Curating Digital Surrogates in a Museum Archives: The Historic Boards Collection at the Peabody Museum of Archaeology and Ethnology at Harvard University

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ABSTRACT

This work uses a case study to examine the practice of digital curation in a museum archives, with a focus on convergence between museum and archival methods for providing online access to individual items as well as to collections. The case study focuses on the recently digitized Historic Boards (or "H boards") collection at the Peabody Museum of Archaeology and Ethnology at Harvard University. This collection includes approximately 25,000 photographs depicting Harvard-led research expeditions beginning in the mid-1800s. By the early 1900s, museum staff had organized the photographs into groups and pasted them onto mat boards, with each board showing multiple views of a particular geographic location. As the H boards were created as a resource for educators and students, they provide a valuable source of documentation for both the museum's curatorial history and the pioneering work of Harvard ethnographers. With digital surrogates now accessible through the museum's Collections Online portal, the H boards project offers detailed examples of how the evidence contained in archival photographs and accompanying text-based records can be more sharply focused or, alternately, obscured, by the decisions made in constructing and displaying digital surrogates online. More generally, the H board project offers insights on how archives and museums may benefit from treating digital curation as an iterative practice shaped by an ever-shifting technology landscape, by the resource constraints faced by many repositories, and, ultimately, by the historic opportunities afforded by making archives visible in digital form.

KEY WORDS

Access systems, Description, Digital curation, Digital surrogates,
Museum archives, Photographic archives

Studying Digital Curation Practices in a Changing Technology Environment

Over the past two decades, many LAM (library-archives-museum) repositories have managed to scale up their digital workflows and online access systems, with a wide range of previously "hidden"[1] collections becoming much more visible and accessible. However, the rapid growth of digital assets has raised a new and evolving set of challenges for institutions as they adapt to the changing needs of online users while, at the same time, addressing the long-term issues of digital preservation. To better understand how LAM repositories are addressing the practical issues of digital stewardship, this work presents one of a series of case studies through which I have examined the methods and institutional strategies adopted by LAMs for curating digital assets.[2] In one previous work, I examined a museum collection of Polaroid photographs by Andy Warhol in an effort to assess the role digital surrogates might play in preserving the information values contained in the material objects, and I observed how digital surrogates contribute new layers of meaning to the originals as they have been curated by the museum.[3] An overarching goal of this work was to show how photographs classified as art objects can also serve as archival records documenting the artist's work process. By contrast, the case study presented here examines a collection of archival photographs that document the curatorial history of the Peabody Museum of Archaeology and Ethnology at Harvard University (hereafter the "Peabody"). As with my study of Warhol's Polaroids, my larger aim here is to explore how the rise of digital assets in LAMs may point toward a greater convergence between archival and museum practices in serving users and managing collections.

The idea of convergence between the LAM disciplines has a long pedigree in the institutional[4] and disciplinary history of the information professions.[5] Library advocates, including Clifford Lynch, argue that LAMs might serve users better by facilitating access to multiple object types through a common interface.[6] Since the turn of the century, the concept of digital curation has gained currency as an interdisciplinary approach to the management of digital resources, grounded in the assumption that direct collaboration between technology and collection specialists is needed to effectively manage digital objects across their full life cycle, from the point of creation through steps needed to facilitate access, and to ensure long-term preservation.[7] Some argue that digital curation has progressed substantially toward becoming a distinct discipline within the information professions,[8] albeit with lingering uncertainty about the range of collection types that might be managed using common methods and standards. Some argue for a "pragmatic" approach to digital curation, treating it as an ongoing area of research with a focus on the "actual practices of curation

in a diversity of contexts and on associated actors, objects, processes, and infra-structures."[9] In educating LAM professionals, a pragmatic, empirically grounded approach to digital curation, drawing upon decades of research in social infor-matics research especially,[10] has proven to be a fruitful approach as we prepare students to play a variety of specialized roles and to adapt to the demands of a rapidly changing technology landscape.

In any case, old disciplinary lines, shaped largely by the material prop-erties of different object types, have become blurred by the introduction of digital technology, and, with convergence, take on a new, practical relevance in an institutional environment in which many (if not most) LAM institutions face distinct constraints on human and technology resources, even as the demand for online (and material) collections continues to grow and as tech-nology allows users to invent new ways to see and interpret collections. For instance, as Geoffrey Yeo observes, digital access has highlighted the value of ordering records in multiple ways, and especially at the item level, even as "fixed aggregations . . . [remain] deeply embedded in archival practice and exist-ing professional standards."[11] Archivists might struggle to accommodate the need for varying levels of description, yet museums face parallel challenges, as noted by Robinson, who calls for an approach to convergence that honors the varied, diverse histories and methods of LAMs, both at the disciplinary and local levels.[12] Ultimately, as digital access becomes the norm for discovering and interpreting collection objects, the LAM professions will need in-depth studies of both the access systems and the digital surrogates created to represent mate-rial objects, both with respect to technical measures of quality or fidelity to the originals,[13] and also at a qualitative level, as digital curators seek to understand how users perceive and interpret digital representations of collection objects.[14] Indeed, ongoing, qualitative research, including but by no means limited to case studies, is urgently needed to inform the practice of digital curation as technology innovations continue to generate novel forms of documentation, including those that may be structured informally or in nonstandard ways, as in the case of machine- and user-generated records.[15] Also, for LAMs, digital access has the potential to expose errors and gaps in existing collection documenta-tion, in some cases forcing institutions to reallocate scarce resources to clean up or augment existing metadata.[16] Ultimately, as the case study presented here suggests, digital curation may be viewed as an iterative process for LAMs, one that often begins with the creation of minimalist digital surrogates and access systems, and continuing through successive efforts to add layers of contextual information and to augment the technologies available to users to discover and interpret collections.

Digital Curation at the Peabody Archives

Beginning in the early 2000s, digital projects have enabled the Peabody to take large numbers of archival records literally out of the basement, using digital surrogates and the museum's Collections Online portal to make archives accessible on an equal footing with other museum collections. Founded in 1866, the Peabody has one of the world's oldest and largest ethnographic collections, consisting of 1.6 million total objects representing the global travels and eclectic interests of generations of Harvard-affiliated scholars. With its long and complex history, the museum offers a unique source of evidence on the development of anthropology as an academic discipline. Recognizing the potential impact of digitizing the collection, the Peabody has worked actively over the past two decades to expand online access to its collections, resulting in roughly 500,000 digital images being made available online. This total includes about 200,000 archival records, with most drawn from the archives' collection of roughly a half-million photographs. Given the volume of archival photographs digitized by the archives to date, my immediate aim was to evaluate the repository's current methods for exposing these assets online. Elsewhere, I have discussed the Peabody's digitization process and its web security policies governing public access to culturally sensitive digitized objects.[17] As the Peabody has a single access system for archives and museum objects, the Collections Online portal makes a useful case example of technology-driven convergence between museum and archival approaches to describing and displaying collections online. For the Peabody archives, convergence has meant that archives have been made accessible at the item level, as might be expected for museum objects, and with minimal contextual information visible at the collection level.

To understand how the Peabody archives has approached the challenges and opportunities of digital curation, I used a mixed-methods approach to data gathering. Students conducted an initial round of interviews as part of a course I teach at Simmons University: Digital Asset Management for Libraries, Archives, and Museums. The students' project report proved to be a rich source of background information on the repository, and it helped inform the research questions I used in a semi-structured interview I conducted personally with three members of the archives staff: Patricia Kervick, senior archivist; Katherine Meyers Satriano, associate archivist; and Kim Allegretto, assistant archivist. Kervick and Satriano later provided supplemental information by email. My research questions for the case study focused on the impact of online access on the Peabody archives' role as the primary source of documentation on the museum's collecting history. I asked what types and quantities of digital assets had been created, how digital workflows had been organized by the archives, and about new digitization plans for the future. Most important, I was interested

in how technology-driven convergence, as embodied in the museum's collection management system, may have influenced the archives' approach to digital curation. Finally, with the interview data in hand, I undertook a close observation of a sample of archival records (as described below) I chose in conjunction with the Peabody archivists.

As the Peabody did not employ a full-time professional archivist until 1998, digitization has played a formative role for the archives as an organizational unit within the museum. Patricia Kervick notes that the demand for archival materials by researchers has risen over the decade and a half she has worked at the museum; she sees this trend as part of a long-term shift in anthropology, in which the documentation of objects and collecting activities has taken on a more visible role in the discipline. As researchers approach the Peabody collections, their initial point of contact is normally one of the Peabody's collections stewards, whose role is to direct scholars to particular objects and collections of interest, including archival materials of which researchers might not otherwise be aware at the outset of their research efforts. In 2002, with growing demand for use of all types of archives, the Peabody decided to reorganize its photographic archives and paper records (which had been separate departments) into a single unit under the direction of a newly created senior archivist position. Historically, archival records of all types had been widely viewed as both institutional records and as museum objects that document the subject matter researched by scholars visiting the museum.[18] Following the reorganization, the Peabody archives made the decision to prioritize photographs for digitization, over the large volume of manuscripts, field notes, and other collection-related documentation that the museum had accumulated since the 1800s. In 2003, the Peabody received a National Endowment for the Humanities grant to digitize 80,000 photographic negatives, including 10,000 glass plates, with the primary goal of increasing researcher access to a record type that requires special handling. In Kervick's view, for archaeologists in particular, photographs play a vital role in documenting the condition of objects and sites at the time they are discovered and as their condition changes over time.[19]

From a museum archives perspective, the Peabody photograph collection shows how digital curation has the potential to expose layers of evidence that might be invisible to the viewer of isolated images, especially when photographs exist alongside other object types, including records documenting the intentions of creators, collectors, and curators. Indeed, the Peabody archivists are well positioned to observe the evolution of photographs as sources of evidence and social memory as it has evolved since the medium was invented in the 1800s. As Joan Schwartz explains, by the mid-nineteenth century, the new medium of photography had inspired a "firm belief in the reliability and authenticity of photographs as evidence,"[20] especially through the aura of permanence afforded by objects

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that "'fixed' a moment in time, 'fixed' the image of the camera obscura, 'fixed' the chemical development of the exposed plate or paper,"[21] leading to a new type of record that appeared to be more trustworthy or authentic than might be expected from the hand of an artist, who could seemingly manipulate reality at will through drawing or painting. Such a belief in the veracity of photographs might explain why a repository such as the Peabody would have actively collected large numbers of photographs documenting Harvard-affiliated expeditions as an authentic record of the interactions taking place between Western scholars and a globally diverse range of cultures.

Digitizing the Historic Boards Collection

As the Peabody amassed a large body of photographs, curators began to see genuine value in this object type as an information resource for faculty and students. By the early twentieth century, museum staff began to paste related groups of photographs on mat boards with handwritten captions likely intended to support instructional use at Harvard. The result is what came to be known as the Historic Boards (or "H boards") collection, which continues to be in demand. In all, the collection consists of roughly 25,000 photographs stored in 267 boxes of mat boards, which typically feature up to roughly a half-dozen photographs each. From an archival perspective, the H boards clearly demonstrate how the meaning of a photograph can be altered by changing the arrangement or physical context in which it may be viewed. The deliberate construction of the H boards by the Peabody serves to reinforce Joan Schwartz's argument that the seeming fixity of photographic images was based as much or more on cultural as opposed to technological factors, with many viewers sharing a "refusal to acknowledge the selectivity, subjectivity, and situatedness of photograph production, circulation, and consumption." Photographs created "an illusion of transparency and neutrality"[22] that visual evidence contained in the images or the available contextual information for a given photograph might not support. In the digital context, many scholars urgently challenge the notion of images as fixed and objective sources of evidence, unless they can be viewed in a rich and authentic context that reflects both the creator's intentions as well as the subsequent history of the record as it has been collected and displayed online.[23]

In the case of the H boards, the photographs themselves have been well preserved in their original state, even as contextual information was added through the arrangement of the photographs on the mat boards and by captions handwritten by museum staff. In fact, the captions make up the bulk of the Peabody's existing documentation on the provenance and subjects depicted in the photographs, with the result that the H boards now serve as essential

records documenting the collection. As the captions often include a location for the photographs featured on particular H boards, this information led the museum to store the collection in boxes labeled by geography. This arrangement made it convenient to search the collection by particular regions and their associated cultures, much as libraries have traditionally used vertical files to organize and search through photographs by topic. With this simple but effective organization, Patricia Kervick notes that the H boards have been the "first group of photographs that we search when receiving a photo request that

FIGURE 1. The H boards as originally organized. © President and Fellows of Harvard College, Peabody Museum of Archaeology and Ethnology, PM2007.1.48.

is not from a specific collection. Often researchers request things by subject matter rather than from a specific accession" and with location often serving as a proxy for the subjects likely to be covered by H boards from particular countries or regions. This pattern of use reflects the original way the H boards were organized and stored in a large cabinet, much like a library vertical file, as shown in Figure 1.

With frequent requests to use the H boards, this collection made a natural choice for a digitization project by the Peabody archives. Work began in 2013 with internal funding and with student interns doing much of the imaging. In deciding how best to create digital surrogates, the archivists were constrained by the limited amount of documentation available for the H boards, the biggest source being the handwritten captions on the boards. Further constraints were imposed by the Peabody's museum-centric collection management system (TMS) and the Collections Online portal, which provided a limited set of available metadata fields and options for viewing images through a web browser.

With these restrictions in mind, the archives decided to create a series of images for each mat board; one that captures the whole board, another showing the back of the board if it contains writing, and separate images featuring just the individual photographs—as they would have appeared before being

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mounted on the mat boards. For metadata, the archives chose to transcribe the H board captions, while supplementing this information as much as possible with existing museum documentation. The transcribed captions often appear in the Object Description field in the collection management system, with "written on board" included to distinguish this information from recently created metadata, as generally appears in the Display Title field. In describing the photographs, the archives staff was able to directly link 36 percent[24] of the H boards to other museum objects and donors by the presence of accession numbers written on the H boards. Those H boards that lacked accession numbers were likely collected by the museum informally—as ancillary materials, as with field notes and photographs taken to document expeditions that led to other objects being acquired by the Peabody.

Observing the H Boards at the Item and Collection Levels

With the H board project having been completed recently, it is worth examining the specific context in which digital surrogates for the H boards currently appear online. This is not to suggest that the online representation of the photographs will or should remain static. Indeed, it is very likely that changes will be needed in both the metadata and the images used to render the H boards as access systems continue to evolve and as users find new ways to interpret the H boards. At present, a key problem for Collections Online is that the H boards, as archival records, are displayed as isolated objects with fragmentary contextual information, so users must follow a complex trail of steps to link individual boards to the larger collection context in which the collection resides in the repository. Nevertheless, as we will see, the digitized H boards appear online with just enough metadata to permit them to be viewed in a meaningful context, and a solid foundation has been laid that should enable the repository to augment the context in which individual photographs appear online.

To better evaluate the initial results of the H boards digitization project, I undertook a close observation of a selection of H board surrogates with the aim of understanding how the images and contextual information available online for these objects might enable users to interpret and connect these records. As a starting point, the archives staff suggested a particular H board photograph with an item-level record in Collections Online; this item can be identified precisely by the Peabody number (2004.29.719) and by the contents of the Display Title field, which reads: "Shell heap, St. Francis St." (hereafter referred to simply as Shell Heap). Clearly, the title information is fragmentary and potentially misleading; in fact, it was the result of an error resulting from a data migration from the previous museum database (Embark), in which some fields were arbitrarily cut off after a certain number of characters. This particular record has

since been corrected, and the archives staff have been fixing similar problems arising from the migration.[25]

With the correction, the Display Title field for Shell Heap now reads, "Men with mules in front of shell heap." But even before the correction, the Object Description field proved useful, as it contains a transcription from the H board that reads, "Florida Shell heap St. Francis, St. John's River Lake Co." This is just enough information to place the photograph in Lake County, Florida, along the St. John's River and near a defunct settlement named St. Francis.[26] Still, there is no direct information on the provenance of the photograph, and the image itself depicts four men and a team of mules at a distance, making it difficult if not impossible to identify the individuals, the location, and the exact nature of the work they appear to be doing, as is clear from Figure 2.

At first glance, we might regard the photograph as a souvenir of an archaeology research expedition, as suggested by the Peabody's use of the term "midden" in the Geography/Provenience field;[27] this subtly alters the meaning of the H board's handwritten caption, which merely describes a "heap" of shells that might or might not be of interest to an academic researcher.

As the Shell Heap photograph has been displayed online, it is evident that the metadata derived from the H board is sparse, yet it does give the viewer a useful context for the item. Crucially, the archives chose to include two images on the web page used to display the item: one showing a cropped image of just
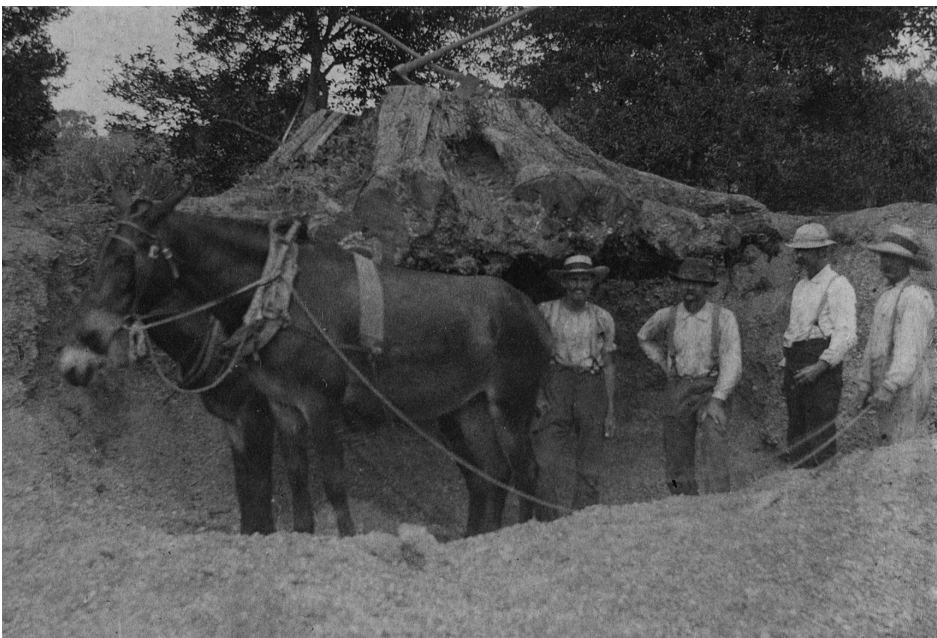
FIGURE 2. ˝Men with mules in front of shell heap˝ as a single image. Courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University, PM2004.29.719.

FIGURE 3. The H board featuring "Men with mules in front of shell heap." Courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University.

the photograph itself and a second image showing the complete H board to which Shell Heap was pasted decades ago. Significantly, the H board itself has not been cataloged and displayed as an individual item in Collections Online, so no item-level metadata are available for the board. Instead, all six photographs on this H board were digitized and described separately on unique web pages, all of which include images of the original photographs along with the image of the whole H board. Fortunately, this image is just large enough and at a sufficient resolution to make the handwritten captions readable, enabling the user to identify and retrieve the item-level records for all six photographs on the H

board, as shown in Figure 3. If the board image had not been displayed as part of the item-level records for the six photographs, there would be no practical way to link these photographs together, obscuring or erasing the H board as a record documenting how the photographs were curated by the Peabody after they were acquired in the late nineteenth century.

For the Shell Heap photograph in particular, the H board image offers helpful context on a number of fronts. For one thing, the item-level metadata for the photograph contains no provenance information, yet three of the H board photographs do contain evidence on who created the objects. One item, entitled "Indian Mound," is a stereoview photograph that appears to be part of a series entitled "Scenes in Florida," with the creator identified as "A. F. Styles, Burlington, VT." This could have been produced as a souvenir, although, visually speaking, its value seems to be mainly in showing the scale of middens created by indigenous people in central Florida. The available description locates this photograph at Salt Lake, well within the same region of Florida as Shell Heap. In fact, the H board captions enable us to place five out of the six photographs in the same region of eastern/central Florida. For instance, "Iron Axe" has a caption that reads, in part: "W. side of Halifax. 1874. E. Fla." This evidently refers to the western shore of the Halifax River, which forms part of the Intracoastal Waterway on Florida's Atlantic coast.

Another clue as to the provenance of Shell Heap is offered by the photograph entitled "Gold piece, A. M. Harrison, N. S. Coast Survey" (2004.29.716). In this case, the handwritten caption was transcribed as "Florida Gold. Near Mellowville St. John's R. A.M. Harrison U.S. Coast Survey." The name "Mellowville" is likely a typographical error, as we can trace the name Mellonville to a nineteenth-century town built on the shore of Lake Monroe (part of the St. John's River system), a settlement later absorbed by the city of Sanford.[28] The metadata record has since been corrected, yet, even with the error in spelling, we could discern that the Shell Heap and Gold Piece photographs both came from sites on the St. John's River that are not far apart. By contrast, another photograph, mounted directly next to Shell Heap on the mat board, is entitled "Shell heap at mouth of Bull Frog Creek" and is credited to Frederic Ward Putnam, a Harvard faculty member and Peabody curator in the late 1800s. Might Putnam also be the creator of Shell Heap? This is not clear, for while the two photographs bear visual similarities, Bull Frog Creek is located on the western side of the Florida peninsula near Tampa Bay, while the St. John's River runs along the eastern side of the state. Otherwise, from the captions inscribed on the H board, we can place five out of six photographs in close proximity in eastern/central Florida, yet only the Gold Piece photograph comes with unambiguous provenance information linking it to A. M. Harrison through the Display Title and Object Description fields. From an archival perspective, these metadata fields are a less than ideal way to document provenance, especially as the Gold Piece metadata

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record does not provide a direct way to link this photograph to others created by Harrison. In fact, the archives staff has since decided to link Harrison explicitly to all relevant records in Collections Online and to link the Harrison records to a digitized and transcribed record at the Smithsonian Institution that documents Harrison's archaeological work in Florida.[29]

In searching Collections Online for additional evidence of Harrison as a records creator, I discovered that the access system itself offers sharply limited search options. Beyond the fact that the portal only supports item-level description, the technology does not allow for advanced keyword searching of the Object Description field, which contains the transcribed captions from the H boards and which is generally the museum's richest source of documentation available for the H board collection. A twenty-character limit on keyword searches further constrains simple searches, making it impossible to include Harrison's full name in the search field. With these limitations in mind, I carried out two simple searches on Harrison's name: "A.M. Harrison," as the name appears in the Gold Piece photograph, and "Medina Harrison," leaving out Harrison's first name to stay within the twenty-character limit. The "A.M. Harrison" search returned eleven hits, in each case with Harrison's name appearing in the Object Description field only, reflecting the contents of the H board captions transcribed by the Peabody archivists. By contrast, the "Medina Harrison" search returned thirteen hits, all with "Capt. Alexander Medina Harrison" appearing in the Artists or Provenance fields, with "provenance" apparently used in the museum sense of the term.

The varying search results for "A.M. Harrison" returned by Collections Online clearly show the effect of convergence between archival and museum-oriented access systems and modes of description, with the result, in this case, that some records become more visible while others are obscured. Fortunately, the character limit on simple searches does not apply to the Advanced Search interface, so users can gain much better access if they use that feature.[30] Taken individually, all of the digitized photographs created by Harrison are discoverable in the online portal, thanks in large part to the item-level metadata the archivists created using the limited contextual information provided by the H boards themselves, along with other museum records in some cases. But, as it is, the current access system does not provide a direct way to view Harrison's records as a whole body, as evidenced by the failure of the "Medina Harrison" query to expose the Gold Piece photograph. With this record effectively hidden by this query, the user is unable to discover the H board to which this photograph was attached—a record that itself provides useful documentation of the Peabody's curation of Gold Piece and other related photographs in the H board collection.

In essence, the Peabody's initial digitization of the H boards has resulted in a series of "boundary objects"[31] that can effectively inhabit the conceptual spaces of both the museum and the archives, as mediated by the Peabody's use of TMS

and the Collections Online portal. Conceptually, a big challenge in curating the H boards digitally involves managing the hybrid nature of the physical collection. As the individual photographs were aggregated using mat boards, the original records were imbued with multiple layers of archival meaning with which the user must contend to fully understand and interpret the collection as it was constructed in the early 1900s and organized by geography. As the Gold Piece photograph shows, once the photographs and H boards were digitized, the display of even a limited amount of provenance information, along with the images themselves, can be useful in connecting records in ways that would arguably have been more difficult to do by viewing the boards in their material form.

Even with minimal contextual information available online, the digital surrogate H boards have successfully exposed the multiple layers of evidence contained in the H boards, including the original photographs, the handwritten captions on the mat boards, and the additional metadata introduced through the digitization effort itself. Along these lines, it is worth noting that just as the Shell Heap board is only exposed by the "A.M. Harrison" search, the "Medina Harrison" search alone reveals the existence of another H board—also captioned "Florida," like the Shell Heap board. This second Florida board contains six photographs, all of which depict objects collected by Harrison himself. Interestingly, three of the photographs—"Carved Bead" (59-20-10/100554.1.6), "Gold Plate" (59-20-10/100554.1.7), and "Axe" (59-20-10/100554.1.8)—show objects that bear a strikingly close visual resemblance to objects depicted on the Shell Heap H board: "Colored bead, found in human remains, 8250" (2004.29.714); "Iron axe" (2004.29.715); and "Gold piece, A. M. Harrison, N. S. Coast Survey" (2004.29.716). Apart from Harrison's name, one way we might be able to connect these photographs is through the contents of the Geo-Locale field, which places all six objects in eastern Florida. Moreover, the Axe and Iron Axe photographs can be placed on the western bank of Halifax River, while Gold Piece and Gold Plate are both located on St. John's River. While this information does not make up for more precise and standardized modes of description, these examples make evident that even small amounts of unstructured contextual information, handwritten on an H board roughly a century ago, can lead to significant discoveries if this information is transcribed and rendered searchable online.

Conclusions: Learning from the H Boards

These examples show the need for LAMs to view digital curation as an open-ended, iterative process through which institutions should seek to widen access to collections as much and as quickly as possible, even when resource constraints may expose gaps in existing documentation, or in situations where digital surrogates might be displayed online using less than ideal technology for a given object type. In fact, by embracing minimalist, early-stage approaches to

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digital curation, including the use of images and descriptive metadata to represent material objects, LAMs can effectively support strains of digital humanities scholarship focusing on access to "big data," with scholars pursuing "distant reading" strategies using a range of technologies designed to help the reader analyze a body of records that would otherwise be too large and messy for an individual to read on an item-by-item basis. At the same time, other digital humanists have also shown a need (carried over from material culture) for relatively small aggregations, or "smart data,"[32] which include resources that have been carefully processed to ensure that they can provide valid insights through a close reading of objects at the item level. The Peabody's archival photograph collection, as exemplified by the H boards, shows how repositories can serve both needs, first by digitizing a critical mass of records and second by identifying specific corrections and enhancements to digital objects that might contribute to the value of these resources as scholarly data. In this regard, we can envision digital curation as operating at both ends of a spectrum that runs from high to low levels of scale, and with contextual information that ranges from heterogeneous to fully standardized, and from noisy to clean with respect to errors and gaps in collection documentation. In any case, while scholars may be adept in using records as they find them, archival repositories need to view digitization as merely a first step in a long-term process of curating digital collection objects, anticipating future refinements in access systems as well as preservation challenges arising from technology obsolescence.

The example of the H boards also shows how technologies themselves can shape the practice of digital curation, in this case by forcing a convergence between museum and archival methods for describing and displaying collections. One consequence of exposing the Peabody archives at the item level using a museum collection management system is that we can clearly see how archival photographs have been kept as individual items and also as they have been arranged and exhibited through the medium of the H boards. In this instance, the historical evidence contained in the H boards potentially has significant value in documenting the curatorial history of the museum, just as the individual photographs document the work of the creators.

Ultimately, the H boards reveal both the complexity as well as the promise of digital curation, as a process that affords archivists the ability to do much more than to expose a surface, or surrogate, view of records. Indeed, for the Peabody and other archival repositories, the technologies and methods behind digital curation have the potential to reshape our understanding of archives, by exposing layers of evidence and meaning in ways that might have been difficult, at best, to see in the original material records. For LAMs in general, digital curation offers a welcome, if also challenging, opportunity to put archivists and curators into the foreground, representing their work as active agents in collecting and interpreting cultural heritage on society's behalf. For the Peabody

archives, the newly digitized H boards represent a new stage in the repository's history, by taking a collection with a valued, yet idiosyncratic, history and making it a resource that could, over time, have an important effect on how scholars and the public experience the museum as a whole.

NOTES

1 On the notion of a "hidden" collection, see the "Digitizing Hidden Special Collections and Archives: Enabling New Scholarship through Increasing Access to Unique Materials" grant program administered by the Council on Library and Information Resources (CLIR), with funding provided the Andrew W. Mellon Foundation, https://www.clir.org/hiddencollections.

2 Peter Botticelli, Martha R. Mahard, and Michèle V. Cloonan, *Libraries, Archives, and Museums Today: Insights from the Field* (New York: Rowman & Littlefield, 2019).

3 Peter Botticelli, "Documentation for Digitized Artworks: The Case of Andy Warhol's Polaroid Photographs," *Art Documentation* 35, no. 1 (2016): 71–85, https://doi.org/10.1086/685978; Peter Botticelli, "Preserving Artworks Digitally: The Case of Andy Warhol's Polaroid Photographs," *Digital Technology & Culture* 44, no. 3 (2015): 123–34, https://doi.org/10.1515/pdtc-2015-0017.

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