Framing Objects and Content Related to Historic Perceptions of Race

Evaluation and Discussion of Museum Exhibits and Practices That Support Engagement

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Table of Contents

List of Figures ........................................................................................................................................ v

Author’s Statement .............................................................................................................................. vii

Introduction ........................................................................................................................................ 1

Background ......................................................................................................................................... 3

  All the World Is Here Exhibition Overview .................................................................................... 4

  Utilizing All the World Is Here and Other Exhibitions for Insight into Content Messaging .... 7

Initial Summative Evaluation of All the World Is Here: Visitor Tracking and Surveying .......... 9

Focused Evaluation: Physical Anthropology Exhibit in All the World Is Here ...................... 12

  Methods Utilized in Data Collection ............................................................................................... 13

Results .................................................................................................................................................. 15

  Pre-engagement Survey ................................................................................................................... 15

  Mid-engagement Survey .................................................................................................................. 19

  Post-engagement Survey .................................................................................................................. 22

  The 1893 “Average Man and Woman” .............................................................................................. 22

  The Problem with Skin Color ........................................................................................................... 23

  Why Social Anthropologists Still Study Race ................................................................................ 24

  Tracking Human Change .................................................................................................................. 24

  Human Evolution and Migrations .................................................................................................... 25

  Measuring Human Variation ............................................................................................................ 26

Analysis of Evaluation Findings and Discussion ........................................................................... 36

  Participant Demographic and Pre-engagement Survey ................................................................. 37
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-engagement Survey</td>
<td>39</td>
</tr>
<tr>
<td>Post-engagement Survey</td>
<td>41</td>
</tr>
<tr>
<td>Suggested Modifications to the Physical Anthropology Exhibit</td>
<td>48</td>
</tr>
<tr>
<td>Conveying Race-related Content to Visitors: Effective Considerations on a Broader Scale</td>
<td>51</td>
</tr>
<tr>
<td>Re-frame the Way Connections are Made to Objects Bearing Sensitive Content and Histories</td>
<td>52</td>
</tr>
<tr>
<td>Facing Artifacts: Racial Casts Reimagined</td>
<td>54</td>
</tr>
<tr>
<td>Races of Mankind at The Field Museum</td>
<td>55</td>
</tr>
<tr>
<td>Mining the Museum</td>
<td>57</td>
</tr>
<tr>
<td>Avoid Generalization: Share Specific, Personal, Authentic Stories</td>
<td>59</td>
</tr>
<tr>
<td>RACE</td>
<td>60</td>
</tr>
<tr>
<td>The Hapa Project</td>
<td>63</td>
</tr>
<tr>
<td>Conclusion</td>
<td>64</td>
</tr>
<tr>
<td>Scope of Paper, Future Research, and Inclusion</td>
<td>66</td>
</tr>
<tr>
<td>Appendix A: Phase One Summative Evaluation: Visitor Tracking and Survey</td>
<td>70</td>
</tr>
<tr>
<td>Floorplan Resources</td>
<td>70</td>
</tr>
<tr>
<td>Short Survey Post-All the World Is Here Visit</td>
<td>72</td>
</tr>
<tr>
<td>Appendix B: Phase One Summative Evaluation Summary</td>
<td>73</td>
</tr>
<tr>
<td>Visitor Raw Data</td>
<td>73</td>
</tr>
<tr>
<td>Quantitative Data Summary</td>
<td>76</td>
</tr>
<tr>
<td>Component Pause Summary</td>
<td>77</td>
</tr>
<tr>
<td>Appendix C: Physical Anthropology Exhibit Component Evaluation Instruments</td>
<td>79</td>
</tr>
<tr>
<td>Pre-engagement Survey</td>
<td>79</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Mid-engagement Survey</td>
<td>81</td>
</tr>
<tr>
<td>Post-engagement Survey</td>
<td>82</td>
</tr>
<tr>
<td>Appendix D: Physical Anthropology Exhibit Evaluation</td>
<td>83</td>
</tr>
<tr>
<td>Visitor Raw Data</td>
<td>83</td>
</tr>
<tr>
<td>Quantitative Data Summary</td>
<td>85</td>
</tr>
<tr>
<td>Coded Open-field Responses</td>
<td>86</td>
</tr>
<tr>
<td>Appendix E: Physical Anthropology Exhibit Component Video Transcripts</td>
<td>88</td>
</tr>
<tr>
<td>The 1893 “Average Man and Woman:” Laurel Ulrich Captions</td>
<td>88</td>
</tr>
<tr>
<td>The Problem with Skin Color: Evelynn Hammonds Captions</td>
<td>89</td>
</tr>
<tr>
<td>Why Social Anthropologists Still Study Race: J. Lorand Matory Captions</td>
<td>90</td>
</tr>
<tr>
<td>Tracking Human Change: Dan Lieberman Captions</td>
<td>92</td>
</tr>
<tr>
<td>Human Evolution and Migrations: David Pilbeam Captions</td>
<td>94</td>
</tr>
<tr>
<td>Measuring Human Variation: Michèle Morgan Captions</td>
<td>96</td>
</tr>
<tr>
<td>Works Cited</td>
<td>98</td>
</tr>
</tbody>
</table>
List of Figures

Figure 1. The Peabody Museum’s online exhibition image of “Typical Man and Woman” from “Building the Perfect Student Body.” Peabody Museum of Archaeology and Ethnology, https://www.peabody.harvard.edu/typicalamericans. JPEG file. ......................................................... 5

Figure 2. Physical Anthropology exhibit from Ignarri, Grace. Personal photograph while visiting All the World Is Here. JPEG.......................................................... 7

Figure 3. Participant age-range percentage summary. .............................................................. 15

Figure 4. Participant gender percentage summary, where “N” stands for neither male (“M) or female (F).......................................................................................................................... 16

Figure 5. Participant racial or ethnic group(s) self-identification percentage summary........ 16

Figure 6. Participant highest level of education percentage summary. ................................. 16

Figure 7. Prevalence of people versus non-people-centered responses: How would you describe “anthropology”? .................................................................................................................. 17

Figure 8. Code themes frequency: How would you describe “anthropology”? .................. 17

Figure 9. Participant responses signaling past versus ongoing study: How would you describe “anthropology”? .................................................................................................................. 18

Figure 10. Code themes frequency: How might “physical anthropology” be different from your previous description? ........................................................................................................... 19

Figure 11. Code themes frequency: After exploring the graphics and objects in the case, how has your understanding of physical anthropology changed?........................................................ 20

Figure 12. Responses signaling change in understanding: After exploring the....................... 20
Figure 13. Evaluator photograph of video selection screen alongside Physical Anthropology exhibit (clockwise from top left: Laurel Ulrich, Evelyynn Hammonds, J. Lorand Matory, Michèle Morgan, David Pilbeam, and Daniel Lieberman). ................................................................. 22

Figure 14. Code themes frequency: When you first approached the exhibit, what was your first impression? ......................................................................................................................................................... 27

Figure 15. Code themes frequency: What do you believe this exhibit is trying to help us understand? ............................................................................................................................................................................ 28

Figure 16. Code themes frequency: What is your overall reaction to the exhibit? How does it make you feel? Why? ................................................................................................................................................................. 30

Figure 17. Code theme frequency: Which phrase best describes what field of physical anthropology is trying to understand? .............................................................................................................................................................................. 32

Figure 18. Code theme frequency: Based on this exhibit, how do you think the field of physical anthropology has changed over time? ........................................................................................................................................................................... 33

Figure 19. Frequency of Physical Anthropology video choices by participants .................. 34

Figure 20. To what extent did the video you watched change your understanding of exhibit case and physical anthropology more generally? ............................................................................................................. 34

Figure 21. Code theme frequency: If the video changed your understanding, please explain how (in what way). ........................................................................................................................................................................... 35

Figure 22. Fred Wilson’s Metalwork: 1793-1880: Installation View, Maryland Historical Society,. http://www.mdhs.org/digitalimage/installation-view-metalwork.................. 57

Figure 23. All the World Is Here floorplan for visitor tracking............................................ 70

Figure 24. All the World Is Here floorplan with numbered exhibit components. ............... 71
Author’s Statement

This capstone project is a culmination of prominent themes and theories related to museums that I have learned about throughout my time in the Museum Studies degree program, and through the opportunity to assist the Harvard Museums of Science & Culture with summative evaluation of the All the World Is Here exhibition. I am very grateful to have had the opportunity to learn more about museum research and evaluation in a real museum setting, and hope to continue to learn more about the process in my career. Observations and descriptions related to the exhibition noted in the paper were done personally, and all data was collected by me and shared with Janis Sacco, Director of Exhibitions for the Harvard Museums of Science & Culture, during the process. I created all bar chart figures featured in the paper as well. All participant responses embedded in the capstone are recorded as they were written (including misspellings, punctuation, and capitalization) by participants during the evaluation. Terms related to race and ethnicity were taken from the United States Census Bureau (Quick Facts).

I could not have completed this paper or the Harvard University Extension School Museum Studies degree program without the help and support of my partner, family, friends, professors, and classmates. I would especially like to thank my reader and mentor in this process, Janis Sacco for her support and guidance, and the staff and volunteers that supported the evaluations of All the World Is Here. I would also like to thank Ben Garcia from the Museum of Man for his interview about RACE.

Finally, I am grateful to the Museum of Science, Boston and my colleagues there for supporting my decision and effort to complete a master’s degree while maintaining my full-time position there.
Introduction

Museums have been around for centuries, yet in recent decades, a new “model” has been emerging with regard to what museums do and how they function; really who they are for, beyond what they are about. Museum scholar Stephen Weil notes that the transformed museum uses “its very special competencies in dealing with objects to contribute positively to the quality of individual human lives and to enhance the well-being of human communities” (231). This role may be daunting, especially as museums have traditionally been viewed as authoritative bodies or keepers of truth that serve as means to transmit knowledge to the public. Today, though, museums are shifting to better understand and respond to their visitors, notes Daniel Spock, Director of the Minnesota History Center Museum (7-8). Through relatively simple research and evaluation techniques, such as tracking and timing visitors as they make their way through an exhibition, museum staff can quickly collect data on what areas of an exhibition visitors are drawn to. Further, surveys, even relatively short ones asking a few questions about visitors’ experiences in an exhibition, can reveal patterns of interaction and if intended educational messages and goals are being recognized by visitors. Any museum regardless of size, field, and means should seek out engagement methods that make visitors feel comfortable and interested, instilling a passion for curiosity and exploration.

As museum professional Elaine Heumann Gurian argues, a museum’s effectiveness has to do with the experience it creates in a social and public setting. The human spirit and evidence of human history in the form of objects are what drives engagement. The way that museums frame stories around their objects and therefore assign meaning to them or highlight their inherent meanings, is what makes objects truly shine (164-166, 182). Thus, as Museum Studies scholar Eugene Dillenburg argues, objects are the defining features of museums, serving as ways...
to educate visitors and even offer multi-sensory experiences (11). Objects carry culture, emotion, and stories of the past, brought out in their displays. Exhibition design and means provide museums with flexibility in the ways in which they deliver content through carefully orchestrated design and narrative-based techniques that draw-out compelling features and contexts. However, many of the objects of humankind’s past, regardless of location or time period, harbor sensitive content and backgrounds, and should be handled with care with regard to their display and messaging. That being said, museums should not shy away from these stories, but instead seek out ways to appropriately and empathetically make those stories approachable and clear to visitors.

A notable theme of controversy that many museums confront is race. It is a prevalent topic across humankind’s past and present, and is particularly relevant to conversations happening across museums today. Gretchen Jennings, a museum professional, and Joanne Jones-Rizzi, Science Museum of Minnesota Vice President of STEM (science, technology, engineering, and mathematics) Equity and Education, highlight a rise in minority groups among the general public, yet, this is in stark contrast to the number of individuals representative of minority groups who really visit museums. Regardless of the type of museum, all museums show very low levels of minority visitors, often less than 10% (66). The topic of race permeates throughout museums from their boards through their collections, as explored through a forum of twenty-five multi-generational and multi-racial museum professionals in January 2016, titled “Museums & Race: Transformation and Justice.” To diminish this epidemic, attention needs to be paid to all aspects of the museum (Fischer et. al. 234-24). The institutions that share the stories and material culture of the past must address the topic and viewpoints around it. In doing so, museums must be cognizant of the ways they frame such content, and several exhibitions can
serve as examples as to why museums should not shy away from leveraging their objects and public-facing nature to encourage open acknowledgement of troubling past practices related to the perceptions of race. Specifically, *All the World Is Here*, an exhibition that explores the history of anthropology through the lens of the Peabody Museum of Archaeology and Ethnology’s 150-year history, highlights early controversy around race and the field of anthropology through various objects and content. One such exhibit component (simply referred to moving forward as “exhibit”) features tools used to measure human variation accompanied by videos that provide contemporary and expert insight into how the field of physical anthropology, specifically, has since changed. By surveying visitors who have interacted with this exhibit, insight can be gained into how critical exhibition display and content planning can be in ensuring messaging around sensitive content is clear. This case study, as well as other exhibits and associated literature, help build a framework of considerations for museum staff when developing or modifying content around sensitive topics, particularly race.

**Background**

Visitors’ perspectives are being recognized more and more frequently as critical factors to the exhibition development process. Now, through research and evaluation, museums have practical ways of understanding how visitors’ differing backgrounds, knowledge, and culture contribute to their museum experiences (Wells 52, 56). With the value of visitor voices in mind, an evaluation of visitor responses to the Physical Anthropology exhibit in *All the World Is Here* offers a unique chance to see how visitors respond to artifacts with close ties to the perceptions of race before exploring the exhibit, after exploring the artifacts and graphics, and finally, after watching
contemporary videos. Of note, the videos highlight both how physical anthropology as a science and views on both race and human variation have changed through time. Visitors’ responses were collected and assessed to better understand the progressions of their understandings and the messages they took away from the topic and exhibit. By evaluating visitors as they interact with an exhibit that deals with some historical and changing perceptions about race, insight can be gained into visitors’ predisposed ideas or opinions, as well as how their understandings and interests develop as they engage with the exhibit. Before delving into the evaluation of the Physical Anthropology exhibit, it is critical to understand the background of the exhibition, and what led to the decision to pursue visitor perspectives about the Physical Anthropology exhibit.

*All the World Is Here Exhibition Overview*

On April 22, 2017, *All the World Is Here: Harvard’s Peabody Museum and the Invention of American Anthropology* opened at the Peabody Museum of Archaeology and Ethnology (Peabody Museum), one of the Harvard Museums of Science & Culture. The exhibition honors “the birth of American anthropology” and the work of Frederic W. Putnam, the Museum’s second director, who played a key role in the start of this science. The exhibition features around six hundred objects, displayed on the museum’s restored fourth floor gallery space, many of which were created for or displayed at the 1893 World’s Columbian Exposition in Chicago. The exhibition invites visitors to immerse themselves in the objects and stories displayed (*All the World Is Here*). Though the exhibition focuses on history and objects, threads of contemporary expert and indigenous perspectives of such history and current anthropological practices are woven into the exhibition content wherever possible. Due to the time period and discipline the exhibition explores, the topic of race, classification, and discrimination comes up often in various
areas, specifically around those objects associated with the World’s Columbian Exposition. One example is a book titled *Portrait Types of the Midway Plaisance* that includes illustrations of “typical” individuals, customs, and mannerisms of each “race.” Another highlight are sculptures depicting the “typical Americans” of 1893, created by Harvard professor Dudley Allen Sargent after studying and measuring the bodies of white students. These “typical” Americans stand prominently inside a centrally-located vitrine near the secondary exhibition entrance, exemplifying idealness only in the sense that they were perceived, at the time, to represent what was “normal” among young individuals of Caucasian appearance and background (see figure 1).

![Figure 1](https://www.peabody.harvard.edu/typicalamericans. JPEG file)

Figure 1. The Peabody Museum’s online exhibition image of “Typical Man and Woman” from “Building the Perfect Student Body.” *Peabody Museum of Archaeology and Ethnology*, https://www.peabody.harvard.edu/typicalamericans. JPEG file.

Of note among such displays, a Physical Anthropology exhibit stands out for its eye-catching objects and since it features one of just five interactive media opportunities in the exhibition, among dozens of exhibit elements. The main feature of the exhibit includes a case displaying various historical devices used to measure human features. Specifically, it includes a standard skin color chart from the early twentieth century developed by a German scientist with
varying glass tiles colors to serve as a visual means of measuring varying degrees of skin color. Other similar charts used to visually quantify hair and eye color as well as craniometrics devices used to measure features of the head and face are displayed. The tools here date from the twentieth century, though they represent the types of instruments being developed in the nineteenth century to measure human features. Some of the tools on display in the case are still used to measure human features today. A graphic situated above the case includes some historic images and documents from the World’s Columbian Exposition, noting that globalization led to questions of the origin of man and different “races” based on appearance. It also mentions that Putnam hired anthropologist Franz Boas to explore the field of physical anthropology, then called “somatology,” at the World’s Columbian Exposition. There, Boas displayed an exhibition where he showcased the methods used to measure different features among American Indians and American schoolchildren in a lab-like setting, in an effort to challenge popular ideas of classification of “races” at that time. The graphic invites visitors to learn more by watching the videos associated with the component compiled into a single touchscreen monitor display to the viewer’s left of the case (see figure 2). These six video options provide in-depth content and narratives related to present-day physical anthropology practices compared to past perspectives. The content of the videos are described later on in the paper in conjunction with the Physical Anthropology exhibit evaluation.
Utilizing *All the World Is Here* and Other Exhibitions for Insight into Content Messaging

The main case study and examples explored in this paper investigate various questions related to content message delivery and engagement with exhibition displays. *All the World Is Here* is a new, accessible exhibition that, in part, sheds light on a multitude of objects and ideas with historical ties to perceptions and understandings about race, and, by extension, to the history of racial discrimination, due to the nature of some of the objects. The exhibition, by its nature, also highlights the varied ways museums may successfully engage with visitors in race-related content. Of note, the traveling exhibition *RACE* is discussed because of its unique history as the first exhibition of its kind to take a multi-disciplinary approach when discussing the topic of race in an accessible way (*Exhibit Overview*). The ways in which museums approach the topic of race can create change on a larger scale as well; for instance, since *RACE* was installed more permanently at the Museum of Man in San Diego, it has propelled change within the museum with regard to how it engages with its community (Garcia). These two examples, however, are just drops in the pool of programs, exhibits, experiences, and initiatives other museums are

Figure 2. Physical Anthropology exhibit in *All the World Is Here*. Photograph by Grace Ignarri.
utilizing around the country to embrace their communities, collections, and background to re-frame the messaging around the topic of race. Several of these additional examples are also discussed in this paper to provide further insight into the topic and concerns around presenting content related to perceptions of race.

It is critical to note that exhibition development methods for tackling difficult content is not a new concern, but timely. In recent years, the topic of race in particular is prevalent among museum professionals who are looking to not only make exhibitions and visitors’ experiences more inclusive, but also diversify their audiences. In addition to forums that seek to bring together museums professionals to open dialogue about the juxtaposition of race and museums (Fischer et. al. 23), this is evidenced through recent conference themes and proceedings. For instance, the American Alliance of Museum’s 2018 Annual Meeting and MuseumExpo theme addresses the ways that museums create and implement programming designed for highly diverse audiences that encourage lifelong learning and community engagement (Theme). To better understand current practices in the field, other effective exhibition examples and methods of note are explored and discussed. Together, this information will create an informed guide to considerations museums should take with regard to presenting content related to race to ensure that it is dialogue-inducing and inclusive. In this regard, displays should be compelling, but also serve a clear purpose to the message surrounding a difficult topic. Objects in museums are still important assets, but to keep them pertinent to this era, museums must find ways to clearly present and frame them. They must be displayed so that they are relevant to both their origin and meaning a contemporary context, as Museum Studies professor and curator Rainey Tisdale asserts (20, 22). Many museums can be large and potentially overwhelming, and it can seem challenging to understand if and how key exhibit messages and takeaways are effectively
delivered to visitors. In exhibitions where there is a multitude of information, objects, and multi-sensory content, it may be challenging for visitors to extract meaningful elements, themes, and messages. Ultimately, museums must ask themselves, what does the museum and its developers want visitors to notice when they approach an exhibit, and ultimately what do they want those visitors leave with? It is imperative that museums find ways to track and measure such outcomes through visitor evaluation to ultimately better inform the planning process.

**Initial Summative Evaluation of *All the World Is Here*: Visitor Tracking and Surveying**

An initial phase of summative evaluation of *All the World Is Here*, completed by the author under the supervision and guidance of the Harvard Museums of Science & Culture, helped call attention to specific areas of interest for visitors, which was critical in the later decision to focus further evaluation on the Physical Anthropology exhibit. This evaluation phase sought to better understand: the general paths visitors take in *All the World Is Here*, the amount of time visitors spend in the exhibit, which components were most frequently visited, and what messages visitors take away from the exhibition as a whole. Some of those visitors who were tracked were also asked to participate in a brief split survey and interview. Data collection took place between August and October 2017 during seven, two-to-three-hour weekend sessions. Visitors were selected at random, and their movements were recorded by the author on a paper copy of the exhibition layout. In addition to using arrows to record direction of movement through the exhibition, X’s designated components that visitors stopped at for more than fifteen seconds, and a note was added if they interacted with any interactive media elements in the exhibition. Those
who were in the exhibition for less than one minute or appeared to “just pass through” were not recorded.

Visitors who were surveyed: remained in the exhibition for more than five minutes, spoke English, were over the age of eighteen, and consented to participate. In addition to gender and age, visitors were asked what the exhibition is trying to help visitors understand, which elements were particularly memorable or stood out to them, and if they would recommend the exhibition on a scale of one to five (where one meant they would not and five meant they definitely would). For the resources and instruments used in this initial evaluation, see Appendix A. The results of this evaluation, in which seventy-eight visitors were tracked and twenty-nine of those visitors completed surveys, revealed that the average time spent in *All the World Is Here* was just under nine minutes. As noted, the exhibition contains over six hundred objects, and therefore many cases and displays. On average, tracked visitors stopped at seven components, of 117 (specifically, see Appendix A, *All the World Is Here Floorplan with Numbered Exhibit Components*). “Components” for the purpose of this evaluation were defined as stand-alone displays and graphics, or those displays within a long, horizontal case that were visually separated by a barrier from the elements on either side of them, or which explored a different theme. For additional details on the data collected during this evaluation, see Appendices A and B. Of the components where visitors paused, the Physical Anthropology exhibit stood out; the data collected revealed that 41% of tracked visitors paused at the Physical Anthropology exhibit, making it the third “most-paused-at” component in the exhibition, and one of only four components where visitors paused over twenty times. It was also revealed that on average, each of the five interactives in the exhibition were used or viewed by less than 4% of tracked visitors.
One of such accompanies the Physical Anthropology exhibit and provides critical contemporary content to the exhibit. For a full summary, see the *Component Pause Summary* in Appendix B.

The surveys revealed that the Physical Anthropology exhibit and topic was a couple of the most memorable aspects for tracked visitors. When visitors were asked about their overall takeaways from *All the World Is Here*, visitor responses related to the Physical Anthropology exhibit appeared to evoke emotive responses and interest or concern for the topic: “didn't know anything about the ways peoples' traits were quantified;” “the tools used to measure hair, eye colors, never considered that someone did that…measuring facial features to determine race.” Of note, one visitor who had paused at the Physical Anthropology exhibit and did not watch any associated videos noted her takeaway as: “scientific racism, history of it. That's my main takeaway, that's about it.” Another visitor who paused at the Physical Anthropology exhibit but did not watch a video noted that even though he thought of race theory as discredited, he found the section to be very open-ended, and that it did not really suggest that it did not exist anymore with regard to physical anthropology as a science. In contrast, the response of a third visitor who also stopped at the Physical Anthropology exhibit but did watch a video (the Daniel Lieberman video, *Tracking Human Change*) responded, “…how similar we are even with our minor differences.” When asked about what was memorable in the exhibition, he went on to add “How similar everyone is to each other especially after looking at the physical anthropology case, and watching the [Dan Lieberman] video…” The contrast with regard to overall exhibition takeaways is noteworthy, in that these visitors paused at over a dozen components while in the exhibition, yet their overall takeaways related to physical anthropology and differed greatly.
Focused Evaluation: Physical Anthropology Exhibit in *All the World Is Here*

Overall, the results of the first summative evaluation phase revealed the popularity of the Physical Anthropology exhibit and that very few visitors stopped to watch the videos in the associated media cabinet (let alone interact with any other media elements in *All the World Is Here*). Additionally, the contrasting visitor responses noted above reveal the differences in exhibition takeaways from those who visited the Physical Anthropology exhibit and did not watch a video, versus another visitor who did watch. This suggests that the video provides some additional context for understanding the associated graphic and objects, and watching a video may change the exhibit message as perceived by the visitor. This exhibit addresses the sensitive topic of racism in juxtaposition to physical anthropology’s contemporary practices, which are only offered in the videos. Generally, as measured by visitor responses, it is clear that this case is an evocative part of the exhibition that attracts visitors, yet less than 16% of visitors who paused at the Physical Anthropology case selected a video to watch (see Appendix B). Thus most visitors are missing the full, contemporary picture of physical anthropology that the exhibit intends to provide, and part of the overall exhibition messaging. When visitors do not watch the videos associated, how does it impact their takeaways from the exhibit and topic? As the presentation of the history of physical anthropology incorporates information about the underlining historic racism and public opinion of the time, evaluation of visitors’ engagement with the exhibit and their responses reflect how this content is perceived. With this in mind, interest ensued to explore visitors’ understandings of the exhibit both before and after exploring the case and watching one video (in the interest of time, as visitors spend little time in the exhibition, per visitor tracking findings). The following questions guided the evaluation process:
1. How do visitors define physical anthropology?

2. What do visitors understand about changes in the science of physical anthropology over time?

3. Do visitors understand how human variation is studied or understood today?

4. How do the graphics and object case alone impact visitors’ understandings of physical anthropology?

5. What videos are visitors most likely to select?

6. To what extent and in what ways does watching one of the six video options change visitors’ interpretations of the exhibit and understanding of physical anthropology?

By reviewing and studying data collected from visitors who were instructed on how and when to engage with different components of the Physical Anthropology exhibit, visitor responses can help inform the museum’s understanding about how visitors interpret and respond to the sensitive subject matter the exhibit contains. Arguably, when watched, the underutilized videos could have major impacts on visitors’ responses to and takeaway messages from the exhibition as a whole, compared to when they explore the graphics and object case alone.

Methods Utilized in Data Collection

Prior to commencement, the plan and survey instruments were reviewed and edited by staff members from the Harvard Museums of Science & Culture, including Janis Sacco, Director of Exhibitions. The evaluation plan and instruments were reviewed and approved by Harvard’s Committee on the Use of Human Subjects, the University-area Institutional Review Board. Visitors were recruited and surveyed over the course of two, four-hour data collection sessions in January 2018. Visitors who were interested in participating were given a verbal overview of the
evaluation and the approximate amount of time it would take to complete before being asked to consent to participate. For the evaluation instruments, see Appendix C. All surveys were completed in writing, allowing the visitors privacy as they responded to questions, since the exhibition component is located in a public gallery space. The evaluation included the following:

- **Pre-engagement Survey**: Administered to participants before viewing the physical anthropology case. Approximately one-to-two minutes to complete.

- **Mid-engagement Survey**: At the completion of the Pre-engagement Survey, participants were asked to explore the Physical Anthropology object case and graphics. Before watching one video of his or her choice, participants returned to the investigator to answer a single survey question. Approximately one minute to complete.

- **Post-engagement Survey**: After watching one of the videos at the media kiosk, visitors were asked to complete a final survey. Approximately three-to-five minutes to complete.

After completing the entire evaluation, visitors were invited to select a prize to thank them for their time, which included museum passes, posters, buttons, and postcards. For one of the sessions, children of participants were invited to participate in a postcard-coloring activity in the gallery while their parents or guardians were completing the survey.

Once all data was collected, all responses were compiled into a single spreadsheet (see Appendix D, *Raw Data*). Quantitative results were summarized in figures. Qualitative results were coded, mainly through an emic approach based on themes revealed in the responses, though some attention was paid to find specific themes related to race and responses that suggested strong interest or emotional engagement (see Appendix D, *Coded Open-field Responses*). Each participant’s set of survey responses as a whole were also reviewed individually to better
understand the progression of one’s experience through the exhibit and better inform their responses and implications for individual questions.

**Results**

Responses are summarized in figures by frequency of responses, and includes visitor responses of note are listed as examples. In many instances, some open-field responses contained two codes, so totals do not add up to 100% in all instances. In total, thirty-two participants completed the entire survey. One individual did not complete all parts, as he needed to leave suddenly, so the partially-complete results were not included.

**Pre-engagement Survey**

Upon beginning the evaluation, participants were asked to complete a survey to collect demographic information and their understandings about anthropology and physical anthropology. For demographic factor summaries, see figures 3-6.

![Figure 3. Participant age-range percentage summary.](image-url)
Figure 4. Participant gender summary, where “N” signifies neither male (“M) or female (F).

Figure 5. Participant racial or ethnic group(s) self-identification summary.

Figure 6. Participant highest level of education summary.

With regard to participants’ descriptions of anthropology, the field of anthropology is defined by the American Anthropological Association as:
…the study of humans, past and present. To understand the full sweep and
complexity of cultures across all of human history, anthropology draws and builds
upon knowledge from the social and biological sciences as well as the humanities
and physical sciences. (What is Anthropology?)

Nearly all participants were familiar with the term “anthropology” and what it encompasses,
except for one participant who may have misread the question, defining anthropology as
“fascinating.” Most included a definition related to the study of people, while others focused
their definitions on physical objects (see figure 7). Several themes related to anthropology
emerged in visitors’ definitions (see figure 8). Seventy-five percent (n=24) of participants also
suggested that anthropology was a current or ongoing field of study, while 25% (n=8) either had
a response that could not be coded, as noted above, or seemed to suggest that anthropology dealt
primarily with past people, cultures, and objects (see figure 9).

Figure 7. Frequency of “people” versus “non-people”-centered responses: How would you
deceive “anthropology”? 

Figure 8. Code themes frequency: How would you describe “anthropology”? 

17
Figure 9. Participant responses signaling past versus ongoing study: *How would you describe “anthropology”?*

Examples of responses include:

- “The study of people, their culture and environment.”
- “The study of different cultures and people and civilizations.”
- “The study ancient artifacts, bones, and fossils.”
- “Study of people of the past.”
- “Study of life, both through culture and physical evolution.”

In contrast, “physical anthropology,” also known as “biological” or “evolutionary” anthropology today, is defined by the American Association of Physical Anthropologists as, “a biological science that deals with the adaptations, variability, and evolution of human beings and their living and fossil relatives” (*AAPA*). When asked how physical anthropology may differ from their descriptions of anthropology, most participants suggested that this field dealt with “physical things.” The second most common response showed that participants were unsure or did not know, with others (n=4) suggesting vague definitions (e.g. “Nature compared to nature over time” and “More in depth”) (see figure 10).
Figure 10. Code themes frequency: *How might “physical anthropology” be different from your previous description?*

Examples of responses include:

“Physical anthropology is the direct study of the artifacts used by a particular culture.”

“Concerns itself w/physical anatomy, physiology and/or human remains (?)”

“The attempt to classify humans and their culture through the use of inaccurate or forced observations…Construct perspectives designed to justify ideas or associate (or classify) culture/humans at a genetic/phenotypic level.”

“Different races…how they differ from each other and that they each have changed through time.”

“Study of human body and race??”

After completing this survey, visitors were invited to explore the Physical Anthropology exhibit object case and graphics, and then return to the evaluator for the second survey.

**Mid-engagement Survey**

After participants explored the objects and graphics, but *before* they watched one of the videos associated with the Physical Anthropology exhibit, they were asked if their understanding of
physical anthropology changed and how. Generally, responses dealt with the understanding of what physical anthropology is or does, correcting previous misunderstandings. About one third of participants highlighted a connection to racial biases tied to what they observed (see figure 11). All participants noted or suggested at least some change in their understanding of physical anthropology (see figure 12).

Figure 11. Code themes frequency: After exploring the graphics and objects in the case, how has your understanding of physical anthropology changed?

Figure 12. Responses signaling change in understanding: After exploring the graphics and objects in the case, how has your understanding of physical anthropology changed?

Examples related to “race and biases” include:

“From uninformed to informed. Not objects that define a culture but measurements of physical differences among peoples to perpetuate racism.”
“Went from ‘don't know’ to ‘at least in the context of the exhibit it comes close to eugenics…””

“Has been confirmed that it’s about race i.e. origins of humankind, at least in the early 20th century as shown by the artifacts. Biases about diff origins of diff races and implied superiority were compelling. (Last time I saw this kind of display was in the US Holocaust Mem. Museum).”

“The study was an attempt to classify humans based on characteristics. However, the effort was also a reason for 19-20th century stereotyping.”

Example responses related to “what physical anthropology is or does,” including the tools involved, include:

“It slightly changed to be a bit more specific. It was fascinating to see all the instruments and artifacts used to document these findings.”

“…[My understanding] Hasn't really changed but the collections was creepy.”

“…the craniometric tools from the 50s and 60s…no idea it was that popular that late.”

“Interesting to see the different techniques and parameters used to measure.”

“I have a more concrete idea of what traits were of interest to early physical anthropologists around the turn of the century. The standardization of eye/hair/skin color measurements with palettes was new to me.”

Examples that suggest clarity in how physical anthropology differs from anthropology generally:

“Much! I didn't expect it to refer to physical/appearance variations that determine ethnicities, etc. I find it interesting!”

“I now understand that it is about the study of human physical traits, such as eye/skin/hair color.”
“What changed more was my understanding of specifically anthropology was. The physical portion remained unchanged but was expanded slightly.”

**Post-engagement Survey**

After completing the survey, participants were asked to choose any one video to watch (see figure 13), before returning to the evaluator to complete the final survey. Though all topics tie to physical anthropology, themes and speakers vary. A brief summary of the content of each video is provided below, but for full transcripts, see Appendix E. Please note that each video was accompanied by no more visual information than a narrator image and name, and the video title.

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**Figure 13. Video selection screen alongside Physical Anthropology exhibit. Clockwise from top left: Laurel Ulrich, Evelynn Hammonds, J. Lorand Matory, Michèle Morgan, David Pilbeam, and Daniel Lieberman. Photograph by Grace Ignarri.**

*The 1893 “Average Man and Woman”*

Laurel Ulrich, American historian and Harvard University professor, describes the creation and background of Sargent’s controversial sculptures that sought to showcase the “typical” or unspoken “ideal” examples of the male and female forms (described above in *All the World Is Here* Exhibition Overview, see figure 1). Ulrich notes that Sargent and the other physical
anthropologists he was working with at the time were addressing the concepts of racial categories. It is clear in these sculptures that Sargent was idealizing young, white, educated individuals in his work. Ulrich invites visitors to contemplate what it means to be “average,” because of what physical anthropology sought to understand, especially in the nineteenth century, but also in contrast to what physical anthropologists seek to understand today. It is easy to see how these sculptures, which are displayed in another area of the exhibition, could be translated into “ideals” by popular culture or otherwise at that time.

The Problem with Skin Color

In this video, Evelynn Hammonds, African and African American Studies professor at Harvard University, opens with a personal anecdote. She reflects on reading through a set of books when she was young containing the skin color chart seen in the exhibit display case. She mentions that she never felt she could quantify her own skin color this way. Today, it is understood that the skin color chart was developed at a time when physical anthropologists were desperately trying to categorize individuals into different groups based on appearance variation. However, researchers were finding that they could not completely systematically collect all of these measurements in a way that led to discrete groups. In fact, within groups where they expected to find similarities, they found lots of variation. Finally, Hammonds notes that the progression of the understanding of race went from the basis of physical appearances in the nineteenth century, to the addition of cultural assumptions associated with different “races.” In the twenty-first century and through today, the lines were blurred, as the science and study of genetics has revealed that humans are more similar than different with regard to genetic variation, and that
many individuals are of mixed descent. To move towards a “post-racial society,” humans must understand the issues of race from history in order to move past it towards a more equal future.

*Why Social Anthropologists Still Study Race*

J. Lorand Matory is an American scholar and professor of Cultural Anthropology and African and African American Studies at Duke University. In his interview, he illustrates the social construct of race by noting that individuals from Nigeria do not consider themselves “black,” since it is not a distinct “category” of skin color, as this “shade” of skin color is common there. When the son of a man from Nigeria that Matory knew moved to the United States and began attending an American school, he discovered that he was “black” during Black History Month. The father was confused by the term and reference. Thus, Matory notes that intergenerational social teaching and learning, contributes to an individual’s culture and behaviors, not his or her heredity. Today especially, cultures cannot be studied in isolation anymore, because of the way populations have spread throughout the world and have influenced and continue to influence each other. Social anthropologists focus more on these intersections of different cultures and individuals than appearances alone. He reiterates that race is a social construct and is not objective, as its uses and meanings have changed over time. He adds that groups in power have used these classifications to limit and exploit others by perpetuating the use of racial categories.

*Tracking Human Change*

Daniel Lieberman, paleoanthropologist and professor at Harvard University, notes the complexity of race from a science perspective, since science cannot support the idea of distinct races. Instinctively, people tend to try to categorize others and the things around them. After
Charles Darwin’s *On the Origin of Species* was published, many people exploited these ideas; during the World’s Columbian Exposition, Franz Boas was attempting to use science to question the concept at the time of discrete “races,” due to the amount of variation seen across individuals of the same “groups.” Specifically, depending what feature one measures (e.g. nose size or skull shape), humans end up being grouped differently by feature. Further, human variation changes frequently since humans move around constantly, through the spreading and mixing their genes with other groups and development of features and characteristics based on environments they inhabit successfully. Today, physical anthropology, now more specifically biological or evolutionary anthropology, focuses on the study of why and how humans came to be the way they are over time. Measurements of variation today are more complex and focus on genetics and the environment, in addition to physical features, to understand the various forces at play. The interactions between genes and the environment are of key focus in physical anthropology.

*Human Evolution and Migrations*

David Pilbeam, Social Sciences professor at Harvard University and curator of paleoanthropology at the Peabody Museum, explores the interest in the idea of human races in the nineteenth century. He asserts that Boas was an incredible statistician for his time, who wanted to understand whole *groups*, not just individuals, to see what the normal distributions of various characteristics were for different populations. Pilbeam highlights the fact that physical anthropology today focuses more on evolution and adaptations, noting that researchers now know skin color is just an adaptation to the ultraviolet (UV) light levels where individuals live, and pigmentation serves as a natural “sunblock.” Skin color therefore just signifies where someone’s ancestors were from, not necessarily a characteristic of a specific racial category.
today. Overall, modern humans are a relatively young species, and as researchers now know from studying genetics, there really is very little variation throughout the species. In fact, more variation is seen within more localized groups.

**Measuring Human Variation**

To help visitors better understand the tools used to measure human variation, Michèle Morgan, Curator of Osteology and Paleoanthropology at the Peabody Museum, walks through traditional and contemporary techniques. She calls out the instruments used during the World’s Columbian Exposition, which show what the features of interest to measure at that time were. She compares them to modern versions of tools used to highlight the relevancy of continuing to utilize these devices in contemporary study, including digital tools that can scan and record data directly to a computer. She notes that it is important to continue studying humans and other primates, because there is still so much to learn about human variation. With the genetic information available today, the relationships between genes and their physical expressions can also be studied in more detail, but this information can also inform other fields, like medicine. Individually, much can be learned about a person from his or her bones. Such study can showcase the range of variation within populations and how such groups generally adapt to environmental factors and pressures.

After watching a video, participants were asked to complete the final survey, designed to encourage them to describe their takeaways from the exhibit component overall (graphics, objects, and video), and to see how watching a video changed their understandings. Questions addressed first impression and feelings related to the topic. During the coding process, attention was paid to responses that showed emotion, positive or negative. Word choice related to personal
emotions and use of exclamation points aided in the coding process. For themes found in participants’ first impressions of the exhibit overall, see figure 14.

![Figure 14. Code themes frequency](image)

**Figure 14. Code themes frequency:** *When you first approached the exhibit, what was your first impression?*

Other than two participants who were unsure of what the exhibit might be about, a few common themes came to light in participant responses. Those whose responses seemed to evoke emotion and engagement seemed interested in the topic and connected with it in some way, positively or negatively. Example responses include:

- “That it must be interesting to study human variation and that the glass eyes were intriguing.”
- “It was engaging, yet frustrating because of the topic.”
- “Very interested, intrigued in the human element.”

A few participants focused more on aesthetic, but opinions contrasted:

- “A little cluttered.”
- “Great, well-organized.”

Responses coded as “reminiscent of another time/context,” refer to participants’ observations if they attempted to make associations between what they saw in the case and topics they know of:
“Text that looked old-fashioned, somewhat like a 19th century or earlier cabinet of curiosities.”

“Demonstration tools to describe biology/genetics from the artifacts shown at the world's fair in the 1890s.”

“Reminded me a bit of phrenology, I'd heard of skull measurements before.”

“It reminded me of the Holocaust exhibit with the eyes, the charts, and the looks.”

Two responses simply reference physical measurements:

“Measurement of physical features.”

“I thought it was more based in physical attributes of people and the variances.”

One response was noted as miscellaneous: “Men.”

Participants were prompted to describe what they think the Physical Anthropology exhibit is trying to help them understand. Responses were not surprising, in that most noted physical anthropology in general, or human variation and measurements. Overlaps in themes were seen in several responses (see figure 15).

![Figure 15. Code themes frequency: What do you believe this exhibit is trying to help us understand?](image-url)

"Anthropology or physical anthropology in general and/or in the past" (53%)

"Human variation" (37%)

"How humans differentiate/measure each other" (34%)

"About race/discrimination based on physical appearances" (27%)

"Unsure/Off" (6%)
Examples of participant response coded as “anthropology or physical anthropology in general and/or in the past” include:

“Anthropologists (and social scientists) in another age.”
“A deeper understanding of anthropology.”
“The field of physical anthropology.”

Those coded as “how humans differentiate/measure each other” include:

“Tools we used to use to compare others to each other.”
“The history of physiometry (?) or start of what is now called biometrics.”

Those coded as “human variation” include:

“Details of human traits.”
“Physical variation in populations of humans.”

Those coded as “about race/discrimination based on physical appearances” include:

“External attempts to measure race occurred in the past…and are still divided on what race is and how to measure it.”
“That 100 years of research has changed how we look at each other and race.”
“How people in the past used race to discriminate and why their theories are not sound.”
“A place in time that helps explain origins of racial ‘differences.’”
“That the study of physical anthropology has evolved and became less important due to findings in social anthropology i.e. race is a social construct.”

One participant stated that he or she did not know, and another’s response appeared to relate more to culture rather than physical traits: “Variations in human culture, expression of that culture.”
When asked about their personal reaction to the exhibit and how it makes them feel, participants’ responses were coded based on connection to emotions. Responses were connected to various themes that were revealed through visitors’ responses as well (see figure 16).

![Figure 16. Code themes frequency: What is your overall reaction to the exhibit? How does it make you feel? Why?](image)

Most responses appeared to make connections to race or biases, both positive and negative:

“Eye opening, forced to re-evaluate my situation and where I might be predisposed to phenotype instead of understanding background.”

“I think I have a fuller understanding of physical anthropology beyond its connection to eugenics, which to me has always made me not super interested in phys anthropology because of that linkage.”

“[Overall reaction] Interesting. [How does it make you feel?] Excited and engaged. I love hearing the reminder that race is a social construct. It is easy to forget!”

Many responses suggested participants gained a better understanding and interest in the topic:

“Special, because we are all different and our bodies tell about what lives we live. Also, where we live has affected human forms over time.”
“I felt like the message was uplifting, as to how the social evolution of physical anthropology.”

“I think it’s fascinating - I wish I had been around for that 1800 world fair - our comprehension of other cultures, especially ones that are distant and different from our own is severely lacking.”

Some visitor responses seemed to reveal general interest and enthusiasm:

“Pretty cool, very informative.”

“It is very interesting. Would read more about it.”

Sixteen percent of participants (n=5) called-out the impact of watching the video in this part of the survey. Examples include:

“Informative, attractive. At first upset that physical differences used to perpetuate racism, but mollified after watching video.” (Participant watched Pilbeam video, *Human Evolution and Migrations*).

“I'm a little uncomfortable with the fact that the dangerous/racist side of this early research was addressed in the videos but not really in the physical exhibit.” (Participant watched the Matory video, *Why Social Anthropologists Still Study Race*).

“I was vexed initially, but understood the reasoning behind continuous exploration after the watching the video.” (Participant watched the Morgan video, *Measuring Human Variation*).

Those that were coded as neutral, responded using the word “neutral” in their responses, and one participant did not respond.

The fourth question of the survey asked participants to select one provided phrase related to physical anthropology. The first two choices addressed the contemporary take on what
physical anthropology is trying to understand based on content presented in the videos. These two phrases were chosen most frequently, whereas the third and fourth choices related more to early notions of classification. Some participants selected multiple phrases, and participants had the opportunity to fill in a free-text field if they felt it was necessary (see figure 17).

![Figure 17. Code theme frequency: Which phrase best describes what field of physical anthropology is trying to understand?](image)

The two participants who checked “other” wrote-in responses:

“History of attempts to name and understand the evolution of human diversity "race" study in modern times??”

“The evolution of our understanding of human diversity.”

The fifth survey question set out to further clarify participants’ understandings of how past and present practices related to the field of physical anthropology (see figure 18).
Figure 18. Code theme frequency: *Based on this exhibit, how do you think the field of physical anthropology has changed over time?*

Examples of responses coded as “better understanding of race and human variation” include:

“That the study of physical anthropology has evolved and became less important due to findings in social anthropology i.e. race is a social construct.”

“Less biased [drawn arrow] appreciate the true cultural background of different races.”

“I think they are looking at the similarities [drawn arrow] we are more similar than diff and disproving outer markers of ‘race.’”

“Transition from being used to justify cultural superiority to explaining the variation in human diversity.”

“At first, they believed in various human species and places of origin, and perhaps believed that some races were superior than others. Now, it is a study of differences and evolution w/o an opinion on what is better.”

Many were still unsure of how the field had changed, even after watching a video, and responded simply with “I don't know” or “unsure.” A couple participants responded with more details:

“I don't know…this seems to be about HISTORICAL physical anthro. And I don't know anything about current practices.”

“It says that it has changed but does not say how.”
Some responses seemed to be more generally rooted in the notion that there is more analysis and information available:

“Just more analysis and understanding.”

“It’s become a bigger subject to study on.”

“Science has gotten better…What we are trying to learn has changed.”

Finally, participants’ video choices were summarized, and the average rating for each was calculated. Alongside each name, the number of participants that watched that video is listed (see figure 19).

![Figure 19](image)

**Figure 19.** Frequency of videos selected by participants and average rating per video.

Participants rated to what extent watching the video change their understanding, from “1” meaning “not at all” to “4”, meaning “a great deal” (see figure 20). The overall average rating was 3.1. Participants could also describe how their understandings changed after watching a video (see figure 21).

![Figure 20](image)

**Figure 20.** To what extent did the video you watched change your understanding of exhibit case and physical anthropology more generally? (Scale of “1” to “4” provided).
Figure 21. Code theme frequency: *If the video changed your understanding, please explain how (in what way).*

For most participants, the videos clearly added come clarity and context to the topic in general:

“It took less work to understand the context and value and history of the objects. It introduced more critical thinking to bring to the objects and it helped me see it through the eyes of an expert and a black-skinned woman - IMPORTANT DETAIL.”

“Just with more definition and what is being studied in anthropology.”

“Confirmed my initial thought that the findings that race is a social construct made some of these artifacts/tools less important to the study of physical anthropology. Thanks!”

“It provided more information and background than the actual exhibit.”

For many, the video also appeared to change their perceptions of physical anthropology:

“The video indeed changed my perception into thinking how one's study (Sargent’s [anthropologist who created the “typical Americans”]) could spur these racial ideologies. It definitely made me rethink physical anthropology's intentions.”

“Based on the display, variations are vast and abundant. Watching the evolution video, the variations are more localized.”

“The video made [me] think differently about what the exhibit was portraying.”
“Initially thought it was about human interaction, now I understand it's about studying variations in humans.”

Some noted a specific example from the video they watched:

“Explained an example (e.g. skin pigmentation) a variable which physical anthropology had focused upon and differing understanding of its relevance to the object of study.”

“It gave a concrete example of the implication and impact of the study of physical anthropology (watched the ‘typical male female body’).”

A few participants, though, either did not fill in a response or wrote a form of “unsure.”

**Analysis of Evaluation Findings and Discussion**

Overall, there was a dense amount of information from participants’ responses to unpack across all surveys with regard to participants’ experiences with the Physical Anthropology exhibit and their understandings of the topic. To put this exhibit into perspective, it is necessary to reiterate that on average, as was found while tracking visitors in the initial evaluation of *All the World Is Here*, visitors typically spend less than ten minutes in the exhibition, and pause at only seven components on average. Therefore, visitors are arguably walking away from the exhibition with the themes and messages only a few elements of the exhibition portray. It is critical that the Peabody Museum therefore “packs a punch” among the exhibits that garner the most attention, like the Physical Anthropology exhibit. Intended messages and content must be clear, and at the forefront of the visitor experience.

Of note in this initial evaluation where visitors were tracked, 39% of those visitors were overwhelmed or were unsure of what specifically stood out to them in the exhibition when asked
what elements were memorable during their visits. It is clear upon experiencing the exhibition that there is a wealth of information and objects to explore. For those exhibits that have higher opportunities for engagement, namely the five with interactive media elements and those that typically see high numbers of pauses by visitors, key overall exhibition messaging and themes should be made prevalent at these components. With regard to the Physical Anthropology exhibit, its richest content ties into the exhibition creators’ aims to present historic objects and ideas related to anthropology coupled with contemporary perspectives, but this depth of content is only available to visitors who watch at least one of the associated videos. The Physical Anthropology exhibit is at the intersection of these content goals, but there is a disconnect between the high-visual draw of the object case, and relevant content in an adjacent technological platform. By following participants’ “response evolution” before and during their experiences with the exhibit and after watching a video, there was a general trend revealed in escalation of interest and emotional responses in the topic of physical anthropology.

**Participant Demographic and Pre-engagement Survey**

As noted, thirty-two participants completed the evaluation. Through discussion with Harvard Museums of Science & Culture staff, the ages of participants were fairly typical for the Peabody Museum. As the Museum is on Harvard University’s campus, it often attracts a young-adult demographic, as observed in this evaluation. Additionally, the educational level of the participant sample is relatively high, in that all participants had at least completed some college credit. Close to half of participants had completed post-graduate degrees. Again, this was found to be typical according to Museum staff, due to their close proximity to Harvard University and the local demographic (Sacco). According to the City of Cambridge Community Development
Department, 74.9% of the population over age twenty-five has either a four-year Bachelor’s degree and/or graduate degree, and 30.7% of the population is enrolled part-time or full-time in a college program. Thus, the participant pool reflected a higher level of education than Cambridge. Additionally, with regard to race and ethnicity, 62.1% of Cambridge residents are white and non-Hispanic (7.6% identify as Hispanic), 15.1% are Asian or Pacific Islander, 11.7% are black, and 6.6% did not identify as a particular race or are mixed-race (Demographics and Statistics FAQ). Though the participant sample was therefore found to be somewhat similar to Cambridge’s demographics with regard to racial identification, though there were fewer numbers of participants who identified as Hispanic or black in the evaluation sample. Harvard Museums of Science & Culture staff noted the demographic of the participant sample is more diverse than typically seen at the Museum (Sacco).

Beyond demographic information, visitors were asked to define both anthropology and physical anthropology. Overall, 84% of participants’ descriptions of anthropology were relatively accurate to the themes and topics explored and researched in the field of anthropology now. In contrast, participant responses defining physical anthropology varied, and over half of participants were unsure of how it might differ from anthropology generally. Some thought it had to do with physical objects or artifacts, or had vague responses. Thus, it appears familiarity with anthropology may be common knowledge for this demographic. However, most participants were approaching the Physical Anthropology exhibit with little to no understanding of the field of *physical* anthropology specifically.
Mid-engagement Survey

Not surprisingly, exploring the exhibit and graphic had profound impacts on changing participants’ understanding of physical anthropology. Participants were invited to take as much time as they needed to explore the case, and on average were only found to spend approximately two and a half minutes doing so, but this was plenty of time for participants to feel as though they captured all of the information the graphic and case could convey on their own. However, it is worth noting that this was a controlled environment, and during the initial visitor tracking evaluation, few visitors were observed to spend more than one-to-two minutes exploring an exhibit he or she stopped at, and typically were observed to pause for less than a minute (see Appendix B, Visitor Raw Data). During the Physical Anthropology exhibit evaluation, all participants experienced some change in understanding, or at least acknowledged that their previous guesses were confirmed. Thus, the exhibit graphic and object case can be considered to be conveying information to visitors about the field of physical anthropology, specifically what it seeks to understand about humans and how it varies from general anthropology. Those who did not previously define physical anthropology “correctly” were able to at least gain some new knowledge during their explorations of the exhibit.

Within participants’ takeaways, however, 34% noted a connection to race-related perceptions or biases in the early study of physical anthropology, which is alluded to in the graphic associated with the case. Although the exhibit graphic explains that Boas and Putnam sought to refute and challenge popular understanding at that time of varying “races” and white superiority, it appears that this is not clear to all visitors. Among participants that noted race and biases in their responses, their perceived changes in understanding and takeaways were stark:
“From uninformed to informed. Not objects that define a culture but measurements of physical differences among peoples to perpetuate racism.”

“Has been confirmed that it’s about race i.e. origins of humankind, at least in the early 20th century as shown by the artifacts. Biases about diff origins of diff races and implied superiority were compelling. (Last time I saw this kind of display was in the US Holocaust Mem. Museum).”

“The study was an attempt to classify humans based on characteristics. However, the effort was also a reason for 19-20th century stereotyping.”

“Yes, the study of variations in human physical characteristics - unclear what the purpose is other than to explain these are variations, but what's the point? Superiority of some human characteristics over others? Some have made that (false) argument.”

Responses like these suggest interest and emotion related to the topic…but also that visitors may be quick to judge the overall purpose of the exhibit and included content. Visitors may see the skin, eye, and hair charts and immediately assign the negative associations related to perceptions of race and superiority of that time. At this stage of exhibit exploration, connection has not yet been made to the issues with these previously-held perceptions of racial classification, that the videos later supply. It is not to say that visitors should not be acknowledging or become angered by racial biases, and it is indeed preferable that they do. Instead, it is worth noting that the quick jump to conclusions may create barriers to communicating that the goals of physical anthropology over time, along with society’s definitions, have changed and continue to change. This is not merely a history display, but also a showcase of the transition of this field of science and human’s understanding of humankind over time. Thus, this point in the exhibit exploration process, before videos have been watched, shows that visitors may be picking up an incomplete
message about or impression of how the study of physical anthropology has changed since the World’s Columbian Exposition.

Post-engagement Survey

The Post-engagement survey offered participants an opportunity to reflect on the content of the exhibit within the context of whichever video they chose to watch. As participants moved through the final survey, emotions and the prevalence of some stronger, longer responses signified engagement in the exhibit and the topic in general, despite being towards the end of a relatively long evaluation that took up to fifteen minutes to complete. As suspected based on the high frequency of pauses at the Physical Anthropology exhibit during visitor tracking in the initial evaluation, more than half of participants appeared to be interested in or intrigued by the exhibit when describing their first impressions. Comments related to aesthetic varied and a few responses highlighted the objects related to measuring physical features. Of interest were the responses of 19% of participants who appeared to initially associate the display with other topics with which they were somewhat familiar. Examples include the Holocaust and the field of phrenology, defined as “the study of the conformation of the skull based on the belief that it is indicative of mental faculties and character” (Definition of Phrenology). Throughout her survey responses, the participant that mentioned the Holocaust noted race and racism, beginning with how she defined physical anthropology in the Pre-engagement Survey. Such responses exemplify the sorts of pre-conceived notions related to what visitors notice in the exhibit case, prior to learning about it, which they may carry through their experience with an exhibit. There is a clear association with the objects in the case and discriminatory practices and perceptions related to race from the past, which can still be found in culture today. When asked about their personal
reactions to the exhibit and how they felt after their experiences, responses seemed to intensify and be more personal, compared to first impressions of the exhibit. It is clear that the topic is provocative, in that less than 10% of participants felt neutral about the exhibit or did not respond. In contrast, most participants seemed intrigued and emotionally engaged, using words like “interested,” “curious,” and “fascinating.” “I don't feel ‘preached at’ which is refreshing in something that deals w/ race, but I still have lots of unanswered questions” (watched The Problem with Skin Color) Another wrote, “Compared to some other museums in other parts of the world I had seen, this exhibit clearly looks like it had been curated to try to present another age but in as non-judgmental a tone as possible” (watched Human Evolution and Migrations). These responses signify that the exhibit does indeed hold the viewer’s attention and is inviting despite a volatile topic, but the display may still generalize the topic, opening doors to additional questions and a need for more discussion and clarification for some.

Not surprisingly, when asked what they thought the exhibit was trying to help visitors understand, nearly all participants noted anthropology and/or physical anthropology, how human features can be measured, and human variation. Similar to responses captured during the Mid-engagement Survey, this signaled that the exhibit does convey information about what physical anthropology was, is, and does. Additionally, 28% (n=9) of participants, noted in some way that the exhibit messaging involves topics of differences and discrimination related to race over time, likely further drawn out through their experiences with the videos. These responses were prevalent among participants who watched the Hammonds (The Problem with Skin Color), Matory (Why Social Anthropologists Still Study Race), Ulrich (The 1893 “Average Man and Woman”), and Morgan (Measuring Human Variation) videos. This was not the case among those who watched the Pilbeam (Human Evolution and Migrations) or Lieberman (Tracking
videos. In those instances, takeaways about what the exhibit was attempting to convey dealt more with human variation generally. However, many of the responses of participants’ who watched Morgan’s video noted that the exhibit is generally trying to show that there is much variation among humans.

When assessing participants’ overall feelings around the exhibit against the videos they watched, themes emerged. Thirty-four percent (n=11) of participants did mention or allude to race and discrimination in some way, and five of those participants had watched the Hammonds video (The Problem with Skin Color). Another four had watched the Matory video (Why Social Anthropologists Still Study Race). Both of which clearly comment on perceptions of race and race-based categorization. For another participant, watching the Pilbeam video (Human Evolution and Migrations) had a profound impact on his or her experience with the exhibit, and noted, “At first upset that physical differences used to perpetuate racism, but mollified after watching video.” Another stated, “I was vexed initially, but understood the reasoning behind continuous exploration after the watching the video.” These responses highlight the importance of using the videos to interject contemporary perspective into the visitor experience with the exhibit. The Ulrich video (The 1893 “Average Man and Woman”), in contrast, elicited responses and was highly rated by participants, but seemed to shift participants’ attention to another area of All the World Is Here, where the associated statues of these figures were located (depicted in figure 1). One participant who watched the video wrote, “‘The perfect man/woman’ made me rethink what racial ideologies might've spurred others/manipulated their opinions.” In this evaluation, those who watched Ulrich’s video seemed to have the most general responses with regard to their feelings on the Physical Anthropology exhibit, compared to those who watched other videos and appeared to reiterate the themes and messages from the videos. For instance,
one participant who watched the Ulrich video wrote, “surprised at the extent of anthropology.” Another wrote that they felt neutral, while a third did not respond. One also appeared to misread the question, and wrote, “I liked the…exhibit showing examples of physical measurements. But the pictures showing the Ferris wheel seem irrelevant at first.” Arguably, since the video addressed a component of the exhibition that was not directly associated with the case they had just been exploring, their attention may have shifted away from the objects and graphic at the Physical Anthropology exhibit. As only one participant chose to watch the Lieberman video (Tracking Human Change), it is challenging to make any applicable generalizations about visitors’ takeaways from that video. This participant, though, did express interest and excitement in her responses. Lastly with regard to video selection, as noted previously, each video was accompanied by an image of the narrator and the video title, but no other content information is provided on the screen to aid in the selection (see figure 13). Of the three videos chosen most frequently, two were the ones with non-white narrators: Hammonds’ The Problem with Skin Color and Matory’s Why Social Anthropologists Still Study Race. Arguably, these findings may speak to who, mainly based on image, participants felt may have had authority to speak on the topic. Alternatively, visitors may have perceived that these narrators were more representative of contemporary, non-white perspectives on physical anthropology, especially as it is clear that white individuals dominated the research of the past.

Regardless of which video watched, most participants’ responses about what the field of physical anthropology is seeking to understand, suggested that physical anthropology is a field addressing the variation within human populations and the evolution of human diversity. Interestingly, although more than half of participants acknowledged that there is a much better understanding of human variation and race as a social construct today, about one third of
participants were either unsure of how the field of physical anthropology has changed since the time of World’s Columbian Exposition, or were vague in their responses. Most of such participants watched either the Hammonds video (The Problem with Skin Color) or the Ulrich video (The 1893 “Average Man and Woman”). Therefore, while these videos aim to bring contemporary perspectives to visitors’ attention with regard to physical anthropology, this did not always appear to be clear to participants in this evaluation. Though many participants who watched the Hammonds video seemed intrigued by the topic, there was a breakdown in understanding about what physical anthropology does today for four of the seven participants who chose this video. For instance, one participant noted, “I don't know…this seems to be about HISTORICAL physical anthro. And I don't know anything about current practices.” Furthermore, as alluded to earlier, the Ulrich video may have generated some confusion, since she mainly speaks about an exhibit from another part of the gallery. The same participant above who mentioned “The perfect man/woman…” in her response about her overall impression, answered this question with, “I believed people are interested in the anthropology of the past however people now are fascinated with creating the perfect man/woman just as Sargent intended.” In contrast, nearly all participants who watched the Morgan video (Measuring Human Variation) or the Pilbeam video (Human Evolution and Migrations), as well as the one participant who watched the Lieberman video, (Tracking Human Change), seemed to gain clearer pictures about changes over time in the field of physical anthropology with respect to how human variation is studied and why it exists.

In the final part of the survey, participants commented directly on their experiences with their video selection. Generally, videos changed participants’ understandings of physical anthropology somewhat, based on an overall average rating of 3.1. Participants who watched the
Hammond video (The Problem with Skin Color) generally had more emotive responses; underlining words, writing in all caps, or using exclamation points. This video appeared to add context and clarity to the topic generally for these participants and change their perspectives. Though two of the seven participants who watched the Matory video (Why Social Anthropologists Still Study Race) felt the video did not or hardly changed their understandings of the exhibit, others who watched it found that it added context and clarity generally to their experiences. For those who watched the Morgan video (Measuring Human Variation), responses noted added clarity, focusing on how human variation is physically measured. Illustrating a change in perspective, one participant wrote, “Initially thought [physical anthropology] was about human interaction, now I understand it's about studying variations in humans.” For participants who watched the Pilbeam video (Human Evolution and Migrations), they found it added clarity and a scientific perspective to the field, changing some participants’ perspectives: “Based on the display, variations are vast and abundant. Watching the evolution video, the variations are more localized. Those who watched the Ulrich video (The 1893 “Average Man and Woman”), typically called out the sculpture pair in their responses. As mentioned, this video may have caused some confusion among participants: “The video made [me] think differently about what the exhibit was portraying;” “I was not aware there was a measurement at an era of what'd be considered an "ideal" or "average" human specimen figure/body for both genders; however, I learned that and it makes me wonder if that's something science considered by people of other ethnicities (non-white).” The participant who watched the Lieberman video (Tracking Human Change) highlighted that physical anthropology today is more science-based, and the video appeared to be informative for her.
Overall, it is clear that the videos provide an abundance of rich, varied content, but they might dilute and redirect visitors’ takeaways from the exhibit, due to the amount of variety. As the videos are each at least three and a half minutes long, it is unrealistic to expect visitors to necessarily take the time to watch one, let alone more than one, Physical Anthropology video during their visit to the whole exhibition. As noted, tracked visitors on average were only found to spend nine minutes in the entire exhibition. As Beverly Serrell, renowned museum consultant and visitor specialist found in her research on visitors and video-watching, visitors on average spend less than three minutes watching videos. Further, most that stop to watch a video usually watch less than half of it (61-62). For the visitors that participated in the evaluation, watching just one video through completion when asked seemed to provoke deeper thought, understanding, and engagement with the topic of physical anthropology. Yet, it was found that visitors to All the World Is Here typically do not stop at the video kiosk, as discovered when tracking visitors. It cannot be assumed that those few who choose a video even watch it to completion. The amount of content in this one exhibit and its six videos out of dozens of components in the exhibition, may offer much more information than the average visitor can consume. As a result, as found in the evaluation, participants’ takeaways do differ depending which video they choose to watch. For most visitors who likely walk up to the Physical Anthropology exhibit but do not watch a video, an opportunity to fully inform and engage is being missed, and they may be leaving the exhibit with little to no understanding of the field of physical anthropology today as a means to help disprove any scientific basis in “race.” Visitors may be walking away with negative impressions of physical anthropology, especially if they are not watching one or more of the videos. This may be true due to the stark nature of the objects in
the case, their historical context, and their connections to the very current and emotionally charged topic of race.

In retrospect some edits to the final survey instrument would have provided additional information of value. For instance, it would have been worthwhile to ask why participants chose the video that they did during the evaluation. Also, it is important to reiterate that the time to complete the entire survey was relatively long and featured multiple parts, so the sample size was relatively small. Ideally, it would have been helpful to collect data from more participants, especially with regard to video selection, as to have a more equal number of instances of each video selected. As some of the videos were only selected once or few times, it is challenging to make generalizations about visitors who watched those particular videos.

**Suggested Modifications to the Physical Anthropology Exhibit**

Though there are opportunities for further research and evaluation, the data collected for this capstone serves as a means to better understand visitors’ takeaways and experiences around the Physical Anthropology exhibit in *All the World Is Here*. This evaluation reveals that visitors who approach the exhibit with little to no knowledge of physical anthropology gain a better understanding of the historic roots of the field and what the field seeks to understand. When a video is added to the experience, it often adds context and clarity around the topic, and concrete, contemporary perspectives and examples. While the exhibit content is rich, the volume of content could be considered overwhelming for visitors. Based on the evaluation findings, the following areas of the display could be modified.

One key takeaway from the evaluation is that although visitors understand what anthropology is, they do not understand how physical anthropology differs from it. Visitors
recognize the difference after exploring the exhibit, but may quickly associate the field with negative perceptions of race and attempts to prove racial classifications scientifically. This is exemplified by the fact that Franz Boas was attempting to disprove a scientific basis for racial classification through his work for the World’s Columbian Exposition, but this was not always clear to evaluation participants. Therefore, the exhibit may benefit from a distinct, highly visible “call-out” of the difference between anthropology and physical anthropology, as well as a concise statement calling attention to Boas’ efforts to dispute race-related ideologies at the time. Through personal observation of exhibits like Boston Museum of Science’s *The Science Behind Pixar* exhibition, small, visually distinct “call-outs” with key exhibit messages and takeaways that visually stand out from graphic body text offer “quick-hit” messages for visitors. Eye-catching color contrasts and larger font sizes for these key-message “call-outs” will help pull visitors towards intended messaging. Additionally, resources like the label writing guide developed by the internationally acclaimed Victoria and Albert Museum in London address other factors to consider when creating strong, clear labels. For instance, text should offer a distinct path through the ideas these techniques can be useful when developing or arranging single exhibits as well (“Gallery Text at The V&A” 8-10).

For visitors to fully experience the Physical Anthropology exhibit and its video offerings, the time needed to do so would be relatively long. Visitors may only spend up to a couple minutes exploring the graphic and object case, and it is unlikely they will stay to select and watch an entire video from the six video options. However, the exhibition developers included these videos to provide a contemporary perspective to the field of physical anthropology and help shed light on how the understanding of human variation and race has changed over time. When visitors do not watch a video, they risk missing this content, and may walk away from the
The exhibit’s graphic currently invites visitors to watch a video at the end of body text of the panel graphic associated with the case, but this existing statement: “More than a century of research has transformed our understandings about human variation and race; watch the videos to learn more” is not found to be an adequate means to drive visitors to the media kiosk. Thus, it would be beneficial for the contemporary perspectives found in the videos to be made clear to visitors in a concise, accessible way outside of the video itself, conceivably by calling out those messages on the exhibit graphic and also including the most attractive and affective video content in a short audio and/or video loop that is constantly playing, perhaps less thirty to sixty seconds long to help capture attention.

When determining which videos would be best to draw from, the evaluation results show that the Matory (Why Social Anthropologists Still Study Race), Hammonds (The Problem with Skin Color), and Morgan (Measuring Human Variation) videos were most often chosen by evaluation participants. The Morgan video addresses current physical anthropology practices, serving to add contemporary relevancy to the tools displayed in the case, framing them in a more relatable way than when visitors merely view them upon approaching the case. With regard specifically to content, the Matory and Hammonds videos offer anecdotes that may help visitors engage on personal, emotional level to dispute past scientific foundations in racial classification. While the Pilbeam (Human Evolution and Migrations) and Lieberman (Tracking Human Change) videos did provide engaging experiences for visitors who watched them, they were not selected as often, perhaps based on narrator appearance (they are both white men) and title. That being said, these two videos convey key messages related to human variation, which should be acknowledged regardless in the exhibit as a prime feature in the study of physical anthropology today. Lastly, the Ulrich video (The 1893 “Average Man and Woman”) stood out, as it was
highly rated by visitors, but seemed to steer them away from the Physical Anthropology exhibit, and may be causing confusion (e.g. one visitor mentioned: “The video indeed changed my perception into thinking how one's study (Sargents's) could spur these racial ideologies. It definitely made me rethink physical anthropology's intentions”). Though it may be worthwhile to encourage visitors to connect to other areas of All the World Is Here, this video may distract from the intended message of the Physical Anthropology exhibit at hand. Thus, perhaps this video may be better suited to be moved closer to the actual “Average Man and Woman” sculptures in the exhibition, disassociating the video with the Physical Anthropology exhibit.

Regardless of how the videos are modified, beyond just the video title, narrator name, and image, the total length of video time and a short description of the video’s takeaway message should be added to the selection display. As Beverly Serrell notes, orienting visitors with more information forthright may increase the time they spend watching a video and the likelihood they will watch to completion (63). Plus, visitors surveying the video options could still have an opportunity to notice each video’s takeaway message even if they watch part of one or none, if such key messages, in a concise format, are noted on the display screen to aid in selection.

Further, within the videos, varying visuals and narratives will help maintain engagement as well (62). Though some videos include cutaways to other images, they may benefit from more dynamic visuals than just the seated narrator speaking.

Conveying Race-related Content to Visitors: Effective Considerations on a Broader Scale

Following visitors through their experiences with the Physical Anthropology exhibit in All the World Is Here offers a means to better understand how visitors approach content related to a
sensitive topic like race in the context of a large exhibition. The Physical Anthropology exhibit features not only objects and graphic content, but also a wealth of information and anecdotes through several videos. With the results of the evaluation in mind and the efforts of other prominent museums and programs addressing collections and content related to race, a better understanding of an exhibit development framework can be consolidated to inform future projects. These key themes also relate to the Physical Anthropology exhibit suggestions noted. The following considerations summarize the key takeaways from participant evaluation responses, successes, and lessons from the field.

*Re-frame the Way Connections are Made to Objects Bearing Sensitive Content and Histories*

In *All the World Is Here*, the attractive Physical Anthropology exhibit display case appears to reel participants in, in that participants’ first impressions signify engagement and intrigue, but the associated video content adds contemporary context to the objects that helps drive exhibit messages home. That being said, some evaluation participants were quick to make negative assumptions about the underlying history of the tools used to measure human variation before delving into the exhibit further. For such objects that may appear representative of, or indeed be tied to, negative practices and histories, museums should acknowledge and dispel any potential assumptions and associations head-on. Through this awareness, museums can in turn engage visitors with more open dialogue around the objects to encourage visitors to learn about them beyond their first impressions. Though many objects from the past may have ties to sensitive topics and issues, it is critical that museums do not hide these objects away. Instead, they should be embraced, with close attention paid to the context of their display and presentation to visitors. How an object is framed is the museum’s opportunity to drive understanding of intended
takeaways, altering the way an object is communicated without denying what the object physically is or where it came from. With regard to the Physical Anthropology exhibit, the display clearly fosters intrigue, and although participants’ understandings of what physical anthropology is generally changed after exploring the object case and graphics, several participants noted negative connotations to racial classification and perceptions. Therefore, it appears the content does not glaze over the connection to past racial biases related to these objects, but the graphics and objects alone do not do enough to help visitors acknowledge that the field of physical anthropology has changed and that early practices were not necessarily seeking to prove racial distinction through science. In fact, Boas was trying to refute this concept. This information comes later in the videos, if visitors so choose to watch any. Therefore as noted, the Physical Anthropology exhibit may benefit by framing the objects as well as Boas and Putnam’s early work in a way that more clearly communicates that the devices used to measure human features in fact make it more difficult to “group” individuals by culturally-determined racial categories. Instead, this highlights the broad range of human variation found across all different human features. During the survey, many participants acknowledged that race is a social construct, but this should be a more prominent facet upon approaching the exhibit.

There is a need to break down barriers between museum objects and narratives and the visitors that represent them such as Aimee Levitt, a writer exploring how museum curators address race, highlights (1). The evaluation of the Physical Anthropology exhibit within All the World Is Here, illustrates the ways in which the takeaway messages from the exhibit are greatly impacted by what each video associated with the exhibit discusses. With many different messages and narratives present, there are opportunities for visitors to be exposed to a vast amount of information, and because of this, the takeaway messages may become blurred. Thus,
exhibit developers must give consideration to both removing unintended messaging and to highlight what they believe is the key narrative to express to their visitors. The goal (and challenge) is to reach the visitors on a personal or individual level so they walk away with a connection and meaningful understanding of the exhibit. Various exhibitions and projects help illustrate this approach, a few prominent examples are explored below are a larger scale.

**Facing Artifacts: Racial Casts Reimagined**

In the early twentieth century, the Museum of Man in San Diego partnered with the Smithsonian Institution to create plaster casts of individuals from what were considered to be the varying types of “races” of the world at that time. These casts were to be featured in the 1915 Panama-California Exposition, and helped support the ideology that European Americans were a superior race to all other “types” of man found around the world (*Facing Artifacts*). In his “Descriptive Catalog of the Section of Physical Anthropology,” ground-breaking anthropologist Ales Hrdlicka described the up-and-coming field of physical anthropology to Exposition visitors as a means to classify all of mankind and its predecessors (4), and features (from a white perspective) examples of the three “simplest” racial groups at the time: “white,” “yellow-brown,” and “black” (10-12). Hrdlicka’s exhibition was the first of its kind, setting a bar for the general public’s understanding, terminology, and prejudices, tied to the plaster casts (5). It helped pave a way for how humans as a species would be displayed and perceived in a museum-like setting.

Today, several of these busts still exist at the Museum of Man. To help draw attention to them and engage visitors with the background and development of these artifacts, artist Kate Clark of Parkeology, a program that “…excavates social histories of public space through interpretive art programming” (*About. Parkeology*), partnered with the Museum of Man.
Together, they created a new display and program around the casts, *Facing Artifacts*, which helps to breathe new, contemporary life into the history of the casts and the individuals they represent. Clark invited visitors to have casts made of their own faces, then displayed them alongside originals from the Panama-California Exposition (*Facing Artifacts*). Arguably, Clark’s work helps emphasize the individuality viewers can respect in the original casts, which were initially intended to generalize an entire “race” at the time of their creation. This contemporary “reframing” reinvigorates these objects that have very controversial and racially-generalized backgrounds and stories. Though the 1915 casts were created to support the idea of racial classification, projects like *Facing Artifacts* shift the framework associated with the history of such objects. Thus, these objects are able to serve as educational examples of historic issues that visitors can experience in a new way, without needing the objects to exist statically in a case enveloped in their negative past. The project offers firsthand experience in the creation of these casts, putting them on a more human, personal level.

**Races of Mankind at The Field Museum**

In a way somewhat similar to the Museum of Man/Smithsonian casts, artist Malvina Hoffman, who studied with sculptor Auguste Rodin, created one-hundred-four sculptures of the “races of mankind” for the 1933 World’s Fair. In recent years, Chicago Tribune reporter Steve Johnson interviewed staff from The Field Museum and wrote about the history of the sculptures and a project at The Field to reimagine them. At the time in 1933, the sculptures served as visual tools to showcase human variation around the world for museumgoers. The exhibition was so popular that miniature versions of the busts were created and toured around the United States, and therefore impacted various fields of study and perceptions of race. The busts, however, pushed
the notion that some individuals or groups were more “primitive” than others, and the originals were displayed in The Field Museum’s Hall of Man in a way that symbolized scientific racism until 1969. However, a new exhibition from The Field, *Looking at Ourselves: Rethinking the Sculptures of Malvina Hoffman*, has brought the busts back out on display, but frames them within the strict context that they are scientific only in a historical way, highlighting them for the artistic skill they embody. Further, they have been offered to other artists to use in installations that explore issues of racial discrimination of the past and present. The Field does not shy-away from the fact that displaying this exhibition could stir up discussion around race. In fact, they want visitors to draw connections between the thinking behind attempts to base racial classification in science and why these objects continue to be relevant today as Americans continue to grapple with race-related issues and identity (Johnson).

Visitors loved the sculptures as works of art and wanted to see them on display, but The Field creatively revived them in a contemporary way that is relevant, educational, and hopefully inclusive (Johnson). Despite the negative ideas related to race that the sculptures portrayed, it was critical that museum did not shy away from sharing these objects despite their troubled past. These objects can be used as important tools to show why these past biases are wrong or have false foundations based on what contemporary research reveals, as long as the messaging around them is clear and grabs the attention of visitors immediately. Museums are often revered for presenting knowledge and truth, thus the context in which they present their objects or content can shape what visitors take away. The framework surrounding objects is critical.
Mining the Museum

In the more extreme, yet famous, example of Mining the Museum, curator and artist Fred Wilson completely altered the context of the Maryland Historical Society’s traditional collection and displays in the early 1990s, as described by Beautiful Trouble writer Elisabeth Ginsberg. Through a partnership with The Contemporary Museum of Baltimore, Wilson was invited to create an exhibition from another museum’s existing collection. Wilson chose the Maryland Historical Society (MHS), which was founded in 1884 to preserve and share objects related to Maryland’s history. Wilson’s work at the MHS showed that what a museum does not display speaks volumes about it. In this case, the MHS previously shared little to nothing about the African Americans’ stories in Maryland’s history. Wilson introduced ironic, artistic displays that highlighted the Society’s “traditional” objects with those that were never displayed, from busts of historic white leaders to slave shackles. His efforts were satirical in nature and called attention to the biases within museums. The exhibition was provocative; strong visual statements helped reveal unseen facets and messages of objects on display. For instance, Metalwork: 1793-1880, combined slave shackles and a formal silver dinner set to highlight that “production of the one was made possible by the subjugation enforced by the other” (see figure 22).

Mining the Museum is a classic example of a call to action for museums to embrace all of the narratives they, and their objects, contain, not just the “white-washed” ones. It showed the buried biases that may not be seen when viewing a beautiful object that may have come to be at the hand of slave labor (Ginsberg). In this case, Wilson framed objects in a non-traditional, caustic way that generated strong responses in the community, and, as Ginsberg notes, “corrected” the identity of the objects and underlying racism. He let the objects speak through creative, opposing positions and displays to encourage visitors to acknowledge and understand the alternate stories surrounding them. Additionally, Wilson’s work highlights the notion that the messages traditional objects carry can be easily influenced and shifted based on the way they are displayed, and by whom. To continue to maintain the public’s trust, museums should be up front with their visitors about their institution’s history and holdings. Museums should be mindful of the connotation some objects carry with regard to how they have been traditionally displayed, and ensure that the context in which they display them moving forward is more inclusive of their nature and cultural affiliation, as Ken Yellis, museum professional, notes (54).

Recently, the 2013 AAM Meeting was held in Baltimore, offering an appropriate opportunity to discuss museums and race, specifically the impact of Mining the Museum twenty years later. A session brought together current museum professionals and those who were involved in Mining the Museum. The exhibition pushed for a re-discovery of collections objects that told hidden stories, and museum professionals are still working to highlight such in their own museums around the country. Since the advent of the Mining the Museum, museum staff are slowly becoming more diverse, and how objects’ stories are told is evolving. There appears to be less value placed on objects as they physically exist, opening up the possibility to shift the framework around such objects and the way they are displayed and described. Museums and
museum professionals are still turning to Mining the Museum as an prime example for sharing sensitive content and narratives (Yellis 54-57). The exhibitions was merely a stepping stone in the journey to become inclusive generally, something many museums are pushing for.

_Avoid Generalization: Share Specific, Personal, Authentic Stories_

In 2015 during a MuseumNext conference, experience design and production agency BRC Imagination Arts’ Creative Director Matthew Solari discussed how inclusive museums can have a lot of impact by utilizing methods of storytelling. Stories and storytelling foster emotional and personal connections and encourage empathy, helping visitors feel more engaged. Authentic, personal stories, not obscure concepts that try to be inclusive of every age, gender, religion, etcetera, are what hold the most power. Bringing a relatable, human element to a display can be evocative for visitors, making it easier for them to make personal connections or put themselves “in someone else’s shoes” (“Gallery Text at The V&A” 24-30).

In the Physical Anthropology exhibit in _All the World Is Here_, the videos help serve as personable entry points into the content for visitors, if they watch them. In general, after watching any of the videos, evaluation participant responses seemed to show signs of higher engagement, and participants found that the videos added more context and clarity, and in some cases even changed their perspectives on the topic. Further, the videos included individuals of color, a couple of whom shared personal anecdotes related to the topic of physical anthropology and the objects in the case display, specifically Hammonds (_The Problem with Skin Color_) and Matory (_Why Social Anthropologists Still Study Race_). Both of these narrators, whose videos were chosen most frequently by participants, opened their remarks with personal anecdotes related to the topic: in the case of J. Lorand Matory, he described the young son of a professor he
knew from Nigeria who just found out he was “black” by American standards during Black History Month; Evelyn Hammonds described being a young girl and comparing her own skin color to the numbered colors of a skin chart diagram she came across in a book. Similarly, many other exhibitions have embraced personal narratives and discrete examples to convey key exhibition messages, or how visitor feedback has helped show where generalization can lead to negative takeaways around race-related content.

**RACE**

*RACE: Are We So Different?* is a traveling exhibition that was developed by the Science Museum of Minnesota and the American Anthropological Association. It premiered at the Science Museum of Minnesota in January 2007, and multiple versions of the exhibition have traveled to dozens of museums across the United States since. Versions are currently on display at the Science Museum of Minnesota and the San Diego Museum of Man (*Tour Schedule*). The exhibition was designed to embrace the topic of race head-on in a way never attempted before; it is considered the:

- first nationally traveling exhibition to tell the stories of race from the biological, cultural, and historical points of view. Combining these perspectives offers an unprecedented look at race and racism in the United States. (*Exhibit Overview*)

At its core, *RACE* addresses relevant issues around how race is viewed today with rationality and facts (“Race: Are We So Different?”). *RACE* strives to break down race-related barriers, dispel the idea that race is rooted in science, and open a dialogue on the topic, notes American history scholar Samuel Redman (517-518). The creators’ frank presentation of this challenging topic and acknowledgement that some aspects may be difficult for visitors to grasp is refreshing.
The way in which *RACE* has impacted the Museum of Man in San Diego makes it stand out as an innovate, dynamic product that can help propel systemic institutional change and engage visitors in ways the Museum had not previously. In 2011, the Museum of Man hosted *RACE* amidst an institutional turning point; after about one hundred years as a traditionally ethnographic Museum focused on physical anthropology and archaeology, the museum began to shift the way it addressed and presented such topics to include more cultural anthropology, particularly in a social and contemporary context that resonated with the community. Hosting *RACE* fit well into this new strategy, signifying a change in the institution’s focus publicly, and the museum immediately saw positive responses from audiences they did not typically engage with. *RACE* offered a glimpse into what the museum could become for San Diego citizens, new niches it could grow into, and a path to sustainability and relevance in general. The museum jumped on the opportunity to integrate the exhibition into the museum, showing their commitment to becoming a place of ongoing interpretation of structural racism and where visitors could explore and discuss this controversial topic. In 2015, the museum purchased the smaller touring version *RACE*, with the intention of integrating it into their permanent offerings and augmenting it. Interestingly, some augmentation included making the content more representative of San Diego’s demographic. Thus, the Museum of Man convened with three local groups doing anti-racist work to critique the *RACE* exhibition in its state at purchase to gain the community’s perspective on where it was lacking or how it could be made more inclusive and relevant (Garcia).

In summary, experts from the community a museum is aiming to serve can provide invaluable advice and recommendations for content presentation. In turn, those individuals will also appreciate the platform that museums create for their causes (Garcia). The exhibition also
serves as a critical platform to give those in the San Diego community a voice in a fresh and vibrant way. Garcia’s overview of the Museum’s experience with RACE in the past and how it continues to help impact the Museum’s future reveal a narrative of internal evolution over a short period of time. As Penn et al. highlight, “public engagement is an explicit goal of the exhibit…and project” (154). Over time, RACE has also helped spur new workshops and partnerships, providing many opportunities for the public to engage with the topic (Race: Are We So Different?). Of note, the museum partnered with The AjA Project, which helps youth in a San Diego neighborhood with high levels of ethnic and linguistic diversity and a high number of refugee and first-generation immigrants embrace the world through photography (About. The AjA Project; Garcia). Together with AjA, the museum helps provide a place for individuals to publicly share personal experiences related to identity and race through a facet of RACE called Inter+FACE. In this exhibit, youth from these neighborhoods are invited to create self-portraits representing how they believe they are seen by others and how they see themselves. For the Museum of Man, the connection to this group, partially spurred by RACE, continues to be a critical and engaging way to embrace underserved areas of the community (Garcia).

Although RACE approaches the topic of race in a dynamic way, some visitors based on their personal backgrounds and experiences, feel that it does not fully embrace all relevant aspects related to personal experiences and race. One visitor to the exhibition, a contributor for the Racism Review site that features posts by scholars and researchers from various social science displaces, notes that there is little insight into multiracial experiences, as she herself is of mixed backgrounds (Chang). In this regard, the exhibition misses a chance to address the issue of intersectionality, or the way in which differing identities intersect, e.g. being both a woman and black (Fischer et al. 26). With regard to mixed-race individuals, the exhibition also does not do
enough to address how those individuals would like to be identified, as this may differ across race lines. She admits that the exhibition is well-researched, but tries too hard to be neutral with the notion that “we are not so different,” which may generalize the race-related individual experiences, in an effort to be neutral. Though RACE does incorporate some personalized stories, it is clear that its attempt to remain neutral or to consolidate issues of race and racism into a neutral “package” in the form of an exhibition leaves some wanting. The exhibition is no doubt engaging, but Chang’s perspective shows a continuous effort must be made to incorporate more personalized or distinct perspectives to remain authentic and relevant.

The Hapa Project

In recent years, many exhibitions and projects have aimed to incorporate personal perspectives to connect with visitors on a closer level. The Hapa Project seeks to highlight personal voices of those who identify as “hapa,” a term that describes being of mixed ethnic heritage, including some Asian or Pacific-Islander descent. Artist Kip Fulbeck has spent time photographing over 1200 volunteers who identify as hapa, displaying their photographs and their own hand-written description of their ethnicity and background in a book and in an exhibit (About. The Hapa Project). The Museum of Man displays some of Fulbeck’s portraits in a gallery close to RACE. Despite the scale of this project, these tactics to visually and personally convey ideas of individuality could be incorporated into existing projects and programs. Though this exhibition is relatively small, it offers a personal perspective of a unique “group,” highlighting that within that group, there is still much variation. This visually-compelling project embraces the complicated meanings associated with perceptions of race still today.
Conclusion

Perceptions of race and inclusive methods of engagement pervade the museum community as themes museums must find ways to continuously explore and address. By looking to examples from other exhibitions that already tackle these issues head-on, and through visitor evaluation to better understand how visitors perceive exhibit display messaging, museums can better approach race-related and race-sensitive topics. As museum visitor demographics continue to change, considering the following themes when developing an exhibit or experience with sensitive content related to perceptions of race can be helpful tools.

The way objects and their associated narratives are framed to visitors may elicit varied responses and takeaways. By studying visitors’ impressions of exhibits, museum staff can better understand if there are any false statements that jump into to visitors minds and lead to misconceptions. From this point, museum staff can compare these initial conclusions to the messages the overall exhibit display is seeking to make, and adjust as needed. In general, this framing should not only ensure clear, authentic messaging, but also acknowledge and address, where appropriate, the differing histories and stories associated with the objects in question. By incorporating the different facets of an object’s history, especially with regard to those associated with sensitive histories like race-related discrimination, museums signify and convey openness and understanding to visitors. Better yet, the exhibit display or “frame” should provide explicit examples, rather than generalize the themes and uses of the objects on display, which dilute their messaging to visitors and diminishes opportunities for visitors to connect. Individualized voices from the community, not only those that represent individuals of authority or experts, should be incorporated into the displays, and shine through clearly. Such connections may help visitors
relate on a more emotional level. It is critical to keep the museum’s own visitor demographic in mind; generalizing the topic or themes only loses visitor attention. The museum’s voice should carry the key message to an extent, but also raise-up the voices of those who are personally and emotionally engaged, who can speak from experience on the topic, and can further the cause. This will help museums stay relevant and meaningful to the visitors they serve. With regard to the Physical Anthropology exhibit, the Peabody Museum does do this somewhat well, in that the narrators in the videos that share specific anecdotes were found to be relatable to evaluation participants. However, it may be worthwhile to find ways to further engage their community or various visitors groups further on the topics addressed in the exhibition as a whole through additional programming. Additionally, the messages and concepts provided by the narrators in the videos are not reaching visitors, so the Museum should seek to put these approachable, engaging messages at the forefront of the exhibit display.

Finally, this evaluation process served as a lesson and reminder that research and evaluation must be key tools in exhibition development moving forward:

Exhibition curators, for example, may sometimes imagine a far greater congruence than is really the case between the intensity with which they have prepared an exhibition and the interest that the general public may take in the educational content of that exhibition. The public is not a monolith. It comes to museums for many different reasons and it gets many different things out of that experience. (Weil 253-254)

It is critical to be fully aware of what visitors do in an exhibition, or how they engage with a specific display or set of objects. Research and evaluation can be a pivotal tools for museums, regardless of size and type, as evidenced in the visitor data collected during both the initial
tracking evaluation phase of *All the World Is Here* and focused evaluation of the Physical Anthropology exhibit. Even through simple tracking procedures, this data can provide invaluable insight into what visitors are doing in an exhibition, helping to spur further questions and ideas. In the case of *All the World Is Here*, findings revealed that not only are media elements rarely used by visitors, but when visitors do not utilize them, intended exhibition messages can be misconstrued or not conveyed at all. Sometimes the developers’ intentions are not translated to visitors casually entering a gallery, and museums cannot improve unless they test for this to identify the causes. By digging deeper into the disconnect between the Physical Anthropology exhibit and visitor takeaways found when videos are not watched, informed modifications to the exhibit display can be made to ensure this issue is fixed. Accepting the behaviors of visitors, particularly their short attention spans, should be at the forefront of display decisions. Attention should be paid to ensure key takeaways are concisely and obviously available to visitors who may spend little to no time engaging with an exhibit, while still allowing opportunities for visitors who would like to learn more delve deeper into the content through extended videos or experiences. All in all, museums can, and should, continue to strive to be forces of change, and seek out means to understand and converse with visitors with open arms.

**Scope of Paper, Future Research, and Inclusion**

The *All the World Is Here* evaluation and assessment of other exhibitions serve as unique, contrasting examples of steps towards inclusive, clear, and engaging visitor experiences related to the topic of race. There is a multitude of projects, exhibitions, programs, and other museum-related programming that seek to address race and biases in content display. With the limited
amount of time to develop and write this capstone, exploring additional examples was not within its scope. With more time, a wider range of examples could have been explored and discussed.

Finally, though this capstone focuses on the relationships between museums, their objects, their visitors, and race, it does not address the internal struggle museums continue to face related to diversity among staff and visitor demographics. Jennings and Jones-Rizzi address that museums need to expand efforts to increase diversity among staff (72-73). They suggest that museums are still struggling with this because: they focus too much on changing others instead of themselves; existing leadership models are not inclusive; and that the lack of inclusive leadership limits what museums can do to be more diverse and inclusive. With regard to inclusion, there is a lot of focus on the community outside of the museum, and the idea that bringing them into the development process is a means to solve issues related to inclusion. However, Jennings and Jones-Rizzi suggest that museums may hide behind the idea of embracing “community” as a means of showing that they are becoming more diverse. Though the idea of engaging with local communities is critical in the shift towards inclusion, museum professionals must be willing to look at the museum field as it currently exists under a microscope. Working with the community sporadically is not enough. By making the museum profession more inclusive, museums may further show their visitors that they are “walking the walk” when it comes to this issue (72).

Even the vocabulary museums commonly use could stand to be re-evaluated. Freely-using the term “diversity” and attempting to include “diversity initiatives” may not be the best approach to making museums more inclusive. For Porchia Moore, avid museum and library professional and writer for The Incluseum museum blog, “diversity” is a loaded term with racial connotations. In some situations, Moore found that minority groups were targeted when specific
exhibitions featured an artist of that minority, which is part of the issue; museums should be working to build lasting relationships with these minority communities. Regardless of the type of museum, the museum’s actions and attitudes should reflect the beliefs and values of all cultural groups, equally (“The Danger of the ‘D’ Word”), especially as we see an increase in individuals of minority backgrounds that make up the United States’ population (Jennings and Jones-Rizzi 66). Museums must promote this sense of shared culture. Instead, contiguous relationships and co-creation of initiatives and exhibitions can help bring about change and fluidity in affiliation with minority groups. Moore’s perspective embraces the idea of opening the museum up to the personal narratives of the public and local community; if minority groups are represented regularly and frequently, there is no need to try to become more diverse, as this mixed-representation will be the accepted norm. The language museums use is key to this move to equality; for example compare using “invite” when discussing engagement with minority groups (which suggests a barrier to entry exists) to “co-create,” which implies more equal roles in the process. Power and authority-sharing is important, as this will allow visitors of color to see the museum as truly a public space that is not white-dominant, help remove the sense that museums feature viewpoints of white privilege, and create a system that allows for trust (“Shifting Paradigms”). While the objects and displays museums share with their visitors can speak volumes about their institutional beliefs, the language they use can have major impact as well. In additional to shifting the framework around exhibitions and displays, a cognizant shift in language and efforts to co-create could serve as a stepping stone towards increased inclusion. Mindful language can also help reduce boundaries between the museum’s traditionally authoritative voice and the voices of the community. Together, altering traditional museum dialogue and exhibition display methods can be a powerful tool as museums strive to remain
relevant and inclusive. This notion merely scratches the surface of the work to come for museums to maintain relevancy.
Appendix A: Phase One Summative Evaluation: Visitor Tracking and Survey

Floorplan Resources

Figure 23. *All the World Is Here* floorplan for visitor tracking.
Figure 24. *All the World Is Here* floorplan with numbered exhibit components.
Short Survey Post-All the World Is Here Visit

1. Please mark an “x” on the line next to the range that best represents your age:
   18-25___  26-35___  36-45___  46-55___  56-65___  66+___

2. Please mark an “x” on the line next to the designation that best represents your gender:
   Male ___   Female ___   Neither/prefer not to answer ___

3. On a scale of 1 to 5, how likely would you be to recommend this exhibit to someone you know?
   1___  2___  3___  4___  5___
   Would not recommend   Neutral   Would definitely recommend

4. Please fill in the blank:
   This exhibition is trying to help us understand ________________
   ___________________________________________________________________

Please return clipboard to evaluator for final part of survey.

Open-ended questions asked by evaluator

1. Was there something particularly memorable, or an area of the exhibit that stood out to you that led to your answer to Question 3?
## Appendix B: Phase One Summative Evaluation Summary

### Visitor Raw Data

<table>
<thead>
<tr>
<th>Visitor ID</th>
<th>Visitor's Name</th>
<th>Race/Ethnicity</th>
<th>Gender</th>
<th>Age</th>
<th>Type of Visit</th>
<th>Education Level</th>
<th>Employment Status</th>
<th>Current Activity</th>
<th>Next Activity</th>
<th>Interview Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>John Doe</td>
<td>White</td>
<td>Male</td>
<td>30</td>
<td>Quick Visit</td>
<td>Bachelor's</td>
<td>Full-time</td>
<td>Walking Around</td>
<td>Staying Near</td>
<td>Asked about the history of the museum.</td>
</tr>
<tr>
<td>2</td>
<td>Jane Smith</td>
<td>Black</td>
<td>Female</td>
<td>40</td>
<td>In-depth Visit</td>
<td>Master's</td>
<td>Full-time</td>
<td>Reading Exhibits</td>
<td>Moving Around</td>
<td>Didn't seem to understand the question.</td>
</tr>
<tr>
<td>3</td>
<td>Michael Brown</td>
<td>Hispanic</td>
<td>Male</td>
<td>25</td>
<td>Quick Visit</td>
<td>High School</td>
<td>Part-time</td>
<td>Listening</td>
<td>Listening</td>
<td>Didn't appear to be looking at anything in the exhibit.</td>
</tr>
<tr>
<td>4</td>
<td>Sarah Johnson</td>
<td>Caucasian</td>
<td>Female</td>
<td>35</td>
<td>In-depth Visit</td>
<td>Bachelor's</td>
<td>Full-time</td>
<td>Watching Video</td>
<td>Watching Video</td>
<td>Reported being interested in anthropology and science.</td>
</tr>
<tr>
<td>5</td>
<td>Matthew Davis</td>
<td>Asian</td>
<td>Male</td>
<td>45</td>
<td>Quick Visit</td>
<td>Associate's</td>
<td>Full-time</td>
<td>Talking to Friends</td>
<td>Talking to Friends</td>
<td>Reported being interested in the history of anthropology.</td>
</tr>
</tbody>
</table>

### Quantitative Summaries

- **Average Time Spent:** 30 minutes
- **Most Common Path:** Clockwise side of gallery, counter-clockwise side of gallery, mostly stayed on "right" side of gallery, counter-clockwise.
- **Most Common Exhibit Groups:** History; Anthropology; Serpent Mound; Typical Americans; Deciphering Maya Hieroglyphs; Physical Anthropology.
- **Most Common Themes:** Different cultures, anthropology as a science, performed by scientists, touched on so much, so many facets [hard time explaining theme].
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Participant</th>
<th>Sex</th>
<th>Age</th>
<th>Education</th>
<th>Occupation</th>
<th>Duration</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/1/17</td>
<td>10:24</td>
<td>Male</td>
<td>M</td>
<td>56-65</td>
<td>Bachelor</td>
<td>Student</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>10/1/17</td>
<td>10:29</td>
<td>Female</td>
<td>F</td>
<td>46-55</td>
<td>Bachelor</td>
<td>Employee</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>10/1/17</td>
<td>11:14</td>
<td>Male</td>
<td>M</td>
<td>18-25</td>
<td>Masters</td>
<td>Engineer</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>10/1/17</td>
<td>2:08</td>
<td>Female</td>
<td>F</td>
<td>49</td>
<td>Bachelor</td>
<td>Librarian</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>10/1/17</td>
<td>1:45</td>
<td>Male</td>
<td>M</td>
<td>15</td>
<td>High School</td>
<td>Student</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>10/1/17</td>
<td>1:29</td>
<td>Female</td>
<td>F</td>
<td>36-45</td>
<td>Masters</td>
<td>Researcher</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>10/1/17</td>
<td>9:47</td>
<td>Female</td>
<td>F</td>
<td>54</td>
<td>Bachelor</td>
<td>Professor</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>10/1/17</td>
<td>10:51</td>
<td>Male</td>
<td>M</td>
<td>21</td>
<td>Bachelor</td>
<td>Student</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

**Clockwise twice**

- Mostly stayed on "left" side of gallery, clockwise
- Mostly clockwise, then counter-clockwise
- Mostly "right" side of gallery for the most part
- Somewhat irregular, back and forth, mostly "right" side of gallery

**Counter-clockwise**

- Mostly clockwise, then counter-clockwise
- Mostly "right" side of gallery
- Confused, unsure of "us" mentality

**Exercise 23**

- Taking pic, horizontal Copan stone then turn to vertical stone (looks at graphics)
- Paused at Avg. man & woman (~1min), stands near HMNH exit waiting for partner
- Paused at Historic Books (~1min), WCE photos on wall

**Performances at the Bamboo Theater**

- Missed them

**Native Amer. Artifacts from Abbott Farm**

- Recently saw a Netflix video on Columbian, Sledge, thought it was neat, really likes arctic artifacts
- Early anthropology
- "us" mentality

**Phys Anthro**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit, missed for interview
- Stand out, don't know what to make of it
- Missed them

**HMNH**

- Overwhelmed, history
- Knew of FeeJee mermaid but didn't know it was in the exhibit
- Confused, unsure
- Confused, unsure

**PMAE**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**HMNH**

- Overwhelmed, history
- Knew of FeeJee mermaid but didn't know it was in the exhibit
- Confused, unsure
- Confused, unsure

**Phys Anthro**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**WCE**

- Overwhelmed, history
- Knew of FeeJee mermaid but didn't know it was in the exhibit
- Confused, unsure
- Confused, unsure

**Stephens & Catherwood**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Sledge**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Phys Anthro**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Abbott Farm**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Catherwood**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Typical Americans**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Caribou Skin Hunting**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Hamlin**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Serpent Mound**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Haida Dolls & Masks**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**WCE Photos**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Voyages of Observation and Enterprise**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Typical Americans, Calipers/A White Ideal/Exercise 23**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Phys Anthro video**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Sledge**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**FeeJee Mermaid**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**China Trade Cases**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**Abbott Farm**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them

**HMNH exit**

- Thought the exhibit was confusing. Brought up Copan location
- Overwhelmed, little lost among the tech, barriers, not sure of the exhibit
- Stand out, don't know what to make of it
- Missed them
<table>
<thead>
<tr>
<th>Date</th>
<th>Time In</th>
<th>Time Out</th>
<th>Min Total</th>
<th>Exhibit Path</th>
<th>Direction</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/22/17</td>
<td>7:00</td>
<td>7:15</td>
<td>15</td>
<td>Sledge</td>
<td>Clockwise</td>
<td>Visitor sat on bench - after 5 minutes, stopped tracking; visitor pulled out computer and was working on it.</td>
</tr>
<tr>
<td>10/22/17</td>
<td>7:15</td>
<td>7:30</td>
<td>15</td>
<td>Sledge</td>
<td>Clockwise</td>
<td>Overwhelmed, confused, unsure. The bear head was super cool (in 4B); Sledge &quot;how well-used is that?&quot; all the materials are interesting; Gut-skin parka is awesome - initially confused about question 4 and her takeaways were just that everything was really cool; Fletcher case - didn't know that there were women who spoke up about Native Americans, thought that was great; thought the portrait of Putnam was beautiful. Overall very chatty about exhibit.</td>
</tr>
<tr>
<td>10/22/17</td>
<td>7:30</td>
<td>7:45</td>
<td>15</td>
<td>Sledge</td>
<td>Clockwise</td>
<td>Mostly stayed on &quot;right&quot; side and &quot;lower half&quot; of gallery, somewhat irregular.</td>
</tr>
<tr>
<td>10/22/17</td>
<td>7:45</td>
<td>8:00</td>
<td>15</td>
<td>Sledge</td>
<td>Clockwise</td>
<td>Phys Anthro. (watches video)</td>
</tr>
</tbody>
</table>
## Interview Demographics

<table>
<thead>
<tr>
<th>Turn &amp; Exit</th>
<th>Visitor Time in Exhibit</th>
<th>Temporarily Left Exhibit on HMNH Side</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### # Visitors that Watched Videos/Used Interactives

<table>
<thead>
<tr>
<th>Category</th>
<th># Visitors</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video/Interactive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Case Pause Instance

<table>
<thead>
<tr>
<th>Average time and recommendation rating by age group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Ranges</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>18-25</td>
</tr>
<tr>
<td>26-35</td>
</tr>
<tr>
<td>36-45</td>
</tr>
<tr>
<td>46-55</td>
</tr>
<tr>
<td>56-65</td>
</tr>
<tr>
<td>66+</td>
</tr>
</tbody>
</table>

### Total number visitors tracked

<table>
<thead>
<tr>
<th>Category</th>
<th>Total number visitors tracked</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>81</td>
</tr>
<tr>
<td>18-25</td>
<td>6</td>
</tr>
<tr>
<td>26-35</td>
<td>6</td>
</tr>
<tr>
<td>36-45</td>
<td>3</td>
</tr>
<tr>
<td>46-55</td>
<td>5</td>
</tr>
<tr>
<td>56-65</td>
<td>7</td>
</tr>
<tr>
<td>66+</td>
<td>2</td>
</tr>
</tbody>
</table>

### Total number visitors tracked & counted

<table>
<thead>
<tr>
<th>Category</th>
<th>Total number visitors tracked &amp; counted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>78</td>
</tr>
<tr>
<td>18-25</td>
<td>6</td>
</tr>
<tr>
<td>26-35</td>
<td>6</td>
</tr>
<tr>
<td>36-45</td>
<td>3</td>
</tr>
<tr>
<td>46-55</td>
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*1=would not recommend; 5=would definitely recommend

### Notes

- Gut-skin Parka: 2 components, with pause range 9.4%.
- Phys Anthro: 5 components, with pause range 65.8%.
- Javanese Puppets: 3 components, with pause range 17.1%.

---

For details, see Pauses By Case tab.

---

For full table for notes above.
### Component Pause Summary

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<tr>
<th>ID</th>
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<td>2</td>
<td>Training the First Professional Anthropologists</td>
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<td>3</td>
<td>Fletcher &amp; The La Flesche Family</td>
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<td>1893 World's Columbian Exposition graphic 2 (&quot;left&quot; side)</td>
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<td>Outside the Anthropology Building</td>
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<td>7</td>
<td>Contemporary Interpretations of Hopewell Life</td>
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<td>Music in the Javanese Village</td>
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<td>Javanese Puppets Wayang golek and Wayang kulit</td>
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<td>Traditional Javanese Shadow Puppets Case/Video</td>
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<td>Puppet - Banteng</td>
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**Notes:**
- Page numbers are in the first column, followed by the appropriate entries for the pages.
- This summary provides an overview of the components and their page allocations for the document.
Appendix C: Physical Anthropology Exhibit Component Evaluation Instruments

Pre-engagement Survey

This survey will take approximately 1-2 minutes to complete

Please mark an “x” at the end of this statement to acknowledge that you consent to participate in this evaluation: _____

1. Please mark an “x” on the line next to the range that best represents your age:
   18-25___  26-35___  36-45___  46-55___  56-65___  66+___

2. Please mark an “x” on the line next to the designation that best represents your gender:
   Female_____  Male_____  Neither/prefer not to answer_____  

3. How would you identify yourself?
   White_____  Hispanic or Latino_____  
   Black or African American_____  Native American_____  
   Asian/Pacific Islander_____  Other (describe)_________________________  
   I’d prefer not to answer_____

4. Please mark an “x” next to your highest level of education:
   Some high school_____  High school degree_____  
   Some college credit_____  Associate’s or Bachelor’s degree_____  
   Some post-graduate credit_____  Post-graduate degree_____  
   I’d prefer not to answer_____  

It’s okay to respond “I don’t know” if you are unsure
5. How would you describe “anthropology”?


6. How might “physical anthropology” be different from your previous description?


Mid-engagement Survey

This survey will take about 1 minute to complete

After exploring the graphics and objects in the case, how has your understanding of physical anthropology changed?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Thank you!
Post-engagement Survey

This survey will take approximately 3-5 minutes to complete. It’s okay to respond “I don’t know” if you are unsure.

1. When you first approached the exhibit, what was your first impression?

________________________________________________________________

2. What do you believe this exhibit is trying to help us understand?

________________________________________________________________

3. What is your overall reaction to the exhibit? How does it make you feel? Why?

__________________________________________________________________________________________

__________________________________________________________________________________________

4. Based on what you have seen in this exhibit, which phrase do you think best describes what the field of physical anthropology is trying to understand?

Variation within human populations ___

The evolution of human diversity ___

Characteristics of different races ___

Cultural affiliation based on physical characteristics ___

Unsure ___

Other (please describe) ____________________________________________________________

It’s okay to respond “I don’t know” if you are unsure

5. Based on this exhibit how do you think physical anthropology has changed over time?

__________________________________________________________________________________________

__________________________________________________________________________________________

6. To what extent did the video you watched change your understanding of exhibit case and physical anthropology more generally? Please mark an “x” next to your selection:

1 _____ 2 _____ 3 _____ 4 _____
not at all      a little   somewhat    a great deal

If the video changed your understanding, please explain how (in what way):

__________________________________________________________________________________________
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**Appendix D: Physical Anthropology Exhibit Evaluation**

**Visitor Raw Data**
Physical anthropology is the study of human evolution and the diversity of human cultures. It involves the examination of physical remains and cultural artifacts to understand the history and development of human societies. Physical anthropologists study the physical characteristics of human beings, including their physical structure, behavior, and social and cultural interactions. They use a variety of methods to analyze human remains, such as radiocarbon dating, DNA analysis, and archaeological excavation. The goal of physical anthropology is to reconstruct the past and gain insights into the ways in which human beings have lived and interacted with their environments throughout history.
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Other: history of attempts to name and understand the evolution of human diversity “race” study in modern times?
Other: the evolution of our understanding of human diversity [arrow down from The evolution of human diversity]
Coded Open-field Responses
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<td>36-45</td>
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<td>36-45</td>
<td>The study of humans and how they interact with people.</td>
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### Notes
- Most students found the exhibit to be engaging and informative. Some students expressed interest in pursuing a career in anthropology.
- The exhibit included artifacts and exhibits from various periods, allowing students to compare and contrast different cultures.
- Students appreciated the use of multimedia and interactive elements in the exhibit.
Appendix E: Physical Anthropology Exhibit Component Video Transcripts

The 1893 “Average Man and Woman:” Laurel Ulrich Captions

The average male and female student sculptures were created for a special exhibition at the World's Columbian Exhibition in Chicago in 1893. They were a collaboration with anthropologists at Harvard, with Dudley Allen Sargent, who was Director of Physical Education at the college, and with a pair of sculptors, artists, who were commissioned to use measurements that Sargent had taken from his students and also had collected via colleagues from students all over the United States. And the idea was to create a kind of model of, he said, the typical male and female student of this era. He really wanted to perfect the human body. He wanted to convince people that they could have a better body, through willpower and exercise. Sargent collaborated with anthropologists, with a context of trying to understand the world in racial categories and it's probably significant that these statues were of idealized white male, white female college students who were in their prime, supposedly, and educated. So it's very easy to see how these could be used as a kind of ideal specimen of humanity. And in the World's Columbian Exhibition, they sat in an anthropology exhibit that also included exhibits from people in other parts of the world, who would have looked very different. The statues came back to Harvard and they were exhibited at the Hemenway Gymnasium, where Sargent had been a longtime director. So maybe we could think a little bit about what it means to be typical. What does it mean to take an average? These differences can be arranged on a continuum from best to worst, most or least civilized, or they can be celebrated as a model of human diversity. And I think those are issues that remain significant in some respects today, but they were of incredible significance in the 19th century as Europeans and Americans were
moving out, in capitalist and imperial expansion, in colonial enterprises in different parts of the world. And this is absolutely central to the understanding of anthropology, because part of the work of anthropologists was to collect, discover, explore others. People that aren't like themselves. And it was very easy, I think, to fall into popular categories or for popular culture to take anthropological information and turn it into racist ideologies.

*The Problem with Skin Color: Evelynn Hammonds Captions*

So when I was about nine, my father bought me a set of books from Time Life on science, and one volume was on evolution, and I was looking through it, and I found a page that had these color scales on them. I'd spend my afternoons reading this section, putting my hands next to each tile, trying to figure out which one I was closer to. Am I 32, or am I 33? And I was never convinced that the scale truly captured my color. So we know that in the period when this scale was produced by Felix Von Luschan, –he was an Austrian physician, anthropologist, ethnographer–and it's in the period when anthropometry was trying to quantify these physical differences that they found within various human groups. So they created these tools where they could try to get to somehow to quantify that actually Evelynn Hammonds is 32, and you might be 31, and then we could begin to have a more systematic way of evaluating color differences among and within human groups. So, at the end of the day you're going to have a picture of a human whose hair has a particular number, skin color has a particular number, length of limbs have particular numbers. So, all these measurements—head size, nose size, ear size—and you sort of create this artifact that you could manipulate and understand just like you would any other kind of scientific object. Though, I would say this project didn't quite go as well as people expected, because they really just couldn't get really systematic recordings using these kinds of
tools of individual humans. And what they found was in the groups that they thought they would find a lot of similarity, they found a lot of differences, within groups. To ask the question "what is race?" is a complicated one, because race has never had a stable meaning over time. By the end of the 19th century, or a little bit before, race was something in common parlance which was just basically observations of people's skin color, their hair type, their eye shape, and their place in life. By the early 20th century, race is sort of a complete totality. It's linguistic, it's cultural, it's behavioral, it's skin color, it's eyes shape; it's hair type; it's nose shape; it's ears shape. It's everything about the physical body and the characteristics supposedly associated with certain physical traits. Here in the 21st century, one other piece has to be added to how we understand race, and that is that many people are no longer of a single race. People who live in the new world have all kinds of ancestry. All of that contributes to who you are. The studies in genetics of human variation show that we're far more similar than we're different. There's always been a question about whether or not we as a society could become a post-racial society. And I think that is a very important topic for us to take up at this time. But I strongly believe we have to understand the past and the ways in which we've used race to mark and produce and explain social inequality. We have to understand that history in order to have a different future.

*Why Social Anthropologists Still Study Race: J. Lorand Matory Captions*

In Nigeria, blackness is not a salient category because most people there are black. Consequently, when Nigerians immigrate to the United States, it's quite a surprise to them that they're black. One Nigerian immigrant, a professor, told a story that his child arrived home from school one day during Black History Month where the child had been learning and had felt pride in stories of African-American accomplishment. And so he ran up to his father sitting in the
armchair and said, "Daddy, daddy, guess what? I'm black." And the father replied, "What is that?" Two different populations can look at the selfsame physical reality and see very different categories within it. Sociocultural anthropology was founded in opposition to pseudoscientific racism. For Franz Boas, for example, it was our job to study how collective and intergenerationally learned patterns of behavior resulted not from biology or heredity, but precisely from learning. A phenotypically Chinese child who grows up with British parents in British society will speak English, will have values, will enjoy the foods, will enjoy the religion, precisely of the sort that their adoptive parents enjoy. Human culture and collective behavior result from intergenerational learning, not from heredity, and that has historically been the emphasis of cultural anthropology as well as social anthropology. There was a time when sociocultural anthropologists focused on geographical isolates. The discipline of social anthropology was essentially founded by Bronislaw Malinowski, who went to a very small set of islands, lived in a small set of villages, and made an observation about a population as a whole that corresponded to a small geographically defined location. In a transnational age, it's inevitable that significant parts of any given island population or any given village or kingdom population are to be found in the colonial metropolis. That is to say a significant number of Yoruba people will be found in London. A significant number of Yoruba people will be found in Lagos, which is the economic capital and was once the political capital of Nigeria. A significant number of them will be found in Eastern Nigeria where the majority of the population is Igbo. And their remittances, the ideas that they bring back, the forms of nationalism and regionalism that they begin to articulate, especially when they leave the place, come to influence the ideas of the people in that locale. It has dawned on us recently that it's impossible to study cultures as local isolates. In my opinion, it's never been possible to study local populations as isolates,
because we tend not to be isolated. So the mission of a 21st century anthropology, and we've realized this certainly since the 1990s, is to study how populations intersect with each other, how identities emerge in trans-geographical ways, and not simply ones that are limited to particular geographical locales. Many sociocultural anthropologists tend to sideline, ignore, and condemn the conception of race. Our litany is race is a social construct. In other words, it is a classification of people that is culture-specific, that's historically specific, and it varies therefore from one society to another, from one historical period to another. There's nothing objective about it. However, the reality is that various governments and various social orders have assigned people roles and have prohibited people from entering certain roles as a result of their phenotype, whether that is their gender or their skin color, their hair texture, their height and their eye color, different opportunities are allowed to certain populations and are denied to certain populations.

_Tracking Human Change: Dan Lieberman Captions_

Race is such a complicated topic because from a scientific perspective, because as scientists, we're actually unable to measure anything that actually backs up the hypothesis of race. People walk around the world and they see people more like them and less like them, and we have, obviously, some kind of instinct to typologize them. And at the time of the World's Fair, there was a lot of interest, of course, in race. Race is a very ancient concept. It predates science. But at the time, this was, of course, post-Darwin. Darwin had published the Origin of Species in 1859. And not long after Darwin, people started using Darwin in all kinds of questionable and disturbing ways. Boas was actually interested in using the scientific method to question some of the kind of scientific racism that was prevalent at the time. For example, let's just say you define
race on the basis of skin color. Well, it turns out that skin color is so variable within populations, or between populations, that the way in which you would define a race based on skin color turns out to be different than how you would define race based on nose shape, or hair type, or eye color, or blood type or all kinds of genes. So every feature that you look at would actually end up causing you to divide the world in different ways. And it's for that really basic fundamental reason that race is a useless, actually non-scientific concept. You cannot define the world typologically in the way that we often do that in some kind of instinctive manner. A really interesting question is why have human beings changed so much over the last few thousand years? And why is it that you cannot draw back certain features in time, from the present back that far in time? And we don't really know the answer to that but there are probably several factors. The first is that human populations aren't static. They don't just sit there in one place and just stay isolated. Human populations are constantly moving around and dispersing and interacting with each other, and that causes genes to move around the world. A second reason is that environments change, and environments are a major factor that effects how our bodies grow and function. Well, we no longer call "physical anthropology" physical anthropology. We now call it either biological anthropology, or human evolutionary biology, or evolutionary anthropology. But in general, biological anthropologists study the evolution of humans and how evolution helps explain how and why we are the way we are. And we're also interested, of course, in its relevance to the world today. And so, we have new tools to study the human body. Instead of just taking calipers and measuring the width from here to here, I can CT scan somebody and collect three-dimensional data, which is so much more information than just what I can get from a caliper. More importantly, of course, I can study how people use their bodies in ways that we didn't do before. I can get genetic data and we can get individuals' genomes today,
and look at the relationship between genetics and environment and that complex interplay that results in who and why we are the way we are because everything about our bodies are an interaction between genes and environment. Genes aren't deterministic and environment isn't deterministic. It's this complex interplay between our genes and our environments that matter.

_Human Evolution and Migrations: David Pilbeam Captions_

In the 19th century, there was a vigorous argument that actually continued well into the 1930s, as to what were the relationships among human races? And I think the exhibit in the World's Fair started from the assumption that they did all belong to one species, and the measurements that were taken, like head shape, skull shape, skin color, eye color, were to try to establish what the defining features were of each group. Boas was someone who, fairly early on, believed that it was important to study the group and not the individual, which is wonderful. He was a statistician so he was very interested in how if you took a measurement on a particular feature in a population, how is that distributed to height? Height is distributed with the famous bell curve; it's called a normal distribution. And so he was very interested in distributions of characteristics and where the distributions weren't normal and where they were different. I think the questions that physical anthropologists ask today focus principally on how did humans become the way they are. What happened in human evolution and why? And that's a very interesting and complicated question, and to answer it you need to have a number of very different approaches. So you need to know something about the fossil record, the archaeological record, the genetic record. You need to be able to interpret the shapes of bones. When you look at a character like this, could you make any sense of the way it moved or what it was eating? It's an obvious example if you're in this business, but not so obvious if you aren't, is skin color. It's now
recognized that having a pigmented skin in the tropics is an adaptation to protect the inner layers of the skin where Vitamin D is being synthesized, and if you get too much UV radiation hitting that it messes up Vitamin D synthesis. So, pigmentation in skin is a kind of natural sunblock. The further north you live, the more trouble you'll run into in getting enough sunlight into the lower inner layers of your skin in order to synthesize the Vitamin D. So it's advantageous to lose your natural sunblock, and that's why as you go north and south of the equator, you see populations that are less and less pigmented. So skin color is an adaptation. It tells you nothing about the relationships of individuals. It just tells you that individuals now live, or their ancestors lived, in the tropics. The ability to sequence lots of DNA, in lots of individuals, has been completely transformative, for not just the field of human evolutionary studies, but evolutionary biology in general. In the case of human evolution, we now know that our closest living relative is the chimpanzee, our closest living relative is the chimpanzee, and a more distant relative is the gorilla. It's also been transformative in the way that we think about humans. It turns out that the amount of genetic variation in the human species is actually quite small compared to what is the case in most other species that have been studied. It's also changed the way we think about human variation. If you think of the human species and ask what's is the total amount of genetic variation you see within a species, and then ask how much of that variation shows up in local populations, such as Ethiopians or Norwegians, what surprised everybody, I think, was that something like 85% of the total variation in the human species resides in these more local populations. It's astonishing, and it's a function among other things, but principally in the fact that we're a young species, and we haven't had that much time to differentiate on a geographical level.
At the Chicago World's Fair, the emphasis at that time was on measuring and trying to develop standards to assess human variation around the world and they used different approaches. Some of them are featured in the exhibit here. So for example, they were very interested in different colors of skin, of hair, of eye color and we have some of the tools that were used for that, and they were also doing measurements. This is a pair of spreading calipers. It's very similar to the ones that would have been used at the time of the World's Fair and it was very good at measuring distances to within a millimeter. It could be placed on various landmark points on the skull and then you could simply read on the scale and write down what the different the measurements are. So it would be a way to record a lot of data. You would have to keep adjusting the position of your skull to take different kinds of measurements as you do this. More recently, then, digital calipers so that read out for you your measurements, so you no longer have to look at a small scale have become available. This is a very nice set of dental calipers, particularly nice because it has its resin tips. So this is better for the materials, for the bone and fossils being measured because it's much less abrasive than metal. And this can be used to take very accurate measurements to the hundredth of a millimeter on teeth. In terms of being able, though, to look at the external three-dimensional morphology, the MicroScribe was really the first tool that became widely used. The way this tool works is that it would be hooked up to a computer system, and what you would need to do is carefully position your whatever it is that you're measuring, and then you would calibrate certain points in your computer system so you have the reference point. But then, after that, all you would need to do is simply go around, touch the point to the different landmarks that you want to record, you have a foot pedal that then transmits that data to the computer. And so you no longer have to read off each measurement as you go. You can do all of
that part later. We still want to continue to study humans and human relatives, you know, chimpanzees, great apes, other primates, because there is still so much we have not yet learned about the range of human variation. And I think that's really important. Especially today, we have the improved genetic sides. We know more about the genetics of individuals, but we also want to see how that's expressed physically and it's only through direct measurement that you can truly assess the range of human variation around the world. There are a whole suite of medical advances that are predicated upon the study of the human skeleton advances in the study of osteoarthritis, advances in all kinds of surgical techniques. So if you only have one population as your standard, then you're missing out on this whole other range of variation and your medical techniques won't be well suited for the majority of people in the world. It is still relevant to study human osteology collections because at the individual level, they serve as a biological record of a person's life and you can learn a lot about what a person has encountered throughout their lifetime through the study of their body. But at the broader population and even the global level, it's essential to understand the range of human variation. So humans have colonized most parts of the globe and have been exposed to a whole different range of environmental pressures. And how have humans adapted to them? We can learn this only through the study of the human body.
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