



**The 1939  
Westinghouse**

**“TIME  
BOMB”**

**and Other  
Messages  
for the  
Future**

By Jeffrey Orens







**The Westinghouse employees  
who built the time capsule.**

HHC Detre L&A, George Westinghouse Museum Collec-  
tion, MSS 920.B018.F068.1002.



**A**s famed English archaeologist Howard Carter peered into the darkness through a hole he had punctured in a dusty stone doorway, Lord Carnarvon, financial sponsor of the excavation, close behind asked anxiously if Carter could see anything, to which he replied, “Yes, it is wonderful.”<sup>1</sup> Carter recalled the moment in his diary, “Our sensations and astonishment are difficult to describe ... better light revealed to us the marvelous collection of treasures.... The first impression of which suggested the property-room of an opera of a vanished civilization.”<sup>2</sup> Carter had just discovered the long-sought tomb of King Tutankhamun, better known as King Tut. The treasures within multiple rooms contained thousands of items, including priceless jewelry, objects formed of precious gold and silver, statues, furniture, even a chariot, as well as a nesting coffin three deep, the final one of solid gold containing the mummy of the boy-king Tutankhamun, preserved for over 3,200 years, all shedding light on the culture of ancient Egypt.<sup>3</sup> This astounding cache of artifacts was uncovered by these dedicated sleuths of history in November 1922.

## GENESIS OF AN AMBITIOUS PROJECT

The following decade of the 1930s was a turbulent period for America and the world. It began in the aftermath of a devastating stock market crash, stretched across the Great Depression, and ended with the beginnings of World War II. In between, most Americans did their best to cope with the shockwaves of each. Throughout the period, the promise of a bountiful future appeared to be just over the horizon, if only the country could overcome the immediate obstacles ahead. Inventions from scotch tape, ballpoint pens, and freeze-dried coffee to technological wonders like radar, jet engines, and electron microscopes promised to make life easier if not altogether better. By the end of the decade, the 1939 hit movie *Gone With the Wind* reflected on our country’s great internal strife of the Civil War and its turbulent aftermath, out of which was born the film’s determined resolution that was so applicable to current challenges, “tomorrow is another day.”

Eighty years ago, on April 30, 1939, on the 150th anniversary of George Washington’s presidential inauguration in New York City, the World’s Fair in Flushing Meadows, Queens, New York opened. It embodied the spirit of a brighter future for all, boasting the theme “The World of Tomorrow,” with

connotations of hope and prosperity brought about in large part by amazing advances in technology. The world anxiously awaited an uncertain future, at once containing seemingly unbounded promise and yet fraught with so much peril. Some were determined to preserve pieces of those volatile times for distant generations to examine, study, and perhaps marvel at the evolutionary progress mankind had achieved. One was Pittsburgh industrial giant Westinghouse Electric & Manufacturing Company which, as part of its exhibit at the Fair, decided to bury what they called a “time bomb” dedicated to the distant future, not to be opened for 5,000 years.

In the latter half of the 1930s, three distinct, ambitious projects envisioned preparation and storage of a range of items to be left for future peoples to contemplate. This is an account of their conception and execution, containing intertwining threads as well as tangents as unique as the projects themselves.

## EGYPTIAN INSPIRATION

By the mid-1930s, the President of Oglethorpe University, Thornwell Jacobs, had contemplated the discovery of King Tut’s tomb for some time. Twenty years earlier, on January 21, 1915, he had joined in dedicating the first building to stand on Oglethorpe

Overview of the Crypt contents at Oglethorpe University.  
Oglethorpe University Archives.





**JACOBS MUSED OVER  
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OF THE TOMBS OF THE  
EGYPTIAN PHARAOKHS.**

Thornwell Jacobs  
examines film for  
the *Crypt of Civilization*.  
Oglethorpe University Archives.







Dedication of Crypt door. Jacobs pointing with T.K. Peters third from left.

Oglethorpe University Archives.

University grounds. A ceremony was held at which was laid a cornerstone to the building that contained a large copper box. "Before the box was closed and sealed, many of the spectators walked up and dropped small coins or some memento of some sort into the box. When in future years the cornerstone may be opened one of its mysteries will be the names of the donors of these small coins and trinkets."<sup>4</sup> This was a common practice with cornerstones, tucking away in them some small items of the moment, a few coins, perhaps some newspapers or photographs, to be serendipitously found at some unspecified future time, if ever. In 1936, Jacobs crystallized his ideas about what he felt was owed to future generations by explaining our current

civilization's status and progress.

Jacobs mused over the lucky circumstances that accompanied the great excavations of the tombs of the Egyptian pharaohs. The desert climate of the region provided any stored contents a large degree of natural preservation from moisture and corrosion. Although many of the tombs had been looted by treasure hunters over the ages, some, especially King Tut's, escaped ransacking through good planning or good fortune, protected and hidden within their unobtrusive stone burial structures. Jacobs spoke with the editors of the *Scientific American* magazine about plans for the design and filling of a large structure, which he called the Crypt of Civilization, to contain numerous items of significance for

generations far in the future to uncover and see how people lived in the 1930s.

In the November 1936 edition of *Scientific American*, Jacobs stated his plans: "We propose to collect a complete set of materials which describe and represent our lives and labors, to bury these materials in a secure spot, and to preserve them under the guidance and advice of our greatest scientists. We believe that in this way generations as remote from us in the future as ours is from ancient [Egypt] and the pyramid builders will be able to visualize what manner of men we were and what manner of life we lived in 1936 A.D."<sup>5</sup> Jacobs noted the year 4241 B.C. as marking the establishment of the Egyptian calendar, viewing this as the first recorded date in history. Since that first





**Inside the Crypt of Civilization.**  
Oglethorpe University Archives.

date, 6,177 years had passed. Adding that figure to 1936 brought him to 8113, the time as far in the future as 1936 was from the first date of recorded history. This was when Jacobs proposed that the crypt should be opened.

Another publication of the day, *Literary Digest*, published an article of its own about the project. The magazine's editor, G. Edward Pendray, a pioneer in rocketry and a science-fiction aficionado who wrote about both pursuits, was thought by Jacobs to have authored the piece, which reiterated the grand goals and plans for the crypt.<sup>6</sup> It detailed the structure as being housed in the basement of an Oglethorpe office building whose foundation was carved out of granite bedrock. The crypt would contain audio and

video recordings, microfilmed encyclopedias, dictionaries, textbooks and photographs, all preserved with scientists' best estimates on how to prevent their long-term deterioration.<sup>7</sup>

In 1937, Jacobs contracted with T.K. Peters, an innovative cameraman and filmmaker, to be the archivist and general manager of the Crypt of Civilization. In addition to gathering numerous specific items of interest for preservation in the crypt (see special section on contents of Crypt of Civilization and Westinghouse Time Capsule), Peters worked with many Oglethorpe students over the next four years to employ the nascent process of microfilming to capture a myriad of images, including speeches by Franklin Roosevelt, Hitler, and Stalin, as well as over

640,000 pages of close to 1,000 works of the arts and sciences, all preserved in air-tight, nitrogen-filled, glass-lined steel containers as suggested by the U.S. Bureau of Standards.<sup>8</sup> The crypt, a large room of 10 by 20 feet in the waterproof former swimming pool below Oglethorpe's administrative offices, allowed for plentiful storage for everything Peters and Jacobs had in mind. The basement pool had been set in a foundation of solid granite, which Jacobs estimated would last for thousands of years. It took four years to complete the effort, but on May 25, 1940, Jacobs and Peters dedicated the crypt and a stainless-steel door to the room was welded shut to seal off the contents for the future.



## **“WAR OF THE CURRENTS”**

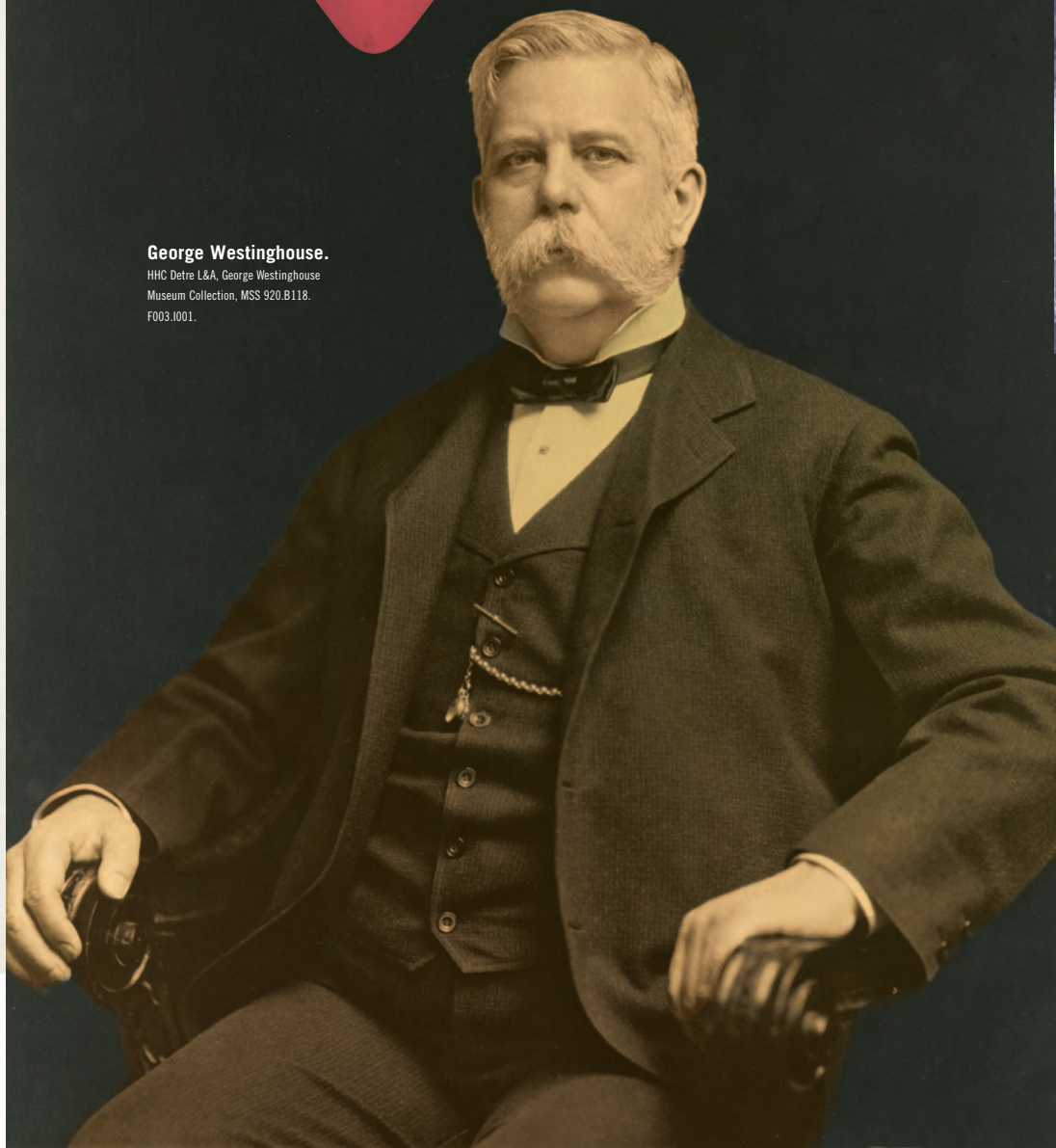
George Westinghouse and Thomas Edison were fierce competitors in the electrical power generation business. In 1880, Edison received a patent on the first practical incandescent light bulb, illuminated by his direct electrical current system. Westinghouse favored the other type of generated electrical current, alternating current, because it was more energy efficient and could be distributed across long distances less expensively than direct current, which had a limited range due to the low voltages it employed. By 1889, he had founded the Westinghouse Electric & Manufacturing Company (WEMCO) in Pittsburgh to compete with Edison’s direct current system. He licensed several patents on generation and distribution of alternating current from Nikola Tesla, a Serbo-Croatian inventor and engineer who had previously tried, and failed, to interest Edison in alternating current. Over the next decade, Edison and Westinghouse engaged in a “war of currents” in the marketplace, Westinghouse finally demonstrating his system’s superiority. It became the standard electrical current and generation system across the country. During this time, Edison’s various electric lighting and associated device companies merged with a competitor to form the General Electric Company. Consequently, a rivalry arose between the two great names in electricity in the twentieth century, Westinghouse and General Electric.

Each organization prospered, but by the 1930s Westinghouse had fallen behind GE in innovative product offerings. An article in *Fortune* in February 1938 compared WEMCO poorly to GE.<sup>9</sup> Many executives in the company felt they had a stodgy public image versus General Electric, compelling Westinghouse Chairman of the Board Andrew Robertson to do something about it. As part of his efforts, he hired G. Edward Pendray, the former editor of the *Literary Digest* who had previously

**OVER THE NEXT DECADE,  
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### **George Westinghouse.**

HHC Dietre L&A, George Westinghouse  
Museum Collection, MSS 920.B118.  
F003.1001.







A view of the Electricity Building at the Chicago World's Columbian Exposition, 1893.

HHC Detre L&A, George Westinghouse Museum Collection, MSS 920.B005.F004.1001.

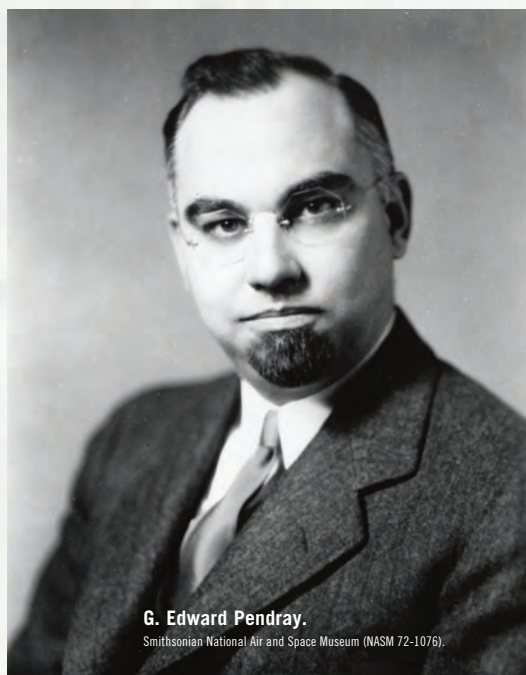
written about the Crypt of Civilization, to help develop options to invigorate the company's image. Pendray had a fertile imagination, previously authoring creative science-fiction tales and later in his career focusing on successful publicity and advertising for industrial clients of his own firm. For now, his challenge was to help develop a strategy to raise the Westinghouse profile in the minds of the consuming public.

Both he and Robertson agreed that the upcoming New York World's Fair, with its theme of "The World of Tomorrow," was

an ideal venue for WEMCO to display the company's inventive nature and forward-thinking efforts. Years before, Westinghouse utilized participation at the 1893 World's Columbian Exposition in Chicago to tremendous effect, securing the contract to light the fairgrounds over Thomas Edison and GE and dazzling the attendees with the wonders of electric light produced from the Westinghouse/Tesla alternating current generators.<sup>10</sup> Erik Larson, in his book set at the exposition titled *The Devil in the White City*, described the experience of millions of

visitors at the fair, many of them witnessing electric lighting for the first time: "the nights were ravishing. The lamps that laced every building and walkway produced the most elaborate demonstration of electric illumination ever attempted and the first large-scale test of alternating current.... What visitors adored was the sheer beauty of seeing so many lights ignited in one place, at one time."<sup>11</sup> Westinghouse's shrewd marketing of alternating current at the exposition placed the company's cutting-edge genius on display and captivated America.





G. Edward Pendray.  
Smithsonian National Air and Space Museum (NASM 72-1076).

## THE TIME CAPSULE OF CUPALOY

In the summer of 1938, with the Westinghouse image issue playing on his mind, Pendray took a vacation, “contemplating how to use WEMCO’s upcoming participation in the 1939 New York World’s Fair to maximum impact on the public’s perception of WEMCO.”<sup>12</sup> By the time he returned, Pendray had a solution, a vision connecting Westinghouse with the future through what he termed a “time bomb.” The “World of Tomorrow” could be thousands of years from now. Why not put together a “time bomb,” a container housing images of important events and personalities as well as snippets of present day life, protectively packaged and buried appropriately to last a very long time, to be unlocked at a pre-determined, distant future date?

WEMCO management loved the idea but hated the terminology, quickly discarding “bomb,” with the world on the brink of war. Pendray followed up with a much better description, a time “capsule,” from a list of 40 nouns, including “vessel,” “container,” and “can,” concluding that “capsule” was just right.<sup>13</sup> He noted many years later in a letter to a journalist that it was a shame that Westinghouse “didn’t think to copyright the

name, which was based, of course, on H.G. Wells’ *The Time Machine*. I coined the name myself, so I ought to know.”<sup>14</sup>

Although the term was indeed unique, becoming the standard nomenclature for all containers of this sort, it’s notable that much of what Pendray laid out concerning how Westinghouse should tackle this effort paralleled the plans of the Crypt of Civilization, which Pendray had written about only a few years before. Similarities included that the Westinghouse time capsule would contain newsreels of events of the day, thousands of pages of microfilmed documentation of the world as it was in 1938, including books, encyclopedias, almanacs, magazines and journals, as well as hundreds of items of common use and miscellaneous nature (see special section on contents of Crypt of Civilization and Westinghouse Time Capsule). Pendray also suggested the capsule be buried for thousands of years, but 5,000 as compared to the 6,177 planned for the crypt project. However, Pendray and Westinghouse engineers envisioned a sleek torpedo-style capsule to house their treasures, to be buried 50 feet beneath the surface for safekeeping, as opposed to Jacobs’ 10 by 20-foot basement mausoleum. Both planned to contain elaborate explanations of the English language for a presumed world of future archeologists who discovered the capsule or crypt but might not have any knowledge of the language accompanying the dated items.

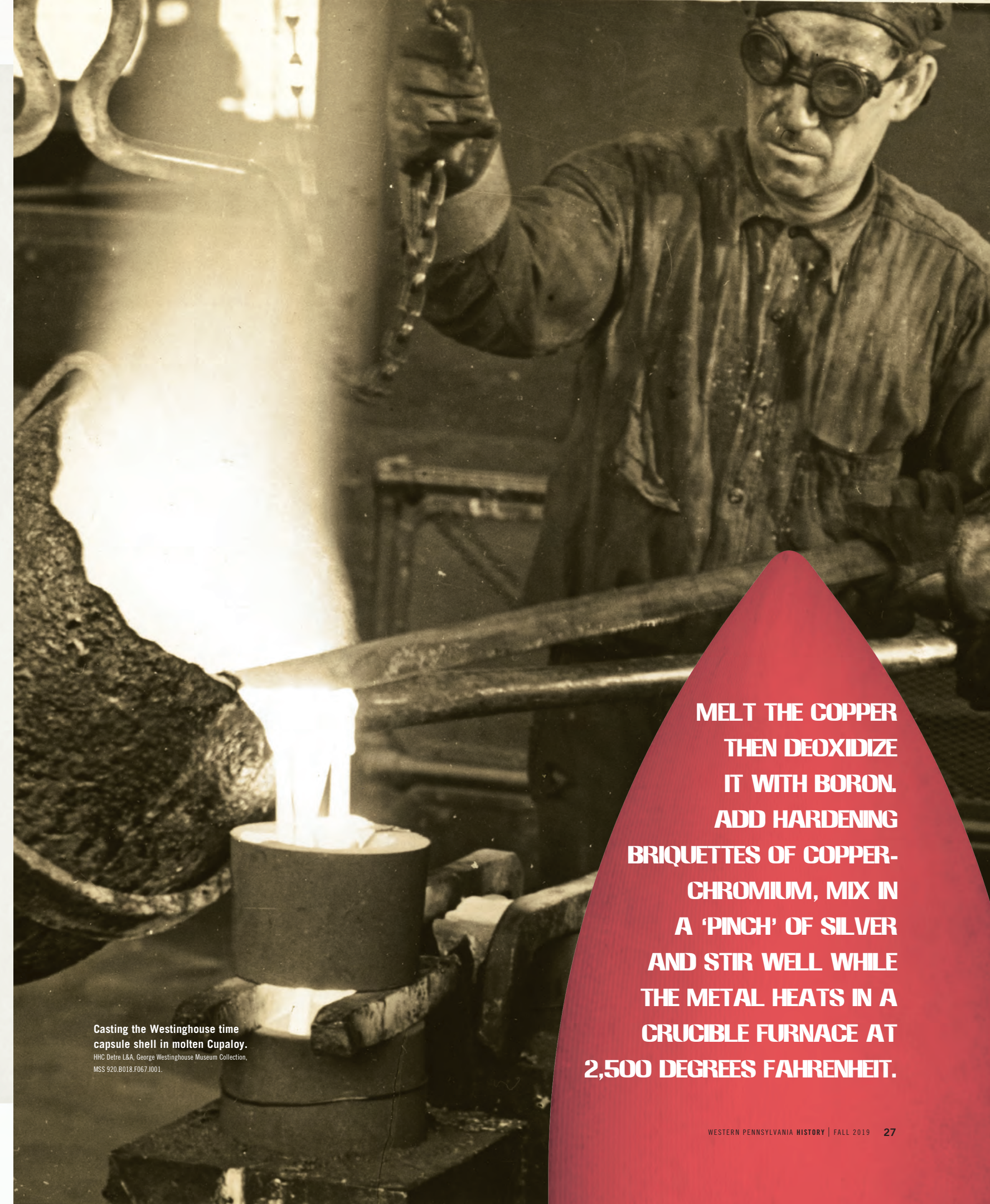
Pendray quickly canvassed the WEMCO divisions to determine just what material this capsule should be made of in order to last 5,000 years. In a 1938 Westinghouse press release noting the completion of the casting and precision machining of the capsule, the “recipe” of the container material, made of proprietary “Cupaloy” (alloy of 99.4% copper, 0.5% chromium, 0.1% silver), was revealed. “Melt the copper then deoxidize it with boron. Add hardening briquettes of copper-chromium, mix in a ‘pinch’ of silver and stir

well while the metal heats in a crucible furnace at 2,500 degrees Fahrenheit. Then cast in a solid mold and machine.”<sup>15</sup> This alloy was chosen because of its hardness and the ability to protect itself from corrosion, according to the release. “In electrolytic reactions with corrosion salts such as iron salts in the soil...copper becomes the anode or positive electrode, and therefore receives deposits instead of being eaten away in the process.”<sup>16</sup> Cupaloy also had salt water corrosion resistance. To be sure, no 5,000-year testing data on this, or any, material was available, but company engineering personnel familiar with Cupaloy and its characteristics assured Pendray that it would last that long, and probably beyond. This alloy was utilized to make a cylinder seven and a half feet long and eight and three-eighths inches in diameter, with walls one inch thick; the resulting interior was 6’9” long and six and three-eighths inches in diameter, which was protectively lined with Pyrex glass set in a water-repellent petroleum wax base.<sup>17</sup> Within this glass lining were stored the contents of the capsule in an inert nitrogen preservative atmosphere. It all sounded very scientific, and the fact that Westinghouse was using one of its own proprietary products as the corrosion-resistant, protective outer shell for the capsule, to last thousands of years into the future, presented an innovative image.

## TREASURE MAP FOR THE TIME CAPSULE

With the time capsule’s survival for 5,000 years addressed, the next issue was how to find where it had been buried when the appropriate future time for recovery had arrived. Pendray’s answer was to have Westinghouse print, on indestructible paper, thousands of copies of a thin volume called *The Book of Record of the Time Capsule of Cupaloy* and send it to repositories worldwide for safekeeping, hopefully to be referenced in future millennia. The plan was to send 3,000 copies to libraries, universities, museums, even monasteries, for storage and utilization in the future — though





Casting the Westinghouse time capsule shell in molten Cupaloy.  
HHC Detre L&A, George Westinghouse Museum Collection,  
MSS 920.B018.F067.I001.

**MELT THE COPPER  
THEN DEOXIDIZE  
IT WITH BORON.  
ADD HARDENING  
BRIQUETTES OF COPPER-  
CHROMIUM, MIX IN  
A 'PINCH' OF SILVER  
AND STIR WELL WHILE  
THE METAL HEATS IN A  
CRUCIBLE FURNACE AT  
2,500 DEGREES FAHRENHEIT.**





**Workers joining segments  
of the 800-pound  
Westinghouse time capsule.**

HHC Detre L&A, George Westinghouse Museum  
Collection, MSS 920.B018.F067.1002.



**Westinghouse employees  
view the time capsule as it is  
being moved by a crane.**

HHC Detre L&A, George Westinghouse Museum  
Collection, MSS 920.B018.F068.1003.



**ALL THESE  
NEWSPAPER STORIES  
ABOUT THE BURIAL  
OF THE TIME CAPSULE  
HOOKED WESTINGHOUSE  
TO THE WONDERS OF  
SCIENCE AND THE  
GLORIES OF THE FUTURE.**



less than 1,500 copies were ever disseminated. Within the book, in addition to a description of the capsule's Cupaloy construction, were listed the Flushing Meadows location with the exact latitude and longitude coordinates of the capsule. A section in the book provided guidance in use of electromagnetic fields to seek metallic substances buried in the Earth, meant to help those who might be searching for the time capsule.

The planned date for opening the capsule, 6939 A.D. on the Christian calendar, was listed, as well as corresponding dates in timekeeping from various other world cultures' calendars. Even calculations involving positioning of the planets and stars were offered to help pinpoint the appropriate retrieval date. Pendray included a general summary of the contents of the capsule, the book stating that the capsule contained "materials and information touching upon all the principal categories of our thought, activity, and accomplishment; sparing nothing, neither our wisdom nor our foolishness, our supreme achievements nor our recognized weaknesses."<sup>18</sup> This explained why items ranging from the Holy Bible to poker chips were chosen as capsule contents by the select company committee that determined what to pack inside, guided by input from numerous scientific and cultural experts. Unfortunately, three days before the time capsule depositing ceremony, after the capsule had been sealed, a telegram arrived at the Westinghouse offices in New York calling attention to a press release that publicized the messages of renowned men that were enclosed in the capsule. Rose Arnold Powell took note of the fact that no women were asked to provide a statement of their contributions to civilization though they equally helped to produce it. In response, Pendray suggested that another capsule might be made to include the early history of the women's rights movement in America but it seems that nothing ever came of it.

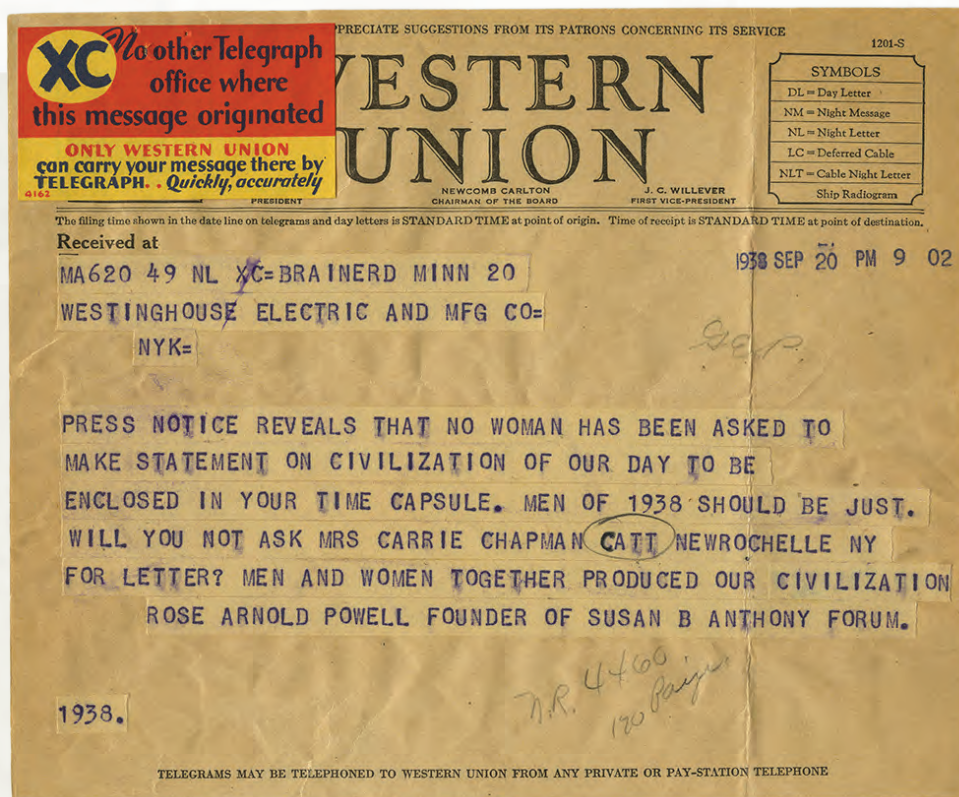
Pendray assumed that in 5,000 years, the English language would have perished, just as the language spoken by the ancient Egyptians had disappeared over time. Thus, 19 of the book's 48 written pages (almost 40 percent) were devoted to the teaching of the English language, its sounds, grammar, and rudimentary vocabulary. If this English 101 lesson was indeed successful, the future archeologists finding *The Book of Record* would be able to recreate basic English so as to decipher the written and spoken words accompanying their capsule discoveries. They could then employ their learning to read the packed instructions on how to build a reading "viewer" for microfilm examination and a motion picture player for use in observing the filmed records within the capsule.

*The Book of Record of the Time Capsule of Cupaloy* closes with messages from three preeminent men: physicist Robert Millikan, writer Thomas Mann, and physicist Albert Einstein as they viewed the world of 1938. All three provide warnings for the future if people did not master their baser instincts. Einstein's

comments especially juxtaposed civilization's lofty achievements with a stark appraisal of how humans treated each other. "Production and distribution of commodities is entirely unorganized so that everybody must live in fear of being eliminated from the economic cycle, in this way suffering from the want of everything. Furthermore, people living in different countries kill each other at irregular time intervals, so that also for this reason any one who thinks about the future must live in fear and terror."<sup>19</sup> All three hoped that those in the distant future who discovered and deciphered these written messages would be part of an evolved humankind to which these foreboding words no longer applied.

## A STately BURIAL AND CONTINUED VIEWINGS

As part of Pendray's publicity campaign concerning the time capsule, a formal capsule "burial" took place on September 23, 1938, seven months before the fair actually opened. A small group of guests were invited to the fairgrounds to observe a rather solemn



Telegram from Rose Arnold Powell asking for women's contributions to civilization to be represented in the time capsule.

HHC Detre L&A, George Westinghouse Museum Collection, MSS 920.



# The MIDDLETON Family AT THE NEW YORK WORLD'S FAIR

## Buried Treasure for the Seventieth Century



*The Time Capsule!* Fascinating alike to scientists and to everyday folks, this record of our times has been prepared for the eyes of a civilization 5000 years away. But your own eyes can see a cut-away duplicate of it, with all its contents, if you join the Middletons—Babs and Bud, their parents, and Grandma—at the Westinghouse New York World's Fair Building. Visit the Halls of Power and Electrical Living... see the Playground of Science; the Microvivarium; Elektro, the Moto-Man, and many other electrical marvels. A warm welcome awaits you at this "fair within a fair." In San Francisco. Don't miss the Westinghouse Exhibit—a treasure house of electrical wonders at the beautiful Golden Gate International Exposition. WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, PITTSBURGH, PA.



# Westinghouse

*The name that means  
EVERYTHING  
IN ELECTRICITY*

Preparing to remit the 1939 Westinghouse time capsule to its 5,000-year resting place are A.W. Robertson, Westinghouse Electric Company's chairman of the board (left) and Grover A. Whalen, president of the New York World's Fair.

HHC Detre L&A, George Westinghouse Museum Collection,  
MSS 920.B018.F072.1001.



Advertisement for the Westinghouse exhibit at the New York World's Fair, *Life Magazine*, May 15, 1939.  
HHC Publications purchase.



program during the mid-day moments of the autumnal equinox. Pendray convinced Westinghouse management that this burial timing connection to the equinox would be one more scientific facet of the capsule for the company to tout. "All these newspaper stories about the burial of the time capsule hooked Westinghouse up with the wonders of science and the glories of the future. So did hundreds of newspaper stories, magazine articles, newsreel films, and radio programs about the time capsule that preceded its burial and that kept up long afterwards."<sup>20</sup>

Once the fair opened, in April 1939, visitors to the Westinghouse Pavilion were encouraged to peer into a periscope-like device to get a glimpse of the capsule 50 feet below in the burial location termed, in another futuristic-sounding touch, the "Immortal Well."<sup>21</sup> A copy of the capsule and duplicates of much of its contents were displayed in the pavilion for curious visitors to inspect. Then, on September 24, 1940, as the fair was in its closing months, a preservative chemical mixture was poured down the well surrounding the capsule and the well was sealed. The Westinghouse time capsule of Cupaloy was on its way.

## ANOTHER NEW YORK WORLD'S FAIR

The time capsule's journey threatened to be relatively short-lived. During the late 1950s, New York City decided it would stage another world's fair. This one would take place 25 years after the 1939-40 New York World's Fair, in 1964, marking the 300th anniversary of the founding of the city. Discussing the time capsule buried at the first fair, a *New York Times* article in August 1959 noted, "Thomas J. Deegan Jr., chairman of the committee for the proposed 1964 world's fair [in New York City], said yesterday that time capsules were meant to be opened. He added that the proposed world's fair might

be as good as an occasion as any to open it."<sup>22</sup>

Although Pendray was long gone from Westinghouse, having left in the mid-1940s to form his own successful publicity and advertising firm, he still took almost paternal pride in the time capsule as his best-known achievement. He was vehemently against a premature opening of the capsule, and when he saw the article he quickly responded. He sent a letter to Deegan, copying Westinghouse Vice-President of Information Services Dale McFeatters, suggesting that not only should the time capsule be left untouched, but that at the 1964 Fair another capsule should be buried beside the first one, "addressed to the same future audience, and showing the enormous progress made in the world since September 1938, when the original Capsule was placed."<sup>23</sup>

Follow-up correspondence between Pendray and McFeatters showed Westinghouse's hesitancy to follow its original time capsule with a duplicate effort in 1964. They feared comparison of the original success to an ensuing copy, but in the end Westinghouse did go ahead with burying another capsule. Twenty-five years between capsules, in the fast-paced world of scientific discovery and cultural evolution, was more than enough time to show significant differences that made an "update" of the original capsule a compelling attraction (see special section on contents of Crypt of Civilization and Westinghouse Time Capsule). Even the material of construction of the second capsule was an updated improvement on Cupaloy, a Westinghouse state-of-the-art stainless steel compound called "Kromarc."

In 1964, while a new capsule was being manufactured, a duplicate was suspended above the Westinghouse pavilion for viewing, and duplicates of items to be buried in the capsule were displayed. After the fair ended, the capsule and contents were buried



A replica of the 1939 time capsule, on exhibit at the History Center, contains a selection of all the items included in the original time capsule.

HHC Collections, 2007.167.350.



Gutzon Borglum's original model of the Mount Rushmore memorial included faces and bodies of his subjects.

Library of Congress, LC-USZ62-105079.



alongside the 1939 capsule. Today there is a large circular concrete marker above ground, over the area where the two capsules are buried. It has an inscription denoting details about the capsules, burial dates, etc.

Now two capsules lay 50 feet underground, paired in the marshy soil of Flushing Meadows, waiting for 4,900+ years to pass before retrieval.

## MOUNT RUSHMORE'S SECRET

While Pendray and Jacobs were involved in their respective capsule and crypt projects in the summer of 1938, Gutzon Borglum was similarly occupied. Borglum worked as a master sculptor and was in the final years of completing the colossal Mount Rushmore memorial to America depicted in the granite-carved faces of four of the country's greatest Presidents. In July 1938, he began to drill into a mountain across a small valley directly

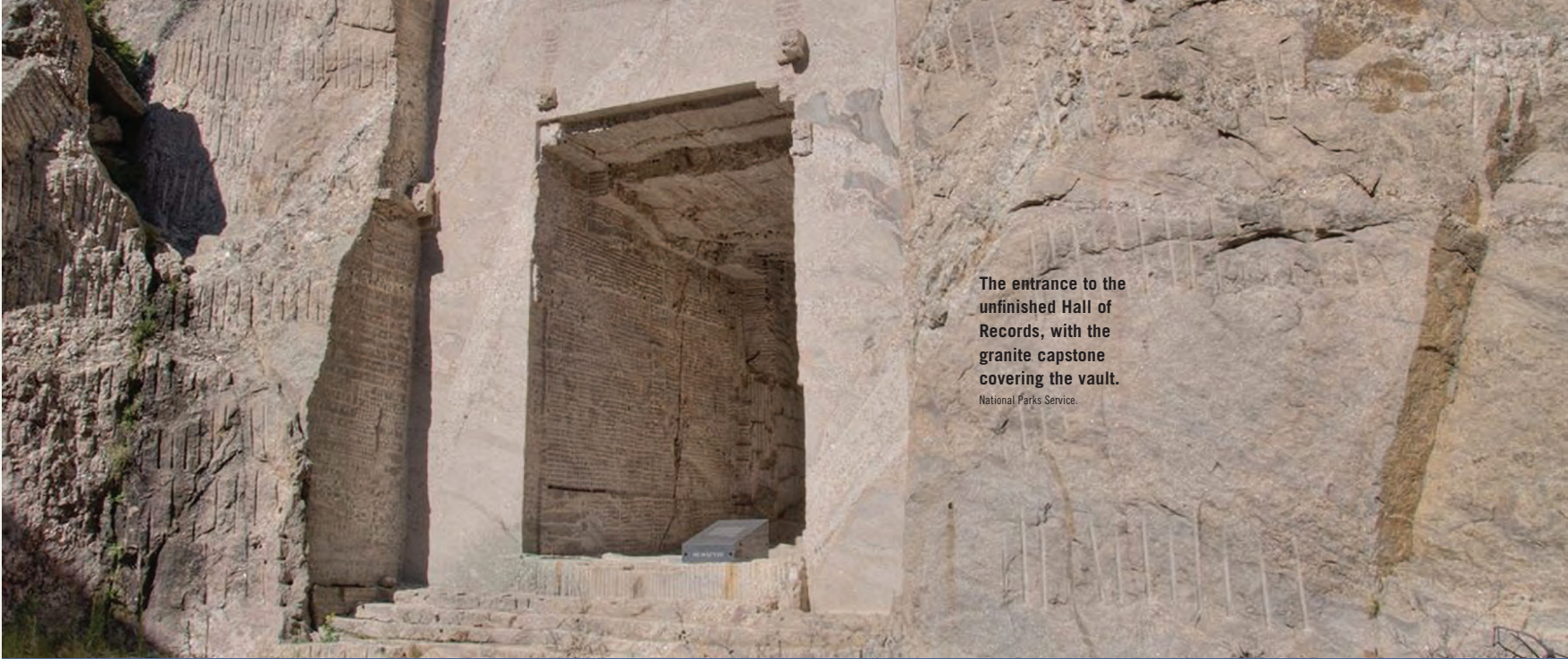
behind the carved head of Abraham Lincoln. He planned to fashion a cavernous chamber, 80 by 100 feet by 20 feet tall, to house bronze and glass cabinets containing important historical documents like the Constitution, the Bill of Rights, Declaration of Independence, as well as busts of famous Americans, and descriptions of major U.S. scientific, industrial, and artistic achievements.<sup>24</sup> It would be named the Hall of Records, a shrine to American greatness, identifying and accompanying the massive sculpture he and his crews had spent over a decade carving in the hills of South Dakota. As Borglum put it, "You may as well drop a letter into the world's postal system without an address or signature, as to send that carved mountain into history without identification."<sup>25</sup> He wanted to make sure that future civilizations, when chancing upon the monument, could learn who these figures represented, why they were important to the inhabitants of 1930s America, and who had

carved them.

Between July 1938 and the following July, a 70-foot tunnel was blasted behind the head of Lincoln. A rough-cut entrance was made and chiseling of walls began, but the work abruptly ended there. By mid-summer 1939, word came from Washington, D.C., that government funding was running low and to concentrate on completing the four heads of the Presidents. Borglum himself passed away early in 1941 and, with U.S. involvement in World War II, all work on the mountain ceased by the end of the year.

Lincoln Borglum, Gutzon's son, put the finishing touches on the monument after his father's death. Throughout the remainder of his life, Lincoln continued to lobby for the Hall of Records to be finished. Over 50 years later, on August 9, 1998, this final portion of the Borglum family dream for the monument was realized. Sixteen etched porcelain plates were dedicated, including the story behind the





The entrance to the unfinished Hall of Records, with the granite capstone covering the vault.  
National Parks Service.

## CONTENTS OF THE CRYPT AND THE CAPSULES

In the late 1930s, The Crypt of Civilization, located in Oglethorpe University, Atlanta, Ga., and the Westinghouse Time Capsule, dedicated at the 1939 New York World’s Fair in Queens, New York City, were packed with a variety of contents to memorialize American culture of the era as well as having historical significance. In 1964, another New York World’s Fair saw Westinghouse again bury a time capsule which contained updated items of interest since their original capsule was completed. Below are general lists of items contained in the crypt and the two capsules.

*(Crypt list courtesy of Oglethorpe University Crypt web page, 1939 & 1964 Time Capsule lists courtesy of New York Times Web Archives)*

### CRYPT OF CIVILIZATION

Microfilm of over 640,000 pages of close to 1,000 works of art and sciences

200 books of fiction

Motion pictures of historical events from 1898-1940:

- great world personalities
- industrial processes
- sports
- dramatic subjects
- important speeches

Various musical recordings and records, newspapers

Various miscellaneous items:

- 1 quart of beer
- 1 vanity makeup mirror & light
- 1 set Lincoln Logs
- 2 mannequins (male & female)
- 1 Schick electric razor
- 1 Kodak camera, case with pens/pencils/crayons/slide rule
- 1 pair ladies stockings
- 1 package hair pins, carving knife & fork
- 1 fishing rod
- 1 fly swatter
- 1 coat hanger
- 1 toy automobile
- 1 toy stagecoach
- 1 toy pistol
- 1 toy airplane
- 1 whiskey glass jigger
- 5 handkerchiefs and silk scarves
- 1 Donald Duck
- 1 set of dentures
- 1 plastic flute
- 1 inkwell
- 2 dolls
- 1 grapefruit corer
- 1 potato masher
- 2 smoking pipes
- 6 pieces costume jewelry
- 100s more

### 1939 WESTINGHOUSE CAPSULE

Microfilm essay in 15 sections, including:

- all the equivalent of over 100 books of information
- books
- pictures
- speeches
- reports
- critiques
- microscope to read microfilm

Motion picture newsreel:

- famous people
- news events
- sports events
- fashion show
- preview of 1939 NY World’s Fair
- instructions to make projection machine to view film

Textiles & materials including 75 swatches of various types and weaves of cloth and samples of materials, including:

- cotton
- linen
- rayon
- plastics
- metals
- cement
- asbestos
- coal
- rubber

Small articles of common use including:

- alarm clock
- can opener
- eye glasses
- pen
- electric lamp
- camera
- nail file
- padlock & keys
- slide rule
- tooth brush
- watch
- toys
- cosmetics
- tobacco
- smoking pipe
- baseball
- deck of cards
- poker chips
- and more

Miscellaneous items:

- seeds
- paper money and coins
- optical instruments
- Time Capsule Book of Record
- and more

### 1964 WESTINGHOUSE CAPSULE

Microfilm essay: Sounds of our times

Atomic energy items including:

- film badge
- pocket radiation monitor
- Carbon 14 sample
- Fermi reactor graphite
- Nautilus submarine film history

Scientific developments since 1939 including:

- antibiotic samples
- synthetic fiber samples
- computer memory unit
- plastic heart valve
- ruby laser rod
- “fresh” seawater sample
- permanent magnet
- birth control pills
- Sequoia wood sample

Space items including:

- re-entry heat shield
- Vanguard I rocket parts
- Echo II material
- fuel cells
- fiber-reinforced metal

Miscellaneous items of common use including:

- 50-star U.S. flag
- Bible
- credit cards
- electronic watch
- automatic camera
- contact lenses
- freeze-dried food
- plastic wrap
- bikini bathing suit
- Beatles record
- rechargeable flashlight
- ball point pen
- detergent sample
- tranquilizer pills
- pack of filtered cigarettes
- and more



creation of the sculpture and a history of its construction, biographies of the four Presidents and passages from some of their most famous speeches, copies of the Declaration of Independence and the Constitution, and a biography of Gutzon Borglum himself. These plates were packed in a teakwood box, placed within a titanium container, and buried in a hole dug at the entranceway to the chamber, secured by a 1,200-pound capstone, all of which was inaccessible to the public. Lincoln Borglum had died a dozen years before but his 82-year-old sister, Mary Ellis Borglum Vhay, who had continued championing the cause, attended the dedication, funded by the Mount Rushmore National Memorial Society and erected by the National Parks Service.<sup>26</sup> It all had the echo of the practice of dedicating a new building with the laying of a cornerstone filled with artifacts, a time capsule buried at the mouth of a granite chamber, waiting for future generations to discover its hidden treasures.

## POSTERITY, PROMOTION, AND PERSONALITY

Within the space of four years in the 1930s, three great time capsule projects were conceived. Two were completed in that time span, the third finished in a much more modest fashion almost 60 years after it had begun.


Thornwell Jacobs' Crypt of Civilization was an academic's attempt to create a cross-section of 1930s culture as a duty to posterity. It received significant news coverage throughout 1936-40 and then faded rather quickly from memory. By the early 1970s, no one knew at first what an Oglethorpe student had discovered when he rummaged through a closed-off basement section of the old administration building and stumbled across a large stainless steel door with an interesting inscription noting what was within and asking that it not be opened until the year 8113. Jacob's mission had been to purposefully, rather than accidentally as the ancient Egyptians had done, build a monument to life that could be

more easily understood by future civilizations than could European archeologists finding bits and pieces of ancient worlds without an accompanying guide to their contents. He had faith that his crypt would indeed be discovered, whether 6,177 years from the time of its conception or not, and he took precautions to ensure that these contents would be intact and illuminating to those who unearthed them.

The Westinghouse time capsules were based on efforts to improve the image of product innovation for the Westinghouse Company to the American consumer public. It is probably a good estimate that most of the 57 million visitors to the 1939-40 New York World's Fair and the 51 million attending the 1964-65 version saw the time capsules while they were there, some of whom might actually still recollect the novel experience and associated views of the advanced technology of Westinghouse. In this sense, G. Edward Pendray's brainchild of the time capsule achieved much of what it had intended to accomplish. Whether the buried time capsules were ever found, opened, and examined by some future civilization was of secondary importance. The very act of creating something as wondrous as a container made of Westinghouse's innovative alloy that could last for 5,000 years, accompanied by an imaginative treasure map that might be found to direct future people to these capsules holding slices of 20th-century American culture for them to examine, was the focus of G. Edward Pendray and Westinghouse's vision of promoting the company's ingenuity to the world.

Gutzon Borglum's Hall of Records chamber was meant to hold an explanation of his masterwork of sculpture to those who found it in some distant future when Mount Rushmore itself no longer had any cultural significance. Surely as he carved 60-foot-tall heads of four American Presidents into a mountain of sheer granite, he knew that over time, some future version of mankind would also see them. He felt it was important to

explain their meaning and wanted to make sure those who gazed upon its beauty knew who had created it. Akin to the ancient carved stone heads on Easter Island or Stonehenge's deliberately-piled rocks in Southern England, Mount Rushmore has the greatest likelihood of being seen thousands of years hence. Will the time capsule at the unfinished doorway to Borglum's chamber be found to provide insights into the sculpture's significance? If so, it may assist those who can decipher its 16 etched-porcelain plates to divine the monument's meaning. If not, does it matter more than the demonstration of artistic creativity and stately majesty that are already displayed on the mountain itself?

The discovery of King Tut's tomb had certainly been a revelation, ultimately stimulating those in a tumultuous modern era to construct a crypt, two capsules, and a chamber for distant future generations to perhaps one day discover and view the fabric of American life. 

**Jeffrey Orens** is a retired business executive who writes about history topics as varied as politics, business, and sports. Recent articles include "When Don Quixote met a Bull Moose: Upton Sinclair and Teddy Roosevelt take on the Beef Trust" in *History Magazine* and the upcoming "Six-Guns & Sluggers, How 150 Years Ago Baseball's Cincinnati Red Stockings Invaded the West" in *True West Magazine*.

<sup>1</sup> Howard Carter's Diaries and Journals, 26 Nov. 1922, excerpted, Griffith Institute (Oxford, England), <http://griffith.ox.ac.uk/gri/howard-carter's-diary-and-journal-1922> (accessed 8 Feb. 2019).

<sup>2</sup> Howard Carter's Diaries and Journals, 26 Nov. 1922.

<sup>3</sup> History.com Editors, "Archaeologists enter tomb of King Tut," *History*, <http://history.com/this-day-in-history/archaeologists-enter-tomb-of-king-tut> (accessed 8 Feb. 2019).

<sup>4</sup> Thornwell Jacobs, *Step Down, Dr. Jacobs* (Atlanta, Ga: The Westminster Publishers, 1945), pg. 258.

<sup>5</sup> Jacobs, *Step Down*, pg. 488.

<sup>6</sup> Jacobs, *Step Down*, pg. 527.

<sup>7</sup> Jacobs, *Step Down*, pgs. 882-883.

<sup>8</sup> Mary Karmelek, "A Peek Inside the Crypt of Civilization," *Scientific American*, 2 December 2011, <http://blogs.scientificamerican.com/a-peek-inside-the-crypt-of-civilization> (accessed 12 Feb. 2019).



- <sup>9</sup> Stanley E. Hyman and St. Clair McKelway, "Onward and Upward with Business & Science," *The New Yorker*, 5 December, 1953, pg. 194, Box 52, Folder 9, G. Edward Pendray Papers, MC105, Public Policy Papers, Department of Rare Books and Special Collections, Princeton University (Princeton, N.J.).
- <sup>10</sup> Erik Larson, *The Devil in the White City* (New York: Random House, 2003), pg. 131.
- <sup>11</sup> Larson, *White City*, pg. 254.
- <sup>12</sup> Hyman and McKelway, *Onward and Upward*, pg. 194.
- <sup>13</sup> Hyman and McKelway, *Onward and Upward*, pg. 200.
- <sup>14</sup> G. Edward Pendray, letter to Robert Considine, 2 Feb. 1960, Box 52, Folder 2, G. Edward Pendray Papers, MC105.
- <sup>15</sup> Westinghouse Electric & Manufacturing Company, "5000-Year Time Capsule Completed Today," Westinghouse Press Release, 29 August 1938, Box 52, Folder 7, G. Edward Pendray Papers, MC105.
- <sup>16</sup> Westinghouse Electric & Manufacturing Company, *Time Capsule Completed*.
- <sup>17</sup> Westinghouse Electric & Manufacturing Company, *The Story of the Westinghouse Time Capsule* (East Pittsburgh: Westinghouse Electric & Manufacturing Company, 1939), <http://hathitrust.org/catalog/the-story-of-the-westinghouse-time-capsule> (accessed 19 Feb. 2019).
- <sup>18</sup> Westinghouse Electric & Manufacturing Company, *The Book of Record of the Time Capsule of Cupaloy* (New York: Westinghouse Electric & Manufacturing Company, 1938), pg. 13, Prelinger Library; Additional Collections; Americana <http://archive.org/prelinger-library/time-capsule-cupaloy> (accessed 19 Feb. 2019).
- <sup>19</sup> Westinghouse Electric & Manufacturing Company, *Book of Record*, pg. 49.
- <sup>20</sup> Hyman and McKelway, *Onward and Upward*, pg. 196.
- <sup>21</sup> William E. Jarvis, *Time Capsules: A Cultural History* (Jefferson, North Carolina: McFarland & Company, 2003), pg. 153.
- <sup>22</sup> "Time Capsule Peek Urged at '64 Fair," *New York Times*, 17 Aug. 1959, Box 52, Folder 2, G. Edward Pendray Papers, MC105.
- <sup>23</sup> G. Edward Pendray, letter to Thomas J. Deegan Jr., 21 Aug. 1959, Box 52, Folder 2, G. Edward Pendray Papers, MC105.
- <sup>24</sup> National Park Service, "Hall of Records," <http://nps.gov/learn/hall-of-records> (accessed 20 Feb. 2109).
- <sup>25</sup> National Park Service, *Hall of Records*.
- <sup>26</sup> PBS Online, "Primary Sources: Documents in the Hall of Records," *American Experience: Mount Rushmore*, <http://pbs.org/american-experience/mount-rushmore/filmmore/primary-sources> (accessed 20 Feb. 2019).

**Plans for the Hall of Records.**  
National Parks Service.

