

Interpretive actions for archaeological resources: Keweenaw National Historical Park and Isle Royale National Park

Mario Battaglia

University of Arizona

Casey Campetti

Indiana University of Pennsylvania

Maija Glasier-Lawson

California State University, Chico

Matthew Kalos

Temple University

Hilary Miller

Pennsylvania State University, Harrisburg

Megan Springate

University of Maryland

Stephanie Sullivan

University of Arkansas

Katie Turner

Indiana University of Pennsylvania



P.O. Box 65

Hancock, Michigan 49930-0065 USA

www.georgewright.org

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Mission

To develop an Adaptable Curriculum Module about Keweenaw Archaeology for the NPS and its partners.

How can we increase understanding of, and appreciation for, the Keweenaw's nationally significant archaeological resources?

Introduction

The George Wright Society, in conjunction with Keweenaw National Historical Park and Isle Royale National Park, invited eight graduate students to Calumet, Michigan, for the week of April 5 through April 11, 2014. We were charged with the mission of increasing the understanding of, and appreciation for, the Keweenaw's nationally significant archaeological resources, largely associated with the almost pure copper found in the rocks beneath the Keweenaw Peninsula and Isle Royale.

Copper in this region of Lake Superior is found in almost pure metal deposits, as well as in copper-bearing ore. Native Americans found copper in this region on or near the surface, and worked it into bars, beads, hooks, knives, projectile points, and other goods. Artifacts made of copper from this region are found on archaeological sites across the continent, having been passed from hand to hand through often complex trade networks. Geological analysis and radiocarbon dating indicate that Natives were mining copper and manufacturing items in this region as early as 7,000 years ago. Recent data suggests that this date may be pushed back to as early as 8,000 years before present, which would make Isle Royale and the Keweenaw the location of the earliest metalworking in the world.

Early European copper exploration began in Keweenaw in the late eighteenth century. In 1840, the geologist of the State of Michigan published a report that described the rich copper deposits of the Keweenaw. This triggered a boom in copper prospecting, and in the early 1840s, mines were opened in Copper Harbor, at Cliff Mine, and at Quincy. Surrounding each of these mines were communities of workers and their families, merchants, farmers, shopkeepers, and manufacturers of blasting powder and supplies. A few years after opening, the Cliff Mine turned a profit, paying dividends to its investors, which further spurred investment and growth in the region. Originally mining the pure copper metal deposits found in the area, the historic mining companies eventually switched to processing copper out of the local ore bodies. Keweenaw copper was crucial to the late nineteenth century American economy, being minted into pennies, pulled into copper wire for telephone and telegraph, and munitions during the Civil War. The metal also made its way into international markets, being shipped to France to form the cladding for the Statue of Liberty. The advances in technology that changed mining around the world were also developed here, like the one-man drill. Copper boomed in this area through the early twentieth century. As ore bodies and pure copper deposits ran out, and mine shafts ran too deep to be profitable to mine, companies closed up. Many people moved away in search of other employment, while others stayed. Tourism is now the region's prime economic driver.

Our suggestions for interpreting the archaeological heritage of the Keweenaw and Isle Royale are presented as suggestions for youth programming, and for adult programming. Suggestions given under the heading of "today" are those which require very little resource investment to carry out. These are possible with a minimum expenditure of staff time, planning, resources, or finances. Suggestions given under the heading of "tomorrow" may require additional preparation and planning, and may be possible within six months to a year, depending on the resources avail-

able. Finally, those under the heading of “ten years from now” are long-term goals that require extended planning or resources, and may not be possible in short periods of time. Overall, these suggestions aim to interpret the archaeological resources available while increasing the interest towards and the conservation of these resources by the public.

Themes

- Celebration of unique local resources
- Importance of stewardship and preservation
- Community pride

Goals

- Instill a preservation ethic in the local community
- Educate the local community and visitors about the importance of archaeology

Acknowledgments

We would like to sincerely thank the National Park Service and the George Wright Society for sponsoring Park Break. The experience has been truly eye opening to all of us and we will leave the Keweenaw Peninsula with a great appreciation for its many natural and cultural resources. We would like to specifically thank Jo, Seth, Val, and Lee for being fantastic hosts and for their wonderful insights and interpretations that significantly influenced this document.

Youth Programming: Today

Archaeology in a Box

Objectives: By the end of this program, the students should be able to:

- Understand the importance of protecting archaeological resources
- Discuss what archaeology is and what archaeologists do
- Identify the tools used by archaeologists and the way archaeologists investigate stories of people from the past
- Explain how artifacts help to tell a story
- Understand what steps to take if an artifact is found

Activities:

- Introduce Archaeology and the Keweenaw Story
- Stratigraphy Exercise
- Interpretation and Timeline Activity



Materials:

- Activity 1: trowel, small screen, measuring tape, plumb bob, compass, notebook, magnifying glass, paintbrush, tweezers, photos of archaeologists at work, artifacts (6-8)
- Activity 2: model stratigraphy, artifacts used in Activity 1, measuring tapes (1 per group of students), string, student worksheets
- Activity 3: model stratigraphy from Activity 2, magnetized artifact cards, artifact guide (for students), artifact guide (for teachers), timeline guide (for teachers), investigation worksheet
- Miscellaneous: archaeology protocol cards

Lesson Introduction for Teachers:

By completing all three of the activities, students should be able to meet all of the objectives listed above. The activities can be completed in a singular class period or individually as time permits. Each activity takes approximately 20-30 minutes, depending on class size.

Recommendations: In Activity 3, we anticipate having one artifact card per student. Additional artifact cards may be created to accommodate larger classes or groups. Additional cards may be duplicated within each student group.

Lesson Outline:

Activity 1: Introduce Archaeology and the Keweenaw Story

- Introduction
- Questions prompted by the teacher to stimulate class discussion:
 - What is archaeology? The study of the life and culture of people using physical artifacts and features (buildings, foundations, modifications of the environment, stains in the soil) as evidence.
 - What does an archaeologist do? They use science to investigate the past using historical documents, photographs, folklore, and artifacts.
 - What do archaeologists find? They find artifacts, the material culture, that was left behind by people in the past (arrowheads, broken pottery, glass bottles, nails).
 - What do archaeologists learn from artifacts? They learn about the people that lived in an area in the past.
 - Why is archaeology important? It allows us to learn about the past and to share those stories with people today and people in the future. This is why it is so important to protect these things so that we can learn more about people.
 - What do you do if you find an artifact? You take a picture or draw it. Take a GPS point if you can or just try hard to remember where it was. Find a ranger or archaeologist and share your amazing discovery. Above all, leave the artifact where it is!
- Tools of the trade (hands-on archaeology tool presentation)
 - Trowel: used for excavating
 - Screen: used for sifting dirt and finding artifacts
 - Measuring tape, plumb bob, string, and compass: it is important for archaeologists to know exactly where each artifact came from, so they are very careful and use these tools to pinpoint that location
 - Notebook: when archaeologists excavate, they need to write down every-

thing about the artifact and the archaeology site so they can interpret data (this is one of the most important parts of an archaeological investigation)

- Brush, magnifying glass, and tweezers: these tools are used to clean and identify artifacts
- The Keweenaw story (5–7 minute history starting 8,000 years ago)
- Student evaluation:
 - What do archaeologists do and why is it important?
 - Name three tools archaeologists use and what they are used for
 - What do you do if you find an artifact?

Activity 2: Stratigraphy Exercise

- Introduction: introduce stratigraphy
 - Stratigraphy helps archaeologists understand how things have changed through time. Stratigraphy is the different layers created in the soil. Sometimes they are different colors. Sometimes they are different textures. One of the interesting things about stratigraphy is that whatever is on the bottom is the oldest and whatever is on the top is the newest.
- Introduce stratigraphy model (park staff can decide how many layers to use)
 - Teacher explains what each level represents
 - Pass around artifacts and ask students what level they think the artifact would be associated with
- Stratigraphy Activity: students complete stratigraphy worksheets using measuring tape or rulers
 - Stratigraphy worksheet will be a stratigraphy representation where the students measure the location of each artifact on the x and y planes. Worksheet should end by asking students to explain what the stratigraphy means.
- Evaluation: worksheet serves as evaluation

Activity 3: Interpretation and Timeline Activity

- Introduction: Artifacts are like puzzle pieces; You need all the pieces to see the whole picture
- Students each receive an artifact card
- Students use artifact guide to find their group
- Students answer questions on a worksheet and work together to interpret the artifacts to tell a story
- Teacher takes away some pieces from each group and asks students if the story still makes sense when pieces are missing.
- Students place groups of artifacts on the board/table and work as a large group to determine the chronological order of the groups of artifacts
- Follow with group discussion on how things change through time
- Evaluation:
 - What can you learn from artifacts?
 - Why is it important to learn from artifacts?
 - What can you do to protect the artifacts?

Note: Teachers should make sure to emphasize the importance of protecting archaeological resources throughout the program.

Story of the Month/Object of the Week

Objectives:

- To emphasize the range of archaeological resources to the public.
- To encourage stewardship by highlighting objects and the stories they tell
- To promote the Park's visibility and encourage communication and collaboration amongst stakeholders, including local partners and the general public
- To encourage return visitation

Action Plan:

- Develop one story per month that consists of at least four objects (artifacts, photographs, textiles, documents) from the Park's collection or the collections of local partners/Heritage Sites
- Install exhibit case in Visitor Center to display the Story of the Month objects
- Highlight one object per week on social media sites (e.g. Facebook, Twitter)
- Encourage local teachers to share the Story of the Month with their students
- Develop interpretive media, such as site bulletins and Children's worksheets, to have available with the physical exhibit and as a digital copy online
- Future project: record 3- to 5-minute video presentation interpreting the objects and the Story of the Month

Youth Programming: Tomorrow

Junior Archaeologist

Objectives:

- To emphasize the range of archaeological resources on the Keweenaw
- To promote stewardship and preservation
- To reach children of all ages
- To stimulate interest in archaeology resources
- To introduce a larger picture of the history of the Keweenaw

Action Plan:

- Create a Junior Archaeologist booklet aimed at children ages 5-12
- Examples of activities
 - Word search with archaeology-related words
 - Maze
 - Bingo using resources on the Keweenaw
 - Historic buildings activity (draw in the missing piece)
 - Draw yourself as an archaeologist
 - Draw a picture of an object in the Visitor Center
 - Exhibit-based scavenger hunt
 - Write a story about a town character
 - Stratigraphy exercise
 - Matching objects to use
 - Timeline of objects
 - Picture search
 - Pictographs (three examples and draw one of own)
 - What doesn't belong (e.g. modern artifacts in Native American contexts)
- Booklet ends with oath that promotes stewardship and preservation

- Create a Junior Archaeologist patch/badge specific to the park
- Create a Junior Archaeologist card with oath and preservation/protection protocol
- Recognizing new Junior Archaeologists on social media sites

Scout Archaeology Weekend Program

Objectives:

- To emphasize the range of archaeological resources to the public
- To bring local youth to the Park and encourage interest in unique local resources
- To foster a relationship with local youth
- To fully immerse local youth in archaeology over a weekend

Action Plan:

- Contact local scout leaders to garner interest
- Pinpoint various locations throughout the Park and Heritage Sites ideal for discussing the dynamic range of archaeological resources available on the Keweenaw
- Explore existing badge options available through scout program to guide development of program
- Contact local universities and Heritage Sites for volunteers
- Explore funding options to run program and/or offer scholarships

Archaeology Month Distance Learning Program

Objectives:

- To promote further exploration of the Story of the Month program
- To make Park/Heritage Site archaeologists and historians more visible
- To foster long-term relationships with the local community
- To reach a wider audience
- To celebrate Archaeology Month (October) with children

Action Plan:

- Develop concise 15-minute digital presentation based on resources found on the Keweenaw
- Plan two different response opportunities
- Live video chat with archaeologist (good for schools and other groups)
- Pre-recorded video response to questions submitted online (available online)

Youth Programming: Ten Years from Now

Archaeology Camp

Objectives:

- To teach youth principles of archaeology in a fully-immersive on-site program
- To encourage stewardship and preservation resources for present and future generations
- To promote an interest in lifelong education
- To expose youth to career opportunities in archaeology and heritage

Action Plan:

- Partner with a university for project personnel
- Explore funding options (Advisory Council, NPS, Heritage Sites, and foundations)
- Identify historic and pre-historic sites to study
- Offer camps on different subjects (Native American lifeways, historic lifeways, historic archaeology, pre-historic archaeology)
- Offer options for 1, 3, and 5-day camps for groups with different needs

The Keweenaw Story Film Series

Objectives:

- To introduce a broader audience to the resources available on the Keweenaw
- To incorporate more digital media into the Park interpretive plan
- To promote stewardship and preservation
- To highlight the oft-overlooked aspects of the Keweenaw story

Action Plan:

- Identify potential resources and stories suitable for a broad audience
- Consult with Tribes in order to include the Native American perspective
- Develop series of 5- to 10-minute films
- Make film series available online, including on the Park website and social media sites
- Show films in visitor center
- Promote use by Heritage Site partners
- Include short stewardship and preservation message in each film
- Explore possibility of working with local universities to produce films
- Possible film series topics
 - Native American historical narrative
 - Archaeology on the Keweenaw
 - Archaeology on Isle Royale
 - Quincy Mine
 - Clifton/Cliff Mine
 - Pre-historic copper mining
 - Trade networks
 - A day in the life of a Keweenaw kid
 - Dangers of looting
 - Calumet & Hecla history

Other ideas

- Annual kids night at library with archaeology activities
- Weekly social media campaign
 - Mining Monday
 - Archaeology Tuesday
 - Wild and Scenic Wednesday
 - Throwback Thursday
 - Fun Fact Friday (Ask a Ranger)
- Trash clean-up day with cultural resource staff
- Keweenaw site stewardship program

- Field school on pre-historic topics
- Develop formal partnership with Tribes
- Stewardship message for incoming special use groups
- Quick guide to archaeological resource protocol
- Looting infographic (what happens when you loot)

Adult Programming: Today

Although budgetary constraints limit the scope and breadth of new programming that can be implemented within Keweenaw NHP, Isle Royale NP, and its partner sites, there are some things that can be accomplished today with little to no additional funding required. We suggest the following items be implemented as soon as possible in an effort to improve communication and increase interpretive and educational programming:

Unifying Message

One of the first and possibly the cheapest suggestions we have is to unify Keweenaw NHP, Isle Royale NP, and the partner and heritage sites with a common message that will work to connect stakeholder agendas. The common message should be based around the importance and preservation of both the natural and cultural resources located in the region.

There is an amazing geological story to be told about the processes that formed the Keweenaw Peninsula and Isle Royale. A combination of geology and location created a unique environment that allowed an abundance of natural resources to develop across the landscape. The formation of these rich natural resources has influenced the influx of people to the area over time. Each of the communities that came to utilize the natural resources left their stories through their material remains. These cultural resources should be promoted with the same weight that is given to natural resources. The full story of the natural and cultural environment should be incorporated into the message of Keweenaw NHP, Isle Royale NP, and its partner sites, whether the site is predominantly archaeological in nature or more wilderness based.

To effectively accomplish this, a unifying theme must be identified amongst all of the partners. Copper is the theme and its story is the thread that links the pre-history of the area with its historical past, as well as the present. Further, the theme of copper can be used in a variety of ways to highlight the need to preserve both the region's natural and cultural resources.

In addition to promoting a unifying theme and message, it is suggested that a change in language and terminology be implemented and consistently used among the parks and partner groups. Specifically, it is felt that some of the language used when talking about prehistoric copper mining be changed. Perhaps the terms “aboriginal” and “aboriginal peoples” or even “native copper miners” would be more appropriate than the terms “ancients,” “ancient race,” or “ancient copper miners.” There are a number of reasons for this suggested shift in language.

First, the terms are misleading and do a disservice to the message that we aim to promote regarding the scientific evidence that we have for the first copper mining activity here. Language that uses scientific terminology and carries a more accurate connotation would improve the interpretive message. Second, interpretations made using the term “ancient copper miners” tends to promote a euro-centric bias. Third, the term “ancients” reduces the connection that the general public feels to prehistory. It is often difficult for people to make a connection with the distant past. We want to utilize language that helps to bridge the gap. Fourth, the use of the term

“ancients” sounds antiquated to the academic community. It is hoped that after presenting these explanations during consultation, that the tribal community will be supportive of the efforts for this shift in language.

Artifact of the Month

Another idea that can be implemented relatively soon is an online Artifact of the Month program. This program entails taking photos of items in archived collections and posting the pictures to Facebook, the park’s/partner site’s website, a blog, and/or other web locations. More and more, people are relying on the internet for information and turning to social media to connect. This program will boost the Parks’ online and social media presence.

Cross posting of the Artifact of the Month listing will bolster the amount of hits to the various websites increasing visibility to the public. For example, the original posting could be placed on an Artifact of the Month webpage located on the Park’s website. This posting could then be linked to the Facebook page, so that viewers of the Facebook page would be directed to the Park’s website when clicking the link. It is likely that viewers will then explore other parts of the Park’s website beyond just the Artifact of the Month. Placing a “button” or a link on the Park’s website that takes visitors to the Park’s Facebook page is also encouraged. And, do not be shy in asking people to “like” the Park’s Facebook page. This will increase the amount of people that hear about the Park. Note that similar postings may be made by the Park’s partners and heritage sites. Each partner that has a Facebook page could potentially link to items located on each other’s websites, blogs, Facebook pages, etc.

This program could be broader in scope – not just “artifact” of the month. It could potentially include buildings and other features, districts, or other items at a range of scales. However, the word artifact is associated with archaeology and has a connotation that is easy for the public to understand. So for now, we will leave it as Artifact of the Month, but this could be changed to suit particular interpretive missions. Note that this type of program could be implemented by partners and heritage sites as well as the Parks (as described above) and may be modified to accommodate for differences such as the type of site or the partner’s mission.

Further, the online postings may be a single artifact (or object) or a series of artifacts (objects) associated with a particular subject (for example, a collection of miner’s hats showing the development of the hats over time, trade in prehistory, or the development of mining technology). Also, an interpretive theme may be developed for a single posting or for a series of postings over the course of several months. For example, the artifacts shown may revolve around the theme of ethnicity, community development, instilling preservation ethic, or whatever interpretive message the Park is inspired to deliver. Accompanying the photographs will be a description of the artifacts written in a fashion that speaks to the interpretive message.

Aside from giving another outlet for disseminating interpretive messages, there are a number of objectives that can be met by implementing an online Artifact of the Month program. It offers an avenue for the public to engage with the collections. People who might not otherwise have the opportunity to visit the Peninsula can be exposed to the collections. Additionally, items that are not typically out on display can be made assessable to the public. The program could be used to demonstrate that donated collections do not just get stashed away in a box never to be seen again. A theme for a single post or series of postings could potentially include a number of items that have all come from one collection donated by a member of the community.

An activity sheet may be prepared for the artifact(s)/feature(s) that can be used in school classrooms or in Park programs. The activity sheet may contain a picture of the artifact, a description of the context and use of the artifact, and questions that cause the student/person to think about how the artifact relates or is linked to their own lives or experiences (see The California Museum activity sheets: <http://www.californiamuseum.org/artifact-month>).

A satellite to the Artifact of the Month program may be a “What is This?” (or “Mystery Artifact”) exhibit. There are two ways that this could be executed:

- Use an artifact of which the context is known. Post online and allow public to comment. After a set amount of time (a day or a week depending on number of views/comments), present the correct answer. This can be used as an opportunity to engage with the public about artifacts and interpretive themes.
- Use an artifact of which the context is unknown. The public may know what the item is or was used for and may assist park/museum staff in identifying the object. This is a fun way to engage the public.

Adult Programming: Tomorrow

Artifact of the Month

Rationale: Improvement of the *Artifact of the Month* project is key to showing dedication, stability, and consistency in the Parks’ attempts to engage the public. Program partners and the public may suggest changes to the way the project is executed, which could include pursuit of funding, new staff roles for interpretive seasonal staff members, or specialized knowledge to present new artifacts. This type of presentation is popular with museums, but is also utilized by federal facilities like the Lawrence Berkley National Laboratory. AotM is also an opportunity to demonstrate the value of sound archaeological interpretation and the importance of context. Including artifacts that provide less information (collected, turned in by visitors, metal detected, bought/sold) shows, in a non-confrontational way, the difference between what we can learn from just “things” versus things in place.

Objectives: The legacy of the *AotM* project is to maintain consistent public displays, demonstrate the material culture of Isle Royale NP/Keweenaw NHP, and instill a sense of pride and stewardship toward artifacts in the Keweenaw Peninsula.

Implementation: A physical Artifact of the Month display may be located in the Keweenaw NHP Visitors Center. This could cross over to Keweenaw partners and heritage sites that have the infrastructure needed to put out a monthly rotating display. The Artifact of the Month physical display may be the same or may differ from the online postings described above in the “Today” section.

Improvements to the program will likely result from feedback from heritage partners and visitors. A system for evaluating the experience of visitors on the effectiveness of the stated objectives will provide data for later analysis and improvement. Responses to feedback should be maintained in a database constructed to answer possible queries useful to the Parks, not only for the state objectives, but for other demographic information that could be used to demonstrate interest and secure internal support for the program. Feedback should be included to the extent possible – does the suggestion help in achieving the objectives of the project, or another portion of the overall program? It may be appropriate to incorporate new objectives

as they become obvious, or scale back the project to effectively communicate. The project model could also be adopted by partners following the basics of the model.

Resources:

- Lawrence Berkley National Laboratory, Department of Energy
<https://commons.lbl.gov/display/aro/Artifact+of+the+Month>
- Alaska State Museums
http://museums.alaska.gov/sheldon_jackson/artifact_of_month.html
- Harry S. Truman National Historic Site
<http://www.nps.gov/hstr/historyculture/artifact-of-the-month.htm>

Mystery Artifact

Rationale: In addition to providing an artifact and accompanying story or description, appealing to the desire to contribute and discover is an important part of collaborating with the public and breaking down negative opinions about the exclusivity of archaeological work. Part of resetting these attitudes is demonstrating the positive, workable ways that the public can participate in archaeology. There are a large number of unprovenienced artifacts in the Isle Royale NP/Keweenaw NHP collections, and even more that have not been fully identified or analyzed. Presenting these types of materials to the public allows for a low-level “behind the scenes” look at how archaeologists identify artifacts, and see material that the public would otherwise have little access to. A public artifact identification project also provides a platform for providing more information on the work that goes into “good” archaeology – organization and management systems, curation challenges, synthesis, and dissemination of information.

Objectives: Provide an outlet for visitors to participate in the identification of cultural materials in the Isle Royale NP/Keweenaw NHP collections. Encourage the public to share stories and knowledge about material culture.

Implementation: A physical display of the artifact may be placed in the Keweenaw NHP Visitor’s Center or partner museum. Selection of items should be based on several factors: need for identification, perceived interest of the item, and ability to demonstrate elements of the preservation ethic. Items should be visually interesting, or have an interesting story to tell, and should include the nature of discovery and the “journey” of the artifact so far – where was it found, and by whom? Where has it been curated? What has been done with it? As well as the hopes for the future – the collection the artifact is a part of, research questions we can ask, etc.

Resources:

- Michigan Archaeological Society
<http://www.miarch.org/Mystery%20Artifact.htm>
- Archaeology Magazine
<http://archive.archaeology.org/online/features/lott/objects.html>

Video Tours

Rationale: Online archaeological experiences are not only a way of capturing interest, they are also a medium that audiences are familiar with, given the range of “archaeology” television shows available today. Digital video is impactful and can be made cheaply, with minimal time for editing and upload to websites like YouTube. Video can be experiential, instructive, or informational. A posted film with excava-

tion footage or post-excavation curation could demonstrate how archaeology is done in the field and in the lab. A film could be made showing the prehistoric mining pits of Isle Royale NP to those who may not be able to visit. Videos can reach those people who are unable or unwilling to read, can be viewed in usable chunks, and can be shared with others via social media.

Objectives: Provide film-based experiences online and via social media highlighting the places, stories, and messages that Isle Royale NP/Keweenaw NHP and heritage partners want to broadcast.

Implementation: Digital video can be shot with a minimum of experience and equipment. Staff should develop a set of themes to be covered by the videos – the importance of preservation, the Copper Country story, the role of archaeology in the parks, and other themes, as identified by the parks and heritage partners. Films should be less than three minutes in total length. Heritage partners may be interested in producing their own videos, in which case Isle Royale NP/Keweenaw NHP may offer technical support or provide access to pre-researched items like themes and templates.

Resources:

- Society for American Archaeology (SAA) resources:
<http://www.saa.org/publicftp/public/resources/onlinearch.html>

Outreach to Downstate Archaeologists and Organizations

Rationale: Professional and interest organizations are conduits for interest, advocacy, funding, and awareness for heritage and archaeology. Outreach to these groups can expand the geographic area of people with general awareness and interest in the UP, but also shoulder responsibility of executing studies and investigations, advocating for resource funding and protection on a state and national level, study of research issues with roots in UP archaeology (prehistoric mining, etc.), partnership teams for pursuing funding opportunities.

Objectives: Expand the geographic reach of UP archaeological interest by reaching like-minded groups with similar goals for archaeology in Michigan. Connect UP archaeology with over-arching state themes and interests, and identify common goals in order to combine and strengthen efforts.

Implementation: Identify suitable organizations with relevant interests and status, preservation attitude, interest, membership, NPS support.

The Michigan Archaeological Society is an organization of professional archaeologists who actively pursue or have conducted archaeological research in Michigan. There are no chapters in the UP, but the society's publication, *Michigan Archaeologist*, contains interest in historic and prehistoric copper extraction.

Nautical Archaeology Society is an undergraduate student group based out of Northwestern Michigan College, but presents a strong preservation ethic, and runs a field school for underwater archaeology. Exploring the potential for a field school near Isle Royale NP/Keweenaw NHP could be beneficial to both groups.

Park Bulletins

The aim of Park Bulletins is to fight the misinformation that often circulates around

the Keweenaw Peninsula regarding the history of Copper mining as well as the problems associated with looting of archaeological sites. The Bulletins can be made available both online via the Park (and partner's) website as well as having tangible copies to hand out to visitors at key locations (Visitor Center, Information Center, Park HQ). The information on the Park Bulletin should be written in an approachable and matter of fact manner. Images (black and white) and maps may be used to help strengthen the bulletin and provide context to the viewers. Additionally, the Park Bulletin should draw connections between Ancient copper miners and Native Americans. It should be made apparent that the material culture associated with copper mining is a valuable resource that's true value lies in its context and not the objects themselves. Although there may be some cost associated with the production of such a Bulletin, it can be circulated widely in order to prevent disinformation. In the future, if it seems appropriate, more bulletins can be made to focus on singular issues that the Park sees arising. The main goal of the Bulletins is for the NPS to directly comment on the problems that it faces with regards to misinformation and looting.

Park Challenge

The goal of "Park Challenge" is to familiarize and engage the park staff with the many resources (cultural, natural, as well as with the park personnel themselves) that are accessible at the park. The Park Challenge should occur during the summer months when the number of park employees grows. Performing the Challenge at this time will create a lasting impression of the importance of the park for employees who only have a few months to interact with the Park.

The Park Challenge will consist of a list of tasks or experiences (7-10) that may be checked off as they are completed. Each task or experience should provide the visiting employee a sense of the importance of other individuals' jobs throughout the park. Tasks can range in complexity and time. For example, a task can simply be visiting the Calumet Visitor Center, exploring the exhibits, and talk about the building with the staff on hand. Another example of an experience could be spending a few hours in the Park archives assisting staff with the curation or processing of objects. Regardless of the task, the aim of Park Challenge is to grow an appreciation among the staff about the great work that occurs around them on a daily basis that they may otherwise be unaware. Once an employee achieves a certain number of tasks (85% of the list) he or she can be rewarded with a small prize such as a park patch or pin. The prize should not be a monetary burden, but rather a way for the Park to show appreciation to its employees and the hard work they perform across the spectrum.

The implementation of the Park Challenge is not capital or time intensive. A call should be made to staff regarding possible opportunities for a task. Once a collection of tasks is accumulated, a small committee may finalize a list. The resulting list of activities can then be passed out to the employees with a description of Park Challenge with an emphasis on getting to know and having the opportunity to enjoy the park in which they work. As soon as an employee completes the list, he or she may report to a designated person to pick up the prize. At this time a follow-up survey may be given to the employee who completed the list. Questions on the survey should ask the employee about his or her thoughts regarding the program; what he or she learned; what he or she got out of the program; or what he or she may like to see in the future.

Passport

The Passport Project aims to engage and reward the public for actively participating in and with the Keweenaw National Park and its Heritage Sites. Upon arriving at a designated site (i.e. Visitor Center or Information Center) within the park, visitors will have the opportunity to pick a passport of either an object or an individual (real or imagined). Within the passport will be a series of stories regarding the object or person. As the visitor travels to different sites among Keweenaw NHP or the heritage sites he or she turns to the appropriate page in order to read the story of the object's or the person's experiences at the given place. As the visitor moves throughout the region, each site provides a hole-punch, sticker, or stamp showing that the visitor was there and interacted with the exhibits and staff. Once the visitor stops at a certain number of designated sites he or she may return to the NPS gift store to earn a small prize such as a sticker or a \$1 or \$2 discount off the purchase of a certain item. The reward should come from the NPS so that the Heritage Sites do not feel an undue burden for participating.

The Passport that the visitor takes can be malleable to his or her interests. For example, if a visitor is strongly interested in the cultural heritage, his or her passport may follow an immigrant from Fort Wilkins to Eagle Harbor, to the Finnish American Heritage Center. Another passport may focus on the natural resources, so the visitor could follow a piece of copper from the Porcupine mountains, to the Quincy mine, to a historical society where a piece of copper art is present. The aim of having different pathways, is for the visitor to feel as though he or she has control over the visit as well as can shape the visit to his or hers personal interests.

The aim of the Passport is to show the importance of and interconnections between artifacts/people and their respective contexts. Moreover, the passport aids in weaving the mosaic of the park; showing the interconnections throughout time and space. An additional outcome of the passport project is for visitors to see the relationship between the Heritage sites and the National Park, and how they are connected, related, and mutually important. Overall, the program hopes to increase the awareness between the sites and the importance each has as a nexus of artifact and humanity while at the same time creating a personal connection between the visitor and the park.

The implementation of the Passport program will take a concerted effort from many groups and individuals to get off the ground. First, much research needs to be done regarding possible artifacts and their history. Each artifact will need to be thoroughly researched in order to be able to tell its story throughout time and between each site. Like artifacts, individual personal histories need to be collected and coordinated between sites. Michigan Tech Archives should provide an excellent source of information regarding the boom and bust that individuals experienced. Moreover, should not enough factual individual stories exist, a historian with the park could create a fictionalized character with life events pulled from actual experiences that miners and people on the Keweenaw Peninsula endured. The process of finding information and producing a concise but informative Passport is the most difficult aspect of this project. Additionally, the cost of printing the passports can be prohibitive. Finding a way to recycle the passports may save costs while still providing the visitors with a memorable experience.

Another issue of implementation is the fact that it requires participation and implementation from the Heritage sites associated with Keweenaw NHP. The partner organizations will have to be educated to give additional information regarding

the artifact or person at the given site. It does not have to be extensive, but a conversation with the visitor should supplement the information from the passport.

Overall, the Passport program aims to engage visitors in a subject in which they have some interest. Moreover, the program seeks to connect visitors to the material culture that the Keweenaw NHP and its Heritage sites offer, while also creating a sense of significance of the area through time and space.

Adult Programming: Ten Years From Now

Artifact of the Month

Carrying this project into the future, we recommend using 3-dimensional scans of objects and sites instead of 2-dimensional photographs on social media, the NPS webpages, and linked from partner websites. These scans will allow the public an opportunity to manipulate and interact with objects so they can examine all sides; for sites, a three-dimensional scan will allow people to remotely explore a building or landscape. This means of interacting directly with an object or location will help the public make an emotional and intellectual connection with the resource. Three-dimensional scanning can also be used to allow researchers the ability to manipulate and examine artifacts that may be of interest for their own research projects. This can increase the representation of NPS artifacts in the research of others while minimizing the cost to researchers to visit physical collections. Replicas of 3-d scanned objects can also be made available to NPS partners to incorporate into their interpretations. The technology required for both 3-dimensional artifact scanning and 3-dimensional landscape/structure scanning already exists. The barrier to immediate implementation of these is the cost of the scanning and printing equipment.

While models of artifacts/features are often created with the use of a 3D scanner, a cheaper and perhaps easier method may be to use photogrammetry. Either way, 3D representations of the artifacts may be rotated and experienced in a 3D environment (for instance through Adobe 3D PDF). The Center for Advanced Spatial Technologies (CAST) at the University of Arkansas has completed several 3D scan projects with equipment that is owned inhouse (see <http://hampson.cast.uark.edu/> and <http://amarna.cast.uark.edu/>). CAST is dedicated to providing information to other institutions who are interested in completing these types of projects. Not only are staff members available for consultation (cast.uark.edu), but workflows are continually being updated and made assessable to the public on the Geospatial Modeling and Visualization website (<http://gmv.cast.uark.edu/>). In addition, if research goals meet certain requirements, there may be grants available to assist (see SPARC: <http://sparc.cast.uark.edu/>).

What is This?/Mystery Artifact

Carrying this project into the future, we recommend using 3-dimensional scans of objects instead of 2-dimensional photographs. The objectives and rationale are as above.

Resources:

- 3-D scanning of the Smithsonian's collection:
<http://www.theverge.com/2013/11/13/5100190/the-smithsonian-is-now-sharing-3d-scans-of-artifacts-with-the-public>
- Smithsonian's Human Origins, 3-d Scanned Collection:
<http://humanorigins.si.edu/evidence/3d-collection>

- Digital Archaeological Archive of Comparative Slavery:
<http://www.daacs.org/about-the-database/3d-laser-scanned-artifact-images/>
- Virtual Hampson Museum, Hampson Archaeological Museum State Park:
<http://hampson.cast.uark.edu/>
- 3-D scanning of a landscape, Mount Rushmore:
<http://archive.cyark.org/projects/RUS/misc/virtualtour/>
- 3-D landscapes and structures, worldwide:
http://www.scottishten.org/showcase_gallery

Public Archaeology

Public archaeology has proven successful in engaging the public with the heritage and history of an area, fostering stewardship, and creating advocates. In the case of NPS-sponsored or supported public archaeology, these connections and fostering of stewardship and advocacy will be not just for the archaeological resource, but also for the NPS in general. In her article, “Public History and Memory: A Museum Perspective,” published in *The Public Historian* in 1997, Barbara Franco wrote that history should be “for the public, of the public, by the public, and with the public.” Public archaeology can be done on several scales, including talking about archaeological resources in and around the park; consulting with the local community and descendant groups to shape the research questions; professional excavations where the public can observe from a safe distance; to participatory educational opportunities (field schools if done in conjunction with a university or volunteer field opportunities) where people can learn, hands-on, the processes and methods of archaeological excavation, artifact processing, and analysis. The objectives of any public archaeological program are to engage the public; to show people how we learn about the past; to teach (through instruction and by example) good archaeological technique and the critical importance of context; and to foster stewardship and advocacy.

Many field school opportunities are geared towards undergraduate university or community college students who require field experience as part of their education. Fieldwork opportunities can also be geared towards adolescents as summer “camp” experiences, and also towards adult community members as volunteer opportunities. All of these participants in a public archaeological field experience should come away with the knowledge to meet the objectives stated above. An added bonus, aside from stewardship is that many of the participants may go on to pursue careers in the NPS or in archaeology. Those that do not, however, can still be powerful advocates for the park and for archaeological resources in the community through financial and political support, peer education about collecting and the importance of context, in classrooms (as teachers), and monitoring sites for damage. It would be particularly useful to invite park partners and local teachers to take part in an archaeological open house or hands-on experience.

Where the NPS or the Advisory Committee are unable to provide their own public archaeological programming, we encourage them to continue working closely with those doing archaeology in the area, like the students from Michigan Tech. Park support for public archaeology done, for example, at Cliff Mine, can include temporary signage and information sheets (both on-site and in the Visitor’s Center), training of seasonal interpreters about the nature and importance of the excavations, and perhaps stationing a park interpreter at the site during open house days.

Resources:

- Some definitions of public archaeology from the Society for American Archaeology:
http://www.saa.org/publicftp/public/forArchaeologists/outreach_PAis.html

CONFERENCES/SPEAKER SERIES

Bringing experts in is a means for NPS employees, partners, and the general public to learn about recent research in the Keweenaw and from elsewhere. Themes of the talks or conferences should relate somehow to the resources here, including copper mining and use, industry, ethnicity, and the Park Service. There are at least two ways that the NPS and the Advisory Committee can approach this: bring in their own speakers and/or invite groups such as the Michigan Archaeological Society, the Midwest Archaeological Conference, and the Society for Industrial Archaeology to hold their conferences in the region. By welcoming the public to these meetings, additional opportunities for public outreach are created. Conference support can range from conference sponsorship, use of NPS or partner facilities for a portion of the meetings, and leading pre-conference workshops or field trips through the historic copper resources of the region. This is an opportunity to introduce people who may have been unfamiliar with the historic and heritage resources in the area to Copper Country.

Resources:

- Michigan Archaeological Society:
<http://www.miarch.org/>
- Midwest Archaeological Conference:
<http://www.midwestarchaeology.org/home>
- Society for Industrial Archaeology:
<http://www.sia-web.org/>
- Society for Historical Archaeology:
<http://www.sha.org>

Archaeological Visualization

Visualization is a powerful approach to expanding our understanding of the past. Much of what remains of the past is a mere remnant of what it once was and often it is buried below the surface of the ground. Because of this, a “virtual” visit may be the best way to encounter a site and to most effectively make a connection with the events that occurred there.

While the following projects, listed under resources, required a fair amount of funding to complete, they are great examples of how archaeological visualization can be used in interpretation, education, and preservation. Keweenaw NHP has a number of historical components (for example, the miner’s strike) that would lend well to this type of interpretation.

Resources:

- Battle of Prairie Grove:
Project website: <http://pg.cast.uark.edu/>
Project description: <http://tinyurl.com/lvj499v>
- Digital Pompeii:
Project website: <http://pompeii.uark.edu/>
- Article in Research Frontiers:
<http://researchfrontiers.uark.edu/15683.php>

- Short informational video on the project:
<http://researchfrontiers.uark.edu/15697.php>
- 3D Nodena Village:
http://hampson.cast.uark.edu/nodena_3D.htm
- Rohwer Japanese Internment Camp:
This project is not yet complete, but an informational webpage can be accessed at the following address: <http://tinyurl.com/myp2c2s>.

Conclusion

This document presents several different approaches for increasing understanding of, and appreciation for, nationally significant archaeological resources at Isle Royale NP and Keweenaw NHP in the Keweenaw Peninsula. Targeted at both youth and adult audiences, these strategies recognize restrictions of budget, personnel, and resources, while also taking advantage of the unique relationships the parks enjoy with regional heritage partners. Some strategies require collaboration and implementation over a longer timescale, while others require relatively few resources and can be readily implemented. The hope is that future efforts will benefit from the sensitivity to scale, existing relationships, and multi-tiered approach presented by this project.