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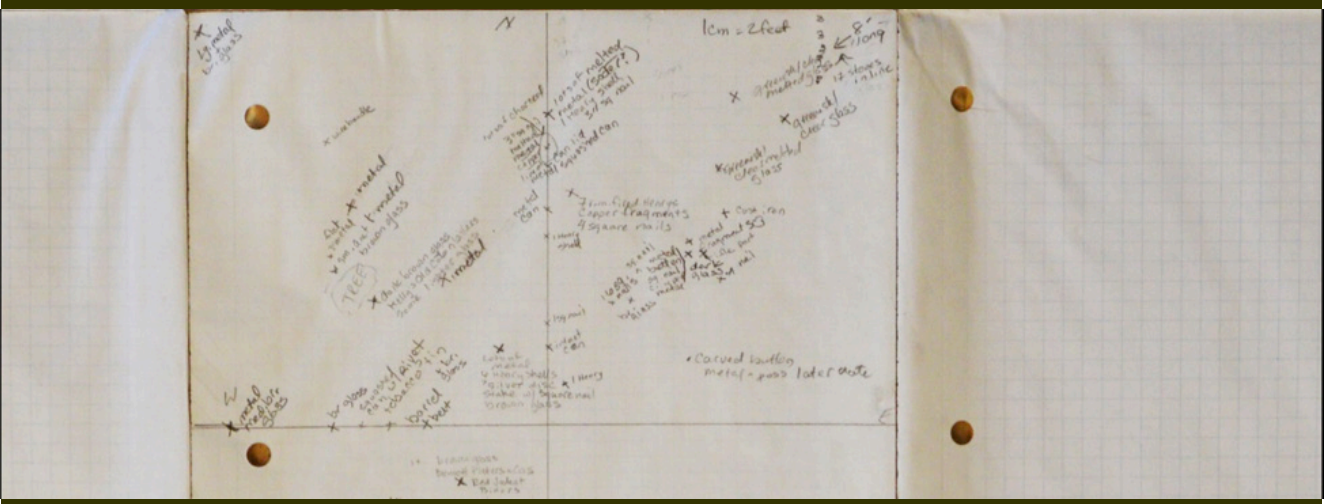

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# Integrating Research, Outreach, and Education at the Gipson Site

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## Abstract

*In the fall of 2015, the Office of the Wyoming State Archaeologist (OWSA) conducted archaeological investigations at the Gipson site, a historic campsite located in the Laramie Mountains of Wyoming. This project was undertaken at the request of the property owners and successfully synthesized research, outreach, and education. During the field session, twelve students and volunteers ranging in age from 10 to 60 years conducted survey, metal detecting, and test excavations. Data collected from this work can give clarity to the nature of the 19th century occupation and will add to the understanding of railroad building activities in the West. However, the benefits of this project extend beyond the informational value the collected data provide. Through the integration of students from the University of Wyoming and local volunteers, including the property owners, the Gipson site investigations proved to be a successful public outreach and archaeological educational tool. This paper will provide background on the project and discuss the challenges and benefits of incorporating outreach and education into a standard research project.*

## Keywords

*Historic Archaeology, Archaeological Education, Public Outreach*

## Introduction

Archaeologists are commonly asked to wear many hats. Our responsibilities can include conducting research via field investigations or laboratory analyses; working with multiple parties including private firms, government agencies, avocational groups, and descendant communities; teaching classes at the secondary and post-secondary levels; and so much more. In conducting this range of activities, professional archaeologists invariably encounter individuals with different archaeological interests, attitudes, aptitudes, and knowledge bases. Often our goals are multifaceted and dependent on the circumstances at hand. We may seek to educate on what archaeology is and why it is important. We may have to navigate the differing interests and agendas of a broad range of parties to see a project to completion. We may attempt to involve members of the public in all phases of our work from the identification of a resource to the interpretation of the collected data, or we may simply seek opportunities to share the results of our work with a larger audience. These are but a few of the tasks and responsibilities we shoulder as archaeologists, and they are by no means mutually exclusive; there is often overlap in our goals and motivations. Regardless of the form that our activities take, many in the field hold to the belief that it is our responsibility to share the results of our research and to involve interested individuals or parties in our work as often as we can (Hoffman 1997: 73; Jameson Jr. 2003: 154; Jameson Jr. 2004: 21-22; McGimsey 1972: 5-7; McManamon 2000: 5-6; Merriman 2004: 3-5; SAA 1996; Stone 2015: 15).

The Office of the Wyoming State Archaeologist (OWSA) is well aware of the complexities of conducting archaeological investigations and interpretation in the public eye, and we have adopted three basic tenets to guide the work we do (OWSA 2017; Pierce 2017a). These tenets include a dedication to outreach, research, and education. Outreach connects this office and our work to individuals across Wyoming, and beyond, who would like to be involved in the identification, investigation, interpretation, and preservation of our archaeological resources. Research allows OWSA to explore the archaeological resources in Wyoming and to use the data from these investigations to add to the understanding

of historic and prehistoric activities in the region. Educational programs and activities are an important conduit through which we inform the public about the nature of our rich archaeological heritage, how archaeology informs us about the past, and present issues relating to the preservation of these valuable resources. We look to integrate these three foci into as much of what we do as possible. We truly believe that these three topics are not mutually exclusive and when appropriate can be brought together for the benefit of OWSA, the resource, and the public.

Recently, OWSA engaged in a project which successfully integrated public outreach, academic research, and archaeological education. In the fall of 2015, we took 12 students and volunteers ranging in age from 10 to 60 years into the field to conduct archaeological investigations at the Gipson site, 48AB2383, at the request of a local property owner. Investigations at this historic camp consisted of survey, metal detecting, and test excavations. This was the first systematic investigation of the site and the results have helped clarify the nature of the 19$^{th}$ century occupation and will add to the understanding of railroad building activities in the West.

## The Gipson Site

The Gipson site is located in the Laramie Mountains southwest of Tie Siding, Wyoming and approximately 30 minutes south of Laramie, Wyoming (Figure 1). The site sits atop a small hill overlooking the Laramie Valley to the northwest (Figure 2). The property did not pass into private ownership until 1997 and remained undeveloped until 2009, when Eleanor and Andy Gipson purchased the lot and constructed a cabin on the premises. In investigating their new property and selecting the future location of their cabin, a scatter of historic material on a nearby hilltop was discovered.

Eleanor Gipson contacted staff with the Anthropology Department at the University of Wyoming (UW), the Wyoming State Historic Preservation Office (SHPO), and the Office of the Wyoming State Archaeologist (OWSA). Collectively, individuals from these offices worked with Eleanor to complete and submit

a site form to the Wyoming SHPO (Gipson 2012). The Gipsons wanted to investigate the site further but, unfortunately, UW, SHPO, and OWSA staff were already committed to other projects at the time and were unable to assist in field investigations. However, individuals from these agencies were able to help develop a collection methodology for the site which the Gipsons could operationalize themselves (Eleanor Gipson personal communication 2015; Mark Miller personal communication 2015). Using this methodology, a datum was established near the center of the site and the locations of visible artifacts were recorded in relation to this datum using compass direction and distance. This work resulted in a sitemap documenting the spatial distribution of the visible surface artifacts (Figure 3). An analysis of diagnostic artifacts including firearm hardware, ammunition, and bottle fragments revealed that the site dates to the late 1860s. This date range and the geographic location of the site suggest that the Gipson site is likely related to surveying or hunting activities associated with the construction of the Union Pacific Railroad in the Laramie Valley.

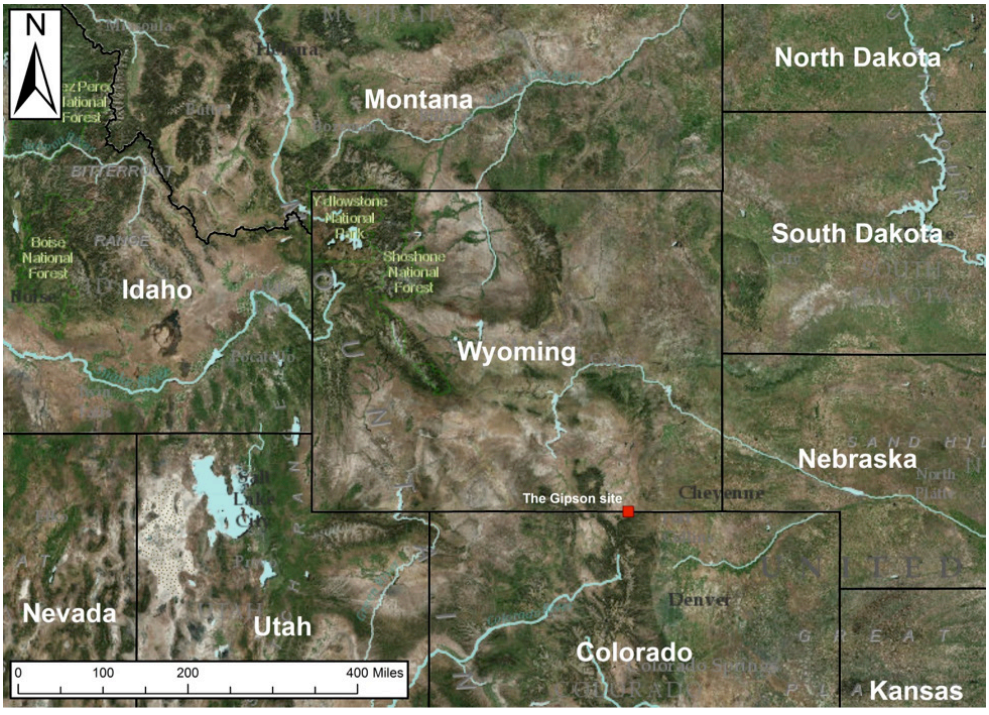


Figure 1. Location of the Gipson site (Esri et al. 2016).

Figure 2. Site overview facing north.

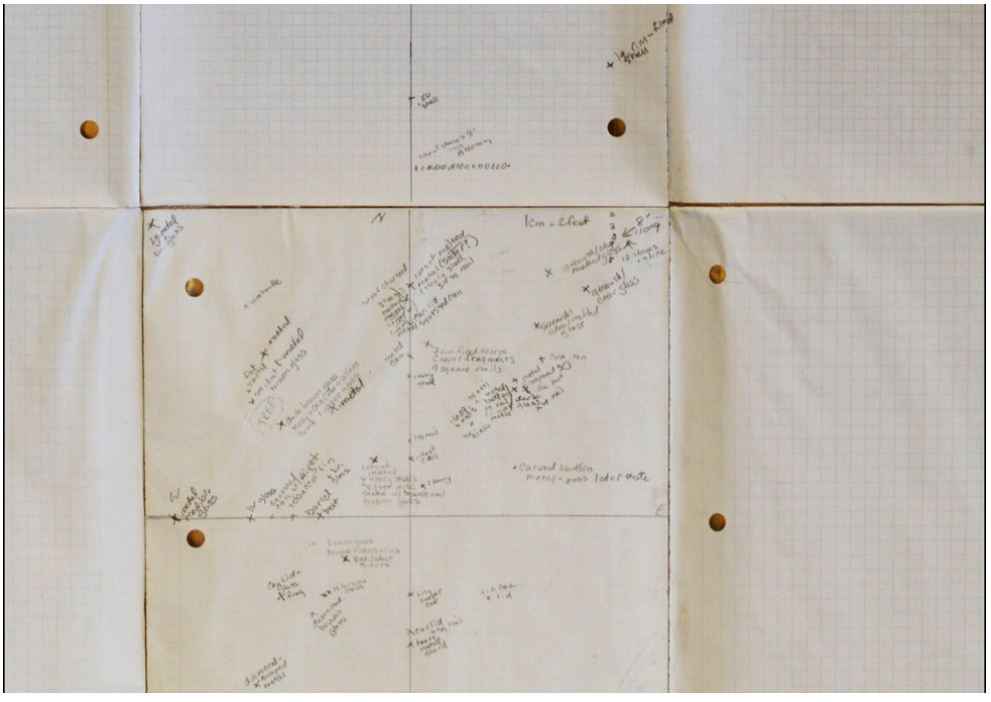

Figure 3. Original site map created by Eleanor Gipson.

Mrs. Gipson's initial recordation of the site helped to provide a basic site boundary, inventory, and site history. However, Eleanor was intent on doing more with the Gipson site and approached OWSA about conducting more intensive investigations. The proximity of the site to Laramie allowed for easy day trips to conduct fieldwork, and the relatively small size and shallow depths of the sediment were ideal for brief, focused investigations featuring avocationalists and students with little field training. As such, the decision was made to integrate field investigations at the site into the curriculum of a fall Public Archaeology course taught by the author at the University of Wyoming.

## The Class

Anthropology 4190/5190, Public Archaeology, is a regular course listing in the department of Anthropology at the University of Wyoming. The purpose of the class is to introduce students to a wide range of topics related to conducting archaeology with the public in mind (Pierce 2017b). Students are asked to tackle issues faced by archaeologists when working with and presenting information to the public. The course format includes discussing selected readings in class and participating in public archaeology events and projects outside of class.

Course topics include a general introduction to the relevant cultural resource management laws and discussions focusing on what is, and what is not, public archaeology, archaeological ethics, issues relating to curation, our responsibilities and obligations regarding stewardship of the archaeological record, looting, vandalism, the illegal antiquities trade, working with collectors, the involvement of descendant communities in archaeological investigations, archaeology and the media, and the benefits, difficulties, and logistics of archaeological education. Students are asked to thoughtfully and respectfully debate each topic with the goal of realizing that these are complex issues with various stakeholders having differing opinions and that in some cases there is no "correct" answer.

The class also seeks to illustrate how public archaeology works in practice. Over the course of the semester, students are asked

to participate in public archaeology events, such as the annual Wyoming Archaeology Fair, and in field investigations conducted with local property owners. During these activities, participants work alongside professional archaeologists and interact with members of the public. In this capacity, they work as both teacher and student. Students gain information from the professional archaeologists, while they act as "experts" presenting and discussing archaeological topics with members of the interested public.

The lessons learned from in and out of class activities are then put into practice as each student is asked to generate educational materials that can be used by K-12 teachers and a second outreach document which can be used to present an archaeological topic to the public in a fun and informative manner. The format and subject matter of the outreach and educational material is open to each individual's choosing to allow for maximum engagement with each project. Every discussion and activity is designed to help the class develop a greater appreciation for the number of individuals other than archaeologists who are involved in archaeological investigations, to model productive methods of interacting with these various stakeholders, and to have each individual begin to grapple with the complexities of many of the issues faced by professional archaeologists on a regular basis.

The 2015 Anthropology 4190/5190 class had five graduate students enrolled in the MA or PhD programs in the Anthropology Department at UW, three anthropology undergraduates, and one history undergraduate. The students' archaeological knowledge base in the field, lab, and classroom was diverse for this course. This diversity presented unique opportunities and challenges in developing a field and classroom experience which successfully integrated this range of interests, perspectives, and skill levels.

## The Project

As part of the Fall 2015 Public Archaeology course, everyone enrolled was required to participate in a weekend field excursion to the Gipson site. The purposes of the visit were threefold; to develop relationships with the local property owners in the area, to investigate the nature of the occupation at the Gipson site, and

to introduce the class to the process of conducting archaeological investigations alongside avocationalists and property owners. The field crew consisted of the author, the Gipsons, and twelve students and volunteers (Figure 4). Experience for the crew ranged from graduate students with significant field time on academic and cultural resource management projects to those who had never been in the field. Three volunteers also participated, including two grade school aged children.

Figure 4. The 2015 Gipson site field crew.

Prior to the session, time was dedicated to instructing the class on how to prepare for the field. This included developing a project design and implementation strategy, identifying the necessary materials and equipment for the project, and generating field forms appropriate for the approved research design. These are skillsets which, undoubtedly, some in the class had already begun to develop. This allowed more advanced students to help mentor those with less experience.

The project design defined three major objectives; to identify the extent of the site, complete an inventory of visible archaeological resources, and test for subsurface deposits should time and circumstances allow. The Gipson site is a small site, approximately 250 square meters. This limited area, combined with the large number of participants in the investigation, was conducive to allowing for the completion of all the project goals in the limited amount of time allotted for testing.

The project began with a surface survey of the entire site. The crew walked the site in linear north/south transects flagging any artifacts they saw. When an artifact was identified the survey was halted and a closer inspection of the area surrounding the find was done. With the survey completed, the field crew was broken into three smaller groups, with students with more developed skillsets directing the work of each. Group A collected flagged artifacts. Each item was photographed, and attribute and locational data was recorded. After the artifacts were collected, bagged, and recorded, Group A identified, photographed, and recorded attribute and locational data for all the cut trees onsite. Groups B and C conducted a metal detecting survey. The north/south metal detecting transects were 1 meter in width and covered the entirety of the site. Metal detecting hits were flagged and locational data was recorded. After the completion of the metal detecting survey, flagged locations were trowel excavated and screened through ¼ inch screen. Artifacts recovered in the metal detector hits were collected and bagged with attribute and locational data recorded. Each hit was backfilled after it was cleared.

Pedestrian and metal detecting surveys were completed relatively quickly, so the decision was made to excavate two test units and map a surface rock alignment. Group A used a handheld GPS, compass, and tape to record the location, orientation, and dimensions of each rock in the alignment. Overview photographs were also taken of the feature. Groups B and C laid out 1x1 meter test units, set the datum, and excavated in 10 cm levels. As deposits onsite were shallow, usually less than 30 cm, each crew was able to reach bedrock in two to three levels. Unit sediments were screened through ¼ inch screen. Artifacts recovered from each unit were collected and bagged with attribute and locational data recorded.

A number of local property owners stopped by to visit the site and talk about the work being conducted. These site visits provided students the opportunity to interact with members of the public during an ongoing field project. Students showed visitors around the site, talked with them about the history of the area, and explained the work they were doing. This experience was invaluable to visitors as well as students. Visitors were able to experience active fieldwork and talk with archaeologists about the process and the site, and members of the class were able to engage with interested members of the public and serve as "experts" discussing and explaining archaeology.

By the end of the session all of the objectives put forth in the project design were completed. Thirty positive metal detector hits and twelve cut trees were recorded, one rock alignment was mapped, two test units were excavated, and over 200 artifacts were collected. Artifacts included metal and glass fragments, shell casings, various nails and fasteners, horse tack, buttons, and buckles. Artifact types represent several functional categories including tack items, building items, clothing accessories, and artifacts associated with hunting and/or personal protection. All artifacts were taken to the University of Wyoming Department of Anthropology for analysis. When analysis is completed, they will be returned to the property owners.

This field project was a success on many different levels. It brought together outreach, research, and educational components. The synthesis of these three areas proved beneficial to the students, to the Gipsons and the interested property owners in the vicinity, OWSA, and the archaeological record. Furthermore, these successes came without sacrificing a commitment to quality research, fieldwork, and laboratory analysis.

The work at the Gipson site integrated active research aimed at improving the understanding of activities associated with railroad building in the Laramie Valley during the end of the 19$^{th}$ century. Some research has been conducted on railroad construction activities in Wyoming, however this work has often focused on nearby regions or later temporal periods (Branton et al. 2013; Laurent 1987; Mckee 1989; Rosenberg 1999; Wood 1989). A complete analysis of support activities for the construction of the

Union Pacific line through the Laramie Valley has yet to be fully realized.

In Southeastern Wyoming, railroad construction activity began in 1865, when Grenville M. Dodge, Chief Engineer of the Union Pacific Railroad, surveyed the Laramie Mountains while searching for a usable route through the region (Thybony et al. 1986: 43). By the mid to late 1860s, timber resources in the Laramie Range began to be extracted for use as rail ties for railroad construction activities further east in Nebraska (Thybony et al, 1986: 59; Wood 1989: 16). Rail construction reached eastern Wyoming by 1867 (Wood 1989: 13). Lodgepole pines in the Laramie Mountains adjacent to the railroad right of way continued to be exploited to create railroad ties for local use (Rosenberg 1999: 7; Wood 1989: 3). By 1869 the Transcontinental Railroad was completed. However, timber resources in southeastern Wyoming continued to be harvested well into the early 20th century for use as replacement ties for the now functioning Union Pacific line, for other rail lines through the region, for mine props, as cordwood, and for building construction in Laramie City (Thybony et al. 1986: 60; Wood 1989: 17-19).

Research and analysis of railroad construction activities, including work on tie hack camps, was reportive as primarily descriptive in 1989 (McKee 1989: 16). Little has changed in the last three decades regarding this work. Limited scholarship has been conducted regarding railroad construction activities in Wyoming during the 19th century, and many of the "future" research questions mentioned by McKee (1989: 17) regarding camp demographics, social organization, diet, and season of occupation have not been addressed. The Gipson site provides a unique opportunity from which to begin these forms of investigation as this location has seen little disturbance and no visible looting. When analysis of the data collected during the 2015 field session is complete, it will not only help us further refine the dating brackets of the site but also allow researchers to gain insight into the variety of activities conducted onsite during the 1860s and 1870s.

While research was an important component of the project, it was certainly not the only goal. OWSA firmly believes that public outreach and education can, and should, be integrated into as many research projects as possible. At the Gipson site, the public

outreach component figured prominently into the project design. A primary motivator for conducting this fieldwork was to strengthen relationships between local property owners in the area and the archaeological community. Many individuals, while generally interested in the past, are not aware of what archaeologists do and how individual actions can influence the archaeological record. When contacted by a member of the public it is an opportunity to engage in a dialog about a range of issues relating to our archaeological resources.

In taking the opportunity to speak with interested members of the public and local property owners, archaeologists have the ability to develop relationships with these individuals. Building on this dialog, it is often beneficial to integrate the public in the identification, investigation, interpretation, and preservation of archaeological resources (Hoffman 1997: 73; ICOMOS 1990; King 2012: 9; Little 2012: 399-402; Masse and Gregonis 1996: 381; McManamon 2000: 5-6; Perring 2015: 167; Pitblado 2014: 391, 395; Stone 2015: 17-18; Wertime 1995: 72). In fact, the Society for American Archaeology Principles of Archaeological Ethics states that "archaeologists should reach out to, and participate in cooperative efforts with others interested in the archaeological record with the aim of improving preservation, protection, and interpretation of the record" (SAA 1996). To this end, bringing members of the public into the archaeological process not only educates them as to how archaeology is done, how archaeology informs us about the past, and issues relating to the preservation of these resources, but it connects them to the process and makes them better stewards of these resources as well. This project involved two local property owners in active investigations and showcased the archaeological process to other individuals from the area. The net result of this work was that a number of interested members of the public were able to interact with professional archaeologists in a positive, and hopefully educational, manner.

Education was also a major component of the work at the Gipson site. Recent scholarship has found that archaeological education works to increase participants' awareness of archaeological resources; helps individuals to understand what archaeology is, what archaeologists do, and how material remains are used to interpret the past; and instills in students an awareness and appreciation of our

shared cultural heritage (Jameson Jr. 2003: 154-155; Moreno Torres and Márquez-Grant 2011: 29-30; Mulloy 2014; Smardz 2000: 235; Stone 2015: 25-27; Sutherland 2011: 56). Archaeological education has also proven useful in developing students' critical thinking and cooperative learning skills as well as fostering participants' ability to think holistically, weigh the value of different datasets, and apply the scientific method; all while working towards instilling an appreciation for other cultures and human variation (Esterhuysen and Lane 2013: 240; Levstik et al. 2003; Moe 1993: 2; Mulloy 2014; Price et al. 2001; Prothro 2012: 4-5).

This project was primarily focused on increasing participants', students', and site visitors' awareness of archaeological resources, understanding of the process of archaeology, and appreciation for Wyoming's cultural heritage. Still, components of this project required the use of critical thinking and cooperative learning skills as well as the application of the scientific method. Not only was it beneficial for students to participate in a research project from planning to field implementation, but this was an excellent project to introduce the class to the process of doing public archaeology. Significant course time was dedicated to the discussion of issues related to, and the practice of, conducting archaeology alongside the public. However, there is no substitute for experiential learning. It is one of the most effective means of transmitting knowledge and was actively incorporated into the teaching methods of Anthropology 4190/5190 as often as possible. Students led discussions, generated educational and outreach materials, participated in outreach events, and at the Gipson site conducted archaeological investigations alongside volunteers and property owners.

The experience at the Gipson site allowed participants to fill the roles of student and instructor while in the field, transmitting archaeological information and knowledge while simultaneously learning through practice. As mentioned above, the range of the class's experience and knowledge pertaining to conducting archaeological field work was challenging. The project design had to allow for this variation in background. Fortunately, many of the aspects of the investigations did not require extensive field knowledge, allowing for participation by those with less developed skillsets. Additionally, several individuals in the class were well versed in standard archaeological methods and

techniques. Advanced students were asked to take the lead on project components including survey, recordation, and excavation. In this capacity they acted as teachers, instructing those less advanced on proper field techniques. For many, acting as mentors and supervisors was also a learning experience. Less advanced students learned proper techniques and were shown how to work cooperatively with a diverse crew. All participants were afforded the opportunity, through the arrival of local property owners, to act as archaeological "experts" transmitting information on the work, the site, and archaeology in general to our visitors. Likewise, all participants gained valuable insight into incorporating individuals with a range of backgrounds, interests, and skill levels into a successful project. The flexibility of the project design and the range of participant skill levels ultimately led to the success of the Gipson site project, as all involved benefitted from the opportunity to learn through direct instruction, experiential learning, and in some cases acting as instructors.

As it can be seen, the work at the Gipson site brought together a number of issues of interest and concern for archaeologists in a successful synthesis of outreach, research, and education. This project collected data which, when analyzed, will add to our understanding of ancillary activities associated with transcontinental railroad building in Wyoming during the 1860s and 1870s. Incorporated into this work were public outreach and student education. Local property owners and members of the public participated in the investigations and visited the site while work was ongoing. Students from UW contributed to the research design and conducted the fieldwork alongside volunteers from the area. The incorporation of these three elements proved beneficial to all involved including the students, the property owners, and the archaeological resource.

## The Future

While there are certainly logistical challenges to implementing this type of field program, in the appropriate circumstances the benefits combining outreach, research, and education can be significant. There are multiple benefits to be had from the integration

of the wider public in the practice of doing archaeology, not only for the archaeological record and the project itself but also for those that participate. The most direct benefits, archaeologically, are the time donated by public volunteers and the work done by these individuals as well as the development of more holistic site interpretations based on feedback from a range of partners. However, the long term benefits of the inclusion of members of the interested public in the archaeological process are often far greater. These benefits include increases in support from the general public for the protection and stewardship of cultural resources and activism and advocacy for the archaeological record as well as a greater understanding by participants in what archaeology is, what archaeologists do, and how we use the archaeological record to interpret the past (Bartoy 2012: 557; Hoffman 1997: 74; Lynott and Wylie 1995: 23; McManamon 2000: 6-7; Sutherland 2011: 56). Participants in archaeological programs often find the activity personally satisfying, as this work generally connects with their individual interests (Heath 1997: 70; Turnbaugh et al. 1983: 24-25). Additionally, the participation in the practice of archaeology serves to help connect local communities and individuals to their cultural heritage (Jameson Jr. 2004: 161; Moreno Torres and Márquez-Grant 2011: 29; Smardz 2000: 235; Stone 2015: 26-27).

There are, however, genuine concerns which have been raised about the integration of members of the general public into active archaeological investigations. These concerns contend that outreach efforts may endanger the archaeological resource in allowing untrained individuals to record, collect, or excavate archaeological material or sites; that time and money is wasted on these activities when it could be focused on research; and that participants may use the skills acquired in these programs to engage in collecting or looting (Smardz 2000: 234).

Many of these challenges can be overcome by having a well-designed project with clearly defined goals (Perring 2015: 176). This project design should develop a framework outlining what each participant is to learn, how that message is going to be conveyed, and what each individual should take away from the experience (Smardz 2000: 235, 240-241). Designing a project in this manner will make sure that funds are allocated in the most effective

manner and that participants clearly understand what is expected of them, why the work is being conducted, and how this helps interpret the past. This will not only ensure that participants feel like valuable contributors, but will help to educate them as to how the archaeological process works, how recovered material helps to interpret the past, and on the importance of the preservation and care of archaeological resources.

This is not to say that the integration of members of the public is appropriate in all circumstances. Some projects may have budgetary constraints or may focus on sensitive sites, both of which could limit public participation. Remote locations, difficult or dangerous terrain, and active construction activity also have the ability to preclude projects from including public participation. Finally, in some circumstances the project participants may not have the necessary skill set to conduct archaeological investigations with public participation. In these instances, involving the public could do more harm than good from a public education perspective (Smardz 2010: 241). Still, given the appropriate circumstances, with the proper staff, the inclusion of the public in active archaeological investigations can bring together research, outreach, and education for the benefit of all.

## Conclusion

As archaeologists we are often tasked with balancing a number of responsibilities in the work we do. Three of these responsibilities include our duty to conduct responsible research, our obligation to work and share our knowledge with members of the public, and in many cases our dedication to educating students, volunteers, and others about archaeology and our collective past. While it is certainly not feasible to integrate all three of these components in every project, they are not mutually exclusive concerns. At OWSA we attempt to integrate these three foci as often as is appropriate. The OWSA field investigations at the Gipson site successfully integrated academically grounded research, public outreach, and student education.

The Gipson project proved to be a resounding success. Quality data was collected during the field session and interested individuals

from the area as well as the owners of the property were successfully integrated into the investigation of the site through onsite tours and direct participation in fieldwork. Students also benefitted from the Gipson site work, gaining valuable insight into the actual process of conducting public outreach efforts through experiential learning. This project serves as an example of the positive achievements that can be attained through the incorporation of public outreach and education into research and fieldwork, and serves as a reminder that while balancing various professional responsibilities can be difficult, there are significant benefits to be gained when multiple goals can be addressed through a single project.

## Acknowledgments

This project would not have come to fruition if it were not for the dedication and perseverance of Eleanor and Andy Gipson. Their interest in the investigation and preservation of archaeological resources under their stewardship is something we as professionals should seek to foster in all individuals we work with.

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