Exhibiting Human Evolution: How Identity and Ideology Get Factored into Displays at a Natural History Museum

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Exhibiting Human Evolution: How identity and ideology get factored into displays at a natural history museum

A Thesis presented

by

Chanika Mitchell

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

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Department of Anthropology
Exhibiting Human Evolution: How identity and ideology get factored into displays at a natural history museum

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DEDICATION

I dedicate my work to two women who were so strong in the face a great opposition. My work, determination and ethics are dedicated to my Nana and Grandma. They raised the two most important people in the world to me, my parents. They taught me to reach for the stars as you did them. Thank you for simply being you which is great.
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I wanted to thank my committee for all their tireless work:

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ABSTRACT

EXHIBITING HUMAN EVOLUTION: HOW IDENTITY AND IDEOLOGY GET FACTORED INTO DISPLAYS AT A NATURAL HISTORY MUSEUM

SEPTEMBER 2010

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This paper focuses on how identity and racial ideology are factored into displays in the exhibit, Fossil Fragments: The Riddle of Human Origins, at the Yale Peabody Museum of Natural History. I used visitor questionnaires, observations, exhibition construction and curatorial interviews to examine that the concept of race is so ingrained in our society racial ideology and identity is automatically embedded in exhibits about human evolution. How may the exhibition inform the visitors’ perception of race and human evolution? A key aspect investigated was if the curatorial staff was conscious or unconscious about the racial ideological information present in the exhibit. By examining the exhibition construction and visitor observations, I was able to see aspects of the exhibit reinforced visitor racial ideological beliefs. In seeing how exhibition construction coupled with the legitimacy and power of the museum effect people’s thoughts on human evolution, helped me understand that not only information in the museum but information left out can be as detrimental. All the information allowed me to form recommendations change the exhibit so that identity and racial ideological information would no longer be present.
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CHAPTER 1

INTRODUCTION

Natural history museums are constructed as a legitimate source of knowledge about ethnology, geology, human origins, evolution and many other disciplines/subjects. Many times these museums are only seen as venues to display artifacts or information about various subjects. In my research, I chose to examine the Yale Peabody Museum of Natural History to give me a small glimpse into construction of exhibits. Within this exhibit, what information is being disseminated to the public? Might the exhibit be constructed in such a way that it conveys ideological information? In particular I wanted to investigate the following anthropological premise: Exhibits in our society that are so heavily influenced by the race concept cannot help but depict human evolution and origins in a manner that reinforces visitors’ racial ideological beliefs. The question is whether the curators are conscious or unconscious of this effect.

For years, the field of anthropology has been trying to change how the public views the discipline. Many people view anthropology as a very old discipline steeped in imperialism, colonialism, nationalism and the like. For years, museums have been a venue for anthropologists to display their wares that have been procured from all over the world. In the 20th and 21st centuries, anthropologists have seemed to distance themselves from all vestiges of colonialism in their construction of exhibits. The “new” museums have moved beyond the navel gazing of the past and have given a voice to the common man. What happens when the people being examined or discussed cannot speak?
This is a common occurrence in natural history museums where the people being discussed and displayed are long deceased. Early humans and their ancestors have long been an interest of anthropologists. How can museums move beyond the past when the field of human evolution is firmly entrenched in the past? Much of the research and artifacts collected about human evolution come from Africa, which is also at the heart of imperialistic prosperity and degradation. This makes it very difficult to shrug off many of the factors that come with the study and display of human evolution.

The study of human evolution is also freighted with its own concerns and/or problems. The complexity of the endeavor to study the evolution of humans extends beyond the discovery of fossils and delivery of facts, and into how people identify with those facts. What does knowledge of African origins do to peoples’ views of themselves and how they perceive their connection to their ancestors? Identity is an important part of how one may connect to a subject. Race is portrayed as a cultural phenomenon, because all good anthropologists know that biological races do not exist (Smedley 1998: 690). Knowing that both natural history museums and the study of human evolution have ideological histories, it becomes difficult to see how the two are able to disengage themselves completely from their histories.

The museum then carries this history into exhibition construction. The history of the museum is laden with ideological information. When trying to teach people about human evolution, curators and exhibitors also teach them something about identity and what the concept of identity is. The visitor is inundated with relics of human evolution and all the messages or information that entails. How does the material that is included or omitted from the exhibit influence visitor perceptions of human evolution and origins?
Might the museum’s own historical baggage disallow objectivity on the part of the curatorial staff? Many previous studies focused on the ideological information the visitor brings with them to the exhibit. This kind of critique does not consider what ideological information may be present in the exhibit itself. The construction of the exhibit may convey a particular racialized message of human evolution. The museum tries to challenge and teach the visitor about human evolution and origins but may unintentionally be teaching about race.

I will critique one such exhibit using my knowledge of biological anthropology and my position as an outsider. I ask, how may views of race, identity and ideology be manifested in exhibits in this era of “new” natural history museums? An excellent way to ascertain this information is to interview the curatorial staff. In this study, I examine how identity and ideology factor into the “Fossil Fragments: the Riddle of Human Origins” exhibit at the Yale Peabody Museum of Natural History. What messages about race are to be found in a reading of the exhibit “Fossil Fragments: The Riddle of Human Origins?” Are certain representational practices geared toward resonance with some visitors over others? How do natural history museums gain their legitimacy, power and authority? I am also interested in the visitors’ experiences and interactions with the museum. Do the staff and curators of the museum have a certain visitor in mind when constructing the exhibition, and do they have particular ideas concerning what they want to communicate? What discourse about race, if any, emanates from visitors after viewing the exhibit?
CHAPTER 2

LITERATURE REVIEW

Historicizing “New” Natural History Museums

In order to critique or analyze the Riddle of Human Origins exhibit one must first contextualize the construction or role of museums in the 20th and 21st century. Museums for all of the 19th century and the better half of the 20th century were cabinets of curiosity. Natural history museums are dedicated to displaying fossils, ethnology of cultures gone and dying, bones and various other dead beings. The field studies the past; particularly, species that are extinct. In modern times, natural history museums have tried to distance themselves from cabinet-of-curiosity connotations and have historicized artifacts into categories for exhibitions and expertise (Bennett 2004:13). In effect, the curators have removed some artifacts from the past and placed them in the present. When discussing the history of natural history museums (or museums in general) it is important to highlight the fact that museums are tied closely to power structures and to intellectualism. When this power structure reflects a struggle between disenfranchised indigenous groups and bullying dominant groups, then a museum’s power to categorize, claim and legitimize one group’s right to make history their own, also makes museums agents of those dominant groups (Coombes 1988: 61).

The progression of museums from venues for rich, white men to display the bounty generated by their expeditions to indigenous cultures, to places of legitimate scientific knowledge, reads like a race to British and American world power. These nations show different perspectives on the connection between the construction of
historical sciences, the production of memory through museums and the changing forms for government (Bennett 2004:2). What is more interesting is the connections formed between colonial governments, indigenous populations (the occupied) and historical sciences (Bennett 2004:2). In particular, British natural history was a place for the intellectual elite to discuss history and primitive cultures of the world.

During the early 20th century, Britain was trying to formulate a national identity. Museums were seen as a way to highlight power and unity through displaying material culture of the colonized. Material culture from the colonies at the time encompassed skeletons, skulls, facial/body casts, photographs and other items (Coombes 1988: 62). In modern times, we do not necessarily associate biological items with material culture. National museums were constructed to show a unity in identity. The British in particular wanted national museums that dealt with their people, culture and beliefs showing the nuances between various locations within the British Isles (Coombes 1988: 65). The British, like many other people, wanted a place to display their authenticity, authority and power.

The question then becomes, how did museums achieve power, legitimacy and identity? Asking this question allows me to better position the role of museums today and how they construct their exhibits. Early museums used typological organization to construct the exhibitions. Typological organization focuses on objects from different regions of the world that are grouped based on function to depict evolutionary change (Coombes 1988: 61). The objects that appear earlier in evolutionary history are seen as natural whereas objects that are more complex are represented as newer and more evolved (Coombes 1988: 61). The danger in typological organization is that objects are
then used to show cultural evolution. This paradigm sets up a hierarchical system for both biological and cultural artifacts that indicates an evolution of cultures, with some superior to others. Complex and varied logics have been used in articulating this interaction, including the idea that if one segment of society is viewed as “natural,” it is considered less “cultural” and relegated to a lower status. This was the dominant system for classifying cultures during the majority of the 20th century.

Curators of museums further used this evolutionary system to show the need for conservation and preservation of these colonized cultures. Evolution is inevitable and these ‘less advanced’ groups would face extinction. In an interesting twist, anthropology served as an aid to showing cultural evolution in becoming an agent for the colonial government (Coombes 1988: 62). The inevitable extinction of these cultures made their material culture a hot commodity. Anthropology was then able to become the knowledge base for these cultures, which in turn entombed the cultures in a lower status because they were on their to extinction. By placing colonized societies in a lesser position, the museum’s role was to legitimize state actions of colonialism.

It is important to understand that natural history museums are not autonomous entities that are run without outside influence (in particular, the government). Most museums during this time were constructed by the dominant group and supported their thoughts and privileged places in society (Wallace 1981: 63). The hegemony of the state then institutionalizes its ideology for the duration of its reign. More importantly the ideology of the museum changes with the political and/or economic ideology of the state. This becomes evident through a consideration of the changing view of race in anthropology (Smedley 1999: 692). The result is that exhibits are constructed not by
objective individuals but by people firmly embedded in the material culture and ideology of the state (Greenberg 1997: 16). The hegemony that exists in museums disallows for non-whites to be accurately represented by museums or for non-white visitors to feel that they are accurately represented. Many non-whites feel they are firmly outside the state because the state conquered them. If the museum represents the hegemony of the state then they can never be a part of the museum. They thus have no voice in a museum setting.

When the legitimacy and power of the museum is steeped in government power, this does not allow for ‘non-dominant’ culture space. Science becomes a tool to gain claim to the history of a culture. Anthropologists are able to claim that they are seeking the ‘truth’ about a culture. When knowledge is equated with proclamations of science, then groups of people outside the world of science lose their knowledge base. Conversely, the people who know this ‘science’ are able to also be the holders of the truth (Coombes 1988: 62). This allows them to decide what history is and how events occurred. Importantly, anthropologists were able to use this technique to distance themselves from the agency of the government. The colonized are then left powerless to refute anything because history has been recorded and has designated them as living dioramas and collections. Colonized people are displayed in the museum as existing firmly fixed in the past even though they live in the present. They will always be viewed as less evolved or primitive.

We can extend the state hegemony to natural history. Museums are made to be products of the state that show ideologies of a certain class and/or group. Donna J. Haraway, biologist and feminist, argued that the history of the field of natural history is
similar to history of xenophobia, colonialism and racism (Greenberg 1997: 17). Haraway also argues that the American Museum of Natural History represented dominant cultural thoughts and affirmed white power in the face of fear over non-white immigration and class changes (Haraway 1989). This dominance is seen through applying a lower status on non-white material culture (remember that during the 19th and most of 20th century material culture included biological material). If non-white material culture is seen as inferior, then so is the non-white body.

The same phenomenon could be seen in Europe. Nations’ use of evolutionary paradigms allows for cultures and people to be easily labeled and shoved in boxes. “The focus on evolutionary paradigms as a means of representing material culture from the colonies to British publics reinforced some of the worst aspects of those racial stereotypes disseminated through the more propagandist International and Colonial Exhibitions” (Coombes 1988: 66). Europe was able to justify colonialism by implying that Africans are closely related to the African ape, animals with which they lived in lands that they both inhabited. In this manner, many countries were able to use their power to delegitimize the knowledge base of non-whites.

**Race in Anthropological Museums**

Race is a subject which is discussed a lot but often people do not understand what the word means in the past and in the present. People talk about race but have little understanding of the history of the concept. When discussing race and anthropology, one must examine its historical roots, as well as the growth of the concept of race. Race is a vehicle for social identification and stratification based on phenotype (Smedley 1998:
Anthropologists today portray race as a cultural construct and not a biological one. While the biological justification for this is strong (Relethford 2009: 17), such an assertion seems to render invalid many other connotations of the word and disallows for certain venues of discussion. In stark contrast, race is primary in many political and national ideologies and is viewed as fixed in human society. So, something that is proclaimed nonexistent in human biology is paramount in society, where, ironically, biological characteristics are invoked to denote racial identity (James 2001: 236).

Furthermore, even anthropologists use biological factors to categorize people.

When discussing race in modern humans, traits such as skin color or pigmentation are most often used to determine the race of any individual. Skin color or pigmentation varies considerably within human populations, often more than between populations (Pritchard et al. 2010: R208). There are many genes that determine skin, hair and eye color. Also environmental factors affect skin, hair and eye color. “Skin coloration in humans is adaptive and labile. Skin pigmentation levels have changed more than once in human evolution. Because of this, skin coloration is of no value in determining phylogenetic relationships among modern human groups” (Jablonski et al. 2000: 57). Despite this knowledge many museums use skin, hair and eye color to determine race.

From an evolutionary standpoint human skin color and pigmentation have evolved over long periods in different environments. Skin color largely reflects the amount of melanin in one’s skin, which is uncorrelated with other genetic markers, but which is under strong selective pressure (Jablonski and Chaplin, 2003). For purposes of this study I am more interested in the everyday criteria people use to classify races, as the average museum visitor does not know a lot about the vast variety of genetic markers,
how they vary geographically, and more importantly, how they are and are not correlated with one another. Skin color becomes important because it is visible and because it is how average visitors understand biological variation; assessing how skin color of hominins in the past is reconstructed and how it may be interpreted by visitors becomes paramount to understanding how a museum’s exhibits may carry hidden messages. Since races are identified by average visitors by externally visible characteristics such as skin color, hair texture and other external morphological features, then races are easily interpreted as biologically real. Geographic location is another important factor that people associate with race and skin color (Relethford 2009: 17). If one were to simply compare populations on different continents without taking into consideration the full and complex geography of human variation or the many “invisible” genetic markers such as blood types, it would be easy to categorize individuals as belonging to distinctly separate races.

Understanding the origin of the concept of race is important to understanding how race is understood in the field of anthropology. The concept originated with European colonialism in the 1500s (James 2001: 236). This is not to say that different forms of classification did not exist before colonialism. People before colonialism understood that cultural characteristics and behaviors were fluid and that such traits could be accessible to anyone – even outsiders and “savages” (Smedley 1998: 691). One’s ethnic identity was not set in stone and people had the ability to move into a new society. In so doing, they could change their identity. Race changed how people viewed human variation. Human variation gave social meanings and structure to how we viewed our differences and
similarities (Smedley 1998: 693). The concept of race then became embedded in the social consciousness of humankind.

During the 19th and early 20th centuries anthropology served to show that human variation was racial. It helped to show that there are biological reasons as to why people differ. An example is how the African body was and is viewed as the “black body”. To many early Europeans this signified something lacking about the soul of Africans (James 2001: 236). There was then a binary distinction between black and white. Because the African body lacked a clean soul Africans could not be Christians which in turn made them uncivilized savages. In comparison, the English body, which is white and clean, is also Christian and civilized. More importantly, if the soul is lacking so are other biological components. Anthropologists could then show that the African body came from generations of savages without souls because it was in their biology.

The ongoing debate in physical anthropology concerning human variation centers on whether or the degree to which the human variation we see today is ancient (due to ancient shifts in population demographics) or recent (influenced by sociocultural inequalities) (Edgar and Hunley 2009: 2). The interesting fact is that I asked visitors the same question in my questionnaires and they were split as well. Most biological anthropologists support the view that human variation is clinal, not racial (Edgar and Hunley 2009: 2). Clines are gradations in human variation from population to population that may be correlated with geographic distance, ecology or other factors (Lieberman 1968: 128; Lieberman and Jackson 1995: 233). Anthropologists disagree on the degree to which founder’s effects, bottlenecks and migration in or out of populations contribute to the human variation that exists in today’s world. In this paper, I take the stance that
anatomically modern humans evolved recently, and thus modern human biological variation is recent and influenced by environmental adaptations and population shifts. Displaying human variation as clinal is good but if the science that demonstrates this is omitted from educational displays, and if the complexity of variation in “invisible” genetic markers is not explained, then visitors are encouraged to use arbitrary external physical characteristics to mentally distinguish populations of people. Even though clines still show continuous changes in skin color, hair texture and facial features from one geographic region to the next, people embrace characteristics of populations at opposite ends of the spectrum and these provide a basis for their racial categorizing.

For the purposes of this study, I am using traditional terms of race as understood by the United States Census Bureau, regardless of its flawed nature. I use the traditional terms of race set out by the U.S. Census Bureau because visitors asked to identify their ethnicity choose to use racial categories to describe that identity. By using traditional racial categories I am hoping to show how race is intrinsic and very real in the minds of people. I want to highlight this because race has become so pervasive that people use it as an identifier and marker in every aspect of their lives, especially when discussing human evolution and origins. I will show that even though I asked visitors to self-identify race and ethnicity, they chose the traditional terms of black, white and etc. Later in my methods section, I will describe which traditional terms are accepted by the US Census Bureau.

Anthropology has a contested history of having used biology and natural history to show the inherent inferiority of the black body. Not merely the black body but also the colonized body has been used as a tool to show the superiority of the colonizers. Natural
history since the colonialism has established a binary distinction between whites and non-whites. There seems to be an agreement about the reality of race and ranked nature of the body and behavior (Lieberman and Jackson 1995: 232). How has natural history affected the concept of race? To belong to a race in the biological sense means to belong to a subspecies (Templeton 1998: 632). A subspecies is defined as geographically distinct and genetically-differentiated population (Templeton 1998; Smith et al. 1997). This seems very harmless but race in humans is seen as a precise and exclusive biological category (Marks 1994: 33). This exclusivity makes race seem fixed in biology. Even though anthropologists have tried to move away from using race to identify people, forensic anthropologists still use it in this manner (Sauer 1992: 34).

Forensic anthropologists use bones to determine racial identities of people. They have moved away from using the term race and now use the word ancestry (Ousley 2009: 68). Forensic anthropologists are careful to show the difference between biological and sociocultural race. This carefully crafted distinction is lost on the average person (and even some anthropologists). Bony traits vary tremendously across and within populations, and do not cluster into discrete racial categories. But traits can be defined in social terms because people see any clustering as racial. There are certain genetic markers and morphological features that forensic anthropologists use to identify populations. They do so with an understanding of clinal variation. Unfortunately, many museum displays fail to accurately explain how human clinal variation invalidates the entire concept of human races, or how genetic clines cut across one another. Morphological and phenotypic distinctions become discrete, and very important in natural history displays.
This use of bones to categorize modern humans or their ancestors is commonplace in natural history museums. Not only are bones categorized, but genetic information (now available from some bones of extinct species, provided that sufficient organic material is present) is used for the same objective. Physical anthropologists place organisms into distinct categories based on perceived biological commonalities and the strict use of certain methodological tools appears to legitimize and render unassailable those categories. Organisms may be placed in the same species or subspecies based on this or another characteristic. This is not to say biological categorization is completely wrong but rather that it lends itself to counterproductive interpretations if not explained and understood well. Scientists find neutral, objective differences between human populations. Biological racism is the imposition of value on those biological differences by the average person (Gannett 2004: 328).

Through natural history museums, Africa is portrayed as an evolutionarily vestigial structure that gets reproduced to show how far humans have evolved away from the African past. The museums are able to accomplish this by firmly placing the colonized into the simple past, a place where the ancestral association is visible through exhibitions constructed by linear sequences of artifacts (Bennett 2004: 19). They further allow for the colonized to be put in a position of the racialized “other.” An African origin of humans becomes this isolated component of our prehistoric past that somehow manages to be spread over the totality of dark bodies in the present-day. Many displays in natural history museums show modern colonized cultures as if they belong to the past, for example the Bedouin and Bushmen. Exhibitors seem to forget that these cultures exist today but through the display the cultures are forever placed in the
prehistoric past. Racial ideological beliefs are combined with both biological and social knowledge to construct the concept of race.

**Current Literature**

My research has many commonalities and differences with current literature dealing with racial ideology and power in museums. Current research is focused on how museums display human evolution and origins in racialized form. Monique Scott’s (2007: 1) book, “*Rethinking Evolution in the Museum: Envisioning African Origins*”, deals with how the visitor brings his or her own ideological beliefs into the museum. She combines this with studying racial ideological information as presented in the museum. Scott’s work is about how visitors of various sociocultural backgrounds who visit natural history museums imagine human evolution and their relationship to Africa. She examines through these interactions how the visitor forms his or her understanding of human evolution. Both of our studies focus on racial ideology in natural history museums. Where they fundamentally differ is in their consideration of where the racial ideological information comes from and how it should be examined.

While my research focuses on visitor perceptions, my main focus is on how the racial ideology present in the exhibit affects visitors’ views on human evolution and origins. Scott feels that the visitor picks up most of his or her racial evolutionary beliefs outside the museum. I do not deny the fact that visitors have their own constructed views of race; however, I feel that museum exhibits allow visitors to now apply their racial ideological beliefs to human origins and evolution. Exhibits also often omit important information about human evolution. Such omissions can reinforce racial ideological
views and/or help to form new ones. This intrinsic racial ideological and identity information in museums is discussed in other literature. Lieberman and Jackson (1995) take it a step further by studying models of modern human origins for racial coding.

In their article, Lieberman and Jackson study the 3 major models of modern human origins (Out of Africa, Multiregional and Afro-European ‘hybridization’ models) for embedded racial ideological information. They conclude that even though physical anthropology has moved away from the “race” concept, many researchers in the field of human origins make vague comments about race and actually collect racial data, use them to test hypotheses and compile or construct their models (1995: 238). Even though my research does not expressly deal with evolutionary models, I could not ignore the fact that museums use these models in constructing their exhibits. If the models have racial information embedded in them, then so do the exhibits. Understanding how this works means understanding not merely of what the models have in them, but what many of them are missing.

Much current literature discusses the historical changes anthropologists have made in their views of race. The American Anthropological Association had a traveling exhibition called Race: Are We So Different? A review was done by Samuel Redman (2009); he wanted to highlight the historical framework of race in anthropology and the changes the AAA has made to these antiquated beliefs. Anthropology wants to distance itself from racial beliefs and notions of the past. A historical context is always provided to compare where we were to where we are now. This rhetoric differs from mine because I do not believe that racial ideological beliefs are a thing of the past in anthropology. In this paper, I hope to underscore this. By simply stating that one way of thinking is wrong
and outdated does not eliminate racial ideological beliefs and messages. Understanding that something is wrong is vastly different from understanding the way this insidious wrong infects every aspect of communication.

This leads to how race is viewed in human ancestors. Milford Wolpoff’s article, “How Neandertals Inform Human Variation (2009),” deals with morphological and genetic variation within the Neanderthal population. Wolpoff states that our understanding of Neanderthal racial variation is closely tied with our views on human variation. He argues that Neanderthals are a subspecies of modern humans, while others consider Neanderthals a separate species. He also states that humans do not breakdown into biological races. I agree that biological races in humans do not exist. Our assessments differ in that I do not think that Neanderthals are a subspecies of *Homo sapiens*. We simply do not have enough molecular data to make that assessment. Wolpoff himself states that we do not have nuclear DNA information of Neanderthals. He also states that Neanderthals were broken into distinct races. If Neanderthal races exist and they are subspecies of modern humans, this lends itself for racial categorizing of humans. Certain human groups may then be tied to a particular Neanderthal race. Wolpoff is coming for a multiregional perspective. In this study, I will to show that depicting and explaining the relationship between humans and their ancestors is important to preventing inferences of racial ideology.

My research also focuses on the play of power in museums. Museums can have racial ideological information in their exhibits but if they do not have power and legitimacy the message becomes invalid. Tony Bennett’s book, “Pasts Beyond Memory: Evolution, Museums, Colonialism” (2004), focuses on the rise of evolutionary museums
before, during and after colonialism. Bennett feels that the role of the museum as a mechanism of education and knowledge ideology is secondary to its role as a relayer and reinforcer of power for the government (2004: 5). Both Bennett and I are interested in how the government affects power, legitimacy and ideology in the museum. The key difference is that I feel the government uses ideological information to gain more power and uses the museums as one venue in this endeavor. This therefore makes ideology the primary mechanism for power, not secondary. My research in general is similar to prior studies but I differ because of this perspective.

The current literature allows me to get a perspective on exhibits in museums and more narrowly speaking, on natural history exhibits. While my study only deals with one museum and one exhibit, it has broader implications. Other researchers studying museums have made the point that it is impossible to create scientific work without ideological biases. I have probed the ideological beliefs that I bring to the field of museum studies. My ideological perspective and position will be discussed later in this thesis. I will also closely examine what is missing from the exhibit. What is not said can be as dangerous as what is said. Ambiguity can lead to ideological inferences, sometimes even more forcefully than can explicit statements.
CHAPTER 3

METHODS

This study took place at the Yale Peabody Museum of Natural History in New Haven, CT. I examined “Fossil Fragments: The Riddle of Human Origins,” an exhibit on paleoanthropology and human evolution. My surveys and assessments are tools to gauge the interconnectedness of racial ideology/identity and visitor experience. My study brings together interdisciplinary processes through observations, questionnaires, interviews and anthropological scholarship on race and power. My research deals both with the ideological conception and perception of human evolution, as may be evident in the propagation of race and identity in the display of prehistoric humans in American museums. This research lends itself more to qualitative than to quantitative analysis. It is difficult to gauge how humans view themselves within the framework of human evolution through quantitative analysis alone. The effect of people’s evolutionary opinions or ideology on museum visitors is hard to decipher through a questionnaire. Because of this constraint, I use three analytical foci: 1) visitors who are the subjects of my survey questionnaires/observations, 2) interviews with curatorial staff, and 3) a personal evaluation of the exhibit.

Participant Observations

In this study, I wanted to assess visitor interactions in the exhibit to get a better understanding of their knowledge and reactions. I observed their interactions with one another and the exhibit. I was very interested in the amount of time visitors spent in the exhibit. To assess this I did a directed behavioral study of museum visitors (MacDonald
I recorded the length of time visitors spend in the exhibit, visitor fatigue, spatial movements within the exhibit and museum, and social interactions. I felt participant observation was the least intrusive way to observe visitor actions and thoughts. In these observations, I also timed how long visitors spent reading labels and plaques. I kept detailed records of visitor behavior for 3 months. I observed 75 museum visitors of various ages, gender, socioeconomic backgrounds and ethnicities. I was particularly interested in their comments as they walked through the exhibit. In making observations, I also watched how visitor comments changed depending on the responses of group members. During the visitor behavioral study, I also felt it was important to see how long each visitor spent in the exhibit.

Demographic information on each visitor was an important aspect of my participant observation. As of 2008, blacks and Hispanics make up 60% of the population in New Haven, CT (U.S. Census Bureau, 2008). I noted, by my own subjective opinion, how many non-whites walked through the exhibit. The date and time visitors came to the museum was also noted. I went to the museum every Thursday and Friday from 11am-3pm for 3 months. I chose Thursday because visitors receive free admission on this day. I hoped to get greater demographic variation and more foot traffic on the free-admission days. I conducted my study also on two Saturdays from 10am-2pm. Through these visits, I was able to gather demographics about the usual visitor to the Yale Peabody Museum.

Questionnaires
The evaluation was composed of two separate questionnaires. The first was a questionnaire given to the curatorial staff (Appendix 1). They were asked to fill out a questionnaire before a formal interview was conducted. The questionnaire was given to them to help guide the kind of questions to be asked in the interview. I also wanted to get a baseline for what they felt were the most important aspects of the exhibit and what part they played in the construction of the exhibit. The staff questionnaire was constructed to be simple and allow the staff to become comfortable with my questions. A second questionnaire was given to the museum visitors. The visitors were given the questionnaires in a two step process (Appendix 2a and 2b) – i.e., before they entered and after they exited the exhibit.

The questionnaires were constructed to (1) evaluate the construction and flow of the exhibit, (2) understand visitor knowledge of human evolution and origins before and after walking through the exhibit, (3) see if any ideological information and concepts were embedded in the exhibit, such as notions about racial evolution, (4) see how visitors draw connections between themselves and the exhibit topic, and (5) see what components of the exhibit the visitor most enjoys. Most of the questions were intended to assess the visitor’s knowledge of human evolution and origins. I was especially curious to learn if visitors had knowledge of the various evolutionary models that are current in the field of paleoanthropology. The information I gleaned from the questionnaires, combined with the direct observations I made of the visitors themselves, allowed me to develop an understanding of the reactions and the prior knowledge of various groups. I also was interested in how visitors processed and analyzed the information presented in the exhibit. My questions also were designed to sample how various ideological views had
worked their way into peoples’ opinions on human evolution. Some of those views were related to their professed religious affiliations.

**Assessing Visitor Reactions to the Questionnaire and the Researcher**

Getting visitors to take time out from their leisurely visit and fill out questionnaires was difficult. Nevertheless, I asked about 75 visitors to fill out questionnaires and around half (37 visitors) completed the questionnaires. On average, I stayed at the museum for 4 hours per day, usually from 11am to 3pm. About 15-20 visitors would view the exhibit during this time. This figure includes children accompanied by adults. The visitors were asked to fill out a questionnaire before they went through the exhibit and at the conclusion of their visit. They usually took an average of 8-10 minutes to fill out both questionnaires.

Exhibitions typically have a start and an end and they usually are designed to encourage a visitor walk-through from the start. But I posted myself at the end of the Yale Peabody exhibit because the museum is constructed so that most people actually enter the exhibit at what is supposed to be its end. (The construction and flow of the exhibit and museum will be discussed in a later section.) Each visitor was asked, as he or she entered the exhibit, if he or she would like to fill out a questionnaire. The respondents were also asked to fill out a form stating that no personal information would be gathered from this survey. At the conclusion of filling out their questionnaires, the visitors were asked to bring them back to me.

Of the 15-20 visitors who typically passed me in the course of 4 hours, usually only 2 or 3 agreed to fill out questionnaires. Many visitors, approximately 10-12, when
approached, would not make eye contact or would avoid me. I assessed visitor attitudes towards the questionnaires. Most of the visitors who filled out the questionnaire did not have children. People with children seemed to more impatient than those without children. They apparently saw the questionnaire as an imposition on their time, or on their responsibilities for the children.

I was also interested in visitor impressions and reactions to me both as a researcher and fellow visitor. When asking a visitor to fill out a questionnaire, I explained the purpose of the survey and who I was. I informed the visitors that I was doing my master’s research on visitor perceptions of the exhibit. I told them I was a graduate student at University of Massachusetts-Amherst. I found that visitors who filled out the questionnaire were very interested in talking with me. They freely discussed their opinions on human evolution or origins and the exhibit itself. I also talked with visitors who did not fill out the questionnaire but were interested in discussing human evolution. Most visitors were interested in sharing their feelings and thoughts about human evolution. These informal conversations helped to provide me with information that helped me compare visitors and understand their thoughts. I was also able to gain a sense of visitors’ perceptions as they walked through the exhibit. One important method I employed is allowing the visitor to talk without my making many comments. I found that visitors wanted affirmation about their beliefs on human evolution and origins. Visitors also tended to be less inhibited if I made few or no comments.

Interviews
One of the most difficult aspects of my research was interviewing the curatorial staff. I received an interesting view of the power dynamics of the academic museum world and the intricate way in which academic credentialing works. The key part of my thesis was to see how the exhibit may convey messages of racial ideology or identity by either what is included or left out the exhibit. In order to get a better understanding of this problem, I needed to interview staff who helped create the exhibit. For the staff interviews, I wanted to know (1) their experience in museums and natural history, (2) their interest in human evolution and origins, (3) their thoughts regarding the media used to convey information within the exhibit, (4) ideological or theoretical beliefs about human evolution and origins, (5) what information they would like the public to take away from the exhibit, and (6) to what extent they think popular culture, racial identity and societal ideology figures in human evolution and their beliefs about it.

The curatorial interviews gave an excellent insight into how societal norms or beliefs factor into how one’s scholarly knowledge and academic views. This then can be translated into their position in the museum. The racial and cultural ideologies that emerged from these interviews must first be understood through a larger trope. I aim to focus on how the distinctive relations of academic power are constituted in a museum and by the staff’s exercise of specific forms of knowledge and expertise, and I examine how they create meaning through the inclusion and exclusion of information in the exhibit.

I interviewed members of the curatorial staff who helped create the exhibit or currently maintained the exhibit. I conducted a total of 4 interviews. The Yale Peabody Museum is a small academic museum, with many fewer staff members compared to the
American Museum of Natural History or Natural History Museum of Los Angeles County. The museum has several curators but they are all unpaid positions (as they get paid as professors). Each staff member contributed differently to the exhibit. I wanted to interview different job positions to get a better understanding of how the message of the exhibit was created.

Interviewees were asked a series of questions. Each interviewee was asked a different set of questions depending on his or her job title. The interviews were recorded and notes were taken as the interviewee talked. Each interview was partially transcribed. I did not fully transcribe with the result that some meaning and important voice inflections were lost in transcription. All the interviews were conducted at the Yale Peabody Museum of Natural History except for one. It was important for me to gain insight into their position within the museum which allowed me to better analyze their responses to the survey questions. During the interview, interviewees were allowed and encouraged to think through their thoughts aloud. Being in dialogue with me about the topics rather than simply having me listen seemed to be a difficult task for them (which will be highlighted later in the thesis). I suspect this is because my questioning of them about issues they were not accustomed to actually being asked (as they are questions they may have heard or suspect people are interested in knowing) was disarming and revealed issues on which they had either developed pat answers or given no thought at all.

Most of my questions focused on the interviewee’s professional and educational background. I understand that credentialing is an important component in anthropology. They were also asked about what prompted them to enter the field of anthropology and/or
museum studies. My questions were geared to understand their ideological framework as professionals or as members of the general public.

**Exhibition Construction**

Examination of the exhibit focused on exhibit flow, orientation of exhibit within museum, content in exhibit, and construction of displays. I evaluated the exhibit using a number of criteria. Specifically, I wanted to know (1) how the exhibit was constructed in terms of flow and placement of items, (2) my gut reaction to the exhibit, especially with regards to what racial ideological information was present and absent, (3) what aspects stood out most in the exhibit, (4) how the average visitor perceives the exhibit and what items might he or she find interesting, (5) whether the exhibit follows the typological or geographical principles of exhibition construction, (6) the connection between evolutionary sequences and public interest, and (7) how the reconstruction of the body may convey racial ideological information. I codified my reactions to these points with an assessment chart examining different elements of the exhibit (Appendix 3). This chart enabled me to develop a qualitative rating of the exhibit.

When evaluating the exhibit I was particularly interested in the principles guiding the exhibit construction. Especially I was interested in discovering whether the exhibit used the “geographical principle” by which organisms or artifacts are grouped according to regional and environmental factors and/or affinities (Coombes 1998: 61). Alternatively, did the exhibit make use of the “typological, vectorial principle” whereby objects from all over world are grouped together according to function and a ‘natural’ sequence of character change (Coombes 1988: 61). The geographical method allows
artifacts from different time periods to be grouped together, whereas typological groupings show artifacts in an artificial progression.

I chose not to take a virtual tour of the exhibit first. I did not want to bias my views before actually visiting the exhibit. For the integrity of the assessment, I wanted my first evaluation to not be tainted by prior knowledge of the exhibit. For my evaluation, I visited the exhibit on two separate occasions and compared my thoughts during each of the two visits. I wanted to see if my first impression of the exhibit differed strongly from my second.

In assessing how the exhibit is constructed I also considered how what is excluded may give a certain perception to a visitor. How might information left out contribute to flaws in the construction? And this helped me to assess what should be added to the exhibit.

My lens as a researcher

My perception as researcher is important to the construction of my study and how I am viewed by others. While conducting the study, I began to understand my position as both an insider and outsider. An insider is someone who shares a relationship with the group they are studying (De Andrade 2000: 269-270). I am both a museum visitor and academic researcher, which makes me an insider to both visitors and academics. I became interested in how my role and perspective as researcher affects the research. More importantly, I was interested in evaluating how my social status as a researcher affected what the participant said or did not say, how they interpreted me and the exhibit and what they heard (De Andrade 2000: 270). How might the visitor have censored
themselves because of my presence? In qualitative research, race and ethnicity play a dynamic role in the researcher position as an insider and/or outsider. Race and ethnicity are ever present in fieldwork in many ways that are not always explicit (DeVault 1995: 613, De Andrade 2000: 271). My being black allows me to see how black visitors often view the museum from a distinct perspective based on their community. Having a cultural identity with African origins allows me closer relationship with displays about African origins but I am alienated by the story because, while it begins in Africa, it ends in Europe (Scott 2007: 113). My status as an outsider in the scope of racial ideology directly affects the research and becomes central.

I am also viewed as an insider because of my knowledge of anthropology. In doing my interviews, the curatorial staff assumed I had a similar knowledge of human evolution and origins as did they. My understanding of human evolution affected how I perceived the construction of the exhibit. I was looking for certain information and items to be present in the exhibit. Being a researcher the general public viewed me in a different light. They often wanted to show me their knowledge and have it validated by someone they may have considered an expert in the field. They also may have wanted to challenge my understanding and thoughts on human evolution.
CHAPTER 4

RESULTS

Analysis of the Exhibit

In this section of the thesis, I describe key aspects of the “Fossil Fragments: The Riddle of Human Origins” exhibit. The exhibit is located at the back of the first floor of the museum. The visitor depending on which direction they move the visitor will go through at least 2 exhibits to get to the Fossil Fragments exhibit. The exhibit is made up of 2 rooms. One room contains primate and hominin fossils which I will refer to as the hominin room. The other room has information about paleoanthropologists and their research which I will refer to as the paleoanthropology room. It is a permanent exhibit that makes use of the vast collections acquired by Yale University throughout the years. My first two observations concern the plaques in the exhibit. I felt some of the plaques were placed too high as shown in Figure 1.
A visitor may not be able to read content placed that high. Which leads to my second point, the plaques were very text heavy. The full content of some plaques will be discussed further in this section. One good aspect of the plaques is they are multicolored to draw the attention of the visitor. Missing from the plaques was simple and clear information for the visitor to follow.

The orientation of the exhibit within the museum is ill-placed (Appendix 4). After visitors pay the admission fee, most continue straight into other parts of the museum. This means they enter the “Riddle of Human Origins” from the end, and not the beginning. In order to correct this, the museum put an entrance sign at the end of the exhibit (This where I stood to pass out questionnaires). This does not solve the problem because the sign does not stand out and most visitors walk right by it. The end of the exhibit puts the visitor in the main room of the exhibit. One misses out on the
introduction to paleoanthropology. During my first assessment, I unknowingly entered from the end of the exhibit as shown in Figure 2.

My first thoughts were that the beginning of the exhibit was very unappealing and small. Since the orientation of the floor space of the exhibit in the museum cannot change then it might be wise to turn the end of the exhibit into the beginning. I was even told by 2 staff members who helped create this exhibit that they knew most visitors would enter the exhibit at the end.

The lights are placed to illuminate the plaques which would make for easy reading as long as visitors don’t mind looking up. Generally, there is a good flow of traffic. The visitor is able to navigate the exhibit without much difficulty or
claustrophobia even when it is crowded. The pathways also direct the visitor’s attention to certain aspects of the exhibit. In the main room, my attention was drawn to the skeleton of the Nariokotome boy. It sits directly in the middle of the room so traffic must flow around it. The plaque about Nariokotome boy (a *Homo erectus* skeleton of a boy between the age of 8-12) omits the importance of this fossil in human evolution. In the hominin room, the visitors’ attention is drawn to about 12 bronze skulls that are at about the eye level of a young child. They are there to highlight morphological differences between various species of hominins. The flow of traffic also highlights the many colors used in the exhibit. Aside from these contextual clues the exhibit lacks clear direction so the visitor knows which way to best to move when viewing the information.

One very important factor that was missing was staff. The only staff members available to help visitors were the people working at the front desk. Though very friendly and inviting, they knew very little regarding the exhibit. Indeed, they were unable to answer specific questions I asked about the exhibit. Even if the visitor requests a guided tour, the docent cannot provide much information beyond what is already in the exhibit. This greatly limits what the visitor can learn.

The position of the artifacts was good for adults and children alike. The bronze hominin and primates skulls attracted the attention of children. Many children would place their heads beside the skulls and remark on the similarities. The display boards are placed where adults can easily read them. The boards are a little too high for children to read but the likelihood of them reading the plaques is low. There was no indication directing the visitor to which information was the most pertinent. They only highlight the name of the hominin.
One aspect I found interesting was the degree to which the exhibit was (or was not) interactive. There are two touch screen monitors located at the exit of the exhibit. The monitors show human evolution chronologically. There is nothing in the software to explain that human evolution was not linear. The visitor can choose different hominins from *Sahelanthropus tchadensis* to *Homo sapiens*. Once the visitor chooses a hominin, he or she is then taken to another page that tells the visitor basic information about the fossil. The information includes when and where it lived. The visitor can also compare each hominin skull to a chimpanzee and human skull. The software does not allow the visitors to compare the hominins in a manner that is not chronological. The monitors are narrated by Dr. Andrew Hill. The use of interactive displays should be good, but the format used by the exhibit did not keep the attention of visitor. The interactive portion falls short of actively engaging the visitor.

It took me about 45 minutes to assess the entire exhibit whereas the average visitor took between 2-3 minutes. I took approximately the same time to complete each assessment without consciously doing so. I compartmentalized aspects of the exhibit in order of importance. My assessment of the flow of traffic varied from the first to second visit. I felt the pathway had a better flow in the first visit. After comparing my assessments, I noticed my opinion was colored by the number of visitors to the exhibit. In my second visit there were more visitors so the traffic could not move as easily. I found that I was not able to focus as easily when the number of people increased. I also spent more time at certain components of the exhibit compared to others because I found some parts contained more vital information.
In the first assessment, I focused heavily on the hominin room. Thus, I overlooked interesting aspects of the ‘paleoanthropologists’ room. I noticed that the paleoanthropologists’ room places people in chronological order like the hominin room. I was of course interested in reading the information about anthropologists I admired for their discoveries. As I was reading about each anthropologist, I noticed that very little was said about the native people who helped out at the archaeological and paleontological sites. This demonstrated the way in which power plays out in anthropology. In the room there is almost a complete lack of representation of colonized people except as incidental helpers to the anthropologists (who all happen to be white). Even in this day and age the colonized still lack a voice in their country and history. This happens because they lack knowledge base which would give them power. I also noticed throughout the exhibit the use the term hominids instead of hominins. While the distinction may be unimportant to the average visitor, the distinction is key to understanding the biological paradigm in the exhibit. It allows me to gauge if the display is current and has moved its focus into modern times.

There are two important factors missing from the exhibit. There is no comprehensive and clear presentation of the evolutionary model that underlies the exhibit. Second, there is no discussion of why particular fossils were selected for special attention, or reconstruction. In this case, special attention was accorded Neanderthals, and a reconstruction, labeled “La Chapelle”, was presented. Knowing the human evolutionary model the curator is embracing might help to give the visitor a clear understanding of the messages. I got the impression the exhibit adhered to both the Multiregional and Out of Africa models. We know that anatomically modern humans
evolved in Africa some 250,000ya. The exhibit discusses movement of *Homo erectus* across the globe. The exhibit does not explain that *Homo erectus* outside of Africa was an evolutionary dead-end. By not fully explaining what happened to European and Asian *Homo erectus* the visitor is left to draw his or her own conclusion. The next panel encountered is of Neanderthals and archaic humans in Europe. The final display that visitors encounter is the reconstruction of the La Chapelle Neanderthal. This leads to the visitor erroneously believing that Neanderthals are at the evolutionary end of the saga of human evolution – essentially, that they are modern.

Examining the Neanderthal reconstruction was a vital component of my analysis of the exhibit. The exhibit shows the skull of a Neanderthal (presumably La Chapelle) in 3 stages. The first displays the skull with missing bony parts added. The second stage displays the skull with muscle and other tissue. The last stage shows the fully reconstructed Neanderthal with phenotypic characteristics added. The exhibit tells the visitor very little about how the bones, muscle and tissues are reconstructed. The missing bone on the top of the skull is easy to reconstruct. The exhibit fails to discuss how the sex, age and phenotypic traits like skin color are determined. This leaves the visitor to interpret the evolutionary significance of skin color.

**Visitor Backgrounds**

A big component was assessing visitor’s thoughts through the questionnaires. My small sample of questionnaires did not lend itself to statistical analysis. However, I was able to gain a sense of the visitors through their responses. Most the visitors believed in human evolution. The visitors who did
not believe in human evolution cited religious beliefs as the reason for their disbelief. Many visitors came to the museum with their children or had children. The visitors also believed you could assess racial information by examining bones. All the visitors but one stated the modern humans originated in Africa. Interestingly a good number of visitors believe that modern humans descended directly from Neanderthals. All of these factors helped me to understand what ideological information the visitor brings with them to the museum.

Curatorial Interviews

The most informative and difficult process was the curatorial interviews. I interviewed 4 staff members who were in some way involved in the maintenance and construction of the Fossil Fragments exhibit. For ethical reasons, the names and positions of the staff members will remain anonymous. They will be referred to as Staffer 1, 2, 3 and 4. Only 3 of the staff members filled out questionnaires. Staffers 1, 2 and 3 represent an average of 13.5 years of museum experience. All agree that they have less than 5% interaction of with the museum public. Each helped construct a different component of the exhibit. Each stated that museology had always been an interest of theirs. Three out of 4 self-identified as white whereas one self-identified as black. Two of the staffers were men and the other 2 were women. Two of the staffers were born, raised and educated outside of the United States. Museums are beginning to be increasingly international in nature (Bennett 2004: 33).
CHAPTER 5

DISCUSSION

When entering the exhibit I noticed the entrance sign, which was not very eye catching. The sign reads “This exhibition tells the story of the continuing scientific search for our ancestry, and of what we know of different kinds of humans that once lived in the past.” I was struck by the honesty in the statement. They are clear that information being provided contains what is known about human ancestry and the past up to this point. I am able to see through this statement that exhibit relies heavily on facts and text. What I could also see through this statement is the museum has already given up agency for anything wrong in the exhibit. The objects present in the museum are defined via text as opposed to the text enhancing the objects. This allows for more subjectivity in the interpretation of the objects.

Racial Ideology in the “Fossil Fragments” exhibit

In the exhibit there are a number of features that convey racial information, whether this information is intentional or not. Racial information is conveyed in the La Chapelle Neanderthal reconstruction, the typological framework of the exhibit, statements about race\human variation and the Newsweek cover page of black Adam and Eve. Another component not in the exhibit was highlighted through a conversation with the only black respondent to my questionnaire.

As previously discussed, many visitors enter the exhibit from what is considered by the curatorial staff as the exit. When doing my first assessment I entered the exhibit at the exit. On my first visit, I encountered the Neanderthal reconstruction. I was
fascinated by the cranium of La Chapelle and its reconstruction. The reconstruction based on the Neanderthal cranium was prepared by Michael Anderson, an artist with expertise in craniofacial reconstruction. The skull in anthropology represents an ultimate object. The skull itself is bone – i.e., bare of flesh – and is thought to allow truths to come forth. These truths are without visages of colonial, modernity and cultural attrition (Bennett 2004: 82-83). On the other hand, skeletons allow anthropologists more leeway in interpreting the human body. Skeletons are thought to be free of the effects of social prejudice. The Neanderthal exhibit presented three stages of the reconstruction process as shown in Figure 3.
The first was a cast of the Neanderthal skull. Instead of using the La Chapelle skull in the exhibit, which is actually the skull of an individual who had suffered trauma and pathology, a skull of a healthy Neanderthal was used. Second was an intermediate stage showing facial and masticatory muscles, fat and cartilage. Lastly, the Neanderthal was shown with skin, hair, eyes and a facial expression. The Neanderthal was shown as an older, white male. Given my knowledge of Neanderthals, I was not surprised that the Neanderthal was assigned the racial category of white. Indeed, there is new genetic evidence confirming the independent evolution of variation in skin pigmentation in the genomes of Neanderthals and modern humans, with light-variant alleles in each (Lalueza-Fox et al., 2007).

What I found interesting was the choice to make “La Chapelle” look like a healthy and wise, elderly male. Many visitors commented on how they felt the Neanderthal reminded them of their own grandfather or of “a” grandfather. The older but wiser look of the Neanderthal created an affinity. I began to feel like the Neanderthal was someone I knew or had met in the past. The seemingly innocent choice of making the Neanderthal older had a profound effect on how the reconstruction was perceived. There is clear racial ideological embedding. The choices by themselves appear biologically objective. The choices together give the visitor a very distinct perception of Neanderthal that creates an affinity and close relationship even though we are more distinctly related to Neanderthals then each other.

The exhibit fails to explain to the visitor the science and nuances that goes into creating the Neanderthal reconstruction. Michael Anderson created his reconstruction based on the work of Erik Trinkaus. Trinkaus concludes that the Neanderthal is a male
(sexed through the pelvis) of around 30 years based on the markings on the sacral auricular surface of the innominate bone (Trinkaus 1985, Dawson and Trinkaus 1997). The pathology of La Chapelle Neanderthal is never discussed in the exhibit and neither is the trauma to the vertebral column that the individual apparently suffered, adding to his arthritis (Dawson and Trinkaus 1997). Pathology is the diseased condition of an organism. La Chapelle had suffered dental loss and advanced mandibular bone loss (Figure 4). The restoration could not make full use of other methods to reconstruct muscle development and healthy cranial thickness because of the individual’s pathology (Caspari and Radovcic 2009: 298). After years of examining the skeletal remains of this Neanderthal, scientists are sure that he suffered from trauma leading to severe
osteoarthritis (Dawson and Trinkaus 1997: 1017).

![Figure 4. Picture of La Chapelle cranium](image)

It is very important for the visitor to know that the actual La Chapelle Neanderthal does not represent a healthy person. Even though this individual had osteoarthritis there is no evidence that, by the age of 30, he would have had short cut and gray hair. This omission of information regarding this individual’s pathologies and trauma, the decision to represent him as apparently healthy and the choice of hair color can be seen as embedding ideological information into the exhibit.
Combined with the choice of gray and well-groomed hair, the Neanderthal is shown as being very strong and virile. If the intent was to depict the stress of osteoarthritis or trauma as turning the hair gray, then the arthritis should have been obvious on other aspects of the body. Instead, the message is that older Neanderthals were still strong and healthy, and this, combined with the stylized depiction of African Adam and Eve as living unclothed in the past, encourages the visitor to develop an affinity with Neanderthals as elderly, vigorous, healthy white people. The picture of Adam and Eve is from a *Newsweek* cover. It was done in the 1980s and depicts them as light complexion blacks with jerry curls. Visitors see their evolutionary path as perhaps beginning in black Africa, where people were naked and a bit naive, and as ending in white Europe with the rise of strong and healthy Neanderthals.

The Neanderthal skull reconstruction failed to address where modern humans began and where Neanderthals ended. Instead, the Neanderthal (being represented as a white, grandfatherly male) seemed to indicate a direct connection to many visitors of the Yale Peabody Museum. The delineation of evolutionary history between prehistoric and modern is blurred by the depiction of Neanderthals. Visitors are able to recognize and some white people can identify with this reconstruction. The reconstruction raises the question of association between Neanderthals as ancestors and museum visitors as descendants (Scott 2007: 139). A white visitor sees the progression and connection of themselves from Neanderthals to modern humans. A non-white visitor sees evolutionary progression past their ancestors to modern humans. The exhibit fails to show non-white visitors progressing, importantly progressing out of Africa for the black visitor. The difference is subtle but very important. The Neanderthal reconstruction does
two things for the white and non-white visitor. First, it shows firm embedding of racial
differences in humans. Second, it shows the evolutionary progression of the white race
(especially since it is the last artifact seen by a visitor) and the stagnation of the non-
white “races” since there are no depictions of blacks among modern humans, who have a
wide variety of pigmentation in the world today, which is correlated with geography and
not time.

The construction of the exhibition shows history and artifacts as being unilinear
and typological. The exhibit relies heavily on geology and time to give authority to the
facts provided in the text. In combining geology and time, the exhibit is using the history
of the earth to be the master clock for histories of life on earth and human civilization,
culture and technology (Bennett 2004: 24). By constructing the exhibit in a
chronological manner, the exhibitors have placed the past in the present. Instead of
actually showing nature’s order, they display a nature with a false directionality and
temporality (Bennett 2004: 17). The exhibit then encourages evolution to be viewed as
progressing from primitive to modern. Modernity (and its associated practices of
colonialism and post-colonialism) is then everything that is occurring in the present.
This then does not allow space for people and cultures in opposition such as indigenous
and colonized people who, by implication, are firmly placed in the past or at a primitive
stage.

The Fossil Fragments: Riddle of Human Origins exhibit is constructed in a
typological manner. Fossils are arranged from *Sahelanthropus tchadensis* to *Homo
neanderthalensis* and *Homo sapiens*. The hominins and artifacts are from different
geographic regions and are grouped on the basis of function and age. There is very little
effort to show variation in hominin forms at the same time. As a result, the exhibit shows an evolutionary progression over time. The African apes and their ancestors begin the evolutionary chain which ends with Neanderthals in Europe. This typological structure shows how human evolution and anatomy are directly related to the activities of people, which supports the idea that race and culture are well connected (Coombes 1988: 60). In this manner, museum visitors are clearly encouraged to believe in racial evolution and racial hierarchy. It also leaves the black and/or African visitor out in the cold and feeling alienated.

This typological construction reinforces the old views of the black body. So it is clear that humans could not physically colonize hominins as we were not alive when humans were. What is very subtle is how these hominins have still been colonized. There are two ways in which this was done. First, is associating the black body with the African body. The early hominin evidence is found in Africa. Since the fossils are arranged with their like groups then anything African is given the same connotation. The early hominins from Africa are now synonymous with the colonized, black body. Second, if everything that has not progressed is open to being colonized and civilized, if possible. When visitors conceptualize the past their idea of time is different from the one constructed in the exhibit. The museum talks about Africa, Asia and Europe over millions of years but have little to no discussion about the changing landscapes and environments. Since Africa is shown as being virtually the same from past to present then it is still in the past. If Africans are most similar to the early hominins then today’s Africans are still in the past they have not progressed. A lack of progression and complexity is the hallmark of allowing something to be colonized.
As a way to combat the issues of race in biological anthropology, the museum has a statement discussing race in human evolution and origins. The statement reads as follows:

“Biologists agree that human biological variation does not cluster or separate groups or ‘races’. There are gradations in the frequency of many physical features among populations throughout the world. Racial boundaries are arbitrary, defined by culture rather than biology.”

While I commend the museum for making an effort to discuss race when it is a subject that is many times avoided in biological settings, if there is not proper space to discuss race in modern humans then it is better to not address it at all. The former discussion really leaves too much open for the visitor to understand and interpret. The first sentence tells the visitor that biological variation cannot be clustered in races, a statement that contradicts the common sense and daily experience of most visitors. At best one can expect most visitors to not understand what this means. The second sentence states that different physical features are varied throughout populations in the world. However this very point is not exemplified in any part of the exhibit. At best, most visitors can be expected to be confused by these two sentences and their own culturally determined understanding of human variation. Granted, the museum simply does not have enough room to adequately discuss the subject of race.

The last sentence is really what is problematic. The sentence can be interpreted in one of two ways. The first is racial boundaries are strictly cultural but this does not address the question of race. Many people view race and culture as being the same thing. So the statement may be interpreted as one’s
culture defines their race which from the common sense point of view is still signaled by skin color, hair texture and other physical characteristics. The second, which is more dangerous, is that culture defines one’s biology. The average visitor to the museum felt that racial boundaries were old and racial information could be determined from bones. So if race is old so are cultural differences. These inherent racial/cultural differences can be viewed in the bones. The visitor has just gone through an entire exhibit displaying bones and at the end the reconstruction from bones shows a racial progression from dark to light skins. While this was most likely not the plan or goal of the Yale Peabody Museum, it is the end result.

The exhibit leaves out the complex ways in which biological anthropologists construct skin color in humans. More importantly fails to explain why biological anthropologists know biological race does not exist. What are these gradations and how are they determined? Scientists use craniometric and genetic markers to determine geographic relatedness of individuals (Relethford 2009: 19). Many biological anthropologists feel that modern human variation is due to several small bottlenecks, which changed allele frequency in a population and caused a fixation in certain alleles over others (Bradley 2007: 343). These population bottlenecks would cause a phenotype fixation for certain skin pigmentation. This still does not explain to how certain populations have divergence in skin colors. The visitor would benefit from knowing that skin color does not automatically tell you something about ancestry or racial groups.
In the exhibit there is picture of Adam and Eve accompanying the statement of race. The picture comes from a cover of *Newsweek*; both Adam and Eve are black. Black Adam and Eve are set in the Garden of Eden. Adam and Eve are not contextualized just placed in nature. The picture is meant to grab the reader’s attention. The article inside discussed the African origins of modern humans. When I first saw this depiction, I figured this image would bring a lot of discussion about race and racial evolution among the visitors. What actually happened was the exact opposite. The only comments that I heard visitors make were:

“Interesting.”

“They are black!”

“Look Adam and Eve in Africa!”

I was shocked by the lack of discussion over the picture. It seemed that, to most visitors, the thought of Adam and Eve being black is simply unconvincing. But even if he or she did accept this idea, the average white visitor could not see anything black or African as being modern. The white visitor only sees Adam and Eve in nature set formerly in the past. This was encouraged by the fact that Adam and Eve are depicted as naked and situated in nature – i.e., definitively not modern. Adam and Eve are embedded in the past; they do not show modernity.

The picture is poorly explained to the visitor. Even though Adam and Eve were supposed to show modern humans, they were firmly placed in the past. When many people think of the Garden of Eden, they think of the very beginning
of humanity. So even though African Adam and Eve are modern they are at the beginning of human evolution and we have evolved beyond being naked in the wild. The picture it draws for the visitor is that Africans were naked and not advanced in the past and they have not changed. Africans now in the eyes of the visitor are primitive both in the past and present. “Without explicit explanations of race in evolution exhibitions, visitors may just simply read outdated information into the empty spaces” (Scott 2007: 103). The picture and exhibit lends itself to visitors making and drawing their own conclusions.

Only one visitor, who will be discussed in a later section, intelligently discussed racial ideological information in the exhibit. Most visitors expected the museum to be a place of legitimacy and authority. The museum did not challenge their preconceived notions about race. The museum visitor makes meaning of evolutionary history using their religious, cultural, economic and political beliefs (Scott 2007: 111). Their interpretations combined with the typological construction of the exhibit allows for racial ideological information. Typological methods instituted a scheme of uniformity between artifacts which allows them to be used interchangeable to fill in holes within collections so evolutionary history can be complete and get rid of problems that would otherwise exist (Bennett 2004: 77). The visitor fills in equivalences by seeing Neanderthals as close relatives. While visitors did not openly notice ideological information, they built and reinforced their racial ideological and identity beliefs upon it.

While visiting the Yale Peabody museum during a period of 3 months, I only encountered one black visitor. This was also an unusual sample
since the black visitor was a graduate student. I was very interested in how black visitors would perceive the exhibit since they have such an intimate connection with Africa and the black body. I first wondered why I encountered so few blacks at the museum (this was in contrast to my experience of going to the museum quite often and enjoying it). Falk states that museums are active establishments, their actions and how they are perceived affects who does and does not visit (1995: 42). Many black visitors see museums as expressing views opposite to their own. They may also remember the racist past of museums (Falk 1995: 44). Once I contextualize the history of natural history museums and Yale as an institution, I am able to understand why blacks may not come to the Yale Peabody Museum of Natural History. There is a feeling of colonial power for black visitors when they engage with Yale University (I myself experienced discomfort about my place as a black person while working at Yale.)

The sole black visitor I encountered was an African American male who was a graduate student at Yale. In my study, I had the same number of non-white respondents with graduate or professional degrees as whites. The results coincide with Falk’s study that showed blacks with higher education are more likely to go to a museum (1995: 49). He was the only visitor that really wanted my opinion on the exhibit. We had about a 30 minute conversation about the exhibit, the museum and Yale. One of the first comments he made was how racist he felt the exhibit, the museum and especially the university was. Black visitors are more sensitive to the racial messages and flaws in exhibits, and they are less likely to think the exhibit is objective (Scott 2007: 116). I asked him what he found racist
about the exhibit, the museum and Yale. He replied with a complete look of shock:

“You are not from around here! What is not racist about this place?!...um, have you seen that Neanderthal skull? Why is he white and ‘conveniently’ at the end of the exhibit? Have you seen the Hall of White Men (he is referring to the paleoanthropology room)? ‘They’ act like black people did not find these bones and artifacts but white people got the credit of it!”

This response is due to historical defacement and usurping of authority over cultural artifacts has caused strife between the black museum visitor and the museum, in essence generating a black society that has strong emotional reactions (Scott 2007: 117). The paleoanthropology room reinforces the belief for the black visitor that they have no voice in the museum and that colonial ideals are still present in today’s society.

His response is typical of many black visitors who feel the museum is inherently racist or untrustworthy. I then further asked why a lack of blacks (there are blacks in the picture but none are anthropologist or shown as discovering the fossils) represented in the paleoanthropology room was racist. He responded very quickly:

“They went to Africa and took our stuff. But they did not do the work we did! Why are the people who actually do the work not shown? Africa is where everything started and we deserve credit.”

This strong visceral response is due to feeling that the natives do not have control over the artifacts and what happened to them. He felt a special closeness to Africa and the objects. The paleoanthropology room can bring up thoughts of colonialism and slavery where blacks had no power and worked for whites.
Many blacks develop a counter-narrative to the Eurocentric nature of human evolution. So instead of Europe being the center of modernity, now Africa is. He also went on to discuss his belief that Yale University is a racist institution. The black visitor responded with great adversity to what he perceived as the racism and ideology present in the museum and at Yale University on a larger scale. This strong oppositional narrative to racial ideology in museums is common to many black visitors as seen in studies by Scott (2007) and Falk (1993, 1995). It seems clear to many non-white visitors that museums have racial ideology simply because of their history and what they represent.

**Discussion of Curatorial Interviews**

Issues of power and legitimacy came out most clearly in the curatorial interviews. Two of the staffers I interviewed have a master’s degree. The other two staffers have doctorate degrees. Credentials are an important part of both academia and museums. A degree gives people a certain amount of legitimacy and power. Museums have become increasingly specialized within disciplines. Each staffer had a particular specialization in the museum. Museums have a certain professionalism to maintain which includes museum philosophy and administration (Bennett 2004: 34). In order to have certain knowledge, one must be educated in a particular manner. The staffers are given legitimacy through their education which in turn gives them power.

One of the most comfortable subjects for the staffers to discuss was their education. After going through the research and writing process I can understand that they have gone through a lot to obtain their degree so they want to share their hard work. They may also want to position themselves as authorities on a subject. With authority
one has power over another person and the subject. I noted that, the higher position or education the staffer had, the less he or she cared about his or her education and the authority, power and legitimacy that came with it. Maybe this is because such staffers’ position was greater than mine so my questions posed no threat or conflict. I engaged in each interview with the understanding that I would be asking difficult and uncomfortable, personal questions about people’s racial ideological beliefs. I expected the staffers to be guarded with many of their answers to my questions.

The staffers with higher positions and more education were less guarded in their responses or quite open to more nuances in navigating uncomfortable situations. All the staffers were asked “what is the Peabody museum’s philosophy on human evolution?” Both staffer 1 and 3 were slow to answer the question. They both stated the curator would know more about the philosophy of the Peabody museum on human evolution. Staffers 2 and 4 were quick to answer the question. Staffer 2 stated:

“I think there's a strong urge to publicize evolution. That's shared by not just anthropology but by... um... biology department, geology. So I think there’s a strong background... in publicizing evolution. They are probably best made public through the museum.”

The same sentiment was stated by staffer 4. The interesting fact is they both have the highest positions and education levels. Staffer 2 and 4 were clear to also state they wanted to teach the public about human evolution. Because staffers 2 and 4 have higher educational degrees they are given more authority and power to make decisions in the museum.

I was particularly interested in the staffers’ opinions about the Neanderthal reconstruction since it drew such attention by the public. Staffer 1 was asked, “What
would you like for the public to take away about human evolution from the exhibit or in particular from the reconstructions?” The staffer replied:

“I defer to the curators/scientific staff for things like that. And I know I have an idea of what they want to get across with the Neanderthal reconstructions but umm… I mean…my personal view is that you know I’m interested that people find it very realistic…like that skin looks skin like, the hair looks hair and I did a lot of work to make it look that way. But in terms of evolution, I’m not an evolutionist or scientist…”

The staffer gave no opinion on human evolution but helped to construct a hominin that tells people about human evolution. The staffer was interested in how realistic the reconstruction appears to the public. I would have to say if that was the goal for the reconstruction to appear real the staffer achieved the goal. Visitors thought the reconstruction was so realistic, they felt it looked like a relative. The staffer did not appear to understand how the reconstruction affects visitor thoughts.

I asked staffer 2, “What idea or concept of human evolution is the exhibit projecting to the public?” Staffer 2 replied as follows:

“I have no idea! Particularly knowing _________... I have no idea what it is projecting to them. From my point of view what I wanted to do... was... it may be paradoxical but not necessarily to give answers, well certainly not the answers people were expecting. Particularly in such a...like human evolution it changes so much you don't know if you are right. You know you have ideas that are plausible, sometimes they work out right sometimes they don't. Um, and so I wanted to get a sense of on one level uncertainty but not to say it's all rubbish. You know, but to say we think we know this is true. But to say this other stuff how do you do it, I basically wanted to try to make them realize that if you say what the skin color of the Neanderthal? This involves all kinds of questions you can't answer very easily.”

Staffer 2 wanted members of the public to draw their own conclusions about human evolution. This staffer understood that skin color is very important aspect of human evolution from the visitor’s perspective. In a study on reconstructions of human
evolution by the public, Wiber (1997: 16-17) states “white” is used to code for advancement and complexity. By staffer 2 stating there is no real message in the exhibit (i.e., it just portrays knowledge), he or she allows the museum not to take agency for whatever racial ideological information the visitor takes away. The museum can simply claim to allow visitors to form their own opinions.

Their opinions are that racial divisions occurred early in human evolution and that modern humans share a close relationship to Neanderthals. The majority of visitors also believe that racial divisions can be accessed through bones. Staffers 2 and 4 were asked, “would you classify yourself as more of a Multiregionalist, a replacement model or as some variation of the two?” Staffer 2 replied with great conviction: “Total Africanist!” He or she went on to state:

“Yes, definitely. Always have been. Yeah yeah, I never believe that stuff.” (He or she is referring here to other models of human evolution.)

Staffer 4 also claimed to be an Africanist. Even though the two staffers profess to be believers of the Out of Africa model, the construction of museum allows visitors to pull from notions of multiregionalism. So visitors are able to “resist the out out-of-Africa thesis because of the persistent association of white skin with modernity” (Scott 2007: 97). What is interesting is that neither staffers nor visitors notice the conflicts or disconnect in their racialized thinking (Scott 2007: 98). The exhibit is set up in a manner that disallows the visitors to draw any conclusion or answers that tend to be racial in nature.
Staffers 2 and 4 were asked about the statement the museum has on race. Staffer 2 stated:

“It is a part…a bigger part of human evolution. I am not sure what it says.”

This staffer was unsure what message the statement gave the museum visitor. Staffer 4 was very clear in stating:

“I want them to know race is very real culturally but not real biologically.”

This staffer understood that people have certain notions about race already which cannot be dissuaded by stating that race is not real. The visitor must understand why race is not biological. However, Staffer 2 failed to understand visitor perceptions of the exhibit.

After conducting the interviews, I concluded that this was generally true: the staffers had no idea how members of the public perceive the exhibit. They also had little interaction with the public. They were unaware of ideological information in the exhibit and they were not sure of the message they wanted visitors to take home.
CHAPTER 6

CONCLUSION

Overall ideological beliefs of the exhibit

The overall typological construction of the exhibit embeds racial ideological information in the exhibit. The unilinear progression from African ape to modern European humans gives the belief of racial evolution. With the construction there is clear racial ideological information in the exhibit. The ideological information is structural, institutional and historical. The structural ideology has been discussed with the construction of the exhibit. The institutional and historical ideologies are tied to one another. Yale as an institution for higher education has a history of racist practices against non-whites. The racial ideological beliefs appear to be unconscious and are in part holdovers from an earlier period.

Visitors tend to obligatorily accept the beliefs set forth by the exhibit. For one, the unilinear setup of the displays shows modernity outside of Africa only. The visitor does not challenge the belief that modernity does not exist inside of Africa. Second, the visitor does not challenge the depiction of Adam and Eve as light skinned, blacks in Africa. They do not question why Adam and Eve had light skin instead of darker skin. One factor that fascinated me the most was the ideological beliefs the visitor brings when assessing and visiting the museum. The visitor is not a blank slate that comes into the museum without their own notions about race. Since the exhibit does reinforce a belief of racial evolution
and hierarchy, the visitor leaves the museum believing humans had to leave Africa in order to become modern. Since the museum has no concrete philosophy (which was stated by the staffers), the visitor is able to draw their own conclusions. They see race as fixed, old and progressive.

The power of the museums is gained through authority, legitimacy and intellectualism. Visitors believe the museum to have legitimacy because it is run by intellectuals. The curatorial staff at the museum is highly credentialed and intellectual. The staff is seen as the knowledge base for the museum. If you are the knowledge base then you have the right to decide what legitimate knowledge is. With legitimacy you have authority and power over the subject. No one can then question or deem your information wrong. If someone questions the information, you can deem them as outsiders. They then have no knowledge base because you have all legitimacy, authority and power. This is the historical precedent set by colonialism. Since Yale University is an old and prestigious institution it is closely tied with the power structure. The museum gains its power, legitimacy and authority from a colonial power system.

My research fits firmly within the current literature about racial ideological and identity information in museums. Even with my one museum study I am able to see that racial ideological information exists in the museum. Through my research and literature review, I was able to see instances of racial ideological views on identity in the Yale Peabody Museum of Natural History and other museums. Racial ideology infiltrates not merely what is put into but what is left out of an exhibit. The exhibit leaves out a lot of important information that
would, if offered, allow the visitor to confront his or her own incorrect assumptions. It is most interesting that even though the exhibit gives the visitor a lot of information, it still conveys the wrong message of racial hierarchy to the public.

**Changes to be made at the Yale Peabody Museum**

There are three changes that need to be made to the Fossil Fragments display at the Yale Peabody Museum of Natural History. One must also take into account that we are discussing a university museum so money availability plays a significant part in its being understaffed. But again this university is Yale, and it should do better. The first is to insert a geographical component. The typological construction of the exhibit lends itself to racial ideological interpretations. Using a geographical and regional system with some chronological information (but without a portrayal of an apparently natural/organic progression) would work much better. The exhibit could be constructed showing various hominins from different regions and temporal times mixed together. A typological component enters when the hominins are depicted as separate species falling within a linear progression. The exhibit would be greatly enhanced by showing that, even though hominins belonging to different species are found in different geographic regions, they share many of the same characteristics.

The American Museum of Natural History has completely overhauled its Hall of Human Origins. The curators got rid of the typological display of human evolution and origins. The exhibit is constructed where the
different hominins are mixed together with hominins that lived in different times. They overlap each other based on the region they are from and time they lived. For example, modern humans from Africa and Europe are displayed side by side. They also show Neanderthals next to Asian *Homo erectus*. This gives the visitor the perception that human evolution took place at the same time all over the world.

The Fossil Fragments exhibit at Yale would benefit from moving away from the typological system they currently use. The curators could vastly improve the exhibit by depicting modern blacks at the exhibit’s end. Indeed, this could provide them with an opportunity to explore what really happened to Neanderthals. The Upper Paleolithic Gravettian people of Europe are fully modern. They spread into Europe from Africa, and have African limb bone proportions (Holliday 1997). Because of their recent arrival from Africa, they were very likely darkly pigmented, and they appear to have largely if not entirely replaced the late-surviving, classic Neanderthals, in all probability due to the Gravettians’ superior artifacts and cultural adaptations. By ending the exhibit with healthy, modern black people (old and young) represented in positions of power, the exhibit could challenge the average white visitor’s ill-informed notion of white superiority, and could encourage people of color to embrace our growing knowledge of human evolution. Along the same lines, black paleoanthropologists should be depicted with their white colleagues in the paleoanthropologists’ room.

The second change would be switching the order to the rooms. As I previously stated most visitors enter the exhibit at the exit. I think moving the
hominin room to where the paleoanthropology room is would give the visitor that important background into the work first. If visitors were given information about what paleoanthropologists and physical anthropologists actually do, they may have a better understanding of what they are going to encounter in the hominin room. These two changes will improve the flow and information provided by the exhibit.

The third and last change would be adding some important information that is missing. Since the Neanderthal reconstruction is such a big part of the exhibit there needs to be more information about how scientists reconstruct the phenotype of a specimen. This would help the visitor to understand that many factors contribute to the reconstruction of sex, age and skin color. The visitor would understand that skin color is not determined by geography alone, but rather that selection works to favor different amounts of pigmentation along a latitudinal gradient (and that this takes many generations, so cannot work in today’s mobile communities). The visitor also needs to be informed that the La Chapelle Neanderthal was pathological and the victim of trauma. This will give the visitor an understanding of the life of Neanderthals.

Another omission is a proper treatment of the concept of race. The curators should remove their assertion about the non-existence of race, and replace it with much more information about human biological variation. The statement provides no real information about why biological anthropologists believe that biological races do not exist. Such information should be considered vital to any display of human evolution.
Changes to be made within Academia: the field of natural history

The best statement was made by Staffer 2 about the uncertainty of inferences within the science of human evolution and within larger context natural history:

“Particularly in such a…[period of rapid advances in paleontological exploration, sciences] like human evolution … change so much [that at any given time] you don't know if you are right. You know you have ideas that are plausible, sometimes they work out right, sometimes they don't. Um, and so I wanted to [create] a sense of, on one level, uncertainty. But not to say it's all rubbish. You know, but to say we think we know this is true. But to say this other stuff how do you do it, I basically wanted to try to make them realize that … [there are levels of uncertainty], if you [ask] what [is] the skin color of the Neanderthal?

This staffer describes the uncertainty and ever-changing nature of the study of human evolution. What many portayers of the fields of natural history and anthropology try to do is to make their conclusions appear as unequivocal facts. As we all know, scientific inferences cannot be proven right; they can just be tested and perhaps shown not to be wrong. Natural history (science in its larger context) must allow room for changing inferences. The concept of human evolution influences a lot of people’s racial ideological views on identity, and must be portrayed with care and understanding of possible unintended consequences of particular ways of presenting the past. What we think we know about human evolution should also be presented with a clear depiction of how science responds to new discoveries, and understands that prevailing interpretations are subject to change under increased scrutiny and the increased knowledge that new discoveries bring.

So, how must Academia change? Most importantly, scientists cannot continue to ignore the sociopolitical content of the way they communicate with
the general public. It is important for race to have a place in discussions on human evolution and natural history. A simple statement that “race is cultural and not biological” does not solve the problem. Most museum visitors cannot fathom what this means. Physical anthropologists and others in the natural history field must embrace the uncomfortable discussion of race. How may they contribute to changing racial ideological beliefs? Race is not a subject that is going to go away with a simple statement rejecting its biological reality, particularly when such a statement is addressing something that has a foothold in ideas promulgated over a span of hundreds of years by colonizing cultures, and that seems to be affirmed by the display itself. Museums of natural history for years have in fact “shown” that race is biological while claiming the opposite. Now it will take years, and a lot of attention to the details of how biological variation should be represented in educational exhibits, to change that belief.
APPENDIX A

STAFF QUESTIONNAIRE

1. Where did you receive your degree and what is it in?

2. What is your title and job description at the museum?

3. How long have you worked for the museum?

4. What aspect of the Fossil Fragments exhibit were you a part of creating? For example, the reconstruction of Neanderthals.

5. Have you worked at any museums prior to this job? If so, where and when?

6. What percentage of your job involves interacting with the public?

7. Have you always been interested in working at museums?

8. Do you hold any other positions at Yale University or some place else?

9. What is your ethnic background and/or race?

10. What is your favorite aspect of the Fossil Fragments exhibit?
APPENDIX B

PRE-EXHIBITION QUESTIONNAIRE

Answer the questions to the best of your ability. If a question does not apply to you answer “N/A.”

1. How did you hear about the Yale Peabody Museum of Natural History?
   a. From a friend or associate
   b. The Yale University website
   c. The Peabody Museum of Natural History website
   d. Drive by and spotted it
   e. Other_______________________________________

2. What is your occupation?
   a. Please specify__________________________________________

3. Did you bring any children to the museum with you today?
   a. Yes, If so what are their ages? Are they your children?
   b. No

4. What is your ethnic/racial background?
   a. Please specify__________________________________________

5. Do you believe in human evolution?
   a. Yes
   b. No
   c. Other________________________________________________

6. On a scale of 1 to 10, what would you rate your knowledge of human evolution?
   With 1 being the lowest and 10 being the highest.

7. Have you ever heard of Neanderthals?
   a. Yes
   b. No
8. What continent do you think humans originated from?
   a. Asia
   b. Antarctica
   c. North America
   d. South America
   e. Europe
   f. Africa
   g. Other_______________________________
APPENDIX C

POST-EXHIBITION QUESTIONNAIRE

Answer the questions to the best of your ability. If a question does not apply to you answer “N/A.”

1. After going through the exhibit, on scale of 1 to 10, what would you say your knowledge of human evolution is?

2. Where would you say human originated from after assessing the exhibit?
   a. Africa
   b. North America
   c. Europe
   d. South America
   e. Asia
   f. Antarctica
   g. Other

3. What is the relationship between Neanderthals and modern humans?
   a. Modern humans evolved from Neanderthals
   b. Modern humans and Neanderthals have a common ancestor
   c. Modern humans and Neanderthals have no relationship
   d. Other____________________________________________

4. After viewing the exhibits, when do you think racial divisions occurred?
   a. Recently (in the last 1,000 years),
      why?______________________________________________
   b. Later, why?________________________________________
   c. Other______________________________________________

5. Do you think anything about racial differences can be assessed from bones?
   a. Yes
   b. No

6. Did you learn any new information about human evolution?
   a. Yes
   b. No
7. Overall on a scale of 1 to 10, how would rate the exhibit?
### APPENDIX D

**EXHIBITION ASSESSMENT CHART**

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Additional comments
APPENDIX E

MAP OF FIRST FLOOR OF THE YALE PEABODY MUSEUM
BIBLIOGRAPHY

Bennett, Tony

Bradley, Brenda J.

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