

Sleeping with the “Enemy”

Metal Detecting Hobbyists and Archaeologists

Matthew Reeves

Archaeologists typically engage in co-creation with historically disenfranchised groups, such as local communities, descendant groups, and at-risk youth (Simon 2010). Bringing these groups into the co-creative process involves much more than being hands-on; it involves being responsive to the needs of the constituent group and engaging in meaningful dialogue to allow for development of skills useful to the participants. Such programs bring

an important perspective to projects that a purely research-driven paradigm would exclude. But what if the group we decide to co-create with is one that the academic community sees not only as falling outside of the rubric of traditionally disenfranchised groups, but also as being at odds with site preservation? In other words, what if you co-create with the “enemy”—in this case metal detectorists?

ABSTRACT

In 2012, the Archaeology Department at James Madison’s Montpelier began an experimental program with Minelab Americas to encourage metal detectorists to become more involved in the scientific process of archaeological research. Specifically, the program is designed to be a week-long experience in which archaeologists and metal detectorists work together to identify and preserve archaeological sites at the 2,700-acre Montpelier property. In the process, the metal detector participants are taught the importance of site preservation through background lectures and hands-on field training in which they use their metal detectors as a remote sensing device. Participants learn how gridded metal detector surveys are conducted and the importance of proper context and curation of recovered objects. The team-based approach of our program has resulted in a co-creation process whereby metal detectorists bring to the table their skills in using their machines to identify subtle metallic artifact signals and archaeologists bring the skill of systematic survey techniques to map and record archaeological sites. In the end, teamwork encourages open and frank discussions regarding the interface between metal detecting and the archaeological communities and has gone a long way toward reconciling differences between these two groups who have a long history of strained relations.

En 2012, el departamento de arqueología de James Madison Montpelier dio inicio a un programa experimental con Minelab Americas para alentar a los usuarios de detectores de metales a que se involucren de manera más cercana con el proceso científico de la investigación arqueológica. Específicamente, el programa que se ha diseñado se lleva a cabo en una semana, durante la cual, los arqueólogos y los usuarios de detectores de metales trabajan juntos para identificar y preservar los sitios arqueológicos que se ubican en los 2,700 acres que comprende la propiedad de Montpelier. Como parte de este proceso, a los usuarios de detectores de metales se les enseña la importancia de la preservación de sitios a partir de conferencias en donde se les plantean los antecedentes y se les proporciona capacitación para usar sus detectores de metales como instrumentos de prospección remota. Los participantes aprenden como desarrollar recorridos reticulados con el detector de metales, así como la importancia del contexto y de la curaduría de los objetos. El enfoque del trabajo en equipo ha resultado ser un proceso de creación en colaboración mediante el cual, los usuarios de detectores de metales ponen sobre la mesa sus habilidades en el uso de estos instrumentos para identificar las señales metálicas sutiles que emiten los artefactos y los arqueólogos aportan el potencial de las técnicas del recorrido de superficie sistemático para mapear y registrar sitios arqueológicos. Finalmente, el trabajo en equipo fomenta discusiones abiertas y directas en torno a la interfase entre los usuarios de detectores de metales y las comunidades de arqueólogos, lo que representa un gran avance hacia la reconciliación de las diferencias existentes entre estos dos grupos que han mantenido relaciones tensas por mucho tiempo.

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This is exactly what the Montpelier Foundation has been doing for the past three years through week-long co-creative programs that bring together metal detectorists and archaeologists to work side-by-side to locate sites on Montpelier’s 2,700-acre property. However, it is important to note that working with metal detectorists is not new. Both contract archaeologists and university-based archaeologists have been working with this group for the past two decades and made important discoveries both for specific site histories and in revised methodology for metal detector survey (Balicki 2014; Corle and Balicki 2006; Espenshade and Severts 2013; Reeves and Clark 2013; Scott 2013). Our program seeks to build upon this successful framework by bringing participants in from across the country to spend a week in an intensive and structured course in which we teach them not only how to help us find objects in the ground, but why provenience and preservation of stratigraphy is important for a fuller understanding of the archaeological record.

By bringing both groups into the co-creative process, we seek to work together towards a new set of goals that will be beneficial to all parties involved. For archaeologists, this means using the skills of metal detectorists to help locate and define sites while bringing a more holistic understanding of site preservation to a new constituency. For metal detectorists, these collaborations create a new venue for their hobby in which their skills can be applied towards making discoveries as part of a research team. They also benefit from the networking inherent in such activities. Successful co-creation necessitates that all join in this effort on an equal footing.

In this article, I contend that what we have gained through our co-creative programs is a new way of engaging a constituent group that has been at odds with the archaeological community due to decades of miscommunication and mistrust. To accomplish these objectives, we have had to break down barriers in both communities—distrust on the part of metal detectorists because of the perceived elitism of archaeologists’ views and behavior and pessimism on the part of archaeologists who view working with metal detectorists as legitimizing the hobby. In this regard, while the title of this article is meant to be tongue in cheek, it does reflect the emotional view that many archaeologists and metal detectorists hold towards each other. For decades, archaeologists have stigmatized and oversimplified the views of metal detectorists and, as a result, have excluded important tools and talented individuals who can aid in locating and understanding sites. Yet, through the co-creative process, we have discovered new sites that would not be possible to locate and define through standard archaeological methods alone. More specifically, our programs allowed for the identification of small short-term occupation sites whose low-density artifact deposits can be consistently located only through the use of metal detectors using skilled operators. This practice becomes co-creative through the process of archaeologists and metal detectorists sharing techniques and becoming mutually engaged in the activity. As such, this article offers a way to replace an emotionally charged relationship with one based on creating a new set of outcomes that meets the needs and goals of each group. I will demonstrate that working with the metal detecting community provides us with access to a large network of individuals who are a target audience for understanding the importance of the careful study and preservation of archaeological sites. I will also explain how our team-based approach has

created buy-in with a group that previously was seen as working counter to our goals of preservation.

HISTORY OF PROGRAMS AND METAL DETECTING AT MONTPELIER

The Montpelier Archaeology Department has been running hands-on participatory archaeology programs since 2006. These programs provide the basis for the format of the Metal Detector Program. First started as expedition programs through the Earthwatch Institute, the programs were designed to introduce the public to a team-based archaeological research project through lectures, one-on-one work in excavation units, time in the lab, and tours. The goal for these programs has been to get the public invested in the archaeological process and help them understand what is involved in reading soil and sediments and recovering artifacts. While archaeology is seen as a tedious process, people often do not comprehend how the careful dissection of a site is more akin to crime scene investigation (CSI) work than to going out and simply digging for artifacts. At the end of the week, participants often express surprise at how involved the archaeological process is and the level of information that can be retrieved from a site. Participants in our excavations come away with an understanding of how contextual association of artifacts with soil layers, features, and the built environment can lead to a richer understanding for reconstructing a site’s history.

Over the years, we have expanded our programs to encompass the full spectrum of the archaeological process, ranging from locating sites to interpreting them on the landscape. Additional programs include artifact workshops, where participants analyze ceramics and glass, and reconstruction programs, where participants are taught traditional woodworking techniques to re-create structural representations of archaeological sites on the Montpelier landscape. The metal detector programs were incorporated into the public programs in 2012. Participants in these programs help locate and define historical sites across Montpelier’s 2,700-acre property (Figure 1). These four week-long experiences make up the LEARN Archaeology Expedition Program (Locate, Excavate, Analyze, Reconstruct, and Network).

What makes Montpelier unique for this program is the excellent preservation of the sites and the public focus we have as a historic house museum. We are able to include participants in the process of locating sites, performing archaeological excavations, analyzing the artifact assemblages, and then reconstructing them into a visual form for interpretation for the public. All programs touch on all four of these bases to provide participants with a well-rounded understanding of the archaeological and interpretive process. Through these programs (since 2006), we have engaged over 600 participants from all walks of life who used the program to work on an archaeological site for the first time. All left the program feeling like they had made a contribution to our understanding of the property and had a better idea of why archaeological resources are important assets for understanding our past.

Prior to expanding our public programs to include metal detectorists, we had used metal detector surveys on the property



FIGURE 1. Metal detectorists and staff archaeologists conducting metal detector survey on the front lawn of the Montpelier mansion.

for locating historic sites. Montpelier is owned by the National Trust for Historic Preservation as private land and the Montpelier Foundation is a private foundation that administers the property. While some 350 acres is under protective easement, the remainder of the 2,400 acres is not protected and not subject to State Historic Preservation Officer (SHPO) oversight. As a result, knowing the location of sites is critical for protecting the historic resources on the property. What makes metal detector surveys so advantageous is their ability to locate historic sites quickly and efficiently. We have found that the effective use of metal detectors necessitates extensive experience with high-end machines.

Both archaeological staff and metal detectorists have conducted metal detector surveys at Montpelier. Similar to what other archaeologists working with the metal detecting community have experienced (Balicki 2014; Corle and Balicki 2006; Espenshade and Severts 2013), we consistently found that seasoned metal detectorists provided more consistent and systematic results than staff who had a limited knowledge of machines (Reeves 2014). As a result, we hired a local metal detector enthusiast, Lance Crosby, for our metal detector surveys and in the process of working with him experimented with a wide array of techniques for systematic site location and definition of sites. Aside from field techniques, what was also quite remarkable to staff working with Mr. Crosby was the sophisticated range of knowledge that fell under the rubric of metal detecting. As a hobby, metal detecting not only entailed a wealth of knowledge regarding machine operation, but also included access to a network of specialists in material culture and history. Many of these hobbyists have produced a wide array of publications useful for anyone interested in historic artifacts (Corle and Balicki 2006).

Working with an experienced detectorist was an eye-opening experience for staff who learned to appreciate metal detectorists’ skills in reading land forms, using a metal detector as a remote sensing device, identifying metal objects, and quickly assessing a site through selective sampling of hits.

For our program, working with Mr. Crosby was key for refining our methodology for metal detector survey as it helped merge the rigorous methodology that is the core of archaeological survey with the organic approach that metal detectorists use in examining a site. With his skills at our disposal, we had the chance to experiment with a number of sampling strategies and determine the range of sites and deposits that metal detectors could locate (Reeves 2014). One of the more important insights from experiments with metal detector surveys was the need to employ a grid-based approach in surveying large land areas. As detailed in the next section, we devised a 20-m-interval continuous coverage sampling strategy that allowed very ephemeral sites to be located. Locating the full range of historic sites meets the goals of our landscape inventory because we are interested in managing the land in a way that ensures site protection.

With 2,700 acres of land to survey, we saw a way to incorporate metal detectorists into our week-long programs on a long-term basis. The rationale for incorporating this group was to honor our philosophy of integrating the public into all of our research programs. The biggest obstacle to bringing in metal detectorists was finding a way to reach the metal detecting community—a situation exacerbated by the tensions that exist between archaeologists and metal detectorists. With our regular excavation programs, we simply made the programs known to the public and had no trouble getting participants. However, in a

manner similar to the way archaeologists have had to gain trust within African-American communities (Reeves 2004), spreading the word to the metal detecting community needed to be combined with gaining trust within that group. To this end, in 2011, we started talking with Minelab Americas—a manufacturer of high-end metal detector equipment—as we knew this company was interested in partnering to try to find a way to get archaeologists and metal detectorists to work together. They agreed that having programs in which metal detectorists could experience working with archaeologists was a unique opportunity. As a result, they helped in the networking process. Minelab has developed a strong national network among local metal detecting clubs to promote their line of machines. They felt that their reputation of selling specialized metal detectors would dovetail nicely with expanding the hobby of metal detecting through working with professional archaeologists.

Following careful planning and discussions, Minelab helped us organize the first program in March 2012. They contacted 12 of their leading metal detector dealers in the country and invited them to attend the pilot program. These particular dealers were well-known in the community for developing a large and loyal customer base and for encouraging ethical and responsible metal detecting practices within the metal detecting community. The idea behind having these individuals take part in the program was to test the effectiveness of the program for engaging individual metal detectorists. If we were able to achieve buy-in from these individual participants, then they would be able to bring their experience in the project back to their constituent base and spread the word about the benefits of attending our programs and working with archaeologists. Yet there were also risks. As with any co-creative process in which authority is shared between groups, bringing individuals into the program without any sort of vetting caused apprehension.

The experience of this pilot program was one that neither the Montpelier staff nor the metal detector participants would ever forget. During the welcome dinner we held when participants first arrived, we could sense the apprehension of all involved. The older metal detectorists and young archaeology staff seemed to drift around each other akin to oil and water. By the time we finished dinner, however, the conversation had broken and there was a barrage of exchanges regarding interesting finds from past digs, field stories, and shared experiences of finding history in the ground. In the end, metal detectorists and archaeologists realized that each offered a unique set of skills and that a wonderful partnership was possible.

The pilot program succeeded in two ways. First, Montpelier ran a program that engaged participants and allowed them to realize that they were a crucial part of the research team. The ethos of teamwork was achieved by each group bringing a particular skillset to the table. Metal detectorists provided their machines and the ability to use them to read the ground.

Archaeologists provided detailed recording skills and the methodology needed to organize and analyze all the finds. Both skill sets were necessary to have the project succeed. The structure of the program ensured a high level of engagement and led to buy-in from participants. By the end of the week, the participants felt that they were a part of the research process and developed a relationship with Montpelier that they carry

with them to this day. This resulted in participants spreading the word about our programs to their customers, which brought in the next group of metal detectorists. The continuation was the second and the most important goal of the program. The success of the pilot program led us to open the subsequent seasons to the public. While Minelab provides partial scholarships to encourage participation, participants can use any machine in the program. In addition, members of the public interested in learning more about metal detecting can attend the programs and work with a team of experienced metal detectorists and archaeological staff.

Following the 2012 pilot program and to this day, our programs follow the ethos of co-creation by not vesting authority with one group. For example, in the second season of programs, one participant asked why metal detectorists did not spend time digging in excavation units. We responded to that observation by asking all participants to spend a half-day in an excavation unit. Another case in point is that metal detectorists were able to recover a sampling of finds at all sites during remote sensing surveys, as opposed to leaving all of the finds in the ground. This turned out to be extremely beneficial and instructive to all participants because it allowed them to better understand the artifacts behind their signals and led to their engaging with the site in a more meaningful and tangible manner. We also found that obtaining a sample of near-surface finds actually proved essential in being able to define patterns of material culture at both low- and high-density sites. The tie between material culture and metal detecting is an essential part of detecting culture that led to improvements that were mutually beneficial. Sharing the authority of devising methodology and the programmatic structure of the programs, led to improvements that would not be possible without the co-creative process.

STRUCTURE OF PROGRAMS FOR METAL DETECTORISTS

In designing the program, we wanted to give metal detectorists a deeper understanding of why archaeological deposits are important, demonstrate the benefits of systematically locating and recording artifacts, and engage participants in the concept of team-based archaeological research. We all know these activities are both inspiring and fun when done properly and are the reason why archaeology is so attractive to volunteers. To accomplish these goals, we devised a three-part process that included: (1) lectures discussing archaeological concepts; (2) opportunities for participants to tour the landscape to see interpreted archaeological sites; and (3) time to participate in team-based fieldwork.

The first component of the program, the lectures, provides background on the how and why of archaeology. These concepts are discussed through examples of the sites that participants would see and work at during the week-long program. An important part of the lectures is developing a sense of the different scales of survey (Phase I, II, and III) and the value of whole assemblage analysis, with nails as a primary example. Nails are the easiest example to use for the importance of whole assemblage analysis because these artifacts are usually the bane of metal detectorists. Yet they are the most important and prevalent artifact encountered during metal detector surveys (Figure 2). We found



FIGURE 2. Metal detectorist holding a cut nail found during survey of wooded areas of Montpelier. This photograph was taken after the nail lecture, which led to metal detectorists photographing nails in addition to diagnostic artifacts as exciting finds.

that learning how this often dismissed set of artifacts can be used as a dating tool and how their analysis can tell the history of a structure gives metal detectorists a whole new sense of the importance of complete assemblage-based analysis.

The second component focuses on getting participants out on the landscape to tour the various sites we have interpreted and reconstructed, based on archaeological data and study. Seeing the physical representation of these sites based on archaeological finds has the maximum impact for helping participants understand what proper excavation and analysis can reveal about a site. The third and most important component is spending time in the field working in a group-based environment. Fieldwork comprises the majority of the time spent by metal detectorists during the week and is when they have the most interaction with Montpelier’s archaeological staff. This is when they get to engage their skills as metal detectorists to locate and excavate sample metal hits (metal artifacts in the ground that are identified by the detector), see the process of recording finds, and witness the compilation of results to build a site history. Most importantly, this is also where they experience a team-based discovery environment—which is by far the biggest contrast with how they normally experience metal detecting. Most metal detectorists perform their hobby alone or in small groups, but rarely work in a cooperative group environment. By working together, both participants and Montpelier archaeological staff gain a better understanding of and appreciation for what each side can offer, and it allows them to work together

towards a common goal of identifying archaeological sites. It is this participatory process that gives team members the practical understanding for the importance of site preservation and what can be gained from the careful study of sites.

GRIDDED METAL DETECTOR SURVEY—EMPATHY THROUGH PRAXIS

Fieldwork is where we reinforce the basic concepts of teamwork, systematic survey, and site preservation. A key element to reinforcing ideas is using hands-on activities and research—thus empathy through praxis. Praxis is the process by which a theory, lesson, or skill is enacted, embodied, or realized and given a physical form (McGuire 2006:129). In this case, the concept of provenience is put into physical form through grid-based survey. During the week-long program, the grid dominates the entire learning process—from guiding metal detecting sweeps to mapping in hits, it is a constant reinforcement tool for the importance of provenience. When conducting a metal detector survey, we use two different grid-based approaches—a 20-m interval for site location and a 3-m (10-ft) interval for site definition (Reeves 2013). In both cases, we emphasize with participants the praxis of metal detector surveys as a form of remote sensing. This means that we ensure that surveys have a minimal impact on site deposits and use the fieldwork as a means to teach the importance of site context and preservation of stratigraphic deposits. In this way, participants leave the program with empathy regarding the ethics of site preservation that is brought home through practical experiences in the field. In turn, praxis in the field is co-creative, as we seek metal detectorists’ feedback about how their skills are being used to reduce the impact of survey on the sites.

A prime example of this is the excavation of large plugs (a plug being a .15-m circle of sod removed to access the historic deposits) in grassy areas. While at first archaeology staff was adverse to such a large area being disturbed, detectorists quickly pointed out that removing a larger sod plug left the historic deposits intact and that a smaller divot could then be excavated to carefully extract the artifact from the historic stratum—causing less potential damage to the artifact and the underlying deposits. In the end, the removal of a larger area of sterile sod led to much smaller divots into the underlying historic soils, allowing the sod to be returned in a cleaner fashion. As such, the suggestion put into practice led to better preservation of the historic strata during sampling and gave detectorists ownership over not just the artifacts but the surrounding context. By being explicit that we as archaeologists don’t have all the answers, we practice public archaeology as a collaborative process that benefits from multiple perspectives and multivocality (McDavid and Brock 2015).

For locating sites, we plot out project areas on a 20-m interval and then sweep each grid to locate hits and sample areas. Surveyors record the hit count in each square, and hits are sampled to understand what the artifact assemblage represents in these areas. Metal detectorists are made aware that site location is the first step in the site analysis. These phase I surveys are conducted to identify areas we will be returning to for more



FIGURE 3. Metal detectorists and archaeologists surveying slave quarter site at 10-foot intervals. During this survey in 2012, we just conducted hit counts; subsequent surveys we incorporated sampling of at least five hits per square to understand artifact signatures, an example of a co-creative process leading towards refinement of methodology.

intensive surveys. As such, we want to be minimally invasive on sites to ensure that deposits are preserved for future research. Only some of the near-surface hits are excavated and are limited to those within the historic topsoil at the site. Explanation is given for why deeper hits, such as those contained within a feature, are avoided. This explanation in the field is reinforced from earlier lectures, readings, and time spent in excavation units. All historic artifacts recovered are marked with a pin flag and later mapped based on GPS coordinates. Within artifact concentrations, a maximum of five hits per survey grid are sampled to determine age and site assemblage characteristics. Once the concentration of hits is defined as representing a historic deposit, we map the remainder of the hits in to show the density and rough extent of the site.

The next phase is to define previously located sites by conducting metal detector surveys on a 3-m (10-ft) grid interval (Figure 3). During this phase, we reinforce with metal detectorists that the point in conducting the surveys is to identify areas where we would want to place excavation units, and that we need a much finer interval to locate concentrations within individual sites. Unit placement is based on location of high concentrations of hits and on potential location of structural features. During site definition, metal detectorists mark the hits, and staff archaeologists map in the hit locations along with recording a hit count per 3-m grid square.

We have found that for sites or areas of sites with particularly low concentrations of hits (under 20 per 3-m square), sampling of five hits per square is a very effective data recovery technique. In such low-density areas, it would be difficult and intrusive to use units to recover a sample of artifacts from the site. Selective sampling has not only given a sense of the assemblage range, but also provided detailed information on potential structure location from the analysis of nail types (Reeves et al. 2014). Similar to 20-m interval surveys, only those near-surface hits are excavated, and hits are sampled from across a unit that represent a variety of signal types (ferrous-small, ferrous-large, and non-ferrous). Selective sampling relies on metal detectorists being “dialed in” to how signals represent the depth and nature of metallic hits. Such survey goes far beyond identification of a hit in terms of presence/absence; it involves a nuanced sense of how one’s machine interacts with the soils of the site area, how other signals can mask hits, and the range of signals given off by different metallic artifacts—both by size and composition.

Throughout fieldwork, the staff uses field experiences to discuss the rationale behind the survey, sampling, and recording process, thereby providing detectorists with a thorough understanding of the methods and principles of site preservation. A prime example of the preservation discussion comes in the form of the seemingly counterintuitive manner in which we deal with iron artifacts. All diagnostic (non-nail) iron artifacts are photo-



FIGURE 4. Staff archaeologist and metal detectorist working in excavation unit. Experiencing stratigraphic excavation techniques and recovery of complete assemblages at the end of the week was an effective praxis in action.

graphed and reburied in their same position to prevent decay of the object. Once removed from its iron “halo” in the ground, iron objects in moist loamy soils can rapidly decay, but left in the ground these objects are relatively stable (Rodgers 2004). Staff members explain that when we return to excavate a unit in this area, the iron object would then be recovered and conserved. The time taken in the field to photograph and rebury objects reinforces the fact that metal detector surveys are just a stage in archaeological investigations, with unit excavation providing the ultimate form of data recovery. The process of demonstrating this concept in real-time places an otherwise critical discussion of metal detector recovery of items in its place within the range of archaeological techniques without being demeaning to metal detectorists or their hobby.

Rotating the metal detectorists on the team into excavation units, even if for a half-day, really demonstrated the detail needed for the full recovery of artifacts using stratigraphic excavation (Figure 4). By excavating a unit, metal detectorists see the full range of artifacts that can be recovered at a site, and the utility of stratigraphic recovery of artifacts and deposits is reinforced. Concepts presented in the field include how plan views record the relationship between artifacts and features in a unit, and how different strata within a single unit can allow archaeologists to reconstruct a site’s history. Metal detectorists are able to recognize that the recovery of artifacts from the excavation of a divot does not provide the same level of information as detailed excavation and recordation of deposits through unit excavation. Again, by illustrating archaeological techniques through hands-on application, metal detectorists come to realize the utility of

archaeological study in a non-judgmental fashion. The same day, participants move to the lab for a half-day of learning about processing artifact finds. Participants assist with the cleaning of finds and are given overviews of artifact conservation, cataloguing, analysis, and artifact storage.

After a week, metal detectorists walk away not only with a greater appreciation for how much can be gained through careful study of archaeological sites, but also how much their group has to offer archaeology through systematic metal detector surveys. The sheer joy of locating and defining sites that previously were unknown provides a sense of gratification that exceeds the excitement obtained from the recovery of isolated artifacts. In the end, participants are brought around to understanding site preservation through practice, rather than being confronted with a seemingly artificial set of ethical rules that have little relevance to their life experiences.

RESULTS

By the end of each week-long program, metal detectorists and archaeologists on the project have shared laughs, made discoveries, and bonded as a team. All walk away with a greater appreciation for the other’s perspectives and what they can bring to the table. The outcome of the metal detector programs is that we have developed a constituent group that is engaged with the archaeological process and interested in continuing the collaborative research process by merging their pastime with archaeological research. One of the most rewarding comments



FIGURE 5. Archaeology team eating lunch together during 20-m survey of woods. Meal times served as a means to bond and discuss a range of topics related to shared experiences.

made by a participant was that for 30 years he had pursued metal detecting to protect artifacts from deterioration in the ground. What he took from the project was the importance of preserving site information—not just the artifact. This observation alone summarizes the essence of archaeology and marks the difference between collectors and archaeology as a social science.

Another aspect of our programs that gives participants a sense of accomplishment is the knowledge that they are playing an integral role in the co-creation of experiences that are groundbreaking in two ways. The first aspect is having archaeologists and metal detectorists collaborate on projects (Figure 5). This collaboration is important because both groups recognize that, although archaeologists represent the professional approach to digging up the past, we are in the minority. Metal detectorists represent the mass appeal of artifact discovery, and their hobby is how most people experience finding artifacts in the ground. If we can make archaeology relevant to metal detectorists, we have a good chance of making the discipline relevant to the general public as a whole.

The second groundbreaking aspect of metal detector surveys is how their use allows for the discovery and preservation of sites that have been virtually invisible to archaeologists in the past. Low artifact density sites, otherwise known as ephemeral sites,

such as barns, work areas, and short-term occupation domestic sites are very difficult to find through the standard archaeological survey technique of systematic shovel testing. What we have found through comparisons of metal detector surveys and shovel test pit (STP) surveys is that on sites on which an STP survey might yield only a single nail, metal detector surveys will yield hundreds of artifacts (Espenshade and Severts 2013; Reeves et al. 2014). As such, not only are these sites more visible using metal detectors, but these machines provide a way to recover data not possible with standard excavation techniques.

Case Study

A case study of our most recent metal detectorist program illustrates the continual need to redefine our process when working with this group. In August of 2014, we were contacted by National Geographic’s *Diggers* show to film one of their programs at Montpelier. We had been in discussions with this group in the past, but were not ready to have them visit. We reconsidered in 2014 based on the premise that they would film during our November expedition program. The goal behind having them film during one of our programs was to ensure that the following criteria were in place. We required that they show (1) a team-based environment; (2) a clearly defined grid-based metal detector survey; and (3) the collaborative nature of archaeological research. What they needed was a clearly defined question

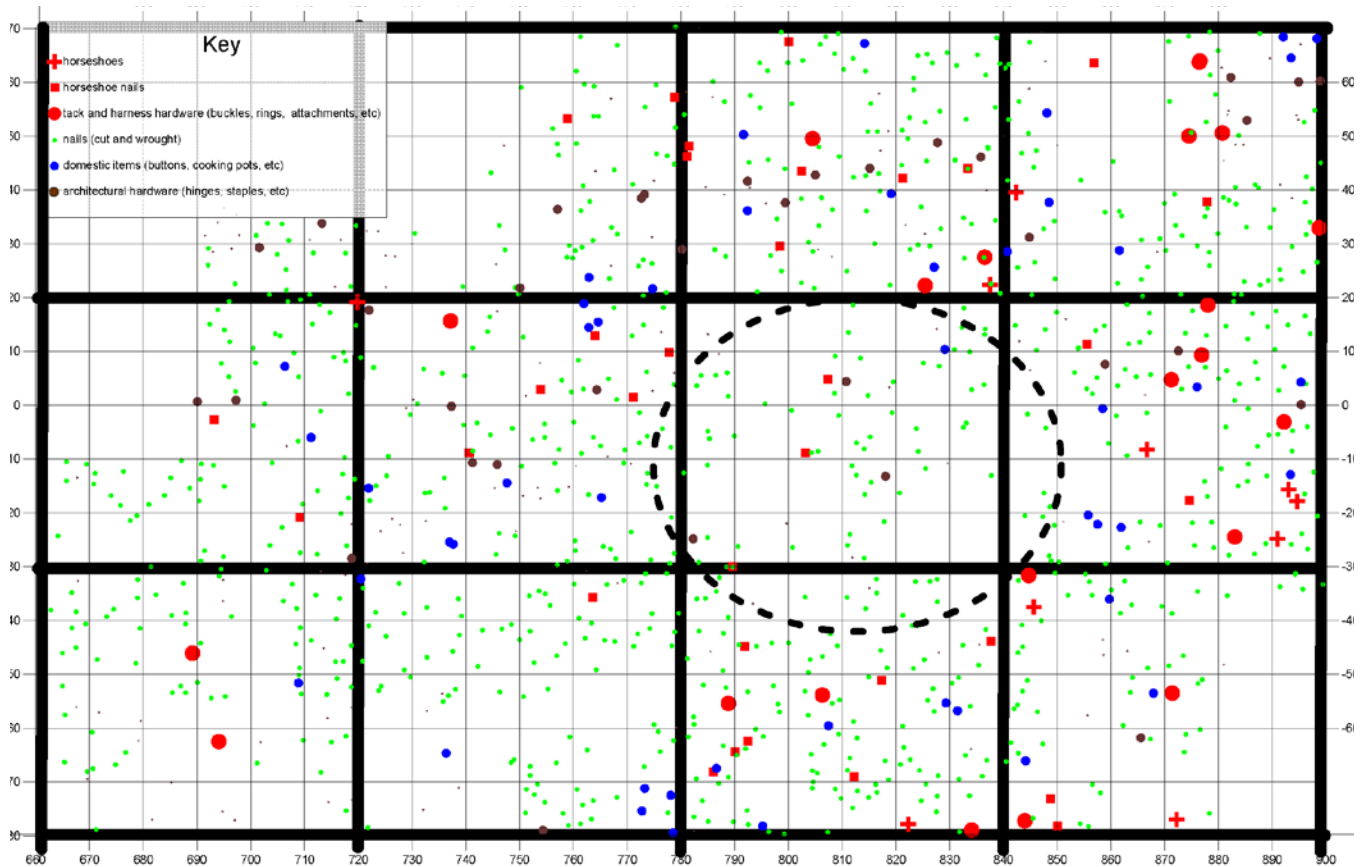


FIGURE 6. Map of Madison stable area showing distribution of hits from metal detector survey. This map was produced by the end of the week-long program, and participants were most excited about the lower-density area showing potential evidence for the stable structure location.

that could be answered. The trick was to meet all of these objectives while maintaining a program that made the participants feel like they were part of the experience as well.

We decided to focus on finding the Madison-era stable—a site alluded to by an 1837 insurance plat and a location we had tentatively identified during surveys in 2010. For the week-long program and filming, we defined a 61-x-61 m (200-x-200 ft) area to be surveyed and set a goal of mapping in and field cataloguing all hits before the end of the week, a process typically reserved after the program is finished. Prior to the film team's arrival, we worked to prep staff on messaging in front of the camera and how to talk with participants about the goals for showing effective collaboration between metal detectorists and archaeologists. In the end, this preparatory work paid dividends for the week-long program and for what ended up going into production.

By the end of the week, we accomplished our goals in terms of completing the survey area and all involved felt a sense of accomplishment from that fact alone. What we discovered when we plotted the data on Friday evening is that we were able to define a negative space within the project area that seemed to suggest a structure location (see Figure 6, area within dashed circle, and Supplemental Table 1). Being able to bring this

plot to the final dinner that Friday evening was inspiring for all involved, as we were able to demonstrate the success of the survey by showing the final results. This not only met the needs of the film crew, but also helped reinforce the methodology employed through the program for all involved. We decided that for all future programs we would ensure that fieldwork included the compilation of results for the end of the week—and that definable areas of survey would be employed to ensure substantive results.

In addition, this program was also the first to include archaeologists from outside our own staff. These archaeologists were not there to learn how to metal detect. Instead, they learned about our methodology, site recording, and, most importantly, developed working relationships with metal detectorists. Not only did they collaborate in the field, but all of our participants lived together for the entire week, building friendships and strengthening the program's network.

This example firmly demonstrates how the co-creation process works on many different levels. For the program we carried out in November, having two constituent groups with competing interests demanded that we actively brought all parties up to speed with the goals of our program. Competing demands meant we devised new methods to meet all needs for collective

and textures (such as hearth ash, or dark brown organics that would indicate a feature), helps the metal detector participants get keyed into these aspects of site recordation within a couple of hours. The shift in focus demonstrates that metal detectorists are highly likely to be quick studies for the field of archaeology. Already being fascinated by what the ground can reveal, they are quick to absorb the lessons from careful examination of site stratigraphy and deposits.

After comparing our experiences with metal detectorists with other public engagement programs, we believe that metal detectorists are the easiest group to get excited about the archaeological process. These individuals have been studying artifacts for years and have an informal set of criteria for how to read the landscape, soil, and their machines. Seeing that these individuals come pre-loaded with a passion for this information, taking the time to explain the broader aspects of archaeological questions and methods guarantees a level of engagement we just don't experience from the lay public. Essentially we are dealing with a group of individuals who are interested in approaching history from the same direction that we do—finding clues in the ground to understand the past. When informed about the informational value of items such as nails, charred seeds, assemblage-based analysis, and mapping finds, metal detectorists are enthusiastic consumers of this information. In the end, being exposed firsthand to this information is a much more effective way to learn why site preservation is important than being lectured or browbeaten by archaeologists about the “ethics” of site preservation.

The long and short of it is that archaeologists need to find new ways to engage with the public if we hope to instill the same set of values for site preservation to nonprofessionals. Metal detectorists represent the low-hanging fruit of the public we need to reach. They already understand the importance of material culture, are eager to learn, and have the same outrage regarding site destruction as the professional preservation community. Ironically, in talking with metal detectorists about the rash of reality TV shows, they feel just as much outrage at the portrayal of their hobby as archaeologists do for the disregard of site context.

In working with metal detectorists through the years, I have found a similar set of shared values for wanting to understand the past through material culture found at specific sites. We have an ethical responsibility as archaeologists to *effectively* communicate how the destruction of site context leads to the loss of information about the past. We have tried passive means of communicating through newspaper articles and websites that provide the public with information about the sites we excavate. These more often than not end up focusing on particular artifacts, since that is how the public most often sees the contributions that archaeologists make—the retrieval of items—and in the end this is not much different from what we critique metal detectorists for. By engaging with metal detectorists, we allow ourselves entry into a networked community of enthusiasts who actively blog, write, and communicate their finds. In working with individuals in that community, we have found that metal detectorists talk about skills gained in site mapping, identification of a wider range of artifacts, and the pure enjoyment of working in a team-based collaborative manner.

We should take advantage of this enthusiasm for practical applications and as a means of engaging the public with our discipline. Opening channels of communication between metal detectorists and archaeologists gives us the opportunity to practice public engagement and to have a meaningful dialogue about how to preserve the archaeological record. In addition, collaborating with this passionate group who approaches the material culture record from such a different perspective ensures new perspectives of viewing our data. Such views will not follow, but rather challenge, the orthodoxy of our discipline. By opening our process to groups outside of our discipline, co-creation becomes a powerful tool to bring about new insights, community engagement, and changed viewpoints for all involved.

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Supplemental Material

Supplemental materials accompanying this article are available online through IngentaConnect: <http://saa.publisher.ingenta-connect.com/content/saa/aap>

Supplemental Table 1. Metal Detector Hits Excavated during November 2014 Survey of Madison-Era Stable.

Data Availability Statement.

The data used in this article are provided in Supplemental Table 1.

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AUTHOR INFORMATION

Matthew B. Reeves ■ The Montpelier Foundation, 13384 Laundry Rd., Montpelier Station, VA 22957 (mreeves@montpelier.org)