beads was. One as yet unidentified trefoil form—three leaves and three fruit—may be associated with the date branch representations (Fig. 4). The delicate double stringing loop of the male matches that of one type of trefoilfruiting pendant; the slightly coarser loop of the female matches that of the other. The "male" and "female" date pendants were probably strung separately, maybe each with corresponding trefoil pendants. It is perhaps not surprising that so much jewelry symbolic of fertility and renewal was put in a tomb that is practically an advertisement for the good life in the afterlife.

Naomi F. Miller
Research Specialist in Archaeobotany
Museum Applied Science Center for Archaeology

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While many are familiar with the University of Pennsylvania Museum as an archaeological treasure house, few know about its role in Philadelphia culture, the story of its growth as a public museum, or its architectural history. Philadelphia began to expand westward after the Civil War, a growth facilitated by the construction of great bridges across the Schuylkill River at Market, Chestnut, Walnut, and South streets. The University of Pennsylvania participated in that expansion by relocating from Center City to the other side of the Schuylkill River during the 1870s. A museum built on the Schuylkill’s west bank, located between the University and the City, served as a metaphorical bridge between the two. This museum celebrates the centennial of its first building in 1999. Photographs enable us to look back at the Museum’s foundation, and forward to its future. Using such frozen moments in time as if they were artifacts, we can conduct an archaeological investigation of this archaeological museum, seeing how changing architectural taste has brought it full circle during a century of construction, from the Victorian revivalism and eclecticism of its first architects to the post-Modern present. It is due to the Museum’s distinguished architecture and decorative embellishments that it has been included in the University of Pennsylvania Historic District on the National Register of Historic Places.

ANTECEDENTS, 1887–1899

Fig. 1. William Pepper, Jr. (1849–1898). 1900. The Monument to William Pepper (Philadelphia), frontispiece; from a photograph by Meyen.

During his provostship (1881–1894) William Pepper propelled the University of Pennsylvania to the forefront of American universities by founding several departments and erecting additional buildings on its relatively new West Philadelphia campus. It was one of his dreams to bring together under one roof artifacts that evidenced the development and history of humanity from antiquity to the present. In 1887 he persuaded the University trustees to accept artifacts from an upcoming expedition to the ancient site of Nippur (Iraq) and secured their promise to erect a fireproof building to house them. This agreement was the beginning of the University of Pennsylvania Museum.
Fig. 2. The first and second homes of the Museum of Archaeology and Palaeontology.

Antiquities accumulated by the University were gathered together in a large room on the top floor of College Hall (building at right), and presented to the public in 1889 as the Museum of Archaeology and Palaeontology. As the Nippur artifacts and other collections began to arrive, the Museum was relocated in 1890 to the newly erected University Library (building at left), designed by architect Frank Furness. Some of the collections were displayed in the cubical stair tower or adjacent rooms. Artifacts from the Americas, the major section, were given the foremost gallery on the top floor of the cathedral-like nave.

The Free Museum of Science and Art, 1899

Fig. 3. Site of the proposed third home of the Museum, near the University campus.
University of Pennsylvania Archives

Taken from the roof of College Hall on May 20, 1891, this photograph looks southeast over the South Street Bridge, railroad tracks, and Schuylkill River toward Philadelphia's Center City. A small dwelling sits at the south corner of 34th and Spruce Sts. (right foreground), a large stone barn is behind, with a bathhouse on South St. (center middleground). The large parcel of depressed land across South St. from the bathhouse is the future site of Franklin Field, where a succession of stadiums would rise face-to-face with the expanding Museum. This swampy wasteland near the Blockley Almshouse was eventually given by the City to the University for public improvement purposes.
Fig. 4. Architect Wilson Eyre, Jr. (1858–1944).
1921. Philadelphia and Notable Philadelphians (New York: Moses King)

Wilson Eyre headed the team of architectural firms selected to design the new museum. Although Eyre was known among the City's elite for gracious residences, this structure would be the largest public building of his career. Influenced by architecture he had seen in Italy during his childhood, he selected the Northern Italian Renaissance style. It was not a pure style, however, as Eyre incorporated eclectic features and details to represent the internationalism of the collections within. One outstanding example is the Asian-style entrance gateway.

Eyre witnessed the completion of only four sections of the vast Museum complex before the Great Depression interrupted the building program. Even in an uncompleted state it would stand as one of the foremost Victorian-era structures in the City. During the three decades that the original buildings rose (1899–1929), the 1896 master plan was adhered to, although the architects practicing in the partnerships changed.

Fig. 5. Ground plan of the proposed Museum, 1896.
Wilson Eyre, Jr., Cope & Stewardson, Frank Miles Day & Bros.; Joint Architects
UPM neg. 06-1379

Eyre and the other architects had a vision of a complex of buildings situated in a nine-acre landscape. Three central rotundas would be devoted to the ancient civilizations of Greece & Rome, Egypt, and Mesopotamia, flanked by courtyard buildings dedicated to the traditional cultures of America, Asia, Africa, and Oceania. Parks containing fountains and pools, with gardens featuring trees and plants from around the world, would complete the eclectic Victorian extravaganza. The shaded portion of the plan (at lower right) shows what was erected in 1899, the first courtyard section at the northwest corner of the complex. Museum founder William Pepper’s premature death in 1898 caused the first building to be reconceived as his memorial, due largely to the efforts of Sara Yorke Stevenson (1847–1921), first curator of the Egyptian and Mediterranean sections, who had worked closely with him to create a separate museum building on campus.

Fig. 6. The projected appearance of the South St. facade of the Museum complex upon completion.
Watercolor drawing by Wilson Eyre, 1911

Aspects of the Museum complex were revised over the years in numerous drawings, but the basic concept remained the same as in the 1896 plan. In this 1911 sketch the central courtyard entrance building is shown as semicircular in design. When it was actually constructed in 1929 as the fourth section of the complex, the decision was made to straighten it (see Fig. 17). A fascinating glass plate negative (see cover) shows the first section of the Museum shortly after completion in 1899. In the foreground is the first Franklin Field Stadium (1895–1904), a fenced field with buckboard grandstands. Across the street, the pristine Museum, with its red brick and white marble walls topped by terracotta roof tiles, towers above the stadium.

Fig. 7. Marble medallions by John Ross, ca. 1899. (a) Greek youth with a drawing of a Doric temple; (b) Assyrian winged, bird-headed genie with bucket and cone.
Photographs by George Bushy, Jr., 1987.
UPM negs. 139779-1, 5

The details of the 1899 building were particularly fine: floral and faunal glass mosaics by the Tiffany Glass & Decorating Company, sculpture by Alexander Stirling Calder, and marble medallions by John Ross of New York City. These white marble medallions are either symbolic representations of the curatorial collections at the time of the 1899 opening, or of the Museum's general areas of interest. In the examples shown, the Assyrian relief is appropriately on the exterior of the Near East gallery. The Greek relief, believed to represent architecture, is placed on the 33rd St. facade, which originally overlooked a terraced park (see Fig. 9).
Fig. 9. The University Museum looking southeast from Spruce and 34th Sts., ca. 1924–1929.
UPM neg. 58-358770

Following Pepper’s resignation in 1894, Charles Custis Harrison (1844–1929) assumed the Provostship of the University, and eventually the Chairmanship of the Museum Board. The political and social rivalry that characterized their relationship prior to Pepper’s death continued to be expressed in the expansion of the Museum. In the 1899 building, one ascended exterior, then interior stairs to arrive at Pepper Hall containing the founder’s bust. In the adjacent terraced park, one ascended short flights of stairs to reach Karl Bitter’s monumental bronze statue of Pepper. When the Harrison Rotunda was erected in 1915 (as the westernmost of the three planned), it overshadowed the Pepper memorials, being the tallest building on campus. Updating the carriage entrance (complete with horse trough) of the original building, the Rotunda featured an automobile-accessible entrance. Pepper’s park was eventually converted into a parking lot, years after 33rd St. was cut through the Museum grounds in 1959 to facilitate traffic flow to and from the Civic Center.

Fig. 8. Semitic Gallery, with Nippur finds exhibited in Baugh Pavilion at rear.
From a glass negative exposed between 1899 and 1900. UPM neg. G8-22489

The new Museum (renamed the Free Museum of Science and Art) was a collaborative effort: land donated by the City, a considerable sum contributed by the Commonwealth of Pennsylvania, and the building provided by private benefactors. At the opening, the Museum was arranged as a microcosm of the scheme planned for the entire complex. On the upper floor the three main galleries substituted for the planned rotundas by exhibiting the Greco–Roman, Egyptian, and Mesopotamian (seen here) collections. Note the skylight and electric lighting. During the day the building was flooded with natural light from windows and skylights. At night this effect was maintained by electric lights in glass shades suspended from skylights in wrought iron fixtures. In fact, the Museum was one of the first fully electric public buildings in the City.

On the lower floor the traditional cultures of Asia, Africa, Oceania, and America were exhibited in galleries substituting for the courtyard buildings that were to be constructed one day. Special collections (coins, fans, musical instruments, engraved gems) were also displayed on this floor, as was the Sommerville Buddhist Temple (see Fig. 5 in article by Berges in this issue).
The Harrison Rotunda is an architectural wonder. Ancient Roman construction methods reinterpreted by the Guastavino engineering firm were employed to achieve the all-masonry rotunda, with upper and lower chambers each surmounted by a monumental self-supporting dome. On the upper level the interlocking tile dome was topped by a glass lantern (not visible in photograph). The weight of the 90-foot walls was borne by engaged masonry piers (each side of the open arch). The floor was also 90 feet in diameter, making for harmonious proportions. As shown here, the opening exhibition featured Asian ceramics in Queen Anne vitrines, with European tapestries and Oriental rugs adorning the walls and floor, all loaned for the occasion. Much of this material had appeared on the art market due to political conditions in China at the time. Museum Director George Byron Gordon (1870–1937) took advantage of the Harrison Hall opening in 1916 to encourage Museum patrons to purchase items for the permanent collections of the University Museum, as it was formally named in 1913.

Fig. 11. Harrison Auditorium filled with pupils and teachers from the city's elementary schools. 1915. The Museum Journal 64(4): fig. 8.

The lower chamber of the Rotunda consists of an auditorium seating 800 persons. A monumental domed ceiling with a bronze sunburst at its center (not visible in photograph) illuminates the Harrison Auditorium. Two features made it the talk of the town in 1915; it had a system to purify and circulate air, and the masonry construction techniques permitted a pillar-free space, offering unobstructed views anywhere within the auditorium. Its small stage precluded grand productions, however.

Fig. 12. Eckley Brinton Coxe, Jr. (1872–1946), shown with one of his favorite pieces, an Egyptian statuette of Merer discovered in Nubia. Detail of oil painting by Adolphus Busch, 1910. UPM neg. 1317938

Eckley Coxe was one of the Museum's most generous patrons. An avid admirer of Egyptian civilization from childhood, he personally financed six Museum expeditions to Nubia and Egypt between 1907 and 1915. As President of the Museum's Board (1910–1916) he contributed large sums for general operating expenses. Although he had been the major contributor toward the construction of the Harrison Rotunda, he graciously deferred to the University Provost as namesake for the structure. Never robust, Coxe fell ill and died at the age of forty-four, leaving a half-million dollar endowment to the Museum's Egyptian Section. The Coxe Memorial Egyptian Wing was constructed in 1924 (see Fig. 16) to display the collections he cherished. Public enthusiasm created by the discovery of Tutankhamen's tomb in 1922 provided a warm reception for the Coxe Wing opening.
Fig. 13. The opening for the Coxe Wing in the Lower Hall, May 13, 1926. 
UPM neg. 138640

The Coxe Wing was the first of the architectural links envisioned in the 1896 plan (see Fig. 5) to be constructed. It was designed to connect the westernmost (Harrison) rotunda with the planned central rotunda. The wing consists of two levels, each featuring a large main hall with small galleries opening off both sides of it. A misunderstanding with the architects about the weight-bearing capacity of the upper floor resulted in a major tragedy in Museum history. It was intended that the splendid remains of the Palace of Merenptah would be reconstructed at full height in the Upper Hall, while the sculptural collections would be displayed in the Lower Hall. Because the Upper Hall could not support its weight, however, the Pharaonic throne room was placed in the Lower Hall where its architectural elements had to be presented side-by-side. The great sphinx of Rameses II was placed there for the same reason. It originally stood guard outdoors at the main entrance (1913–16), but was brought indoors due to fears that winter frost would crack its red granite stone. Transplanted to the Lower Hall of the Coxe Wing before the eastern wall of the gallery was bricked up, it remains entombed there today. The gallery has a solemn grandeur unequalled by any in the Museum, despite the fact that it resulted from a misunderstanding.

Fig. 14. The Mummy Room in the Coxe Wing, ca. 1935. 
UPM neg. 30641

In the minds of Philadelphians, Egyptian mummies have been associated with the Museum from its earliest days in the University Library building, and continue to be a distinguishing characteristic. The Mummy Gallery seen here, in one of the lateral galleries on the upper level of the Coxe Wing, has a tomblike appearance. Note the distinguished features of the wing, such as a vaulted ceiling with skylight, terrazzo floor, and pendant, wrought-iron light globes.

Fig. 15. Eldridge Reeves Johnson (1857–1945) as featured in Philadelphia's Public Ledger ca. 1927. 
University of Pennsylvania Archives

Eldridge Johnson, founder of the Victor Talking Machine Co., became Chairman of the Museum Board in the late 1920s. Johnson's Museum benefactions were many. He sponsored archaeological expeditions to Ur (Iraq), Beth Shean (Palestine), and Piedras Negras (Guatemala), resulting in the excavation of some of the Museum's most celebrated artifacts. He also donated stellar objects to the collections, including two limestone reliefs of the favorite horses of the Chinese Emperor T'ai Tsung, and the rock crystal sphere of the Dowager Empress Cixi. The latter item Johnson purchased in memory of Museum Director George Byron Gordon. Gordon died in 1927 as the third wing erected during his administration was rising.

Few have remembered Johnson's primary role in funding the Museum's fourth section. He declined to have the building named for himself, opting instead for its designation as the Administrative Wing. As the years went by, Museum staff began calling it the Educational Wing since that department conducted activities there. When the Education Department relocated in 1971, staff began calling its former home the Sharpe Wing, after the Sharpe Memorial Gallery on the top floor corridor, named for Richard and Sally Patterson Sharpe. By extension, the entrance and adjacent courtyard began to be called Sharpe as well.
Construction photographs of the Museum's early buildings are very rare. The Administrative Wing under construction here was intended to house offices for the Director and Board, the Education Department and classrooms, and collection study rooms, including a Members' Room. Only a transverse corridor gallery on each of its upper three floors would be devoted to exhibition space. Two floors below ground were for storage.

From the earliest days the Museum and Franklin Field Stadium had been like siblings growing up by the banks of the Schuylkill (see cover). Now in the Roaring Twenties they were reaching adulthood together. The Stadium had been rebuilt in 1922 and further enlarged in 1925, just as the Museum expanded in 1924 and again in 1925. Together with the White Pavilion of the University Hospital (1922) and the Irvine Auditorium (1926), they transformed this section of South and Spruce Sts. into one of the most monumentally elegant corridors in the City.

Fig. 17. The facade and courtyard of the Administrative Wing shortly after completion in 1929.

Fig. 18. The Administrative Wing courtyard looking across South St. toward the arcade of Franklin Field Stadium, ca. 1930s (with apparently a military drill in the foreground).

By comparing these photographs one gains a sense of the architectural harmony between the Administrative Wing and Stadium. The Stadium, which had the same architects, Day & Klauder, is an austere echo of the elaborate Museum wing. Both have the striking course of grand arches surmounted by pairs of small arches, and both employed the same building materials. The Stadium forms, in effect, a visual wall enclosing the Museum's courtyard—a masterful solution. The Administrative Wing was planned as the main entrance for the entire Museum complex, although modified from semicircular to straight (see Fig. 5). It was envisioned that the portals would lead from the driveway to the planned central rotunda with a 2,000-seat auditorium below.

The exquisite architectural detailing initiated on the 1899 building was carried through here as well, and by the same artisans when possible. Most notable are the sculptural embellishments by Alexander Stirling Calder (1870–1945). Calder is best known in Philadelphia for the Swan Fountain at Logan Circle (1924), another project in which he collaborated with architect Wilson Eyre. His father is known for the William Penn statue atop City Hall, while his son is the Calder of mobile fame. The masterful blend of architecture, sculpture, and practical purpose evidenced in the Administrative Wing courtyard and Stadium is nowhere more apparent than in the life-size representations atop the gateposts of the courtyard (see Fig. 19). As indicated by Calder, the paired figures portray Asia (India and China), Europe (Ancient and Modern), Africa (Islamic North and Negro Sub-Saharan), and America (North and South Native American).
Extending the international theme established in the architecture and sculpture of the original 1899 courtyard, Calder's continental personifications are eloquent. Ums to each side (seen on Fig. 17) bear ethnographic face masks appropriate to the continent represented in the adjacent figure.

Most surprising is the statuary for Europe (Fig. 19a). In Calder's incisive feminist statement, an unveiled ancient Greek maiden in long garment and sun hat touches hands across the centuries with a modern European woman in shortened skirt and bobbed hair: a Roaring Twenties flapper! After installation, Calder was queried by one of the architects as to whether a mistake had been made in facing the statues toward the courtyard instead of South Street. He replied that due to the Museum's withdrawn character, it was more appropriate for the world to face the Museum.

THE ACADEMIC WING, 1971

Fig. 20. The Academic Wing (foreground), adjacent to the Coxe Wing and Harrison Rotunda (background), ca. 1971. These, together with the Administrative Wing and Main Building (not visible at right) enclose the Museum's Inner Courtyard. Note the Potlatch Cafeteria (center), now the Museum Café.

The effects of the Great Depression and World War II were devastating for the Museum, especially in terms of administrative activities, but expansion of the collections and research abroad also suffered. Needless to say, the building program was interrupted following the stock market crash, and both postwar income tax and competition with the Philadelphia Museum of Art made it harder to attract wealthy patrons. Following the War, energetic new Director Froelich Rainey (1907–92) reinvigorated the Museum's reputation as a research institution during his three-decade administration. Rainey's emphasis was on spectacular field projects, however, and the buildings and collections experienced a period of neglect, a legacy which his successors had to bear.

It was no longer feasible to complete the 1896 master plan as originally envisioned, due to the prohibitive costs of materials, skilled labor, and maintenance in the modern world. Several more modest proposals for unifying the existing buildings were submitted. The Mitchell and Giurgola plan accepted in 1968 was for an ultra-Modern structure, in striking contrast to the original buildings. The Academic Wing became a concreteization of Rainey's administration: the establishment of a modern, university anthropology department fused with a traditional archaeology museum.

Fig. 21 (following page). Rear facade of the Academic Wing (right) adjacent to the Coxe Wing (center) and Harrison Rotunda (left), looking north from Convention Ave., ca. 1971. The large central window belongs to the Museum Library. The parking lot is the current site of the Penn Tower Hotel and parking garage.


The Academic Wing provided offices and laboratories for the Anthropology Department; an entrance (Kress Gallery) with adjacent bus berths equipped to receive large school groups; offices for
the Education Department; greatly expanded space for the Museum Library; a cafeteria; and additional collections storage space. An L-shaped structure of five stories, its major design strength is its unification of the disparate wings of the uncompleted original complex, largely through use of pedestrian bridges connecting the older buildings with the new wing. The Academic Wing is most pleasing at the rear facade, where brick and tile similar to those of the original buildings were used, and the balanced proportions of the original structure maintained while a modern aura achieved. Unfortunately this perspective is available today only by squeezing into a narrow driveway and gazing upward, or looking out windows of the Penn Tower Hotel, constructed behind the wing in 1972.

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DOUGLAS M. HALLER is Coordinator of Audiovisual Collections and Exhibitions in the Walter Reuther Library at Wayne State University, Detroit. He was Head Archivist of the University of Pennsylvania Museum from 1986 to 1998. In this capacity he was a frequent lecturer on the administrative and collections history of the Museum, and its architecture and gallery design. Previous to this position, Mr. Haller was Curator of Photographs at the California Historical Society in San Francisco. He holds a Master’s degree in History and Archival Administration, and is a charter member of the Academy of Certified Archivists.

THE COLLECTIONS STORAGE WING, 2002

Fig. 25. Scale model of the proposed Collections Storage and Study Wing, ca. 1997. The north facade (facing South St.) is at left, with the west facade (facing courtyard) joining the Administrative Wing (right) at the end of the Academic Wing (square tower in background). Not shown is the eastern facade that adjoins the Academic Wing.

Atkin, Olahin, Lawson-Bell and Associates’ plan for the Collections Storage and Study Wing is both a return to the 1896 master plan and a continuation of Mitchell and Giurgola’s Modernism. The wing is intended as a state-of-the-art storage facility with environmental control, and office and workspace for those who maintain and study the collections. Extending from the small north facade of the Academic Wing, it will have four floors and a basement, matching the height of the Administrative Wing and enclosing the courtyard on the east end.

The wing’s most distinguishing feature will be its inventive, dual personality. On the eastern facade (not visible in photograph), bronze panels with limestone surrounds will face the concrete foundation; and an arcade will lighten the massive structure at street level, perpendicular to the Franklin Field arcade. Conversely, the northern and eastern facades will be a post-Modern interpretation of the original buildings. Not only the proportions, materials, and coursing will be matched, but decorative details will be continued, such as ceramic tiles for adornment. An illuminated bay facing South St. will act as a visual equivalent to the apse on the 1899 building directly across the lower courtyard. The wing has a projected completion date of 2002. After more than a century of construction, through the efforts of four Museum directors and three distinct architectural partnerships, the University of Pennsylvania Museum of Archaeology and Anthropology will be complete. The final wing will simultaneously greet the new millennium and commemorate the centennial of the original building.