Systematizing Public Education in Archaeology

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Public outreach is not new to archaeology, as it dates back to the first site tour and the earliest museum programs for schoolchildren. Public programming, however, has increased exponentially in the last 30 years. The recognition that informing and educating the public are essential to preserving the material past spurred the development of what is now designated as "public education" in archaeology. Broadly defined, it ranges from one-time outreach events to ongoing, regular programming involving schools and even entire communities (cf. Bollwerk et al. 2015). Today, state and federal agencies, as well as cultural resource management (CRM) firms in the United States, regularly incorporate public education into their mandates (Ellick 2016; Little 2009). In other countries, such as the United Kingdom, archaeology is not just the purview of sites and museums, but is now woven into the precollegiate history curriculum (Mike Corbishley and Sarah Dhanjal, personal communication 2016). Even academic research projects, long geared

ABSTRACT

Public education in archaeology today is at a crossroads. Over the last 30 years, it has grown exponentially and is now widely recognized as one of the most effective ways to preserve the past for the future. However, it remains a loose conglomeration of approaches lacking coherence and consistency. There is little discussion of the best practices to use in specific situations and little assessment of effectiveness. One result is that practitioners often reinvent the wheel; another is that we are not reaching the diverse audiences we need to engage to assure archaeology's future. As a profession, we are losing ground to the continued encroachment of looting and vandalism—the very activities education seeks to forestall. We can either keep doing what we are doing and hope for the best, or we can begin to systematize our efforts. This article introduces a special issue of *Advances in Archaeological Practice* dedicated to systematizing public education in archaeology by contextualizing and assessing contemporary practices. The article provides a framework for thinking about the issues and proposes solutions, while discussing the contributions of the issue's authors. Its purpose is to initiate discussion, not to provide the final word on the problem.

La educación pública en la arqueología hoy está en una encrucijada. En los últimos 30 años ha crecido exponencialmente y ahora es ampliamente reconocida como una de las maneras más eficaces para preservar el pasado para el futuro. Sin embargo, sigue siendo un conglomerado suelto de enfoques que carecen de coherencia y constancia. Hay poco debate sobre las mejores prácticas para utilizar en situaciones específicas y poca evaluación de su eficacia. Un resultado es que los profesionales frecuentemente reinventan la rueda; otro es que no estamos llegando a las diversas audiencias que necesitamos alcanzar para asegurar el futuro de la arqueología. Como profesión, estamos perdiendo terreno ante la invasión constante de saqueos y vandalismo, las mismas actividades que la educación pretende prevenir. Podemos seguir haciendo lo que estamos haciendo y esperar lo mejor, o podemos empezar a sistematizar nuestros esfuerzos. Este artículo introduce un número especial de *Advances in Archaeological Practice* dedicado a la sistematización de la educación pública en arqueología a través de la contextualización y la evaluación de prácticas contemporáneas. El artículo provee una estructura para pensar en los temas y propone soluciones, mientras se discuten las contribuciones de los autores del número. Su propósito es iniciar la discusión, no dar la última palabra sobre el problema.

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toward scientific audiences, increasingly include public tours and community outreach among their activities.

Public education, however, in the United States specifically remains a scattered and unsystematic effort. There is little holistic discussion of the best approaches to use in specific types of situations and little assessment of best practices, forcing archaeologists and educators to spend fruitless time reinventing the wheel. We also lack an overarching vision of what we want to convey to the public. While goals can and should vary to reflect local context (cf. Sobel 2013), all too often they remain unspecified. The result is programming that may satisfy archaeologists and the organizations they work for, but does not necessarily reach the intended audience. Moreover, the message we are broadcasting as a discipline is inconsistent and often ineffectual. Furthermore, we are failing to attract people of diverse backgrounds into the profession because they do not connect with our programming. Archaeology in the United States remains largely middle-class and European American (King 2008, 2014, 2016a, 2016b).

The intent of this special issue of *Advances in Archaeological Practice* (*AAP*) is to begin addressing the problem of systematizing public education in archaeology. This article provides an overview of the problem and proposed solutions, and introduces the contributions of the authors. They, in turn, offer perspectives on where we started and where we are today, review established educational programs from both a theoretical and practical point of view, evaluate their efficacy, and provide tips on how to construct programming. These contributions come from archaeologists, educators, museologists, and other specialists working in different types of programming, from short- to long-term, and in different settings, from schools to museums to individual projects. They cover a variety of geographical areas that reflect varying challenges to archaeological preservation and stewardship. They focus on American archaeology, but invite a wider discussion. Indeed, the goal of these articles as a group is not to prescribe a definitive cure for our educational woes. Instead, we wish to initiate a profession-wide debate on how to go about making our public teaching more coherent, relevant, and effective.

THE SCOPE OF THE PROBLEM

The exponential growth of public education in U.S. archaeology can be traced to growing concerns in the 1960s and 1970s over the rise in looting and vandalism on federal, state, and private lands. As Ellick (2016) details, increased attention to education began with the efforts of individual government and CRM archaeologists to ensure the proper implementation of the Archaeological Resources Protection Act of 1979. These efforts were boosted by the 1988 amendments to the Act, which required federal action to protect archeological resources. Section 10(d) of the amendments specifically stipulated that federal land managers establish programs to increase public awareness of archaeological resources and of the need to protect them (McManamon 1991, 2000, cited in National Park Service 2016). Individual and regional initiatives culminated in the 1980s with the *Save the Past for the Future* events that fleshed out both short- and long-term "action" goals to coordinate educational activities on a national level. One of these was the establishment of a Public Education Committee (PEC) as part of the Society for American Archaeology (SAA) in 1990 (Ellick 2016). That same year, the passage of the Native American Graves Protection and Repatriation Act emphasized the need for broadly ranging and coordinated educational efforts.

Spurred by these developments, the SAA adopted the thematic message of "saving the past for the future" and placed education squarely at the center of its preservation efforts. Other associations also made educational outreach a priority. The Archaeological Institute of America (AIA) has long had a primary mission focus on education and the Society for Historical Archaeology (SHA) established its own Public Education and Interpretation Committee in the early 1980s (Ellick 2016). The rapid development of the Internet in the 1990s and early 2000s facilitated information sharing (Heath 2014), and educational programs have proliferated. Especially significant was the Bureau of Land Management's development and refinement of a comprehensive national archaeology-based educational curriculum, Project Archaeology (Moe 2016), which has been widely adapted for local use by archaeological educators.

International developments were based on a different set of premises. In the United States, archaeology is divided between prehistory (before the advent of written European accounts) and history (afterward). That divide can often be stark, as it marks the genocide of native populations and their replacement by colonial ones. So clear a line can be drawn that each temporal specialty has its own professional organization (the SAA and the SHA). While this colonial dislocation is true in other countries as well, for example, Australia and Canada, in most places history is seen more as a continuation of the prehistory of resident groups rather than as a complete break. Even in regions like Latin America, whose indigenous populations experienced a decimation similar to that in North America, there is often more continuity recognized between the distant and recent pasts. Nowhere is this truer than in Europe. In the United Kingdom and France, for example, prehistory predates the first millennium A.D., and "history" starts well before the United States was born. Archaeologists in such countries do not need to educate the public on a past disconnected from their own, as in the United States, a country of immigrants. Instead, their objective has been to help people recognize their unwritten past as the prelude to their written one. Efforts in these places, then, have focused on assuring a place for prehistory and, by extension, archaeology in the precollegiate curriculum. In France, generations of schoolchildren from Paris to French overseas territories have learned about prehistory from the Cro-Magnons to "our ancestors the Gauls," an inaccurate claim dating back to the nineteenth century (Citron 2008). In the United Kingdom, discussion of the role of archaeology in education began in the 1920s and culminated in the establishment of archaeology as part of the National Curriculum in history in 1991. Efforts there not only guaranteed archaeology a firm place in precollegiate classrooms, but also provided training for teachers. As in the United States, the greatest push in developing teacher training models took place in the 1970s and 1980s, but it continues to this day (Mike Corbishley and Sarah Dhanjal, personal communication 2016).

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These distinctive developmental trajectories have led to quite different results. The privileged position of archaeology within the school curriculum in countries like France and the United Kingdom, as compared to the equivalent curriculum in the United States, seems to have produced more coherence in the activities of archaeological educators. In the United Kingdom, lessons at sites and museums dovetail with what is taught in the classroom, emphasizing core "knowledge, skills, and understandings" established by the National Curriculum, such as "chronological understanding" (Mike Corbishley and Sarah Dhanjal, personal communication 2016). As a result, archaeology education in the United Kingdom and elsewhere has acquired a certain stability and longevity, despite the challenges that its proponents still face in implementing programs and correcting the information being taught (cf. Citron 2008).

In the United States, no such coherence or stability exists. The problem is not a lack of awareness, as American archaeologists very effectively promote archaeological education to both the profession and the public (Ellick 2016). There is also no dearth of information or materials about it. The PEC's "Archaeology for the Public" pages on the SAA website provide probably the most thorough and comprehensive compendium of resources for educators and archaeologists, as well as items of interest for the general public. The AIA and SHA provide similar information, albeit with a slightly different focus and more restricted range. Other websites, such as Texas Beyond History, furnish localized information and resources. Additional material is available in the form of scattered articles in the SAA's original *Archaeology and Public Education* newsletter and in the *SAA Archaeological Record*.

Much of this information, however, is piecemeal and methodologically focused. Lesson plans tend to be practical, hands-on activities, designed to be used in any number of situations, so they are bereft of context. They are also subject to the vagaries of interpretation by individual teachers or presenters who may or may not have a solid understanding of archaeology. Case study write-ups abound, but their authors do not always extend the lessons they have learned to be more broadly applicable. Lacking, too, are discussions of the factors one needs to consider when designing a program for a specific kind of venue, including sustainability and assessment. All too often, promising programs are abandoned when personnel changes, funding disappears, or organizational priorities shift, leaving behind no measures demonstrating how successful a program has been for core organizational goals. In short, there is a lack of sustained replicability in our practices that contributes to the instability of American public education in archaeology.

Several factors have compounded the problem and led us to where we are today. First, the SAA's PEC, which long served as a haven for archaeological educators to share ideas, was reconfigured in 2005 in ways that removed it from being a centralized professional forum for educators. While the AIA has started to offer Educator Workshops at their annual meeting, the vacuum of interaction among educators, despite organizational interest groups (Ellick 2016), has accentuated the lack of coherence in American public programming.

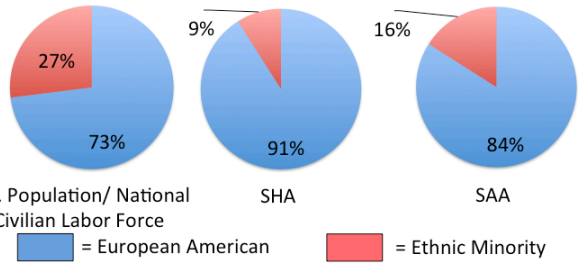
Adding to the problem is the fact that "public education" in archaeology straddles the growing divides between different theoretical and practical approaches, from public archaeology (e.g., Jameson and Baugher 2007; Little 2002, 2009; McGimsey 1972; Merriman 2004) to community outreach (e.g., Derry and Malloy 2003; Shackel and Chambers 2004) and engagement (e.g., Bollwerk et al. 2015; Little and Shackel 2007, 2014) to object and site presentation (e.g., Stone and Molyneaus 1994; Stone and Planel 1999). The lack of consensus on what separates these approaches (Kowalczyk 2016) is, in part, the inevitable outcome of growth in this area. As more practitioners engage in public outreach and think about it, they will refine the theory and practice associated with their activities. In part, too, though, these varied categories reflect an important change in how archaeologists do things. As Kowalczyk (2016) notes, they reflect a "paradigm shift from exclusivity to inclusivity" that implies a more collaborative relationship between archaeological professionals and the public (cf. Bollwerk et al. 2015).

In concert with this paradigm shift, public education in archaeology is now increasingly viewed as a subset of heritage education and heritage management (Carman 2002; Smith et al., ed. 2010). Within the last decade, the concept of heritage has taken root as an interdisciplinary field that combines the interests of archaeologists, curators, conservators, architects, historians, communities, and other stakeholders in the preservation of the past (King 2014). Much of the emphasis to date has been on safeguarding physical remains at specific sites (artifacts, buildings, etc.; King 2014). However, heritage has recently migrated to academia, where heritage studies programs are now developing and where the concept of heritage has been expanded to include intangible components like memory and tradition (King 2014). This migration has led, in turn, to sophisticated theorizing on heritage values (e.g., Smith et al., ed. 2010), including the different types of valuation (Altschul 2010; Clark 2010; Okamura 2010), the significance of place to the visiting public (Holtorf 2010), and the complicated relationship of local communities to heritage spaces and professionals (Bohlin 2011; Bollwerk et al. 2015; Chirikure and Pwiti 2008; Herrera 2013; Okamura 2010). It has also led to the emergence of new, related fields such as archaeological ethnography (Hamilakis 2011).

For public education in archaeology, the new focus on heritage has reinforced the emphasis on our changing audiences and our relationship to them. Archaeology is intrinsically linked to heritage and thereby to our individual and collective identities (King 2014). If heritage comprises the stories we tell about ourselves, then archaeology helps write them (King and Epstein 2015). Whose stories are we telling, though? Whose past are we investigating and preserving (Smith et al. 2010, cited in King 2014)? If people do not recognize themselves in the archaeological past, if they cannot "walk in the footsteps of our history" (Baker et al. 2009:17), then they will be less inclined to participate in archaeological activities and support archaeological research. At most, they will consider it to be a fun recreational topic, but not one that really touches their lives or involves them in any meaningful way.

The lack of diversity in the archaeological profession accentuates this problem. Populations around the world are continuing to diversify due to many factors, such as global migrations to seek work or escape war. The citizens of any given nation are increasingly mixed in background and ancestry. In the United

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Ethnic Minorities	SHA	SAA
Alaskan Native, American Indian, Asian/Pacific Islander	2.6%	2.8%
African and African American	0.8%	0.2%
Hispanic/Latino(a)	2.4%	5.8%
Multiracial or Other	3.5%	7.5%
Total	9.3%	16.3%

FIGURE 1. Statistics on diversity among American archaeologists in 2010, developed by the author from the 2010 U.S. Census (Humes et al. 2011), the Society for Historical Archaeology Members Needs Assessment Survey (SHA 2008), and the Society for American Archaeology Members Needs Assessment Survey (SAA 2010). Ethnic groupings reflect and reconcile the different ways they were listed in the sources (e.g., "Pacific Islander" in the SHA's survey, but "Asian/Pacific Islander" in the SAA's).

States, population projections suggest that European Americans will become a numerical minority by midcentury (Colby and Ortman 2015). Archaeology in the United States, however, remains dominated by European Americans, 84 percent for the SAA and 91 percent for the SHA in the last counts taken (King 2013, 2016a; King and Epstein 2015; Figure 1). This absence of diversity not only endangers future support for the profession but also impoverishes our interpretations by silencing alternative perspectives (King and Epstein 2015).

Educational outreach to a variety of groups is one way to make archaeology more "present," and archaeologists have worked hard to expand our audiences (see, for example, Ducady et al. 2016; Reetz and Quackenbush 2016; Sgouros and Stirn 2016). However, the programs we present do not always take into account different learning styles and cultural backgrounds (King 2008, 2016a, 2016b; Reetz and Quackenbush 2016). They can therefore miss the intended mark, no matter how thoroughly thought-out they are in terms of activities.

To summarize, despite promising beginnings, public education in American archaeology today is facing serious difficulties. A piecemeal approach has been compounded by the abolition of an important educators' forum and by changes in theory, practice and, increasingly, our audiences. Recent scholarly publications have eloquently argued that the future of the discipline lies in engaging with communities of all kinds in all different contexts (e.g., Bollwerk et al. 2015; Little and Shackel 2007, 2014; Shackel and Chambers 2004); however, few look into the nuts and bolts of what makes their programs work, and therein lies the heart of the problem: we lack a systematic approach to what we are doing.

In the profession at large, there is currently a growing awareness of this issue. Several recent symposia have focused on education and pedagogy at the annual meetings of different archaeological societies (e.g., AIA 2016; SAA 2012, 2013, 2014; SHA 2016a, 2016b, 2016c). The new AIA Educator Workshops have helped to review the scope of the problem and sketch a trajectory toward the future. Project Archaeology, too, has stepped into the breach, providing professional development for archaeology educators at annual and biennial conferences (Jeanne M. Moe, personal communication 2016). In addition, Project Archaeology has also begun developing materials for informal education in venues such as museums and archaeological sites (Moe 2016). These collective efforts are all aimed at capturing, organizing, and systematizing the information we have on archaeology education.

The small body of research that exists, however, remains largely unpublished. It is that deficit that this issue of the *AAP* seeks to address, while proposing a solution to the overarching problem. The latter lies in a multipronged approach that first recognizes public education as a branch of applied archaeology (Shackel and Chambers 2004) requiring its own specialized set of theories and practice. Like the larger domain of heritage studies under which it increasingly falls, archaeological education is a hybrid of archaeology, education, and other fields, such as museology, and, as such, it should draw on theory and practice from all the relevant domains. It should also include pedagogical perspectives that embrace different styles of learning and seek inclusivity. While a marriage of approaches is often implicit, it is not always explicitly delineated so that it can be extrapolated to comparable situations and used to develop reachable goals. Public education represents a crossroads where theory, practice, and ethics all meet. Like all pedagogy and all applied work, it should be subject to assessment, so that archaeologists and educators can develop a canon of best, and situationally appropriate, practices. Finally, these assessments should not just be plowed back into the specific programs that generated them, but made more widely available so that this common canon can emerge.

The following sections discuss the components of this solution in greater detail, beginning with assessment as *the* most important factor in developing better programs in the future.

ASSESSMENT

Assessment—or, rather, its absence—lies at the core of the current problems in public education. Archaeological educators may informally evaluate the success of a program based on numbers of attendees and amount of interest displayed, and may tweak their future programs on that basis, but there is little formal assessment of best practices, which requires specified goals and measurement procedures. While most would agree that the vision of archaeological education is an informed public with respect for and appreciation of the past, those are very broad mandates. There is little discussion on how exactly to achieve them when designing programs, and there is a big difference between the knowledge one can impart in a summer camp and what one can accomplish in a one-day fair. There is also a difference in what different audiences (adult, children of different ages, mixed) will absorb. What are we trying to teach,

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specifically? What lessons do we expect audiences to learn from a fair, or a day-long, week-long, or month-long program? Goals need to reflect these different situations, as well as local context (cf. Sobel 2013), but they also need to convey a consistent message. All too often they are not even articulated, nor is the program's success in attaining them evaluated. What do our audiences actually retain? To figure that out and refine what we convey, we need to assess what we are doing now.

As a first step toward a more explicit and grounded public archaeological pedagogy, this issue of *AAP* focuses on designing and assessing a range of different types of programs. It begins with Ellick's meta-assessment of the current state of archaeological education in light of its history in the United States. Besides providing the baseline from which we started, Ellick also discusses the challenges facing archaeological education today.

The remaining articles draw on case studies while spelling out the implications of specific programming for public education in archaeology as a whole. Many of them feature truly interdisciplinary collaborations between archaeologists and professionals from other disciplines (e.g., Ducady et al.; Henderson and Levstik). While some of the programs build on multiple years of assessment data (e.g., Ducady et al.; Henderson and Levstik; Moe), others have only preliminary results (e.g., Thomas and Langlitz). All of them consider, however, the tools that are most effective for the design and assessment of their specific ventures. These lessons are intended to provide a basis for other ongoing or new programs to build on.

Illustrating short-term programming, Kowalczyk looks at a traditional type of program that pairs an archaeological research excavation with one-time public outreach events, including both "public days" on the dig and site tours, advertised through various media. She distinguishes public archaeology from other types of outreach and points out that there are few evaluations of its effectiveness, in part because we do not have a firm grip on who participates in these kinds of one-time programs and why. She collected limited demographic information and, through surveys and interviews, identified the motivations of the participants, who generally attended only one event. Her conclusions suggest, among other things, that there may be unexpected audiences we should take into account, such as the homeless.

Thomas and Langlitz deal with a similar kind of one-time event: the archaeology "fair," a popular form of public outreach. They provide information on the history of archaeological fairs and the specific logistical requirements, from partners to venues to activities, that make for successful fairs. They also discuss the goals of such fairs in terms of heritage education—the message(s) that can be conveyed. In 2015, in addition to canvassing presenters on what made a fair successful, they instituted a simple questionnaire for the adults and children who chose to attend. While their revelations were not surprising, they are helping the AIA reevaluate what it is doing. The short, well-designed format enables the comparison of results among fairgoers and holds promise for other fair organizers to see what works best to convey the message they want.

Thum and Troche take on a double challenge also focused on short-term experiences: how to make casual museum visitors interested in and educated about archaeological research and how best to make use of the many broken and unprovenienced objects that populate museum collections. Their solution was an innovative exhibit that took visitors behind the scenes. By using new, interactive technology, showing visitors how archaeologists and curators worked, and allowing them to handle selected objects, they encouraged members of the audience to participate in the research process. Their article reviews the exhibit components in terms of museological theory and educational goals. The authors also discuss issues of sustainability and assessment, which were important components of their overall exhibit plan, and suggest ways of moving forward.

Sgouros and Stirn and Reetz and Quackenbush discuss one- to two-day or more summer archaeology camps for precollegiate students. Importantly, they both frame their discussions in terms of educational theory as well as archaeological approaches, thereby providing a broader context for their separate programs. They also both deal with populations of underrepresented students. In Sgouros and Stirn's case, these are recent Latino immigrants; in Reetz and Quackenbush's example, they are members of the Ho-Chunk Nation. Sgouros and Stirn frame their program in terms of place-based education, an educational theory that focuses largely on environmental issues, but can also be applied to great effect in archaeology. Their program draws on lessons developed by Project Archaeology (Moe 2016), thereby connecting their work to a larger body of archaeology educational practice. While their program is still developing, it provides a model for how to frame and evaluate these kinds of activities.

Reetz and Quackenbush's article reviews a program initiated by a local CRM firm with members of the Ho-Chunk Nation in Wisconsin at a Ho-Chunk site. While the program was only informally evaluated, it elicited strong, positive reactions from the participants, which the authors analyze by looking at the components and results of this program in terms of educational theory, specifically, environmental education (including place-based education), multicultural education, and Native American learning styles (see below). They end by suggesting how these theories can be applied to designing future educational collaborations between archaeologists and tribal communities.

The next articles deal with longer-term precollegiate educational programs. Moe reviews the Cadillac of those programs, Project Archaeology, which was first developed 25 years ago as an educational response to looting in the 1980s and later adopted by the SAA as its precollegiate program of choice. Project Archaeology has gone through several metamorphoses, due to an expansion of its initial scope (Ellick 2016) and to changing priorities in public education. The painstaking development of new programming, which now incorporates Common Core State Standards (CCSS) in grade-appropriate lessons, allows Project Archaeology to be used more widely. Moe's article focuses on the formative assessment of the program's curricula and instruction and on assessing its impact on students. Her data is some of the most complete information available on what students understand of history and science and how they best learn it.

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Complementing Moe's piece is Henderson and Levstik's research on the impact of Project Archaeology in a local Kentucky setting. Combining their talents as an archaeologist (Henderson) and educator (Levstik), they developed an archaeological education program with a local teacher that combined classroom lessons with activities at a local site. Like Sgouros and Stirn, they used Project Archaeology lessons to frame the project and to help students of different ages retain the message of preservation and protection that they were trying to impart. Their project is unique in having had an immediate assessment of learning followed by another assessment several years later, to see what the students had retained. Their data suggests that archaeology is ideally suited for evidence-based learning and scientific inquiry—skills that are currently stressed in precollegiate curricula and that fit in well with young children's learning styles. Educators need to be aware of certain pitfalls, however, which the authors delineate along with suggestions on how to improve and assess such programs.

Ducady and colleagues examine an ongoing project of eight years' duration that partners Providence, Rhode Island, public schools with private museums in the area. Their target population includes a mix of different ethnicities and backgrounds. The program pairs classroom lessons with lessons focused on museum exhibits, rather than on excavations. It is also unusual in combining approaches and expertise from precollegiate teachers, museum educators and curators, and archaeologists in a truly interdisciplinary collaboration. Like Project Archaeology, Ducady and colleagues focus on using archaeology to implement CCSS skills in the classroom. Their discussion details the steps involved and reviews the assessment process. Teacher feedback and student evaluations have helped refine this program and make it a model for other programs being implemented elsewhere in the United States.

Chiarulli wraps up the practical advice in a How-To article based on her experience that details 10 important lessons to help program designers avoid common problems. These lessons cover everything from logistics to crucial information you need to know about your audience in order to develop programs that are appropriate for different venues and that convey a coherent message.

While these assessments provide a start for us to begin looking at best practices, they are just that: a beginning. To ensure the continuation of assessment efforts and their dissemination, public education in archaeology must be officially recognized in academic circles as the professional specialization it already is.

THE CASE FOR A SPECIALIZED SUBFIELD

While we no longer need to advocate for public education in archaeology, the specialty is still in its infancy within the discipline. It is largely practiced by applied and academic professionals who have degrees and specializations in other domains and have found themselves engaging with the public either by interest or necessity. Few graduate schools offer degrees in applied archaeology, the domain under which public education falls (Shackel and Chambers 2004), and fewer still view outreach as a legitimate concentration, even if more graduating students appear interested in public outreach as a career (Ellick 2016). Archaeologists have long had a love-hate relationship with pedagogy in general. We recognize the importance of practical, hands-on lessons, as many of our techniques are best learned in the field. We also like to explore different ways of teaching archaeology, especially to undergraduates. The idea that teaching and learning are viable areas of research is not one that members of the profession have readily adopted, however (Hamilakis 2004). Developing a body of theory, as well as of practice, associated with what many of us do for a living is not generally considered to be as appealing as other areas of research, nor as career enhancing or challenging (King 2014). Thus, although the profession has witnessed the proliferation of specialized analytic and topical subfields, education lags behind. We lack a coherent pedagogical theory and praxis that can consistently inform our efforts, from public outreach to the training of future archaeological professionals.

The lacunae in our research and teaching have serious consequences for public education. Ignoring the theory behind the practice contributes to a piecemeal approach. It also devalues education, making it a sideshow rather than the main event for many professional archaeologists. The widespread prejudice that education is primarily a "female" domain, especially at the precollegiate level, contributes to this depreciation. One need look no further than at the composition of the PEC, which is consistently dominated by women, to gauge the relative position of education in the profession and its value for enhancing careers, no matter how supportive many men may be of public outreach (King 2014).

To remedy this situation, as a start, we need to recognize that the theory and skills required to be an effective public educator in archaeology form a body of knowledge, worthy of being its own specialized subfield. This subfield, properly speaking, is a branch of applied archaeology that is related to but separate from other applied areas, such as CRM or government archaeology (Ellick 2016). Applied archaeology itself, however, is undergoing transformation as the growth of heritage studies has broadened the conceptual framework in which it takes place and expanded views of practice to new areas and jobs, including some we have not even thought of yet (Phyllis Messenger, personal communication 2016). At the same time, public education in archaeology has yet to coalesce into a unified entity. While there has been movement in this direction, efforts remain scattered and theory has yet to be completely married to practice. It makes sense, then, to situate this coalescing subfield firmly within the burgeoning domain of heritage studies (Heath 2014; see also Ellick 2016), rather than within a more strictly archaeological context. This placement has two distinct advantages. First, it ties public education in archaeology firmly to closely related domains such as public history and heritage management. Second, it emphasizes the interdisciplinary nature of public education, encouraging the exploration of broader conceptual frameworks. Doing so is especially critical to future progress in this subfield.

While many recent approaches to public education and community engagement are rich in archaeological theory, few turn to education or other disciplines for appropriate models. One of the most promising areas to explore is environmental education, which has developed a significant body of theory and

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practice, especially on the precollegiate level, over the last 30 years (Heath 2014) and shares with archaeology an emphasis on hands-on learning in outdoor settings (Reetz and Quackenbush 2016). Additionally, experts worldwide increasingly emphasize the inseparability of cultural and natural heritage (Brabec 2016), so it makes sense for archaeologists to reach for these ready-made tools. One important approach within environmental education is place-based education, which emphasizes community engagement and service learning, as well as the local environment (Sobel 2013). It is particularly effective when married to archaeology, because its main features include, besides hands-on activities, project-based learning that takes students through the scientific inquiry process; an integrated curriculum through which many different subjects can be taught; real-world learning that emphasizes connections between the classroom and the student's world; near-to-far teaching that starts with the local and familiar and expands outward from there; and environmental responsibility, which easily translates into cultural stewardship (summarized in Sgouros and Stirn 2016). Equally to the point, place-based learning shares with archaeology an intrinsic link to identity. As Connor (2013:29) notes: "Culture and identity do not exist in isolation. Place and community connect identity with culture." Situating public education activities in archaeology within this framework provides continuity for students between school, home, and program. It also allows for a broader framing and understanding of what we do that help in developing public programs with a more coherent overarching message.

In keeping with the emphasis on the hybrid nature of archaeological education, practitioners should also think inclusively about their audiences and adopt different pedagogical methods (Reetz and Quackenbush 2016). Not everyone learns the same way, and our programs should take that into account. In addition, for many groups currently underrepresented in archaeology, such as African Americans and Native Americans, cultural barriers and different learning styles impede the absorption of knowledge through more conventional, Eurocentric means (King 2008, 2016a, 2016b; Reetz and Quackenbush 2016). Pedagogies that focus on different ways of learning and on teaching in multicultural classrooms (e.g., Connor 2013) should be consciously incorporated into our efforts. Of particular importance is paying attention to learning styles (Johnson 2012; Reetz and Quackenbush 2016) and building on students' cultural knowledge (Scheuerman et al. 2010). It is only then that we will be able to reach all audiences and ensure their participation in respecting and preserving the past.

Finally, as part of the effort to establish this professional specialty, we need to continue developing assessment tools and sharing the results of our experiences. That means, of course, publishing more peer-reviewed articles on archaeological education, and, hopefully, the current issue will encourage others to do so. However, discipline/practice specific journals do not resolve the need for more centralized ways to communicate across disciplinary boundaries. Perhaps one solution to this problem would be to post primary data and assessments as part of the Digital Archaeological Record (tDAR) or to develop a platform or digital commons under the umbrella of organizations such as the Heritage Education Network (see Ellick 2016). Easily searchable and widely accessible online formats would seem to make the most sense for a future we know will be increasingly digital.

CONCLUSIONS

Public education in archaeology today is at a crossroads. The lack of coherence in our message and its delivery contribute to the risk that archaeology will slide into irrelevancy. Already, universities are cutting programs, as they fail to see the pertinence of archaeology to STEM disciplines (King 2016b). Students, particularly those who are first-generation in college, are also shying away from programs that do not bring practical, easily recognizable jobs and financial results (King 2008, 2016a, 2016b). That does not bode well for the future as the population demographics change and the people practicing archaeology diverge even further from the people they need to rely on for support. Public education is essential for bringing new voices to the table. By the time students reach college, it is too late; they are already limited in their career choices (King 2008, 2014, 2016a).

Public education is also necessary to help counter the image of archaeology in the media. We are still facing an unprecedented tide of looting and vandalism, both in the United States and abroad. If anything, archaeology seems to have lost ground in the public consciousness, certainly in the United States, as economic concerns dictate sober and prolonged considerations of where to direct public and private dollars (King 2014, 2016b). Media images of archaeology have not helped, either. Films like the *Indiana Jones* series and video games like *Tomb Raider* may appear to glorify the profession, but in fact reduce it to treasure hunting. More subtly, they exoticize archaeology and place it outside the realm of most people's experience. In our clicker-paced, instant-tweet world, where we are constantly invited to "join the conversation" and express our opinions on what is worthwhile, archaeology can appear remote and inaccessible (King and Epstein 2015). There is also little tolerance in public media for the careful building of evidence and development of methods that bring to fruition scientific breakthroughs like the recent detection of gravitational waves (Lightman 2016) or the reconstruction of past lifeways. We need outreach that teaches the importance of painstaking, methodical research while capitalizing on the new technology and communications methods available to us (e.g., Thum and Troche 2016).

In sum, public education needs to be brought into the twenty-first century (cf. Little 2009). We are at exactly the right point to do so, building on our efforts of the past 30 years. We have amassed a body of knowledge and practice that is shaping itself into the outlines of a specialized subfield. We need to seize the moment, however, and make conscious decisions about how we want to proceed, rather than letting things drift, hoping for the best. This new action plan should start with an assessment of where we are now in both theory and praxis. We also need to determine how we want to situate public education within the broader, applied and academic landscapes of archaeology. This issue of *AAP* is a first step. These articles provide reviews of our current situation, assessments of existing programs, and suggestions for how to proceed. They also offer measurement tools for different situations, new theoretical approaches, and proposed program structures. These are neither final nor all-inclusive, however. Instead, we hope our colleagues read them as an invitation to join us in debating what we need to do to create a sustainable public education in archaeology for the future (Figure 2).

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FIGURE 2. The future of archaeology.

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Data Availability Statement

The statistics are derived from tables presented in King 2013 and 2016a. Those and other information presented in this paper can be obtained by contacting the author directly at emking@howard.edu.

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