

Larry Meiller: Great to have you along here on the Ideas Network of Wisconsin Public Radio. Hi. Larry Meiller here, and take up a topic that I've gotten very fond of over the last year or two, archaeology. We'll talk about the archaeology of the state today with Tom Pleger. Tom's been a regular guest on our show. He's dean and campus executive officer, associate professor of anthropology and archaeology at the UW-Baraboo/Sauk County campus, and he's full of interesting information about the archaeology of our state. I'm glad to have him back. Certainly, if you have some questions as we move along today, I hope you'll join us. The number to call, 1-800-642-1234 or email us at Talk@WPR.org. Love to hear from you. Tom's with us by phone today. Tom Pleger, welcome back.

Tom Pleger: Great to be back. I always enjoy being on the show and hearing from callers, and it's great to talk about Wisconsin archeology.

Larry Meiller: It sure is. How long have people been in Wisconsin?

Tom Pleger: Well, some of the earliest dates now in the state on the Mammoth site over in the Shaefer Mammoth in Kenosha County suggest that people could have been here as early as 13,000 plus years ago. The conventional wisdom, we certainly know that people have been in the upper Midwest for 12,000 years. But people arrived at the end of the last ice age. When you think about that we have over 12,000 years of native prehistory in our region without any written record, archeology is one of the primary sources to access that prehistory and to learn about it.

Larry Meiller: Absolutely. What does it tell us? What does archeology tell us about Wisconsin's first inhabitants?

Tom Pleger: I think what the broad-scope message is, is that people have been here a significant period of time, that Wisconsin's first human beings, the first inhabitants of our regions, arrived here in a world very different from ours today at the end of the ice age, with different flora and fauna and an environment that would look very different from what we're familiar with. It was probably a very small population of mobile hunter-gatherers. Through the millennia, those cultures expanded in terms of population and adapted to an ever-changing landscape and developed into very complex cultures that built mounds and had complex trading systems. What archeology informs us about is the development of native peoples' cultures in our region and just how complex they were and what a great legacy there is to the past in our state.

Larry Meiller: Thinking about this a little bit, Tom, why would you say Wisconsin prehistory is relevant to us today? That's a question some people might ask.

Tom Pleger: I get asked that quite a bit, particularly teaching Wisconsin archeology in the university system of why is this important? I think one thing is it fascinates a great number of people. I'm always impressed by the number of callers and the interest after these programs with you. It's really a privilege to be on the air to

talk about our state's prehistory. But I think it's very relevant in terms of understanding Wisconsin, what happened in Wisconsin before Europeans arrived, and really accessing the past of native peoples. Then, also understanding why people came to the state. Many of our cities are located in areas that are hotspots for archeology because of the same reasons that people, Euro Americans, were attracted to those regions, were attractive to native peoples in the past, in terms of being located near waterways and environmental resources and environmental beauty.

Tom Pleger: It gives us some understanding of where and how the state has developed, in terms of cultures in our state that are pre-European. It also has some real relevance in terms of having an impact on our local economy today, of attracting people to the state to see archeological resources and learn about our state's prehistory in our region today.

Larry Meiller: I think they're calling it archeo-tourism, or something like that. We have sites for tourists to visit.

Tom Pleger: Yes, we do. That term is really borrowed from eco-tourism, a concept that's becoming globally more popular in the last 10 or 15 years. In that concept, we're talking about ecological resources that can attract people for their appreciation to local economies and local landscapes. In the case of archeo-tourism, we're talking about archeological resources. Wisconsin is unique, in terms of we have this vast distribution of effigy mounds that are unique to our state and our immediate adjacent states, but the greatest concentration here. We have Aztalan, which is a world-class site. These sites attract people from significant distances away. Here in the Baraboo area, of course being situated in an amazing ecological region of the state and with great state parks, Devil's Lake attracts tens of thousands every year.

Tom Pleger: If you spend some time around the mound groups there, you'll run into people that have come specifically to visit Devil's Lake just to see the mounds. The vast majority probably don't know they're there. But there are people as far away from Europe, they've come to see our mound groups and learn about our region. The archeology in our area has a great opportunity to educate the public and to create a better understanding, but it also has an opportunity to enhance local economies by attracting people if there's proper signage and proper understanding and presentation of the sites.

Larry Meiller: Absolutely. Joseph in La Crosse has a question or comment, so let's turn to Joseph. Hi. Thank you for calling.

Joseph: Hey. I am curious about agate.

Larry Meiller: Agate. Okay.

Joseph: Agate.

Tom Pleger: This is more, I think, of a geology question. I don't know the complete geology of how agates are formed. But agate material was something that was used occasionally by native peoples for the manufacturing of stone tools. It's a natural geological process that forms agates, but it's the right raw material, like chert and flint, that can be used to produce stone tools. Native peoples did collect agate materials in Wisconsin and adjacent areas to produce stone tools. But to get into the formation process, the geological process of understanding how agate's formed is a question you'd really need to have a conversation with a geological.

Larry Meiller: All right. Thanks, Joe, for calling. Appreciate it. Andy in Milwaukee, we turn to you next. Hi, Andy.

Andy: Hello, guys. Thank you for this great program.

Larry Meiller: Sure.

Andy: I've got a question. I own a copper blade that I got from my grandfather. He found the blade on the beach in Milwaukee when he was a kid, probably around, I don't know, 1915, 1920, something like that. I'm curious if you might have any kind of insight as to how it came to the shore of Milwaukee, or some sort of brief history or any recommendations of how I could track down the history on this.

Tom Pleger: Sure. This happens to relate directly to my area of research. Native peoples in the upper Great Lakes, in particular in Wisconsin and Michigan, starting about 6,000 years ago, began to mine copper and collect copper nuggets and float copper from glacial outwash beds in Wisconsin and produce metal tools, copper tools, by hot and cold hammering and annealing. Without seeing the piece that you have, if it's a copper socketed blade, it has a socket on the end, or perhaps a straight hang, it's likely a projectile point or a knife or a lance head dating from the 6,000 to roughly 3,000 year ago period. It was something that was likely produced right here in the Great Lakes. We know that native peoples, when they were producing these tools and other items at that time period, developed elaborate trade networks to connect with other cultures in eastern North America.

Tom Pleger: But, in terms of a source to learn about this material, if you just go to the web and type in "old copper complex" or "old copper industry" you'll likely come across information. The state historical society, the Wisconsin Historical Society in Madison, the main building down on the square in front of the campus, has one of the largest displays of old copper materials in the Midwest in the museum there, as well. Those are some sources you could take a look at. It sounds like you have an artifact that dates to this time period and is the product of this metal tool technology that existed between 6,000 and 3,000 years ago.

Larry Meiller: Pretty cool.

Joseph: Excellent. Thank you very much, sir.

Larry Meiller: Thanks a lot for calling. We'll turn to Daniel in Rice Lake next. Daniel, hi.

Daniel: Hello. How early do you have evidence for the shift from hunter-gatherer to the cultivation of corn and other crops, and what are the evidence of that change in the skeletons of those who so radically changed their diets?

Tom Pleger: Great question. The transition from hunting and gathering to horticulture and agriculture occurred in different places at different times across North America and across the world. In Wisconsin and in the upper Midwest, we know that starting in, let's say, the 500 BC range up to about 2,000 years ago people began to experiment with plants. One of the earliest examples of plant use that we find in the Great Lakes, but is not yet domesticated, is wild rice, and likely never or did not become domesticated. But there were a number of other plants in the Midwest that were domesticated in that window of the first 500 years BC, or so, that include things like sunflower and sumpweed and a variety of starchy seeds. Then later, starting around maybe AD 800 or so, corn, beans, and squash became very important, were added to the diet. Those were all plants that worked their way from the south. Some of them were tropical in origin, and gradually were pushed further and further north, and really didn't become an important part of the native diet here until about 1,000 years ago.

Tom Pleger: In terms of identifying the impact of cultigens and agricultural products in native peoples, in terms of their biology, we do see a change in dental health with the domestication of plants, particularly in the addition of corn, a very starchy, sugary plant that caused dental problems. We can also analyze the chemistry of human bone, and this has been done at a number of institutions across the United States and in Canada, to look at the chemical composition of the elements and various isotopes in human bone that are an indicator of a shift away from hunting and gathering towards specific domesticated plants. We can see it archeologically and we can see it in the skeletal biology of people, and it had a profound impact on native peoples in our region.

Larry Meiller: Thanks very much for that call. Appreciate it, Daniel. You can join in too, by the way, at 1-800-642-1234. Give us a call, or e-mail us at Talk@WPR.org. A couple of e-mails in here, Tom. One person would like you to differentiate between archeology and paleontology.

Tom Pleger: A good question. Paleontology deals with ancient, extinct, often fossilized animal remains. Archeology deals with the study of humanity's past. There's actually another field within the ... Archeology is a subfield of anthropology, traditionally. There's another subfield called paleoanthropology that deals with the fossil remains of our ancestors and other primates. But in order for us to be talking about archeology, it has to include human beings or their ancestors in the picture. Archeological sites are places where there are artifacts or features or material culture or the product of human activity, versus paleontological sites

can include extinct animal remains that have no association or connection with human beings.

Tom Pleger: In the earliest part of the archeology, when people arrived during the ice age, those two fields can overlap, in terms of studying ice age animals and their remains and their relationship to human beings and interaction with human beings in our region.

Larry Meiller: Jay from Madison wonders if there will be any excavation at Fort Crawford, the battle that was fought there in Prairie du Chien.

Tom Pleger: I don't know if there's fieldwork planned for the summer there. The Mississippi Valley Archeology Center at the University of Wisconsin La Crosse has done an extensive amount of archeology in that region. I don't know if they have any field investigations going on this summer in the Fort Crawford area. But there are a number of excavations taking place in Wisconsin. Our campus here at UW-Baraboo/Sauk County has a project in Trempealeau that Robert "Ernie" Boszhardt is working with, as well as there's a joint connection with the University of Illinois. I believe UW-Oshkosh was involved in a field school that's either wrapped up or is wrapping up over in the eastern part of the state. The University of Wisconsin Milwaukee also has a field school in archeology taking place this summer. In addition to that, there's archeology happening as we speak connecting with highway construction and development across the state, as well.

Larry Meiller: Tom Pleger, our guest, dean and campus executive officer at the UW-Baraboo/Sauk County campus, as we talk with him about the archeology of our state. I'm Larry Meiller. Rachel Owens, our on-air producer here on the Ideas Network of Wisconsin Public Radio.

Larry Meiller: Again, if you'd like to join our conversation as we talk about the archeology of our state with Tom Pleger, I hope you'll join in at 1-800-642-1234. Give a call. We'll get you on pretty quickly. Let's go to Tony in Marion, Illinois next. Tony, hello. Thank you for calling.

Tony: Hey. Thank you very much for having me. This is a great show.

Tom Pleger: Hello.

Tony: Hey. I live down in southern Illinois almost at the end of the state. But we've got a type of flint, Cobden flint, down there. I know that I do some artifact hunting on some plowed fields and different things. I just wondered if there was evidence of different types of flints. You touched on something about trading, the trading society with different groups of people.

Tom Pleger: Sure. Cobden and Dongola in Harrison County, these are all, if I'm correct, blue-gray cherts. We do find evidence of these materials in Wisconsin, particularly

during the Late Archaic stage, which we're talking maybe 3,000 years ago to about 4,500 years ago, maybe 5,000 years ago, when people here in our region were producing copper tools and exchanging them outside of the region. We see an importation of exotic cherts and flints from the Ohio River Valley, Illinois, Iowa, even some materials from the Plains, marine shell from the Gulf Coast of Mexico. As early as 4,000 to 5,000 years ago, people in Wisconsin had likely direct and indirect connections with people outside of our region and indirect connections as far away as the Gulf Coast of Mexico and the Great Plains to obtain resources like obsidian and Knife River chalcedony.

Tom Pleger: It's really quite amazing, when you consider this took place before the arrival of the horse with Europeans, so it would have had to have been materials moving by foot or via watercraft, and just how far of a reach in interaction native peoples had across our continent.

Tony: I had a second part, too. I wonder if you can tell where the native people really came from, from the south or the west.

Tom Pleger: If we're talking about Wisconsin, people would have had to have entered from the southern part of the state, because the northern part of the state would have been glaciated when folks first arrived. Whether the first I guess exploration into the state took place in the southwest or the southeast I think is open for discussion right now. Some of our possible earliest archeological sites occur in the southeastern part of Wisconsin on the southern end of Lake Michigan, and that may have been one first exploration or venture into the state. But likely southeast and southwest are the directions that people came into our region for the first time.

Tony: All right. Thank you very much.

Tom Pleger: Thank you.

Larry Meiller: Thanks a lot for calling. Rebecca in Crawford City, we are on to you. Hi, Rebecca.

Rebecca: Hello. Actually, that's Crawford County. I have a question. I have tried ... I think I started with University in Madison, and I e-mailed some questions and didn't get any real response back. I have what I believe might be part of an older structure on our farm here, and we're just a few miles away from Tainter Cave. I've found spear points and other projectile points around on our farm. I thought maybe a student would like to come out and look at it, or something. But they never got back to me.

Tom Pleger: My first suggestion would be to contact the State Archeologist's Office at the Wisconsin Historical Society. John Broihahn is the State Archeologist's Office. That office is charged with the oversight of archeological ... the archeological catalog of properties in the state of Wisconsin. I would suggest going to the Wisconsin Historical Society website and clicking on Archeology. You can make

contact with the State Archeologist's Office. The state archeologist interacts with the professional archeologists in the state. It's something that his office might be interested in coming out or providing additional information on once they've collected more about it. I suspect there are other archeologists who would be interested, as well. Most of our public universities and a number of private universities have archeologists on staff that are working on various projects in the state in various research areas. My first suggestion would be to contact the Wisconsin Historical Society.

Rebecca: Okay.

Larry Meiller: You said a structure. How would you define that?

Rebecca: It's at the top of a hill. The hill is exposed on three sides, and you can see down towards ... it's not far from the Kickapoo. Why I call it a structure, it's, oh gosh, about the size of a piece of plywood, but it goes down into the ground and it's kind of shaped like a rectangle with a smaller rectangle. It goes down into the ground. There are stacked stones. Then some of them towards the end are vertical. It doesn't really look like something that happened on its own.

Larry Meiller: It sure doesn't.

Tom Pleger: You could have something that is prehistoric or something that's also historic. That's where having an archeologist come out who's familiar with the types of structures that are associated with farming and agriculture and farm-steading in the state, versus structures that might be or features connected with the prehistoric past. Someone could take a look at that. It's rare to see prehistoric Native American structures that are made out of stone. They're earthen usually is what we see on the landscape. So you could have something that's historic, as well.

Rebecca: Okay. Thank you very much.

Tom Pleger: Thank you.

Larry Meiller: Thanks a lot. Sounds interesting. Okie in Kenosha. It's your turn now. Hi. Thank you for calling.

Okie: Thanks for taking my call. I just started reading a birth called Spirits of the Earth. It's about the effigies in the Madison area. I just before that read the book Atlantis in Wisconsin. You mentioned something about Kenosha. In the Spirits of the Earth, there's a map and it shows a dot in the western part of Kenosha, and that's where I am. I was wondering if that's what you were talking about, about the mammoth or something.

Tom Pleger: Yes. You have a fantastic museum in your community, in downtown Kenosha, the Historical Society Museum that is focusing on the mammoth and mastodon

materials that have been collected in that county and the excavations at the Shaefer Mammoth site. I'd encourage you to go there. There's a phenomenal display. It's really an outstanding exhibit. You can learn about what we call the megafauna, the ice age animals that were here in our state, and the possible human interaction with them. Kenosha County is known in circles of archeology of having a number of megafauna sites of these ice age elephants that at least one of them appears to have convincing evidence of connection with humans. That would be the first place that I encourage you to visit if you're in Kenosha County, to go to the museum there.

Okie: Okay. Also, my wife and I were ... we planted some plants and everything. I came across a head, arrowhead, and in my book, again, in *Spirits of the Earth*, it had a picture of this arrowhead and it was a Clovis, and it looked just like the one I have. How would I find out if this is part of that?

Tom Pleger: The Clovis or fluted point weaponry is representative of the earliest culture sequence here, what we call early paleo-Indian in our region, and it's a very distinctive spear point type that on the Great Plains has been associated with the hunting of ice age elephants and other megafauna. I would encourage you to take that into the museum there. Dan Joyce is the archeologist on staff there, and he would be able to very easily identify if this is an early paleo-Indian fluted point. I think they'd be very interested in collecting information about it. Again, I would direct you to the museum there.

Okie: All right. Because I work with a lot of Indigenous people. I do stuff with them. And plus, I'm from Ohio. I'm from the area of the Serpent Mound area.

Tom Pleger: Another very dense concentration of archeological sites in the Ohio River Valley.

Larry Meiller: Thank you very much for calling, Okie. I appreciate your call. Please follow up on that. Speaking, by the way, you mentioned arrow points. Dave from Manitowoc wanted you to differentiate between arrow points and spears in regards to length of time used and how many of each have been found.

Tom Pleger: Sure. The majority of flintstone tools that I see in the state are actually spear or dart tips. Native peoples arrived in this 12,000 to 13,000 year window, years ago, and used predominantly spear and dart-type weaponry, handheld knives, up until perhaps maybe 1,500 to 1,600 years ago, where we begin to see the development of bow and arrow technology. Most things that people call arrowheads are likely spear or dart tips. A good rule of thumb is that true arrow points generally are not much larger than a modern steel broadhead arrow that hunters use today. Anything that's over an inch-and-a-half or so is usually too large to use as an arrow-propelled or a bow and arrow technology, and was likely used as a spear and dart.

Tom Pleger: It's hard to make an immediate determination on length, because there are examples of smaller dart tips that were used a millennia before the

development of the bow and arrow. But that was the primary weapon, handheld spears or atlatl spear thrower or thrown spears or darts that were used by native peoples. That represents the vast majority of flintstone projectile point that we see.

Larry Meiller: Let's turn to Jim in Augusta next. Jim, hello to you.

Jim: Hi. I would like to find a list of books that cover Wisconsin archeology. I don't know if a professor has a reading list from an introductory class.

Tom Pleger: Sure. The first thing I'd recommend is checking out the website of the Wisconsin Archeological Society. They publish the oldest continuously-published journal of professional archeology in North America. You can do a web search on Wisconsin Archeological Society or, if you're on Facebook, type in "Wisconsin Archeological Society" and do a search and you can join the Facebook page as well. But if you become a member, there are chapter organizations around the state. The journal itself periodically publishes a handbook that's a synthesis or summary of Wisconsin archeology. The last one was published in 1997, which is an outstanding reference.

Tom Pleger: There's some other great books that I'd recommend. Indian Mounds of Wisconsin by Robert Birmingham, Bob Birmingham, and Leslie Eisenberg is a great reference as well. Then, another book that is an excellent synthesis of the Upper Mississippi River Valley is Twelve Millennia: The Archeology of the Upper Mississippi River Valley by James Theler and Robert Boszhardt. All great texts to start out investigating and learning about Wisconsin's past and prehistory. I've used them numerous years in my classes.

Larry Meiller: All right. Thank you very much for calling. You can join in again as well at 1-800-642-1234. 1-800-642-1234. Give us a call with your questions and comments. In terms of those mounds, when again did the native people begin to build mounds in Wisconsin and why?

Tom Pleger: The first mounds probably started construction about 2,500 years ago. Mound building is considerably older as you move into the southeastern United States. The first mounds appear to be predominantly tumuli or places for the burial of the dead. There are different types of mounds that were constructed by a number of different cultures over several thousand years that range from burial in form to platforms, some of the later platform mounds of the Mississippian, upper Mississippian, or excuse me, middle Mississippian tradition.

Tom Pleger: Mounds function for a variety of different reasons and were built in different forms by different cultures at different time periods. Our best-known mound-building culture is effigy mound culture, which effigy mound construction probably started somewhere around 700 or so, 750 AD, and stopped being built in the state about 1250 AD. Those mounds are very unique, in terms of their animals and in some rare cases human form, along with linear forms and conical

forms, that many of which contain burials, but some did not as well and give us a real insight into the worldview of the peoples that produced those.

Larry Meiller: I want to go back a minute to some of the hot topics in Wisconsin archeology today. I think you talked a little bit about some of them, but tell us a little bit more about what's really hot these days.

Tom Pleger: Sure. In Wisconsin and across North America, the archeology of the first arrival of peoples during the Pleistocene, the end of the ice age, is always a hot topic of when and where and how did they get here. There's a lot of research focused around that. That's all over North America. But in Wisconsin there's quite a bit of interest in the last 20 years or so, and particularly in the last few years, in better understanding mound construction and why, for example, effigy mound culture ended in terms of the construction of mounds around 1250 AD. That's a lot of interest and investigation on that topic, as well as the presence of Mississippian culture in our state.

Tom Pleger: I mentioned this a little bit earlier, that the largest archeological site in eastern North America is Cahokia, a massive Mississippian city-like community with tens of thousands of people living in the area about 1,000 years ago. Those people interacted with Wisconsinites and we have a visible legacy of that presence at the site of Aztalan, also in the Trempealeau area, the Red Wing area. How that different culture coming out of the American Bottoms interacted with our local indigenous people is something that is continuously researched and of great interest. Then, understanding why that culture collapsed and declined. Aztalan was abandoned about 1200, 1250 AD, and Cahokia went into a dramatic decline, so there's a lot of interest in those areas as well.

Larry Meiller: Absolutely. Matt in Butler, we'll go to you now. Hi, Matt.

Matt: Hi. Thanks for taking my call. I had a teacher a couple years ago tell me about some mounds somewhere between Waukesha and Madison that had ties to either the Mayan or the Aztec culture. Is there any truth to that? If so, where are they? That would be great to see.

Tom Pleger: The site you're talking about is Aztalan. Aztalan is a state park located between Madison and Milwaukee. It's our largest archeological site. Again, it's a world-class site. It's a site that has been investigated for well over 100 years, in terms of our fascination and interest with it. There's an outstanding new book on the topic, Aztalan: Mysteries of an Ancient Indian Town by Robert Birmingham and Lynne Goldstein that's available that's a great summary of that site. This is a site that is just ripe for archeological tourism or archeo-tourism. The Friends of Aztalan group working in that area is trying to raise funds for the construction of an interpretive center. This site really has the potential to draw a significant number of people to our region to better understand Native America.

Tom Pleger: The name Aztalan comes from the confusion of when the site was discovered, that some researchers connected these platform mounds with the cultures of Central America, and hence the initial name that was assigned to the site was Aztalan, Home of the Aztec, because of the platform mounds and its looking similar to Central American cultures. But today we know that there's no direct connection between those areas of the world.

Matt: Thank you, sir.

Larry Meiller: Pretty cool place to visit, that's for sure. Al in Mount Zion, we turn to you next. Hi, Al.

Al: Hi. I'm not too sure whether you would consider this archeological. But anyway, during excavation on my property I'd come upon ... I went down about 11 feet, and I'd come upon two layers of what appeared to be oil or tar. It was like tar. It was burnable. I could take it and I can actually burn it. I was just wondering if oil has ever been discovered in Wisconsin.

Tom Pleger: This is a geological question. You're right. This isn't related to archeology. We're talking about some ... unless somehow it was put there by people. I don't know enough about the deposit that you're describing to really comment on it. But it's a question that would be more pertinent to raise with a geologist. If you have a sample of this material, if you took it in to a geologist to get some understanding of what it is and potentially how it developed or formed on your property.

Al: Okay.

Larry Meiller: Thanks a lot for calling. Steven in Minocqua, hello to you.

Steven: Hello. I wanted to ask your opinion about a book that I read. It's called Michigan Copper: The Untold Story by Fred Rydholm. He has a series of books, and he raises a lot of theories about exploration by early cultures in northern Michigan and northern Wisconsin in the copper trade in the Mississippi Valley. I just wanted to get your opinion on it, and I'll take your comments off the air.

Tom Pleger: Sure. Appreciate the call. I'm not familiar with this publication, but the subject is well-studied. There are a number of great publications on the topic. Wonderful Power by Susan Martin is a great summary of the professional literature and the archeology related to copper tool use and manufacture and copper trade in the Great Lakes region. It's something that has captivated the attention of a great many scholars, some that are in the professional archeology community, some that are not. There is quite a bit of material outside of mainstream archeology written about possible Old World connections and trade of copper to Europe.

Tom Pleger: Based upon the research that I've been involved in the field for the last 15 years, there really isn't any credible evidence at present to demonstrate that copper

from the Great Lakes ever was taken out of North America in prehistory. There's no evidence to suggest that there was molten metals or alloying taking place. This was a hot and cold hammering technology. And no evidence to suggest trade outside of North America at this point. That doesn't mean that it might not be discovered at some point, but I have not seen any convincing evidence in the literature or in the field to suggest that.

Larry Meiller: All right. Thanks for that. Let's turn to Terry in Bayfield County. Terry, hello.

Terry: Hello. I live right on the shores of Lake Superior, up in Bayfield County, and I have found several slabs of petrified wood that came washing up on the beach. I'd like to know an approximate age of those.

Larry Meiller: So how do you get that aged?

Tom Pleger: Well, another geology question, one that I'm really not the expert to answer your question in understanding the relationship with the formation of petrified wood in the Great Lakes region if that occurred. I would suggest, if you're up in that corner of the state, of contacting the University of Wisconsin Superior, the geologists there, or the University of Minnesota Duluth. I'm sure that both institutions would have experts on staff that could assist you with that question.

Larry Meiller: All right. Thanks very much for that call. We have Gary in Boscobel. Gary, hello.

Gary: Thank you very much for taking my call. I'd like to ask Tom a question about [inaudible 00:35:11] lithic materials. I'm a [inaudible 00:35:14] myself. The question, it's always ...

Larry Meiller: We're losing.

Tom Pleger: I think we lost our caller.

Larry Meiller: We had a question about different types of flints. Were there different types of flints?

Tom Pleger: Yes. There were a lot of different materials that were used in prehistory in our region. In the eastern part of the state, the glacial gravels contain all types of cherts and flints, many of which have their origins probably in the Upper Great Lakes or even the southern Canadian Shield that were brought here by glacial activity. Quartzes were used, quartzites. There are some major deposits in Wisconsin that were quarried. Prairie du Chien and Galena cherts in the Prairie du Chien and Galena geological formations in our state. Hixton silicified sandstone in Jackson County, a major quarry site that was exploited and used by native people since they first arrived. That material was traded outside of the region. Rhyolite was used. A whole variety, as well, as was mentioned earlier, agate occasionally shows up on archeological sites. Then, materials were also imported from outside of the region as far away as the Plains and the Ohio River

Valley region. We see external cherts that were mined in those regions and brought up into Wisconsin and used for very specific ritual objects.

Larry Meiller: With that, Tom, we have to conclude. It's been really fascinating. Thank you so much. I hope you'll come back and be with us again.

Tom Pleger: Thank you for the opportunity. I always enjoy talking about this topic, and I'm pleased to see that there are so many people interested in it.

Larry Meiller: Oh yeah. Lots of people we had on line. Thanks again. Tom Pleger is dean and campus executive officer and also associate professor of anthropology and archeology at the UW-Baraboo-Sauk County Campus. It's always great fun to have him with us, and certainly we will have him back again. Coming up, though, we're going to be switching gears and talking with you about saving your retirement. Frank Armstrong of Coconut Grove, Florida, he is founder of the investment advisor firm Investor Solutions, Inc. and a co-author with Paul Brown of the book *Save Your Retirement: What to Do if You Haven't Saved Enough or if Your Investments were Devastated by the Market Meltdown*. Our guest coming up next, he'll be with us by phone here on the Ideas Network of Wisconsin Public Radio.