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CARE AND FEEDING: AN EXPLORATION OF HOW ARCHAEOLOGY SITE  
STEWARDSHIP PROGRAM VOLUNTEERS AND MANAGERS  
DEFINE PRIORITIES

by

Britt McNamara

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of the requirements for the degree

of

MASTER OF SCIENCE

in

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(Archaeology)

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2013

## Care and Feeding: An Exploration of How Archaeology Site Stewardship Program Volunteers and Managers Define Priorities

Britt McNamara

*I think a lot of people join organizations to meet more people. That's what's been lacking down here. We don't have enough social events, getting together and hearing new ideas.*

–Chris, a site steward since 2003

State and federal agencies increasingly rely on site stewardship programs to protect archaeological resources, and site stewardship programs rely on volunteers to do this work. Given the importance of volunteers to site stewardship programs, especially in the wake of budget cuts and “sequesters,” this paper asks: how do managers and volunteers define site stewardship program priorities and how do differences in their opinions impact program success? In this paper, I briefly review the literature on site stewardship programs and volunteerism and present the results of my exploratory ethnographic research on this question. I close with a discussion about how differing volunteer and manager priorities affect volunteer retention and offer some thoughts on future directions for research.

The terms “volunteer” and “steward” are used interchangeably in this paper because both refer to a person who gives his or her time without remuneration to monitor archaeological sites in order to protect and preserve cultural resources and heritage. The term manager is used to describe agency archaeologists, heritage coordinators, and other staff members who oversee aspects of an archaeological site stewardship program. A site stewardship coordinator or a program coordinator is defined, for purposes of this paper, as a person who interacts directly with volunteers. Among the coordinator’s responsibilities are tasks such as keeping track of the program budget, organizing training, writing program status reports, and responding to volunteer questions and concerns.

Researching the ways in which different priorities impact volunteer satisfaction and subsequent program success or failure gives archaeologists and land managers more tools to address volunteer needs so that site stewardship programs can remain viable. Additionally, my research expands the literature on site stewardship programs to include a more volunteer-centric view of these programs. This is useful because volunteers are crucial to the operation of site stewardship programs and listening to their needs and concerns will improve volunteer motivation and retention.

## **BACKGROUND**

### **Site Stewardship Program Literature**

The first archaeological site stewardship programs were started in recognition that law enforcement was not deterring looting and vandalism of archaeological sites. Despite enacting ARPA (Archeological Resource Protection Act of 1979) and its accompanying regulations (43 CFR 7), archaeologists noticed an increase in looting throughout the 1980s. A study by the General Accounting Office in 1987, and one by a subcommittee of the Committee on Interior and Insular Affairs in the House of Representatives in 1988, estimated that in the Southwest alone, at least one-third of known sites, and more likely fifty to ninety percent of sites, were looted (King 1991). With the first wave of archaeological site stewardship programs came literature on how to develop successful programs.

Early articles on archaeological site stewardship programs discuss the utility of volunteers in archaeological site protection. Program managers like Hester Davis (1990, 1991) and Theresa Hoffman (1991, 1997) point to the many uses for volunteers in archaeological site

protection ranging from site stewardship and site interpretation to political advocacy for archaeology, and enumerate the logistics of running volunteer programs.

More recently, Sophia Kelly (2007) wrote a brief for the National Park Service entitled, “Developing and Implementing Archaeological Site Stewardship Programs.” For the brief, Kelly surveyed twelve site stewardship program coordinators on developing site stewardship programs. Based on the surveys, she identifies eight components necessary for successful site stewardship programs: leadership, a funding source, clear program goals, partnerships that work, careful recruitment of volunteers, program advertising, volunteer motivation and retention, and volunteer benefits and recognition. During her discussion of volunteers, Kelly highlights the importance of meeting volunteer needs to program success. She notes that volunteers are more likely to leave a site stewardship program if they feel underappreciated or overwhelmed by their tasks and recommends involving them in the planning and operation of a program, designing simple site monitoring sheets, and requiring stewards to visit their sites once a month. She also calls attention to the different ways site stewardship coordinators acknowledge volunteer contributions and differentiate between volunteers based on the number of hours they work with awards, pins, or patches.

Another recent article on archaeological site stewardship programs is by Padon and Padon (2012). These authors manage the California Archaeological Site Stewardship Program (CASSP) and wrote their article to identify changes to their site stewardship program since Kelly’s (2007) brief. The authors identify five main principles for successful site stewardship programs: attract good volunteers, maintain a consistent yet flexible structure, decentralize, limit program focus, and create a comfortable atmosphere for volunteers. Padon and Padon (2012) emphasize that successful programs must balance the needs of all of their clients: archaeology

sites, agency archaeologists, and volunteer site stewards. In practice, this means treating each party with respect and removing barriers to communication between the different parties.

In sum, the literature on archaeological site stewardship programs is focused on identifying the characteristics of program success. Volunteers are singled out along with tangible characteristics like funding, program goals, and a flexible structure as crucial to developing site stewardship programs. Building on the recognized importance of volunteers to archaeological site stewardship programs, my research is designed to collect data on what volunteers see as important to program success. I adopted this approach because the site stewardship program literature is predominately written from a program manager's perspective and I wanted to diversify the viewpoints represented. Understanding volunteers' perspectives on what makes site stewardship programs successful helps archaeologists and land managers understand their needs and leads to a program with long-term viability. Additionally, the literature on volunteerism from fields like psychology and natural resource management indicates that volunteer retention can be improved if program managers address an individual's motivations for participating in a program.

### **Volunteer Motivation Literature**

The current research on volunteer motivation in social psychology is based on Clary and colleagues' (1998: 1517-1519) Volunteer Function Inventory. The authors posit that people volunteer for the same programs for a variety of reasons. Taking into account functionalist theories, previous research on volunteerism, and the precept that people take action for specific – if not always explicitly identified – reasons, they identify six motivations people have for volunteering:

1. values: opportunity for person to express altruism and act on concerns for others;
2. understanding: opportunity for a person to develop and use skills and knowledge;
3. social: opportunity for a person to do something with friends or create a favorable impression with others;
4. career: opportunity for a person to prepare for a new position or maintain work-related skills;
5. protective: opportunity for a person to cope with guilt and inner conflict; and,
6. enhancement: opportunity for a person to build self-esteem and character.

In a set of six quantitative studies, Clary and colleagues tested whether the six motivations they identified for volunteerism reflect actual volunteer motivations. They found that the motivations they identified were significant to volunteers. Bruyere and Rappe (2007) use the Clary et al. (1998) framework to study the motivations of volunteers who participate in outdoor-based programs that perform tasks such as trail maintenance. The study collected data using a quantitative survey administered both by mail and on-site to people volunteering for conservation and land management organizations in Colorado. To account for any volunteer motivations they missed, the authors also included one open-ended question that asked volunteers the most important reason they volunteered for conservation or land management organizations. They found that outdoor-oriented volunteers are primarily motivated by a desire to help the environment and get outside, but also highly value social and learning opportunities.

The picture of volunteer motivation and retention has been further developed through the work of Hidalgo and Moreno (2009). These authors collected data using a questionnaire that program coordinators administered to their volunteers. The questionnaire asked volunteers to rank items as important and not important to their motivations for volunteering. Based on the

questionnaire, the authors identified management practices and social relationships as variables that explain a significant proportion of variation in volunteer retention rates. When volunteers see themselves as having a social network, organizational support, interesting tasks, and good training, they are more likely to continue volunteering. Additionally, Hidalgo and Moreno point out that volunteers' perceptions of an organization are more important than its actual structure. A related article by Moreno-Jimenez and Hidalgo-Villodres (2010) discusses factors that affect burnout rates in volunteers. The authors conclude that individuals who are motivated to volunteer for extrinsic reasons, like building work-related skills and meeting new people, have higher burnout rates than individuals motivated by intrinsic reasons such as personal values and a desire to learn. Finally, they note that volunteers are more likely to remain active in a program when they have lots of support from organizational staff and are integrated into a program to the degree that volunteering is part of their identity.

The literature on volunteer motivation and burnout discussed above suggests that in order for programs to retain volunteers, staff members must listen to and address volunteers' needs and build relationships with the volunteers. My research applies the literature on volunteer motivation and burnout from social psychology to site stewardship programs by comparing what site stewardship volunteers say about the programs with how managers conceptualize these programs, and examines how the differences in opinions impact program success.

## **MATERIALS AND METHODS**

In order to study program priorities of volunteers and managers, I used the ethnographic methods of participant-observation and in-depth interviews to collect qualitative data about volunteer needs/priorities. The nature of my research questions drove my choice to collect



qualitative data – data focused on depth and individual responses – and to use an inductive approach – using research questions generated from the data. My comparative exploration of how site stewardship program managers and volunteers define and conceive of program priorities required data with more depth than breadth to access the nuances in the opinions of individual participants.

The participant-observation portion of my research took place during the spring and fall of 2012. While working as an education intern in Utah, I developed friendships with three site stewardship program managers, met a number of site stewards, and attended the site stewardship training offered that year. The relationships I built and the experiences I had as an education intern are the foundation for the informal interview section of my project. I conducted in person, in-depth, informal interviews between January and April 2013. Interviews lasted from forty-five minutes to three hours. They were recorded and transcribed. In total, I spoke with people from two site stewardship programs: five managers and eight volunteers.

My sample was small due to the research focus on in-depth interviews and qualitative data analysis. However, the volunteers included in my study are representative of the demographics of site stewardship program volunteers in the state. Utah program managers I worked with related that over 80% of the 70 stewards trained since 2006 are over 60 years of age. No steward trainees were in their 20s. These observations parallel my own experiences at a site stewardship training session. Out of the 40 people receiving training, I was the only person in the 20-30 age range. There were about five people in their 40's, and the rest of the stewards at the training were 60 or older.

The research design of this project called for an examination of formal and informal organizational components of site stewardship programs to address the question: how does the

interaction between formal organization and individual behavior influence a program's success or failure? Managers and stewards were asked questions that addressed the same topics: the structure of the program; their role in the organization; how they got involved; how successful they think the program is; what the problems with the program are; and what they think the future of the program will be. However, I quickly discovered during the interviews that my original research question had no relevance to my participants. As I listened to my participants, I found that the informal organizational characteristics I was interested in, such as daily routines and what people say about the program, were not relevant to my participants, and the formal organizational characteristics like program hierarchy were a secondary concern to them. Instead, what emerged from the interviews were differences between managers and volunteers in perceptions of program needs/priorities. Because my research question failed to elicit meaningful information, I reconfigured my research program to reflect the concerns of my participants. This flexibility is one of the strengths of qualitative research. For the sake of continuity, I continued asking later participants questions on the same topics as earlier ones. However, I changed the research question and the criteria by which I evaluated the responses.

I coded and analyzed the interview transcripts using the qualitative data analysis (QDA) software program Dedoose. To code, I identified common themes in the interviews, such as characteristics of program success and things volunteers enjoy. Once I had identified and grouped the common themes, I analyzed them by looking for: 1) patterns in theme co-occurrence; 2) which group of people themes were associated with; and 3) which words/concepts people used when discussing different themes. Dedoose facilitates coding and analyzing by enabling the researcher to view and compare interview excerpts with quantitative data and based

on the codes associated with each excerpt. Additionally, it graphically illustrates the relationships between different codes.

## **Programs**

The first program, started in 2001, is run through a partnership between a state park and a Bureau of Land Management field office. The park director and one of the BLM archaeologists supervise a paid, part-time program coordinator. The program has thirty-eight volunteers who monitor fifty sites. It recruits through word of mouth. The program has a budget of approximately \$5,000 from grants. Part of this pays the program coordinator's salary and the rest is used to pay for the yearly training weekend. All stewards are expected to attend the yearly training, which consists of a workshop on an archaeological topic, a review of monitoring policies and procedures, and a field trip. Program funding pays for training materials, including a handbook and monitoring forms, lunch, dinner, snacks, and t-shirts for the volunteers. It is the one opportunity that stewards have to interact with all of the other stewards in the program. Office space and supplies are provided by the state park.

The second site stewardship program started in 2003 and was originally supervised by the Division of State History. However, due to budget cuts, it moved to the Division of State Parks in 2011. During the time the program was housed in State History, the assistant state archaeologist and an archaeology assistant ran the program as part of their overall duties. The program has about eight volunteers who monitor two sites. Stewards visit the sites once a month on a rotating schedule, where a different pair of volunteers goes out each month. This site stewardship program started with a budget of approximately \$2,000 from grants and private donors. The funding was used to create training materials and to reimburse stewards' gas

expenses out to the sites. However, under the Division of State Parks, the program now has only enough grant money to pay the program coordinator for gas expenses. The site stewardship program recruits volunteers through the Utah Statewide Archaeological Society (USAS). Most social events for the stewards are held as part of larger USAS events. Also, stewards typically see each other at the monthly USAS chapter meetings.

Stewards working for either of the programs have similar duties. When a steward approaches a site, the first thing he or she does is study the path to the site looking for footprints, wheel marks, or other disturbances in the soil, such as erosion. These disturbances indicate how heavily the site was visited. Next, the steward enters the site noting if there has been any changes in the site's condition since the last visit. To do this, the steward compares pictures from previous site visits with the site as it is when they are there. Stewards look for graffiti, bullet holes, other types of vandalism, erosion, animal burrows, collector's piles, holes from looting, and any thing else that looks out of place. If the condition of the site has changed, the steward takes pictures of the differences and fills out a form to report the changes. If the site's condition is the same, the steward fills out a form that reports when he visited the site and what he did while there. Other duties stewards have while visiting a site include picking up trash and explaining the site and site stewardship program to any visitors they encounter there.

Differences in a steward's duties between the two programs stem from the different kinds of sites stewards monitor. For instance, the stewards volunteering for the second program share two cave sites that are gated. Therefore, one of their duties is checking that the gate is still locked and has not been bent or dug under. The stewards volunteering for the first program, on the other hand, are each assigned different sites, which tend to be rock art sites or pueblos. Differences in site types also translate to different paperwork. While both programs solicit the same kind of

information, the forms reflect the changes in condition that occur most frequently at a specific kind of site.

## Participants

The two male and three female program managers with whom I spoke ranged in age from mid-forties to early sixties. I met with all managers at their places of employment. All participants are referred to by a pseudonym. The first manager, Bob, got involved with site stewardship programs in 2001 when he was the assistant state archaeologist. He estimates that he initially spent about five percent of his time carrying out site stewardship duties. The rest of his time was devoted to a wide array of duties ranging from checking archaeological programs for legal compliance to managing the lab and public education programs. He currently volunteers as a site stewardship program coordinator, in addition to working full time as a professional archaeologist for a contract company. The second manager, John, got involved in site stewardship programs in Arizona in the early 1990's. He currently works as a BLM archaeologist. Like Bob, he is only able to devote a small amount of time to site stewardship program duties. The rest of his time is devoted to reviewing archaeological project contracts, overseeing several other types of volunteer programs, and tribal consultation. Donna, a part-time site stewardship coordinator, is retired from her previous job. She has been a site stewardship program coordinator for three years. Donna works on average ten to twelve hours a week – more during the time she writes her yearly report and leading up to the site stewardship training. Eli, another female manager, works as the director of a museum. Eli first got involved with site

### Manager Profile

- \*Agency staff member who oversees aspects of a SSP
- \*Duties include: budgeting, site selection, volunteer training, and report writing
- \*Age 40s-50s
- \*Involved in SSP for 3-25 years

stewardship programs in Colorado and New Mexico in 1998 while doing feasibility studies. She estimates she currently spends twenty hours a month working on site stewardship related things. The final manager with whom I spoke is Katherine. She works as a heritage and outdoor education coordinator. She is currently doing the job of two people due to budget cuts and has little time to devote to site stewardship programs. Because Katherine strongly values the stewardship of the archaeological sites in her care, and has a limited amount of time to devote to them, she set-up an MOU that recognizes Bob as the official site stewardship coordinator. Katherine purposefully retained Bob as the stewardship coordinator when the site stewardship program moved from State History to State Parks because of his love of the caves, his background in archaeology and public outreach, and his rapport with the stewards and USAS.

I spoke with eight stewards – three couples and two individuals. Most are recently retired and have at least a bachelor’s degree. Three also have master’s degrees. Again, all participants are referred to by pseudonyms. The first couple I interviewed, Chris and Drew, started volunteering as stewards in 2003. Chris received a degree in Anthropology in 2005 and worked for the State Historic Preservation Office as an archaeology assistant. She has also worked in the anthropology laboratory at the Utah Museum of Natural History and as a laboratory manager and researcher for a couple of archaeological contracting companies. She first got interested in archaeology visiting Mesa Verde as a child and was encouraged to get her archaeology degree by the state and assistant state archaeologists. Her spouse Drew, a former dentist, also has been interested in archaeology since a childhood trip to Mesa Verde. Both

<p><b>Volunteer Profile</b></p> <ul style="list-style-type: none"><li>*Person who gives his/her time without pay to protect and preserve cultural resources and heritage</li><li>*Main duty is monitoring archaeology sites</li><li>*Retirement Age (60s-70s)</li><li>*Well educated</li><li>*Participated in site stewardship programs for 8-10 years</li></ul>
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pursued their interest in archaeology as active members of the Salt Lake City chapter of USAS, attending classes, lectures, and workshops and, in Drew's case, participating in research on Ancestral Puebloan diets using tartar on teeth. The second couple, Sarah and Peter, also started as stewards in 2003. Sarah recently retired from the State of Utah, where she worked as an archaeology assistant. Peter works as an environmental engineer and archaeologist. Sarah and Peter are good friends with Chris and Drew. The women met through work and the couples became friends through USAS. The third couple I interviewed, Mary and Michael, started as stewards with Chris, Drew, Sarah, and Peter in 2003 and have also been long time members of USAS. Mary got a degree in Anthropology about twenty years ago and recently retired from the water rights division. Her partner Michael is a retired forester and avid photographer. Mary has always been interested in archaeology and views Danger Cave as the pinnacle of archaeological sites. Michael was drawn into archaeology because of Mary's interest in it. He is intrigued by archaeology because it is a puzzle that can never be fully solved.

The two individual stewards I interviewed were Mac and Frank. Mac has been a site steward for the last eight years with his partner Sydney. He became a steward because he loved the landscape and culture of southern Utah. He wishes that he had learned about archaeology earlier so that he could have pursued a career in it. He has taken a number of classes and is certified as an archaeology technician. Frank is 87 years old and started as a steward in 2003 with the others. He retired from a position as a chemical engineer twenty-six years ago and took an eighteen-month archaeological training course sponsored by USAS that covered Great Basin prehistory, archaeological law, and fieldwork techniques. Frank has personally recorded between thirty and forty sites and helped record many more. Also, he has published several articles in *Utah Archaeology*. Frank is particularly interested in Paleoindians. He is also a long-time

member of USAS and has received a distinguished service award from the Utah Professional Archaeological Council (UPAC).

Most of the volunteers in my sample know each other well and come from similar backgrounds. During the interviews, they frequently referred to one another and the joint experiences they had. This likely plays a role in the strong patterning of my results.

## **RESULTS**

### **Volunteer Priorities**

Funding is the top priority among this group of stewards and lack of funding is the most common concern. Sarah and her husband Peter explained that site stewardship programs need funding, “for their [manager’s] time, putting the bars [at Danger and Jukebox Cave] up, putting signage up, and paying steward’s mileage.” Mac also commented on the need to pay a coordinator for his or her time, “Donna and Eli both are spending time working on the program that they are not getting compensated for. I don’t know exactly how many hours Donna is putting in, but it is a really limited part-time position and the effects of this program could be improved if the position was more full-time.” Mac notes that it takes Donna time to collate all the information from site monitoring forms, write status reports and plan the training and that the more site stewards there are, the longer it takes to perform all these tasks.

Due to recent budget cuts, some stewards are not sanguine about the future of site stewardship. Frank is particularly pessimistic. He remarked that he was disappointed in the legislature because it is only willing to fund programs that generate revenue for the state. He explained that “archaeology is part of education” and Utah is one of the worst at funding its



schools. He does not expect archaeology to flourish in the future. Sarah and Peter share his pessimism:

One legislator told [the Utah state archaeologist], ‘How many arrowheads do you need?’ That’s the attitude up there. I don’t understand it because if you watch the History Channel or NOVA specials, there is obviously a very big interest by the general public in this kind of stuff. But when it comes down to shelling out money, that has to be authorized by legislators.

Stewards also talked about how budget cuts affect participation in the programs. Peter is particularly worried about the impact of not getting reimbursed for mileage on recruitment: “Nowadays, the gasoline costs, that discourages a lot of people from participating.” Mac talks about how lack of funding limits program perks, “Because of funding, they cannot do a whole lot, but the stewards get the free Cedar Mesa passes. We get a discount at the museum. We get e-mails and notices of special events that are going on which otherwise, we would not even know about.” For Chris and Drew, lack of funding means fewer opportunities, “I was doing a couple of lectures up at the University of Utah and some Introduction to Archaeology classes. I also did some stuff with the College of Eastern Utah on site stabilization. Most of this we got to do because of USAS; because there were some grants. Then the money ran out.”

The second priority expressed by this group of stewards is having managers who care about the program and its volunteers. Mac remarked, “If you haven’t got your archaeologist and people that are administering the program, if they’re not truly interested in what is being done or interested in the people doing it, it’s just going to fail.” For Mac, an interested and caring advisor is one of the necessities for a successful program. Others have similar feelings. When I asked Sarah and Peter what they thought were the qualities that make a program successful, Sarah immediately answered, “I think it’s the advisor that is interested in the site [that] keep[s] them interested and going out. Because if you don’t have an advisor that cares, then there’s no

ownership.” Michael was unsatisfied with the kinds of interactions he had with program managers. He commented, “Site stewardship programs need to be two-way streets” and suggested that to keep volunteers interested, agencies need to give them feedback. He explained that the only reason Chris and Drew became stewards when they moved is because they pushed the agency to make them stewards when the agency did not have a formal program. Mary agreed and added that agencies should show that they are interested in what volunteers are doing and act on their reports. Some volunteers directly connected program viability with the rapport they had with their advisors. Chris remarked, “Well you know, part of it was just Bob. We loved him. He was our leader. He was great and we could call him up or walk into his office at any time and he was always willing to listen or talk.” Mac also commented positively on his advisor, “John is pro-volunteer and he is very accessible and very friendly and knowledgeable.”

A third priority related to volunteers’ desire to have involved advisors is their desire to interact with professional archaeologists. Site stewards want a professional archaeologist as a program coordinator, and quickly pointed out if their coordinator is not a professional archaeologist. For instance, when discussing what she would change about the program she was involved in, Chris commented, “I would like to have more involvement with [an] archaeologist because the woman in charge of the site stewardship program is not an archaeologist.” Mac echoed her sentiments, “Having a really interested, actively involved archaeologist...an archaeologist that actually had a little bit more time to spend with stewards and do...some of the program stuff, I think would be helpful.” However, Mac recognizes that it is a “luxury” to have professional archaeologists coordinate a site stewardship program and that most archaeologists employed by state and federal agencies are overworked.

Stewards' desire to interact with professional archaeologists also shapes the way they view the different archaeological associations in Utah. Chris commented, "I was more comfortable with the USAS group because it was associated with professional archaeologists and because I think they were so involved in education, where I don't think URARA [Utah Rock Art Research Association] is involved in education." Mary and Michael agreed. They pointed out that one can see the differences between USAS and URARA in the way members of each organization treat site locations. Michael said that members of URARA share site locations and post about them on the Internet, whereas USAS members keep the information to themselves or only share it with other USAS members they trust.

Some of the stewards' motivations for wanting to interact with professional archeologists emerged when I listened to their anecdotes of experiences with site monitoring and other archaeological tasks. Drew and his wife Chris reminisce about a time that they helped archaeologists from the Forest Service, Brigham Young University, the Utah School and Institutional Trust Lands Administration (SITLA), and Edge of the Cedars Museum assess the path of a road or pipeline in southeastern Utah: "It was so neat to be with people that are ... hardened archaeologists." Mac expressed a similar view and adds that it is about being part of a community:

The other part with the social get-togethers, especially because Mark, John, Jonathan, Von Haddenfelt and some of the other archaeologists down there come, is [that] it is a community event as well as a meal for the site stewards. You get to visit with these people who know the area. We are not professional archaeologists, but we are somewhat accepted into that community.

For Mary, interacting with professional archaeologists is related to how she first became interested in archaeology. She relates that David Madsen's work at Danger Cave inspired her to study archaeology and having the chance to meet him and eventually become friends with him

was thrilling. Mac brought up another reason why interacting with professional archaeologists is a priority: education. He enthusiastically recalls helping Sally Cole, a rock art expert, survey one of his monitoring sites:

We actually had the great privilege of helping Sally Cole survey the site. We've never surveyed a rock art site before, so Sydney and I basically told Sally while we were there, 'Just yell at us, tell us what you want us to do and we'll go do it.' It was an amazing amount of education while she was talking.

Drew also connects education with interacting with professional archaeologists. He described one seminar he attended on Ancestral Puebloan architecture that was led by archaeologists from Mesa Verde, Aztec Ruins, and Sunset Crater, and how he was able to use his knowledge of dentistry to understand their lectures on architectural terms. He says about the experience, "It was a total blast."

A fourth priority for site stewards is education. Mac describes how increasing his knowledge base is one of the key reasons he participates in site stewardship programs: "Education, I think, is a big part for the volunteers. For Sydney and I, if we have an opportunity to go to some kind of training or an educational class, that's a biggie." Site stewards were quick to inform me about the number and topics of archaeology classes they have taken, and of those they want to take in the future. Drew told me, "We took a couple of classes at one of the community colleges, a couple of classes at the U [University of Utah] and at the College of Eastern Utah, and a statistics class, just because I wanted to be able to read articles." The classes ranged in topic from introduction to archaeology to workshops on rock art and classes on cultural anthropology. Chris remarked, "I took some anthropology courses in college because they told me I had to take anthropology before I could take archaeology. I took two or three prerequisites and then I got to take the archaeology class because I was not interested in anthropology, but then I learned that they go hand in hand." Mac has also taken a wide variety of classes and wants

to take more: “They have some more classes that I’d like to take. The classes that I need to get to my next level of certification. Most of the local chapters are not offering them because they are not popular, like research design and report writing, but if I’m ever to get to the next level of avocational archaeologist I will have to.”

A fifth priority for stewards is participating in public outreach: they want to share their knowledge with others and to get others excited about archaeology. Many expressed frustration that they do not get to do more outreach. Sarah and Peter find the lack of public outreach particularly frustrating. They remarked that Danger Cave is one of the most important sites in the Great Basin, but no one knows because the state does not provide any funding for the Division of State Parks to have public outreach and education about it. An encounter Chris and Drew had with a Boy Scout troop that wanted to go spelunking in one of the dry caves in the West Desert highlights why the volunteers are concerned with public outreach. Chris relates, “They were supposed to put some educational signs up and I don’t know if they ever did, but that would have been helpful because these kids had no idea how important Danger Cave was. So we gave them a little lesson that day.” Chris notes that she enjoys doing public outreach, but is not sanguine about its future in the state. She explains, “The budget cut was because they didn’t have money for public outreach. Public education wasn’t their focus anymore. If the state can’t even pay for public outreach and education, why should the general public care about it?” Looking at volunteers’ statements on education, they prioritize educating themselves and sharing their knowledge and passion with others.

The final priority the stewards expressed is making meaningful contributions to the program and to archaeology more generally. Michael explains that volunteers want action, responsibility, and a meaningful job. He bemoans the fact that there are not more opportunities to

be involved and describes the program he is part of as having “tunnel vision” when it comes to things it has volunteers do. Mac expresses similar sentiments, “For me, being able to participate in real archaeology, as opposed to just monitoring a site, is really important.” Frank mentioned several times that he liked having the opportunity to contribute to archaeology and proudly described the quarry and wickiup sites on which he published articles in *Utah Archaeology*. He also confided that he purposely did not get his Ph.D. in archaeology so that he could continue to “work with his hands” as an archaeology technician rather than sit in an office managing archaeology technicians and writing reports.

Although some of the stewards did not explicitly mention making meaningful contributions, their activities indicate its importance. Chris and Drew started as stewards for the northern Utah program, but since they moved to southern Utah, they have become stewards with both the BLM, for which they also do surveys to locate previously recorded archaeology sites, record new ones, and perform archival research, and the National Park Service (NPS). Drew’s involvement with research on Ancestral Puebloan diet for the last ten years is another example of how he actively tries to make meaningful contributions to archaeology. Sarah and Peter also participate in archaeology site surveys and excavations. Sarah recalled, “We worked with David Madsen at the caves. We would run out and screen.”

Taken as a whole, volunteers have six main priorities: funding, engaged advisors, interacting with professional archaeologists, education, participating in public outreach, and making meaningful contributions. These priorities are interlinked and focus on the different ways the volunteers interact with other people

- | Volunteer Priorities                            |
|---|
| 1. Funding                                      |
| 2. Engaged Advisor                              |
| 3. Interacting with Professional Archaeologists |
| 4. Education                                    |
| 5. Public Outreach                              |
| 6. Meaningful Contributions                     |

associated with the program and the program itself.

### **Manager Priorities**

Manager priorities are less strongly patterned than volunteer priorities. This is likely related to several factors. I spoke with fewer managers than volunteers and the average length of time was shorter: I spoke with managers for forty-five minutes on average compared to an average of one and a half hours with stewards. Additionally, some of the managers I spoke with are not as involved in site stewardship programs as the volunteers and perform site stewardship tasks in addition to their other duties. Managers in my sample tend to prioritize program funding and staff-volunteer interactions. However, their perceptions of these topics are different than those of the volunteers.

As with the program stewards, this set of managers defines funding as their top priority for site stewardship programs. In fact, most of the participating program managers identify finding funding as their main task for the site stewardship program. As one manager put it, “Yeah it’s a great idea, but they [the government] don’t really want to fund it.” He relates how the agency for which he works sent an informational memorandum that laid out how to set-up and run a site stewardship program, but there was no funding attached. He explains that archaeologists do not want to get involved with these programs because of the extra work they entail for which they are not compensated. Eli, another manager, sees funding as the limiting factor for her program:

We determined that our limit on what we could do for the funding available was thirty volunteers. Now last year we went up to thirty-four, [and] we have thirteen plus people who are waiting in addition to that to be trained in May. We’re not going to go over thirty-four unless there is more funding coming... We need more funding in order to grow because processing volunteer paperwork, doing what you need to do to keep volunteers happy, engaged and interested requires a lot of time, and if you start getting too many

volunteers for that one person, and you can't pay them for their time, you are going to lose [the employee].

Other managers feel that the lack of funding can be overcome in the short term. Bob explains, "Now if you just want little regional programs run out of the local BLM or Forest Service [office], maybe you don't need that. But to have a viable, long-term program like they have in Arizona, that's what you need." John elaborates on this idea, "Funding is very important for this and if not funding, [then] really strong people. [Fortunately], you can find...volunteers that so believe in [site stewardship programs] that they will donate both time and money." However, both Bob and John admit that if there is a person who is paid to coordinate the site stewardship program, it will be more successful. Ultimately, managers see funding as one of their top concerns because without it, site stewardship programs are difficult to run.

The second priority expressed by managers is a program coordinator to liaise with the volunteers. Many program managers recognize that they do not have the time to interact with volunteers, as Katherine reveals in the following excerpt from our conversation:

Question: Going back to the volunteers for a moment, outside of meeting people at the caves for prehistory week tours, how else do you end up interacting with your volunteers?

Katherine: Well, that's why we have Bob...Because I've got a lot of things to do. So that's why Bob is on the books as the site stewardship coordinator. Because it's a long way out there, and Bob already knows these people so, so well. That's his job. He's the site coordinator. He's the one. He's the main interface.

Managers also realize that all coordinators are not equal. The coordinators they talk about are characterized by how much they care about the program and interacting with the volunteers. Eli says of her program coordinator, "Donna has stuck with it. She is totally dedicated and her background is not in archaeology, but she's absolutely dedicated to it." She credits a large part of her program's growth to the work Donna has put into it.



Curious about the changes Eli was referring to, I followed up with Donna to find out what kind of changes she made when she took over the program three years ago. She replied:

There weren't a whole lot of structural changes as far as the manual was concerned. When I redid the manual last year, I made a few changes within that, but the biggest change was just being more involved and active, keeping up with the emails. I email those people as soon as they email me. I try to keep up with what's going on with them and filing the reports and keeping those together, and just keeping everything organized.

Apparently her strategy is paying off. The program had about ten volunteers when she started three years ago and now it has thirty-eight. Donna tells me that she frequently receives written notes and thank you cards from her site stewards. Talking with Bob, the other site stewardship coordinator, I found that he shows the same kind of respect for his volunteers: "We have this pool of people, especially in the USAS group, who are very knowledgeable about archaeology. They love it...this is the kind of thing these guys live for." When other managers talk about Bob's work, they inevitably characterize him as someone who cares. Part of Bob's caring is finding new challenges for his stewards. He notes, "You have to keep your program challenging for them. A lot of people just don't want to go visit the same site over and over." John also comments on the importance of rotating the sites that stewards monitor. He explains that one of the reasons he wants all stewards to come to the yearly training is so that he can tell them about new sites that are available for monitoring. Managers recognize the importance of and prioritize site stewardship coordinators who respect their volunteers and care about their satisfaction.

The final priority managers expressed is public outreach and education. However, managers working for different site stewardship programs talk about public outreach and education in different ways. Bob and Katherine, who manage one program together, frame public outreach and public education as the ultimate purpose of archaeology and archaeological site preservation. The managers of the other program see public outreach and education as a way to

preserve archaeological sites for future research. Bob in particular is passionate about reaching out to the public and involving them archaeology. He comments: “I love those sites. And I want to make sure that they are taken care of and that they are also used for what they are there for and that is to educate people.” His view of archaeological sites as ultimately educational tools is uncommon among managers. John has a more typical take on the public and archaeology: “Everybody always asks me, ‘Do you tell people about sites or don’t you tell people about sites?’ Increasingly, I realize that the sheer number of people that go to an area, you have impacts. People love it to death and some people do bad things to it.”

Although the reasons why managers prioritize public outreach are different, they share the view that stewards are ideal tools for promoting site protection in their communities. Bob explains that, “We saw the stewards not as cops out there. We saw them as sort of ambassadors to archaeology and if they encountered people they could use their background to educate the public and stuff like that.” John comments that teaching site etiquette is one the most important parts of public education: “It’s just that some people are ignorant. Some people are evil [but] most of them are not evil. A lot of them are ignorant. We are trying to change that.” For him, stewards are ideal tools for promoting site protection in their communities.

Bob’s passion for education has had notable results. Katherine explains, “It was through Bob’s and [the state archaeologist’s] efforts, but mostly Bob’s because he was really into the outreach, he really brought in the law enforcement and educated them about how important a resource it was. They’ve been on board to keep it safe, and really taking seriously the investigations.” Having law enforcement fully behind archaeological site protection is unusual and is part of the reason there has been no vandalism at the two cave sites for several years. Sarah and Peter tell me that the educational sign at one cave is still standing and does not have

any bullet holes – a rare occurrence in rural Utah. The other part of the decrease in vandalism is related to Bob’s efforts to inform the people who live near the caves why the caves are important and to involve them in the caves’ preservation. Katherine relates:

It was a little girl that noticed that there had been that spray paint over the rock art. “Who’s so-and-so? You are telling us about these ancient people. Well, then who’s this guy that wrote his name?” And he looked up and was like, “Ahhh! Everybody out! It’s a crime scene.” The kids were really mad about it. You know, those teaching moments, getting kids on board and showing them why you don’t want to do that is great. And, actually high schoolers helped clean off some of that stuff. So really local involvement to know what the value is in protecting it is one of the best things we can do and Bob’s all about that.

The changes in looting and vandalism John has observed are less clear-cut: “We are still having problems, but I don’t know if we are having more problems or less than we had before. I think that the presence of [stewards] out there is helping. I think that people are reluctant to hit sites that are obvious and close to roads.” At this point, there is not enough information to determine if the different attitudes managers hold on public outreach and education influence the success the individual programs have at decreasing vandalism and looting. I suspect, however, that an approach to public outreach and education that involves the public to a greater degree would result in greater site protection than an approach that focused more on site etiquette.

In sum, the priorities of study participants who act as program managers are related to the organizational characteristics of site stewardship programs. They prioritize funding and an engaged program coordinator. Additionally, managers prioritize public outreach, but hold different views on what the role of the public should be in archaeology. Finally, unlike volunteers, the managers in this study do not describe their priorities as connected to each other or emphasize interpersonal relationships.

- | Manager Priorities |
|--------------------|
| 1. Funding         |
| 2. Engaged Advisor |
| 3. Public Outreach |
| 4. New Sites       |

## DISCUSSION

Volunteers and managers share some priorities, but not others. Looking at the table below (Table 1), volunteers and managers share the priorities: funding, engaged advisors, and public outreach. They do not share the priorities: interactions with professional archaeologists, education, meaningful contributions, and new sites.

Priority	Volunteers	Managers
Funding	X	X
Program Coordinator	X	X
Interacting with Professional Archaeologists	X	
Education	X	
Public Outreach	X	X
Meaningful Contributions	X	
New Sites		X

Table 1. Summary of Volunteer and Manager Priorities

However, if we take a closer look at statements from the volunteers and participants, the picture is more complex.

For both volunteers and managers in this sample, funding is a top priority. Looking at the inset below, we see that both the volunteer Mac and the manager Eli understand the importance

Volunteer	Manager
<p>I don't know exactly how many hours Donna is putting in, but it is a really limited part-time position and the effects of the program could be improved if the position was more full-time.</p> <p style="text-align: right;">-Mac</p>	<p>We need more funding in order to grow because...doing what you need to do to keep volunteers happy, engaged, and interested requires a lot of time, and if you start getting too many volunteers for that one person, and you can't pay them for their time you are going to lose [the coordinator].</p> <p style="text-align: right;">-Eli</p>

of funding and how it relates to program structure in similar ways. Chris and Eli both relate funding to the amount of time, and therefore the amount a program can accomplish, to the amount of money available. Additionally, as managers spend more time searching for funding and performing their other duties, they

have less time and other resources to put into building and maintaining their relationships with the volunteers. Fewer interactions between managers and volunteers coupled with a decrease in funding-related perks for volunteers, like fewer opportunities to learn about archaeology and not getting their gas expenses reimbursed, means that the overall effect of lack of funding is a decrease in the aspects of site stewardship programs that motivate volunteers to participate in them in the first place.

Volunteers and managers from my sample also share the priority staff-volunteer interactions and emphasize the need for an engaged advisor if a program is to remain viable and grow. In the excerpts below, Chris and Donna both link program success with a program coordinator who is easily accessible to volunteers

and cares about what they have to say. The similarity in this sample of volunteer and manager opinions on having an involved and caring program coordinator indicates how crucial meaningful staff-volunteer interactions are for site stewardship programs. This supports Hidalgo

Volunteer	Manager
<p>He was great and we could call him up or walk into his office at any time and he was always willing to listen or talk. -Chris</p>	<p>The biggest change [I made] was just being more involved and active, keeping up the emails, I email those people as soon as they email me. I try to keep up with what's going on with them... -Donna</p>

and Moreno's (2009) findings that the most telling factors in volunteer retention rates are relationships with staff and organizational support of volunteers.

The first difference in opinions held by managers and volunteers appears with the priority public outreach. Although members of each group value public outreach, they mean different things when they talk about it. Volunteers in my study, like the excerpt below demonstrates, see public outreach as an important part of site stewardship, enjoy doing it, and want to do more. When managers discuss public outreach, they see the site stewards' role as informal—stewards

participate in public outreach on an ad hoc basis when they encounter visitors at their site. If

Volunteer	Manager
<p>They were supposed to put some educational signs up and I don't know if they ever did, but that would have been helpful because these kids had no idea how important Danger Cave was. So we gave them a little lesson that day. That was fun. I love doing that. -Chris</p>	<p>We saw the stewards not as cops out there. We saw them as sort of ambassadors to archaeology and if they encountered people, they could use their background to educate the public. -Bob</p>

managers recognize this disconnect and start using volunteers more systematically as public educators and archaeology advocates, they can partially

counteract the funding cuts to educational programs. Using volunteers in this way might improve both groups' outlook on the future of archaeology in the state and would give volunteers additional opportunities to make meaningful contributions to the program and archaeology.

Related to public outreach is volunteers' priority to increase their knowledge of archaeology. This is one of the priorities that managers do not recognize. Looking at the excerpts to the right, we see that this group of stewards actively seeks out opportunities to learn about archaeology and develop skills that will allow them to understand current archaeological research. I suspect that stewards' interest in increasing their knowledge of archaeology through classes is related to the high education level of most of the stewards I interviewed. They all have at least a bachelor's degree and often a professional degree or master's degree as well. This set of excerpts also reflects one of the motivations

Volunteers
<p>Education, I think, is a big part for the volunteers. For Sydney and I, if we have an opportunity to go to some kind of training or an educational class, that's a biggie. -Mac</p> <p>We took a couple of classes at one of the community colleges, a couple of classes at the U [University of Utah] and at the College of Eastern Utah, and a statistics class, just because I wanted to be able to read articles. -Drew</p>

stewards have for participating in site stewardship programs: education. Given the importance of education to many of the volunteers, managers should pay attention to it when planning programming.

Another priority for volunteers not mentioned by managers is their desire to interact with

Volunteers
<p>I would like to have more involvement with the archaeologist because the woman in charge of the site stewardship program is not an archaeologist. -Chris</p> <p>It was so neat to be with people that are...hardened archaeologists. -Drew</p> <p>It was an amazing amount of education while she [a rock art expert] was talking. -Mac</p>

professional archaeologists and their preference for a program coordinator who is also a professional archaeologist. Looking at the comments from volunteers in the inset to the left, we see that interacting with professional archaeologists excites volunteers. We also get a sense of one of the other motivations volunteers have for participating in site stewardship programs: social. Specifically, volunteers want to feel like part of the archaeological community. The stewards' desire to interact with professional archaeologist, and the motivations behind it, is important for managers to

note as they think about ways to engage volunteers. By recognizing and addressing this volunteer priority, managers can improve volunteer retention rates.

One final area where volunteers and managers have different opinions on priorities is

how members of each group understand what kind of work keeps volunteers engaged. Looking at the excerpts to the right, we see that volunteers like Mac want to make meaningful contributions to the program and the field of archaeology. For them, this

Volunteer	Manager
<p>For me, being able to participate in real archaeology, as opposed to just monitoring a site, is really important. -Mac</p>	<p>You have to keep your program challenging for them. A lot of people just don't want to go visit the same site over and over. -Bob</p>

includes everything from having their advisors take monitoring reports seriously to helping survey, working in the lab, and teaching the public about archaeology. Managers have a more limited view of what keeps a volunteer engaged. Like Bob, most managers realize that stewards want to do more than visit the same site repeatedly. However, as we see in the excerpts, managers try to solve the problem with new sites for monitoring rather than different tasks.

### CONCLUSION

Volunteers and managers who participated in this study both share and differ in their perceptions of program priorities. Even when volunteer and manager priorities are similar, the reasoning behind their opinions can be different. This nuance would have been lost in a quantitative study. Examining Figure 1, we see that volunteer and manager priorities can be divided into three groups: same priorities, same opinions; same priorities, different opinions; and different priorities. The category same priorities, same opinions includes funding and an engaged advisor. The category same priorities, different opinions encompasses public outreach and finally, the category different priorities contains education, professional archaeologists, and stewards' contributions.

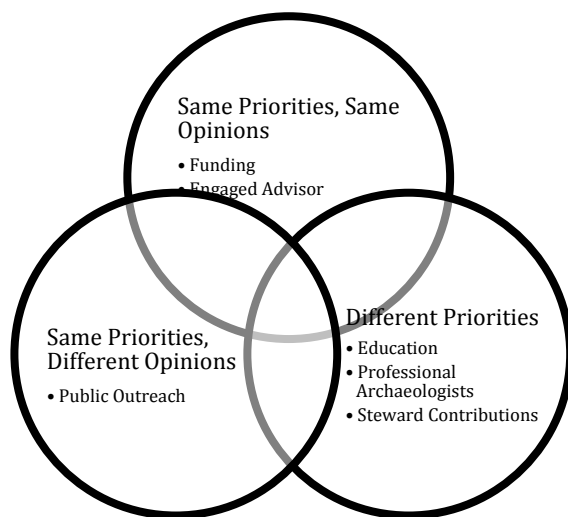


Figure 1. Comparison of Volunteer and Manager Priorities and Opinions



Another way of interpreting the difference in volunteer and manager priorities is that volunteer priorities are interconnected with each other and are centered around the largely intangible ways in which volunteers interact with the structure and staff of site stewardship programs. Manager priorities, on the other hand, are not connected to each other and revolve around tangible, organizational characteristics of the program. Additionally, priorities mentioned only by volunteers reflect their motivations for participating in site stewardship programs. The volunteer priorities of education, interacting with professional archaeologists, and making meaningful contributions correspond to Clary et al.'s (1998) motivations of education, social and education, and values respectively. Based on the volunteer motivation and retention literature from social psychology, if these volunteer priorities are ignored, they will negatively impact volunteers' willingness to continue participating in the program.

Given the importance volunteers place on education, interacting with professional archaeologists, and making meaningful contributions compared to program managers, these priorities are the focus of my recommendations for improving volunteer retention. First, the volunteer priorities of education and interacting with professional archaeologists can be addressed at the same time by implementing some kind of educational programming held once a month and lead by local archaeologists. The simplest form this can take is a lecture series where local archaeologists present their current work. If there is a college or university in the vicinity, students could present on their research, a boon to both the volunteers and the students. Similarly, a workshop series would be well received. Many archaeologists—amateur and professional alike—have traditional skills like flint-knapping and rope-making, which would make for good experimental, interactive workshops. Local, professional archaeologists can also teach stewards how to identify different kinds of artifacts like pottery sherds and flake types,

which has the added benefit of creating a base of enthusiastic lab personnel to handle the backlog of collections held by many museums and government organizations. Another activity that combines stewards' desire to increase their knowledge and interact with professional archaeologists is site and nature tours where a professional archaeologist meets stewards at publicized sites and explains site and landscape features or identifies plants and animals commonly used in prehistory.

Engaging local archaeological professionals is going to be the most difficult part of implementing these activities. To increase success, frame engagement as an opportunity for archaeologists to encourage preservation and build a base of local advocates for archaeological resources. Given the constraints everyone has on their time, point-out that the more archaeologists involved, the less work for everyone. Finally, remind the archaeologist giving a talk or leading a tour that he or she is guaranteed a passionate, interested audience.

To address volunteers' desire to make meaningful contributions, act upon the information in site stewardship reports, channel other volunteer opportunities to them, and involve them in public outreach. Acting upon the information given in volunteer's site stewardship reports shows the volunteers that the work they do is important. It can take the form of mitigating damage to sites reported by volunteers, including volunteers' observations and comments in your report to the land management agency, and involving volunteers in planning ways to decrease the kinds of impacts they observe at sites. Archaeological projects, whether in the field or in the lab, are frequently looking for extra hands. Because program coordinators already act as the communication interface between volunteers and managers in the site stewardship programs, they are ideally placed to pass on information to volunteers on projects looking for volunteers. Channeling other volunteer opportunities to stewards also provides volunteers with more chances

to interact with professional archaeologists and use the new skills and knowledge they have acquired as part of the educational programming.

The final way to enable stewards to make meaningful contributions to the program is to involve them in public outreach efforts. Because making meaningful contributions is a value-driven motivation, stewards are passionate teachers and advocates. Using them as educators and preservation advocates within their communities has the two-fold benefit of counteracting the budget cuts to educational programs and changing public attitudes about archaeological sites. Public outreach opportunities could include: steward-lead tours of publicized archaeological sites; steward-run workshops with school and youth groups; or manning an informational booth at state history and pre-history day events or county fairs. Budgetary constraints can be an issue, but it is far easier to receive grants for the public outreach component of a site stewardship program than for site monitoring.

In sum, the most effective way to improve volunteer motivation and retention is to address the priorities identified as important by volunteers. The volunteer priorities of education, interacting with professional archaeologists, and making meaningful contributions to the program reflect volunteers' motivations for volunteering for site stewardship programs, whereas the priorities managers discuss tend to be structural and geared toward volunteer recruitment. This difference in priorities matters because according to studies from social psychology (e.g. Hidalgo and Moreno 2009), volunteers are more likely to leave a program if their motivations for joining are not addressed.

This study is the first step in gaining a better understanding of volunteer site stewards' priorities and motivations for participating in archaeological site stewardship programs. In the future, the research should be expanded to include the opinions of a more diverse group of site

stewards. Additionally, one theme that began to emerge in this study that should be pursued is the importance of a volunteer community. Most of the participants in this study know each other well and interact outside of the context of site stewardship activities. Future research into the role of social interactions in perceptions of and engagement in the site stewardship programs could add nuance to our understanding of volunteer retention—and volunteer burnout.

In closing, as you think about ways to improve volunteer retention and motivation in your site stewardship program, consider the sage advice offered by Mac, one of the stewards involved in this study:

*One of the most important things you can do is the care and feeding of the volunteers. That includes training and being able to participate in real archaeology, as opposed to just monitoring a site. It is really important.*

## REFERENCES

Bruyere, Brett and Silas Rappe

2007 Identifying the Motivations of Environmental Volunteers. *Journal of Environmental Planning and Management* 50(4): 503-516.

Clary, E. Gil, Mark Snyder, Robert D. Ridge, John Copeland, Arthur A. Stukas, Julie Haugen, and Peter Miene

1998 Understanding and Assessing the Motivations of Volunteers: A Functional Approach. *Journal of Personality and Social Psychology* 74: 1516-1530.

Davis, Hester A.

1990 Training and Using Volunteers in Archeology: A Case Study from Arkansas. Technical Brief, 9. Washington, D.C.: Archaeological Assistance Program, National Park Service, Department of the Interior.

1991 Avocational Archaeology Groups: A Secret Weapon for Site Protection. In *Protecting the Past*. George S. Smith and John E. Ehrenhard, eds. Pp. 175-180. Boca Raton: CRC.

Hidalgo, M. Carmen and Pilar Moreno

2009 Organizational Socialization of Volunteers: The Effect on Their Intention to Remain. *Journal of Community Psychology* 37(5): 594-601.

Hoffman, Theresa L.

1991 Stewards of the Past: Preserving Arizona's Archaeological Resources through Positive Public Involvement. In *Protecting the Past*. George S. Smith and John E. Ehrenhard, eds. Pp. 253-295. Boca Raton: CRC.

1997 The Role of Public Participation: Arizona's Public Archaeology Program. In *Presenting Archaeology to the Public: Digging for Truths*. John H. Jameson, Jr., ed. Pp. 73-83. Walnut Creek: Alta Mira Press.

Kelly, Sophia

2007 Developing and Implementing Archeological Site Stewardship Programs. Technical Brief, 22. Washington, D.C: Archeological Assistance Program, National Park Service, Department of the Interior.

King, Thomas

1991 Some Dimensions of the Pothunting Problem. In *Protecting the Past*. George S.

Smith and John E. Ehrenhard, eds. Pp. 83-92. Boca Raton: CRC.

Moreno-Jimenez, M. Pilar, and M. Carmen Hidalgo-Villodres

2010 Prediction of Burnout in Volunteers. *Journal of Applied Social Psychology* 40(7): 1798-1818.

Padon, Beth and Chris Padon

2012 Public Partnership in Site Preservation: the California Archaeological Site Stewardship Program. *Heritage, Conservation & Archaeology: American Institute of Archaeology Site Preservation Program. Electronic Document* <http://www.archaeological.org/news/hca/7783>, accessed April 5, 2012.

Potter, Dan

2006 Measuring Archaeological Site Survival in Texas. *SAA Archaeological Record* 6(1): 7-13.

Stuart, Mark E.

2008 Potsherds and People: a Brief History of the Utah Statewide Archaeological Society. *Utah Archaeology* 21:27-30.