



A MUSEUM OF IDEAS: Evolution Education at the Peabody Museum during the 1920s



Alison M. B. Logan

ACKNOWLEDGEMENTS

This document is an adaptation of my senior thesis, completed in April 2007. Much love and thanks to my mother, Carol, who put aside her own work to read and reread draft after draft of this essay. I hope that one day my own editing skills will be as scrupulous as hers.

Many thanks to my advisor Ole Molvig for guiding me every step of the way through this daunting project and to Barbara Narendra who dug through mountains of archives in the Peabody basement in search of documents, letters and newspaper clippings relevant to my essay.

Thank you to the Peabody Museum staff, especially Walter Joyce and Dan Brinkman in vertebrate paleontology, for inspiring me to delve headfirst into this project and assisting me with research, edits and most importantly photocopying.

Finally, I want to acknowledge my grandfather, Foster Bam. Thank you so much for standing behind me in all of my varied interests and for introducing me to the Peabody Museum. I am so appreciative of your enduring support during my Yale career.

I couldn't have done this without you!

ILLUSTRATIONS

Figure	Page
1. Architectural sketch of proposed Peabody façade	7
2. Drawing of proposed new building by Charles Z. Klauder	8
3. Photograph of the construction of the Peabody Museum	10
4. Exhibit in the Peabody's Hall of Man depicting human evolution	12
5. Mildred C. B. Porter's interpretation of the intended route of a Peabody visitor	14
6. Porter's results showing the common route taken by Peabody visitors	14

A Museum of Ideas: Evolution Education at the Peabody Museum in the 1920s

In the summer of 1925, the infamous Scopes trial raged in Dayton, Tennessee. Just a few months later, on December 29th, curators of the newly constructed Peabody Museum of Natural History at Yale University held a dedication ceremony after eight years of design debates and financial postponements related to World War I. Opening in January 1926 to the public, the museum featured exhibits designed to illustrate the results of evolutionary pressures on different types of life, including man. *The Peabody Museum Guide*, published in 1927, explained that the museum contained only a small assortment of the fossils “selected mainly for [their] significance in the general scheme: with a view to create a ‘museum of ideas’ rather than an exhibition of specimens.”¹ Further, at that time the president of Yale, James Rowland Angell, encouraged museum officials to communicate with public schools in the area so that the exhibits could be used as teaching tools. In a letter to the director of the museum he noted, “A university has a peculiar opportunity to broaden greatly the common vision of the values of a museum in our general community life.”² To fulfill this broader public mission, Peabody Museum director Richard Swann Lull invited public classrooms to explore evolution within the museum’s walls using child-friendly exhibits and guest lectures.

Newspapers and journalists anticipated that controversy might arise surrounding the opening of the museum’s exhibits, but the institution encountered almost no condemnation for displaying the organic evolution of man. In fact, earlier in the 1920s the museum had sparked public curiosity, not controversy, regarding reconciliation of Christian principles and evolutionary history. Before the museum had even been built, the Chinese Students Christian Association wrote to the museum for suggestions on how to resolve religious faith with evidence for evolution.³ Some local New Haven pastors even congratulated the staff of the Peabody on their bold steps toward public education in science.

The question that comes to the forefront of this juxtaposition of the Scopes trial and the museum’s re-opening is: What influences affecting the construction of the Peabody Museum led to its overt depiction of human evolution? Lull was ultimately responsible for the museum’s theme and after he assumed directorship of the museum in 1922 he suggested to the president of Yale and fellow curators that the redesign of the exhibits be based on observable, evolutionary truths. In 1922, he successfully convinced his colleagues of this and the exhibition was completed in 1925. Lull, who was well known for promulgating simplified explanations of evolution, also published *The Ways of Life*, a text that summarized the laws of evolution in simplified terms, in 1925. In his book’s preface, Lull invited the “layman to judge for himself as to the reasonableness of teaching this department of science,”⁴ and then called them forth to observe visual confirmation in the halls of the Peabody. Further, it is clear that Lull deliberately reworked the museum’s layout in reaction to uproar against teaching evolution in public schools and redesigned the museum exhibits so that they acted as visual proof for human evolution.

¹ *General Guide to the Exhibition Halls of the Peabody Museum of Natural History* (New Haven: Peabody Museum of Natural History, Yale University, 1927), 6.

² J. R. Angell, letter to R. S. Lull, 5 March 1923, *Yale Peabody Museum Archives, Vertebrate Paleontology Collection, Lull Correspondence* (hereafter YPMA, Lull).

³ The Chinese Students Christian Association in North America, letter to Richard S. Lull, 6 March 1918, YPMA, Lull.

⁴ Richard Swann Lull, *The Ways of Life* (New York: Harper & Brothers, 1925), xi.

In addition to Lull's ambition, close analysis reveals that the Peabody experienced little protest partly because the museum-going experience was engineered such that it displayed the science of human evolution but never explicitly denounced biblical interpretation. Another significant factor that reinforced the Peabody's success was its position within a prestigious university in an urban, northeastern city, where acceptance of evolution tended to be mainstream. The following narrative addresses and dissects how and why the Peabody Museum of Natural History at Yale University became the first natural history museum to depict human origins in terms of organic evolution during this period of intellectual controversy.

The Origin of the Peabody

The Peabody Museum, originally located on the corner of High and Elm Streets, got its start through philanthropy and luck. In the late 1800s, Othniel Charles Marsh, an avid collector and fossil specialist, urged his uncle, George Peabody, to donate \$150,000 to fund the construction of a museum to house his and his colleagues' burgeoning collections, which included dinosaurs, ancient mammals, and other vertebrates. In a letter to a board of trustees, the well-known philanthropist agreed to donate the money in hopes of advancing science. He stated, "The rapid advance which natural science is now making renders it necessary to provide for the future requirements of such a museum."⁵ Despite his patronage, George Peabody had little to do with the final outcome of the museum and allowed his nephew to oversee its establishment. Ronald Rainger refers to Marsh as a "wealthy and ambitious [man]," who "spent thousands of dollars collecting and paying collectors to ransack the western United States in search of fossils."⁶ After his uncle's death, Marsh poured his own income (inherited from Peabody) into the struggling museum and the maintenance of its collections until the day he died in 1899. Remembered for the expeditions that produced his impressive fossils, Marsh and his collections are still studied and viewable on exhibit today.

The original Yale Peabody Museum, which opened its doors in 1876 was only one wing of a proposed three-part structure. It became famous for Marsh's collection and was used as a teaching tool for geology and paleontology programs at Yale. George Gaylord Simpson, one of the 20th century's most influential paleontologists, studied the artifacts as a graduate student in vertebrate paleontology at Yale. In his biography, he recollects how Marsh and the other curators at the Peabody came to follow "what was at first the more popular line... [the idea] that the fossil record was fully in agreement with Darwin's assumption that in the long run natural selection must give rise to progress."⁷ After its construction in 1876, Marsh spent the remainder of his years trying to garner financial support for the expansion of the museum that was struggling to house the huge Yale Peabody collection. It had quickly become apparent that the three-story building, 115 feet by 100 feet, designed by J.C. Cady, just wasn't large enough.⁸ By the time of his death in 1899, he had consumed most of his inheritance augmenting the museum's collections, and conserving the artifacts, and few funds remained to extend the museum's capacity.⁹ On October 18, 1907, *The New York Times* ran an article titled "A Yale Ceiling Falls," which described how a

⁵ Zelda Edelson, "The Peabody Museum of Natural History: The Early Years, a Documentary View," *Discovery* 12 no. 1 (1976): 5.

⁶ Ronald Rainger. *An Agenda for Antiquity: Henry Fairfield Osborn and Vertebrate Paleontology at the American Museum of Natural History, 1890-1935.* (Tuscaloosa: The University of Alabama Press) 11.

⁷ G. G. Simpson, *Concession to the Improbable: An Unconventional Autobiography* (New Haven: Yale University Press), 17.

⁸ Edelson, *Discovery* 1976, 15.

⁹ "Important Gift to Yale: Professor Marsh presents his scientific collections to the University," *Yale Alumni Weekly*, vii, no.17, (20 January, 1898): 1.

piece of the Peabody Museum ceiling collapsed, destroying “a number of valuable specimens.” Though the director of the Peabody assured reporters that the damage was repairable, the article speculated, “The most serious feature of the accident lies in the suggestion it conveys that the building is faultily constructed.”¹⁰ This article conveyed what had long been a significant source of stress for the museum’s director and curators.

The years between Marsh’s death in 1899 and the time that the ceiling fell on the prized specimens were eventful. Charles Schuchert, who would eventually act as the museum director, recognized that the museum needed to be reorganized and renovated in order that the little space could be most efficiently used. In a letter to a fellow professor, Schuchert “stressed that one of the most urgent requirements of the existing institution was the ‘completion of the Yale University Museum.’”¹¹ During the following years many attempts were made to gain funds for the purpose. On June 8th of 1905, director Schuchert and the treasurer of the Peabody’s Board of Trustees suggested the University “transfer the Peabody Museum to the Hillhouse property.” In hopes of receiving a Carnegie Foundation grant as so many other museums were doing at the time, the University treasurer agreed to inquire about “adequate amount of land and a sum of money sufficient to replace the cost of the existing building.”¹² However, just like the faulty ceiling, efforts to acquire sufficient funds for the museum from a Carnegie donation fell through.

The Peabody’s luck changed in 1909 when a generous donor named Margaret Olivia Slocum Sage (Mrs. Russell Sage) presented \$650,000 to the Peabody trustees to purchase a Hillhouse family property for the future location of the museum. The museum still lacked funds necessary for the actual construction of the building, but on Christmas of 1916, nineteen years after Marsh’s death, the treasurer of the University announced to Charles Schuchert, now director, that Mrs. Stephen V. Harkness had “pledged a magnificent sum to erect dormitories for Yale,” and circumstantially, these new dormitories were to be built on the plot of land that was home to the existing Peabody Museum. In light of this generous donation, the University treasurer agreed with Schuchert to increase the existing reconstruction budget of the museum from \$250,000 to \$750,000 to cover its relocation to the Hillhouse property already purchased by Mrs. Sage. The only stipulation was that the present museum had to be vacated by July of the following year, requiring all of the specimens to be placed in storage pending construction of the new building.¹³ Schuchert, curators, and colleagues were appreciative but overwhelmed by the prodigious task of moving out of the museum in a mere few months. In an academic summary report for 1916 through 1917, the curators recollected that “to see the splendid and rare specimens, large and small, dismantled and packed away in boxes and drawers, took out of them for the time being most of their hopes of a greater museum.”¹⁴ Though it was not noted in the report, the theory of evolution would also be transported from the minds and beliefs of the Peabody staff to the museum’s new home at the top of Hillhouse Avenue. The old Peabody Museum was torn down shortly after the final loads of equipment and specimens were removed.¹⁵

¹⁰ “A Yale Ceiling Falls,” *The New York Times*, 18 October 1907.

¹¹ “Important Gift to Yale: Professor Marsh presents his scientific collections to the University,” *Yale Alumni Weekly*, VII no. 17 (January 20, 1898): 1.

¹² Zelda Edelson, “The Ordeal of the Peabody Museum: The Struggle for a Building, 1882-1925,” *Discovery* 14, no. 2 (1979): 33.

¹³ Edelson, *Discovery* 1979, 33.

¹⁴ Edelson, *Discovery* 1979, 34.

¹⁵ “Peabody Museum: Report of the Curators,” *Reports of the President and Secretary of Yale University and of the Deans and Directors* (Concord: The Rumford Press, 1917), 337.

¹⁶ Edelson, *Discovery* 1979, 34.

“A New Fireproof Building”

Plans for the design of the new museum, which commenced in January 1917, remained independent from debates about the museum’s exhibit layout, especially involving evolution. Most of the decisions regarding the new building pertained to adequate space for the existing fossil collections and room for future expansion. A special committee appointed by Yale’s treasurer drafted a detailed report outlining what requirements were necessary for the new museum’s success. The committee outlined a total of fifteen proposals pertaining to construction of the museum, including the following: the “university shall erect at its expense on the southeast corner of the Pierson Sage Square a new fireproof building for the museum, containing a floor space of at least thirty-eight thousand square feet and shall set aside land there to be occupied by the said building and future additions.”¹⁶ It was also decided to begin building at the “earliest possible date approved by the Trustees.”¹⁷ After these decisions, the committee began collaborating with the architects, Day and Klauder, and museum curators on adequate space propositions, material choices and other construction details for the future museum. Because the museum staff was pressed for time to move out of the current building, they wanted construction on the new building to begin immediately so that items could be transferred into the new structure instead of being put in storage. However, other matters would intervene.

After vowing to remain isolated from the war raging in Europe, Woodrow Wilson was compelled by a series of unprovoked submarine attacks on U.S. merchant ships to request that Congress declare war on Germany, which it did on April 6, 1917.¹⁸ In light of the economic impact of wartime on material costs, the Trustees of the Peabody and the museum director concurred in postponing construction of the new museum until after the war. Minutes of the special committee detailed the decision to “reserve the right to ask the university to defer beginning work on or letting contracts for the new building for a period of one or possibly two years from July 1, 1917.”¹⁹ The University agreed. In a letter dated May 2, 1917, Charles Schuchert, director of the museum, broke the news to his architects that building would indeed be postponed because the “undertaking was too important to be rushed through in a few weeks.... And war prices have already cut down our plans one-fifth with the probability of further restrictions.” Schuchert’s decision was a turning point for the fate of the Peabody Museum. Had the United States not entered the war and suffered from cost inflation, the decision to rearrange the museum’s layout so that its exhibits displayed evolution might never have been made. Perhaps fortuitously, the museum’s construction was postponed indefinitely, allowing for an unusually long planning period and the transfer of decision-making power from Schuchert to Lull. Lull, who supervised the museum’s vertebrate paleontology department and taught an acclaimed class on organic evolution at the University, was thus put in a position to mount an argument for the secularized view of the origin of life.

¹⁶ Charles Schuchert, “Minutes of the meeting of the Special Committee” (Schuchert’s personal scrapbook, 12 March 1917), 1. Yale Peabody Museum Archives (hereafter YPMA, Schuchert).

¹⁷ Schuchert, “Minutes of the meeting of the Special Committee” (12 March 1917), 2, YPMA, Schuchert.

¹⁸ Michael S. Neiberg, *Fighting the Great War* (Cambridge: Harvard University Press, 2005); 235.

¹⁹ Schuchert, “Minutes of the meeting of the Special Committee” (12 March 1917), 2, YPMA, Schuchert.

Richard Swann Lull

In addition to curating the Division of Vertebrate Paleontology at the Peabody Museum, Richard Lull published books and journal articles that presented the idea of evolution to his students and to the general public. Two of his most popular books, *Organic Evolution* and *The Ways of Life*, became authoritative in the field, and in each Lull did not explicitly endorse Darwin's theory, but used natural selection to represent his own viewpoints on evolution. In *The Ways of Life*, he stated:

*The foremost evolutionary fact in the minds of most biologists is natural selection, as Darwin named it. It may be defined as the survival of the most fit, with the inheritance of those adaptations wherein fitness lies. It acts in the main upon small, uncontrolled variations, either eliminating those individuals whose adaptations are out of harmony with environmental needs, allowing others to survive and hand down their adaptive variations to their progeny, or selecting the fitter to survive.*²⁰

By referencing Darwin in his illustration of evolutionary factors, we see that Lull considered Darwin's theory the most logical and empirically based explanation. In fact, Lull's texts were rarely criticized or critiqued because, though he referenced Darwin's theory more frequently than others, he never claimed one theory as fact over the others. By taking this type of general inclusive approach to the topic, Lull became known as an evolutionary expert and often received letters from both national and international groups asking for his opinion regarding the rise of proof for evolutionary truths. For example, in a letter dated January 10, 1919, the president of the Young Men's Christian Association of Yokohama, Japan, asked for Lull's advice in reconciling their faith in religion with Lull's text, *Organic Evolution*. Confiding in Lull, he wrote, "In my work with boys and young men I have found occasion many times to tell the story of creation simply but in accordance with the evolutionary viewpoint. I have found it not only interests but that they want more."²¹ This correspondence alluded to rising public curiosity, not necessarily protest, about how religion and science might coexist.

Lull's pioneering textbook, *The Ways of Life*, which outlined the evidence for evolution, soon became the leading resource in college classrooms around the country. At Yale, his book, along with the museum's abundant collection of fossils and artifacts, served as the basis for the interactive and fossil-based graduate program in vertebrate paleontology. George Gaylord Simpson, a student of Lull's, wrote in his autobiography, "Teachers and colleagues all accepted the truth of evolution but few of them were Darwinians, or Neo-Darwinians, in any precise sense. Most of those who were theoretically minded at all were divided."²² At Yale, he continued, his "major professor, Lull, taught a highly popular course on evolution and wrote what was then the leading textbook on the subject. In effect he gave equal billing to all the conflicting theories on the causes of evolution, but he personally espoused none of them." While not endorsing one particular theory, Lull presented all the existing explanations of organic evolution in an enlightening and

²⁰ Lull, *The Ways of Life*, 94.

²¹ The Young Men's Christian Association of Yokobama, Japan, letter to Richard S. Lull, 22 January 1919, YPMA, Lull.

²² Simpson, *Concession to the Improbable*, 114.

inspiring way such that his teaching style drew in students from other fields. A *New York Times* article estimated that up to 75 percent of the Yale Divinity School students had taken this famous course during their years at Yale.²³ Though scientists did not always agree on evolution's specifics, Lull effectively showed that most agreed on its existence.

Despite evolution's entrenchment in university curricula across the country, debate about evolution's appropriateness in public school education climbed to the top of the Peabody's agenda during the museum planning process. In a letter to Lull, Yale president Angell expressed his view: "I can see these institutions as primary teaching research institutions but with very definite and great educational obligations to the interest of the general public and particularly to the secondary schools."²⁴ Similarly, in a letter to Richard Lull, the secretary of the American Association of Museums discussed the role that natural history museums should play in congruence with "schools and libraries in educating young and old."²⁵ It was apparent then that the Peabody, before it even materialized, was to play an integral part in changing public opinion about the authenticity of evolution.

"Professor Lull is best equipped for this duty..."

Construction on the new building began in spring of 1921, after wartime impacts on construction costs had subsided. It was apparent that Schuchert's loyalty to the project had dwindled in the interim. On November 28, 1919, Schuchert sent a letter to the chairman of Yale's Committee on Architectural Planning expressing his irritation over the protracted delay of the project. He wrote "in 1917, before we abandoned the building, the Great War was upon us and even the price of building had gone from 28 cents in 1912 to 47 cents per cubic foot" and, that at the time, the increase was going to raise the cost of the museum from \$750,000 to nearly \$900,000.²⁶ Schuchert continued by explaining that before the old museum was destroyed, the Philadelphia-based architects Day and Klauder had drawn up plans for the new building when museum officials rejected their initial design because its façade did not pass muster in keeping with its prominent location on the corner of Sachem Street and Whitney Avenue. Following this setback, Schuchert, the Peabody Trustees' treasurer, and architects, including Yale University advising architect James Gamble Rogers, then drew up a more acceptable plan (see Figures 1 and 2) that met the institution's standards but also required more money.²⁷ Between 1917 and 1922, Schuchert's frustrations with the project dominated his correspondences and personal notes. In a letter to a friend, he confessed that after "architect Day died and the war proceeded in a thoroughly cavalier way with building prices...[I have] neither an architect to consult nor a pocket book thick enough to meet needs. In other words [I am] in the condition of the church mouse having beautiful and sacred ideas but nothing to live on!"²⁸ Schuchert's troubles were resolved in 1921, when Yale agreed to commence financing the construction, and because of the war economics, the museum fund had almost \$900,000 to spend on its project.²⁹

²³ "Lull in 'Ways of Life' Cites Scientific Facts to Support Evolution," *The Washington Post*, 31 May 1925

²⁴ J. R. Angell, letter to R. S. Lull, 5 March 1923, YPMA, Lull.

²⁵ Laurence Coleman, letter to R. S. Lull, 1 March 1923, YPMA, Lull.

²⁶ Charles Schuchert, letter to J.V. Farwell, 28 November 1919, YPMA, Schuchert.

²⁷ "Peabody Museum: Report of the Curators," *Reports of the President and Secretary of Yale University and of the Deans and Directors* (Concord: The Rumford Press, 1917), 381.

²⁸ Charles Schuchert, letter to J.V. Farwell, 28 November 1919, YPMA, Schuchert

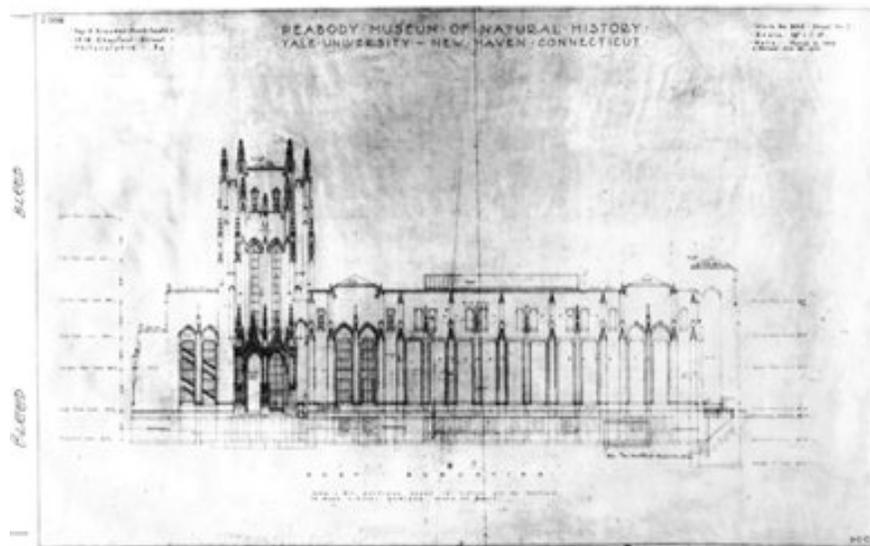


Figure 1: *Architectural Sketch of proposed Peabody façade.*

The year 1922 was very productive for the Peabody Museum staff although financial problems and structural setbacks since the Harkness donation had worn heavily on the museum's staff. At the start of the year, correspondence flowed between Philadelphia and New Haven, from the architects' office to Schuchert's, outlining different ideas for the exhibit layout of the three-story building. One version of the plan drawn up in January of 1921 included an auditorium seating approximately 500 people; it was later cut out to reserve space and money. Many such deliberations took place between the architect, Peabody trustees, the University treasurer, and museum curators negotiating space requirements for their departments. Professor Lull, as curator of vertebrate paleontology, was vocal in these conferences and presented drawings and exhibit schemes. His opinion carried special weight because, as Yale president Angell explained, the department "emphasized the fact that the greatest value of the Museum was in the Marsh Collections of paleontology, and that they should have a leading consideration, since the greater scientific reputation of the Peabody museum came through them."³⁰ The decision to focus the museum on its most well-known collections offered Lull special authority in determining the layout of the museum. In a few months, this authority would be greatly increased.

²⁹ Edelson, *Discovery* 1979, 35.

³⁰ Schuchert, "Minutes of the meeting of the Peabody trustees" (16 February 1922), 1, YPMA, Schuchert.



Figure 2: *Drawing of proposed new building by Charles Z. Klauder*

The fate of the Peabody Museum took another turn in March of 1922 when a letter from Charles Schuchert reached President Angell's office announcing his impending retirement. Schuchert wrote with regret, "As I am to be away from New Haven during the next four to six weeks, and as I am this year on sabbatical leave, and have but one year more to serve before I shall ask to be made emeritus, I think it for the best that you relieve me of all responsibility in connection with the building program of the museum." Following this announcement, Schuchert suggested who he felt was most able to succeed him and continued, "I will help in an advisory capacity, but as I am soon to retire from all University duties, it is only fair that the building responsibility be assumed by one of those who are to work in it. Probably Professor Lull is best equipped for this duty and both he and professor Coe are willing to assume it."³¹ Shortly after receiving this letter, trustees voted to induct Professor Richard Swann Lull into the directorship of the museum and at once Lull resumed planning.

Lull now had the power to state his views and redesign the layout of the Peabody in accordance with his own evolutionary beliefs. He was made director in early 1922; President Angell, at a trustees meeting on February 22, urged him to orient the museum's focuses: "first [on] research, second [on] teaching, and third [on the] exhibition of collections so adjusted to not only provide material for teaching at Yale, but as well to cooperate with the New Haven public schools, and finally to interest the public in general."³² These goals not only reflected those of Angell, but were also closely aligned with a text that Lull was assembling during the years leading up to the museum's opening.

³¹ Charles Schuchert, letter to J. R. Angell, 6 March 1922, YPMA, Schuchert.

³² Schuchert, "Minutes of the meeting of the Peabody trustees" (16 February 1922), 1, YPMA, Schuchert.

“The Course of Organic Evolution in Time and Space”

To quell the skittishness regarding tensions about evolution in schools, Lull, as an academic authority on organic change, took charge and produced a comprehensive evolution text directed at the general public. *The Ways of Life*, published in 1925, candidly referenced the anti-evolution sentiment rampant in rural Tennessee and other southern states in the early 1920s. In it, Lull presented the existing and undisputed evidence in support of evolution by means similar to natural selection. The same year, 1925, saw both the dedication of the new Peabody Museum and the sentencing of John Scopes, who was ultimately found guilty. The timely appearance of Lull's book was no coincidence given that he referenced both events in its preface. He wrote, “The discussion which has lately arisen in the United States over the acceptance of a belief in Organic Evolution, as opposed to the Direct Creation doctrine as interpreted by the Fundamentalists, has reached rather alarming proportions when the teaching of our science becomes a subject for legislative action.”³³ Lull directly addressed evolution skeptics, and inserted a direct challenge to those who consider teaching evolution a crime. He also anticipated that his book would change many minds by showing “the futility of trying to explain such a record by the strict interpretation of Genesis “by drawing on the “great wealth of paleontological material in the Peabody Museum.”³⁴ And in the conclusion of his 340 pages, he maintained that, “when one weighs dispassionately the great host of facts which science has presented, he sees at once the utter inadequacy of the older explanations of the coming species,” and ultimately, concluded: “Direct creation is but a bit of ancient folklore.”³⁵

This monumental text was well received in academic realms and highly acclaimed in most literary reviews. A Washington Post review applauded his work, calling it a “comprehensive, condensed, temperate review of all the data thus far accumulated on man's physical history,” but warned “it will contribute to the gayety of the nation by arousing the passionate protests of anti-evolutionists.”³⁶ *The Ways of Life* was acclaimed by other reviewers, including in *The New York Times*, and esteemed in educated circles as both an adequate verification of organic evolution, as well as a potent rebuttal to anti-evolutionists persecuting teachers in the south. Even as the book was being scrutinized, Lull was finalizing the three-year plan to incorporate evolution into the Peabody's exhibit presentation, not physically completed until 1925.

³³ Lull, *The Ways of Life*, xi.

³⁴ Lull, *The Ways of Life*, xii.

³⁵ Lull, *The Ways of Life*, 338.

³⁶ “Lull in ‘The Ways of Life’ Cites Scientific Facts to Support Evolution,” *The Washington Post*, 31 May 1925.



Figure 3: *Construction of the Peabody Museum, 1924*

The years from 1923, when ground was broken for the new museum building, to the beginning of 1926, when the museum was finally opened to the public, were eventful (Figure 3). Almost immediately after Lull assumed directorship of the museum, he began the process of exhibit redesign. In a meeting of the Executive Committee of the Peabody Museum on May 11, 1922, it was decided “that the exhibition of fossil plants, fossil and recent invertebrates and vertebrates, together with something of anthropology [would] be arranged so as to bring out the course of organic evolution in time and space.”³⁷ He revamped the layout of the museum so that it led visitors through an interactive tour of how organic evolution occurred by positioning related groups of organisms in an evolutionarily accurate order. Though Schuchert departed as director of the museum in early 1922, he continued to document the museum’s progress. In a letter to George Grant MacCurdy, the curator of the anthropology department, he outlined the prodigious tasks that lay ahead of the museum. He informed his friend, who was traveling in Europe, of the anti-evolution uproar occurring in Tennessee and how it related to the new developments in the museum. He explained that “Bryan and the Baptists have gotten evolution all stirred up,” but assured his correspondent that, “they cannot hurt evolution, but will do much harm in their following in bringing on arrested mental development.” Though Schuchert expressed concern regarding the impact of the Scopes trial, he seemed reassured that Lull’s plans to “arrange all the exhibition collections according to evolution,” where the collections would be “blended into a general exhibit beginning with the chronology of fossil invertebrates...and ending in Man,”³⁸ would be a bold step forward.

Frequent correspondence among curators from museums around the country helped to spread the word about the Peabody’s upcoming grand opening. An article in the *Yale Alumni Weekly* in 1923 speculated about the museum’s impact on the Yale community. It stated that “from its beauty, completeness, and cleverness of design, its future service to the University, the town and adjacent cities and educational institutions, the new museum will in every way fulfill and amplify the reputation which the Peabody Museum as an institution has ever brought to

³⁷ Charles Schuchert, “Minutes of the meeting of the Peabody trustees” (11 May 1922), 1, YPMA, Schuchert.

³⁸ Charles Schuchert, letter to George MacCurdy, 14 June 1922, YPMA, Schuchert.

³⁹ R. S. Lull, “The New Peabody Museum: Yale’s Great Collections to be Installed in Building on Pierson-Sage Square,” *The Yale Alumni Weekly*, 32 no. 34 (May 11, 1923): 1021.

itself and to Yale.”³⁹ Outside of Yale’s publications, friends of the Peabody expressed excitement over the upcoming unveiling and its forward thinking conceptual design, and offered support. In a letter to a friend dated October 1, 1924, Lull explained that construction of the building was completed and “the cases, furniture, and equipment have all been designed and will be ready for installation at once, so that next September should see the beginning of the moving in installation.” Letters asking for installation suggestions were also sent to other prominent natural history museums nearby. Lull corresponded frequently with the American Museum of Natural History’s curators regarding how the institution had displayed certain specimens in its collections and kept in close contact its president, Dr. Frederic A. Lucas. At one point, Lull sent a few of the Peabody’s curators to observe how the American Museum had positioned and situated certain specimens. In a letter of gratitude sent on March 24, 1925, Lull reported to Lucas that the installation of the museum’s specimens was only half finished, but conveyed his desire to have the museum complete enough so that it could open for the week of commencement in May.⁴⁰ As national newspapers also caught wind of the Peabody’s ambitious endeavors, they generated stories on the museum’s opening and how it would combine with fundamentalist perception.

Before the museum’s dedication, various newspapers around the nation ran articles trying to gauge public response to the museum’s outspoken endorsement of organic evolution. Interest only increased after the Peabody opened temporarily for Yale Commencement week in May to graduates and their guests. The June 1, 1925 issue of *Time Magazine*, featuring a hand-drawn portrait of Lull on its cover, applauded the defense of human evolution in his new book, *The Ways of Life*. It reported that “The Fundamentalist attack on the teaching of Organic Evolution which has reached the state of legislative action called [Lull] forth...to lay the facts which Science has discovered before the public.”⁴¹ This acknowledgment drew attention to Lull’s contributions as an evolution authority who publicized his belief that evolution belonged in schools. Likewise, *The New York Times* included an article reporting that the Peabody Museum, under Lull’s guidance, was to use “a new method...in displaying the specimens,” wherein “the portrayal of man’s origin, the Garden of Eden will be absent.” The final paragraph of the *Times* article increased the conflict between evolutionists and fundamentalists by emphasizing Lull’s intentions to “make available the rich stores it contains to the public school children of the State.”⁴² These two publications exemplify how, in regard to public debates, the media often swayed their articles to elicit public responses about what roles museums should assume regarding education. Thus, nearing the end of 1925, word had gotten out. The official dedication ceremony was to be held on December 29, 1925, to which approximately 2,000 scientists from all over the country were invited.

⁴⁰ R. S. Lull, letter to Bashford Dean, 24 March 1925, YPMA, Lull.

⁴¹ “Whence Man?” *Time Magazine*, 1 June 1925, 16.

⁴² “Yale Moves Fossils to Peabody Museum,” *The New York Times*, 13 March 1925.

“Yale’s Great Museum”

The Peabody’s staff received unanimous accolades at the Museum’s dedication ceremony. Visitors arriving at the lofty brick building at the corner of Sachem Street and Whitney Avenue witnessed first-hand the “dignity and large simplicity [that] marked the fine structure erected in Pierson-Sage Square, New Haven.”⁴³ President Angell expressed his elation at the completion of the project during his welcoming speech, saying “I accept with pride and gratitude this building so skillfully designed to serve its great purposes.” Crediting the institution’s future community impact, he prophesied, “Here for generations to come, serious students will assemble for the intensive study of those profound and revealing chapters in nature’s history which are here written.”⁴⁴ Lull expressed the utmost pleasure at the successful reception and in an article he wrote for *Museum Work*, a publication sent to many museums around the United States, he uncovered the floor plan depicting how the Peabody staff expected visitors to travel through the exhibits (Figure 5). Lull wrote, “The arrangement of the exhibition halls on the first floor is such that a casual visitor is automatically routed through the exhibits in a natural order. A circuit starting to the rear of the entrance hall takes up the story at the beginning of the ascent of life closing with its climax in the Hall of Man.”⁴⁶ The exhibits’ representation of human evolution (see Figure 4) and its controversial implications are vivid. As the 800 guests of the dedication ceremony filtered through the museum, they were the first to experience Lull’s ambition. As was planned, the final destination on this route was the Peabody’s controversial Hall of Man that illustrated the link between primates and prehistoric men with modern humans, referring to the two groups as close relatives.⁴⁶



Figure 4: Exhibit in the Peabody’s Hall of Man demonstrating human evolution.

When the Peabody Museum of Natural History officially opened its doors in January

⁴³ R. S. Lull, “The New Peabody Museum: Part I, Building and Equipment.” Reprinted from *Museum Work* 7, no. 4, (1924): 107.

⁴⁴ J. R. Angell, “Presentation and Acceptance of the Museum.” Speech for the dedicatory exercises at the new Peabody Museum, New Haven, 26 December 1925. Reprinted in *The Yale Alumni Weekly* (1 January 1926): 422.

⁴⁵ Lull, “The New Peabody Museum, Part I, Building and Equipment,” 110.

⁴⁶ Lull, “The New Peabody Museum, Part II, The Collections.” Reprinted from *Museum Work*, 7, no. 5 (1925): 134.

1926, letters of interest continued to arrive from curious colleagues and friends of the museum.

Ironically, one notable letter written by Frederic A. Lucas represented how conservative colleagues of the Peabody might appreciate the bold step taken by the museum but disagree with the purpose. In his letter to Lull, Lucas expressed his congratulations but maintained that the Peabody's exposition of evolution was an unparalleled act to be discouraged. Further, he wrote by "showing the relations of animals to man...[Lull] calls attention to some of the things that museums do and do not."⁴⁷ Lucas's negative opinion of the museum was in the minority. Many newspapers from around the nation, including publications from Pittsburg, New York City, Indianapolis, and Denver, ran *a priori* analyses of the museum's divisive theme and most maintained that the focus on evolution was a successful endeavor. After touring the museum, a second *New York Times* review included pictures of both the completed establishment and Director Lull. It commended the successful design of the exhibit that used "only such specimens as enabled him to reconstruct the story of evolution from the amoeba to man." The piece reported that as visitors entered the building, "an illuminated under water scene catches the eyes and leads to the beginning of the evolutionary story."⁴⁸ All of the articles published similar explanations of the museum's general layout, whereas only some addressed controversial implications of its ideas.

It is possible that some of the Peabody's acceptance stemmed from its position in a prestigious and established academic institution where progressive scientific and academic pursuits were encouraged. The previous *New York Times* article pointed to the museum's role as an active center for education, "Because of its connection with Yale a major function of the museum is concerned with teaching, and there are rooms for study." In another instance, a colleague of Lull's congratulated his success, noting that twentieth-century university museums had the duty to instruct as well as exhibit.⁴⁹

Though national newspapers and colleagues of the museum thought the establishment was an undisputed sensation, how did the general public respond to the museum? Little historical evidence remains about how the public initially reacted to the museum and whether the exhibits challenged religious attitudes. But Lull kept careful records of who visited his museum during the first year. In mid-1926, Lull presented a report to the Peabody's trustees that outlined attendance of the museum and how the public perceived the idea of evolution. This report surmised that "the attendance of the public aggregated over 30,000 persons, there being as many as 5,800 on one day." It also noted the museum's newfound popularity within the New Haven community, especially within school classrooms, and that "a great deal of interest has also been shown in the work for children [in which] during the first four weeks of Museum activity, twenty-nine classes of public and private schools have been to the Museum for instruction." He clarified that these numbers did not include the children who have visited the museum independently.⁵⁰

The museum staff expected that the public would have varying reactions to the implications of the different exhibits. Because the direction by which a person should travel

⁴⁷ Frederic A. Lucas, letter to R. S. Lull, 5 March 1925, YPMA, Lull.

⁴⁸ "New Yale Museum Depicts Evolution," *The New York Times*, 22 December 1925.

⁴⁹ Doris Dark, letter to R. S. Lull, 23 February 1926, YPMA, Lull.

⁵⁰ R. S. Lull, "Report on museum visitation." In *Minutes of the Executive Committee of the Peabody Museum*, (29 January 1926), YPMA, Lull.

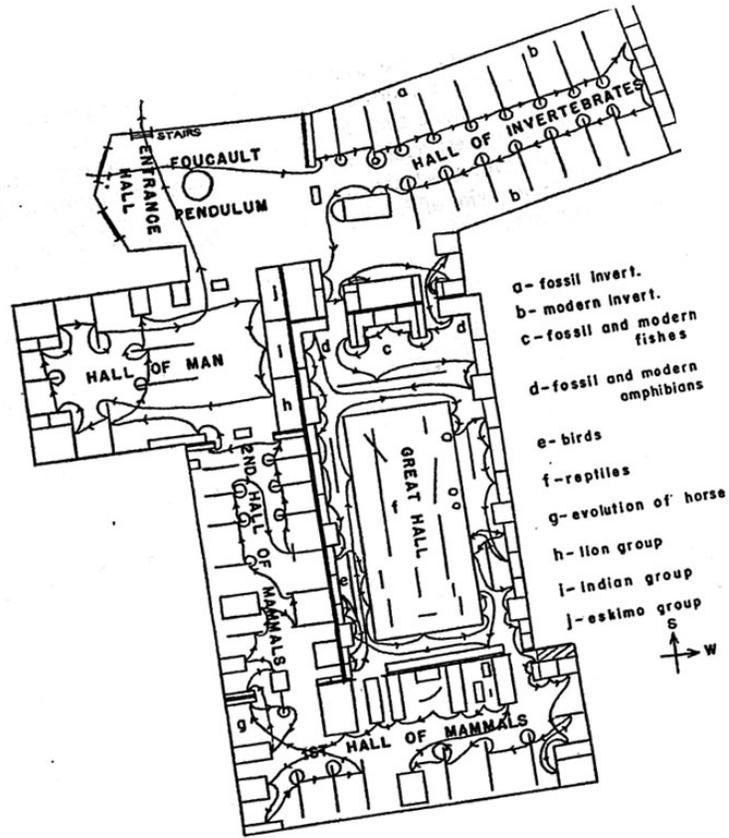


Figure 5: Mildred C. B. Porter's interpretation of the intended route of a Peabody visitor.

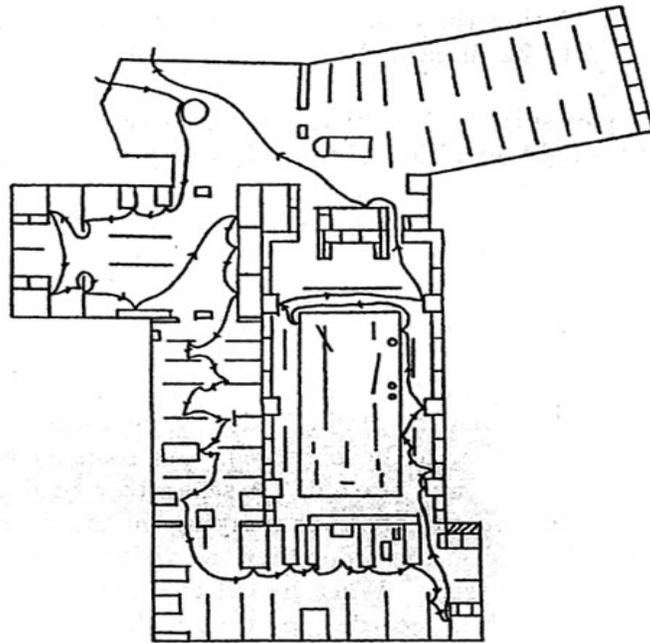


Figure 6: Porter's results showing the common route taken by Peabody visitors.

was not regulated, a museum-goer could invent his own path around the museum and might potentially overlook the idea of evolution completely. Often visitors traveled backwards in time or missed the idea all together. In 1938, Mildred C. B. Porter, curator of the School Service Department of the Peabody, published a study that examined the different routes by which visitors explored the museum; she also tallied how much time a person spent viewing each exhibit. She concluded that visitors seldom paid equal attention to all of the exhibits and “the route taken by the average visitor was the reverse of that planned, in the guide book (see Figure 5).”⁵¹ The actual route through which visitors tended to follow (Figure 6) suggests that visitors often skipped the Hall of Invertebrates completely and subsequently misunderstood the intended purpose of the museum’s layout. In a second study, Porter experimented with explanatory pamphlets and analyzed how information describing either “The Different Kinds of Animal Life” or “The Gradual Development of Animal Life” had an impact on one’s visitation time. She concluded that a pamphlet explaining the evolutionary floor plan coincided with an average increase of time spent in the Hall of Man. She also documented that visitors who had access to information on the origin of life, through either pamphlets or exhibit labels, generally spent more time in the Hall of Man than in other exhibits.⁵² This study, conducted nearly a decade after the Peabody opened its doors in 1926, confirms that the museum experienced enduring success and popularity not only for housing a collection of unique fossils, but for being the first museum using its collections to portray an evolutionary idea.

In contrast to sentiments proclaimed loudly elsewhere in the United States, urban Connecticut lauded the Peabody for its dedication to proving the preeminence of science. *The Peabody Guide*, published in 1927, clarified that the Museum’s aim was proving “the fact that the manifolds of life...did not arise as a service of special creations, each from a new ‘mold,’ but evolved slowly, one from the other, during an immensity of time.”⁵³ Further, religious figures and Yale Divinity School students appreciated the museum’s educational intentions and did not condemn the teaching of evolutionary truths. In fact, one New Haven minister, a close friend of Lull’s, wrote to him stating that museums should follow the Peabody’s example because “such [scientific] instruction would prove very valuable.”⁵⁴

In a eulogy for Richard Swann Lull, George Gaylord Simpson referred to the museum as “a monument to Professor Lull,” because its “extensive exhibitions were planned to reflect sound research and pedagogy...to attract and to serve not only the university but also the lower schools and the whole community.”⁵⁵ In fact Lull’s influential strides to minimize the intellectual gap between the beliefs of those in Dayton, Tennessee, and the rest of the country set the standard for other institutions to follow. Still standing proud at the corner of Sachem Street and Whitney Avenue, the Peabody Museum of Natural History, a “museum of ideas,” continues to enlighten visitors with its fossil-based route exhibiting the intricacies of evolution, an aspiration dreamed up and realized by Lull and his staff almost a century before.

⁵¹ Mildred C. B. Porter, “Behavior of the average visitor in the Peabody Museum of Natural History, Yale University,” *Publications of the American Association of Museums*, no. 16, (1938): 15.

⁵² Porter, 28 Edward Larson, *Trial and Error: The American Controversy Over Creation and Evolution* (Oxford: Oxford University Press, 2003), 51.

⁵³ *General Guide to the Peabody Museum of Natural History*, 1927.

⁵⁴ “New Haven is to Teach Evolution in its School,” *Stamford Connecticut Advocate*, 26 December 1925.

⁵⁵ G. G. Simpson. “Memorial to Richard Swann Lull (1867-1957).” *Proceedings Volume of the Geological Society of America, Annual Report for 1957*, (May 1958), 127-134

WORKS CITED

ARCHIVES:

All photographs, sketches, correspondences and other documents concerning the planning and reconstruction of the Yale Peabody Museum were retrieved from the Yale Peabody Museum Archives.

All documents concerning Richard Swann Lull, his work in the Division of Vertebrate Paleontology and his career as a Yale professor were retrieved from the archives of the Division of Vertebrate Paleontology in the Yale Peabody Museum.

REFERENCES:

Angell, James Rowland. "Presentation and Acceptance of the Museum." Speech for the dedicatory exercises at the new Peabody Museum, New Haven, 26 December 1925. Reprinted in *The Yale Alumni Weekly*, 1 January 1926: 419-422.

"A Yale Ceiling Falls." *The New York Times*, 18 October 1907.

Edelson, Zelda. "The Peabody Museum of Natural History: The Early Years, a Documentary View." *Discovery* 12, no. 1. (1976): 3-16.

Edelson, Zelda. "The Ordeal of the Peabody Museum: The Struggle for a Building, 1882-1925." *Discovery* 14, no. 2, (1979): 31-39.

General Guide to the Exhibition Halls of the Peabody Museum of Natural History. New Haven: Peabody Museum of Natural History, Yale University 1927.

"Important Gift to Yale: Professor Marsh presents his scientific collections to the University." *Yale Alumni Weekly* vii, no. 17 (20 January 1898): 1.

"Lull in 'Ways of Life' Cites Scientific Facts to Support Evolution." *The Washington Post*, 31 May 1925.

Lull, Richard S. "The New Peabody Museum: Part I Building and Equipment." *Museum Work*, vii, no. 4 (November-December 1924): 109.

Lull, Richard S. "The New Peabody Museum: Part II The Collections." *Museum Work* vii, no. 5 (January-February, 1925): 131-140.

Lull, Richard S. "The New Peabody Museum: Yale's Great Collections to be Installed in Building on Pierson-Sage Square." *The Yale Alumni Weekly* 32, no. 34 (11 May 1923), 1021.

Lull, Richard S. *The Ways of Life*. New York: Harper & Brothers, 1925.

Lull, Richard S. "Report on museum visitation" in: *Minutes of the Executive Committee of the Peabody Museum*, 29 January 1926.

Neiberg, Michael S. *Fighting the Great War*. Cambridge: Harvard University Press, 2005.

"New Haven is to Teach Evolution in its School," *Stamford Connecticut Advocate*, 26 December 1925.

"New Yale Museum Depicts Evolution," *The New York Times*, 22 December 1925.

"Peabody Museum: Report of the Curators," *Reports of the President and Secretary of Yale University and of the Deans and Directors*. Concord: The Rumford Press, 1917, 337.

"Plan of New Yale Museum." *The New York Times*, 29 April 1923, 22.

Porter, Mildred C.B. "Behavior of the average visitor in the Peabody Museum of Natural History, Yale University." *Publications of the American Association of Museums* 16 (1938): 15.

Rainger, Ronald. *An Agenda for Antiquity: Henry Fairfield Osborn and Vertebrate Paleontology at the American Museum of Natural History, 1890-1935*. Tuscaloosa: The University of Alabama Press, 1991.

"Reports of the President and Secretary of Yale University and of the Deans and Directors of its several schools and departments." *Bulletin of Yale University*. Concord: The Rumford Press, 1917, 1919-1925.

Schuchert, Charles "Minutes of the meeting of the Special Committee of the Treasurer of the Peabody Museum." 12 March 1917, 1.

Schuchert, Charles. Personal notes, minutes of the meeting of the Peabody trustees, 11 May 1922.

Schuchert, Charles. Personal notes, minutes of the meeting of the Peabody trustees, 16 February 1922.

Schuchert, Charles. "The Rise of Natural History Museums." Speech for the dedicatory exercises at the new Peabody Museum, New Haven, 26 December 1925.

Simpson, George Gaylord. "Memorial to Richard Swann Lull (1867-1957)." *Proceedings Volume of the Geological Society of America, Annual Report for 1957*. May 1958.

Simpson, George Gaylord. *Concession to the Improbable: An Unconventional Autobiography*. New Haven, Yale University Press, 1978.

"Whence Man?" *Time Magazine*, 1 June 1925, 16.

"Yale Moves Fossils to Peabody Museum," *The New York Times*, 13 March 1925

Other references

"Extinct Animals Mounted at Yale." *The Hartford Courant*, 22 January 1922.

"Favor Evolution Teaching: New Haven Ministers See Advantage in Yale Offer." *The New York Times*, 24 December 1925, 3.

Hartt, Rollin L. "The Story of Yale's Great Museum." *The Scientific Monthly* 22, no. 6 (1926): 473-493.

Lull, Richard S. "New Reconstructions in the Yale Peabody Museum." *The American Journal of Science* vi, (August 1923): 92-99.

Narendra, Barbara. "The Early Years of the Great Hall, 1924-47." *Discovery* 22 no. 1, (1990): 21-23.

"Pastors Laud Yale as Evolution Guide." *New York Evening Post*, 23 December 1925.

"Propaganda at Yale." *New York Telegram*, 14 March 1925.

"Widen Yale Museum Scope: Authorities to Utilize Exhibits in Cooperation with Schools." *The New York Times*, 12 October 1925, 10.

"Yale to Have New Peabody Museum." *The Hartford Courant*, 19 June 1921, p.10.

"Yale to Open Museum at Commencement: New Peabody Building is Constructed Around 93-Foot Tower of French Gothic Design." *The New York Times*, 19 May 1925, 12.

"Yale Shows Faith in Evolution by Building Museum." *Pittsburgh Post-Gazette*, 14 February 1926.