of it. You could send a photograph to me or the State Archeologist or to another archeologist to at least look at it to see whether it be worth bringing it in for a specialist to take a look at.

Larry: That's a good idea. What's your address?

Tom: My address is: Thomas.Pleger@UWC.edu or you can just go to the University of Wisconsin Baraboo-Sauk website, www.Baraboo.UWC.edu and just search on my name or type in archeology and you'll find me or the dean's office.

Larry: Thanks again Tom. Ruth in Eau Claire, your turn.

Larry: Hi Ruth.

Ruth: Hello, how are you today?

Larry: Good.

Ruth: Thank you so much for taking my call. I am enjoying your program very much.

Ruth: I just wanted to comment on a previous callers' question regarding the Waubeek Mound area. That is located in Pepin County, near Oakleealy [phonetic 00:36:11]

Ruth: The reason I know about it is my great grandparents homesteaded in that area of the County. My dad always told stories about the fact when they were farming the area they were continually turning up Indian artifacts; arrow heads and things like that.

Ruth: They did not know, at the time, the value of that area. They found later, that, their farm area was situated on Indian mounds.

Ruth: That area has now been protected and I believe it's called the Bradshaw Mounds.

Larry: The Bradshaw Mounds.

Tom: I appreciate the call and the information, thank you.

Larry: Thank you very much for calling, Ruth. Appreciate your call.

Larry: Tom, thank you so much. Always a pleasure, look forward to another visit from you.

Tom: Thank you, Larry. Always a pleasure to be on the show.

Larry: Tom Pleger is Dean and Campus Executive Officer and Associate Professor of Anthropology and Archeology at the UW Baraboo-Sauk County campus.

Larry: Great to have him along. I'm sure, down the road we will talk again about the archeology of our state.

Larry: We're going to turn our heads skyward. Coming up next, and take a look at star gazing and maybe talk about the Perseid Meteor Shower as well, because that's coming up too.

Larry: Paul Kinzer, of Galesville, Wisconsin, our guest, coming up next on the Ideas Network of Wisconsin Public Radio.