The Westinghouse Time Capsules

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1	9	6	4
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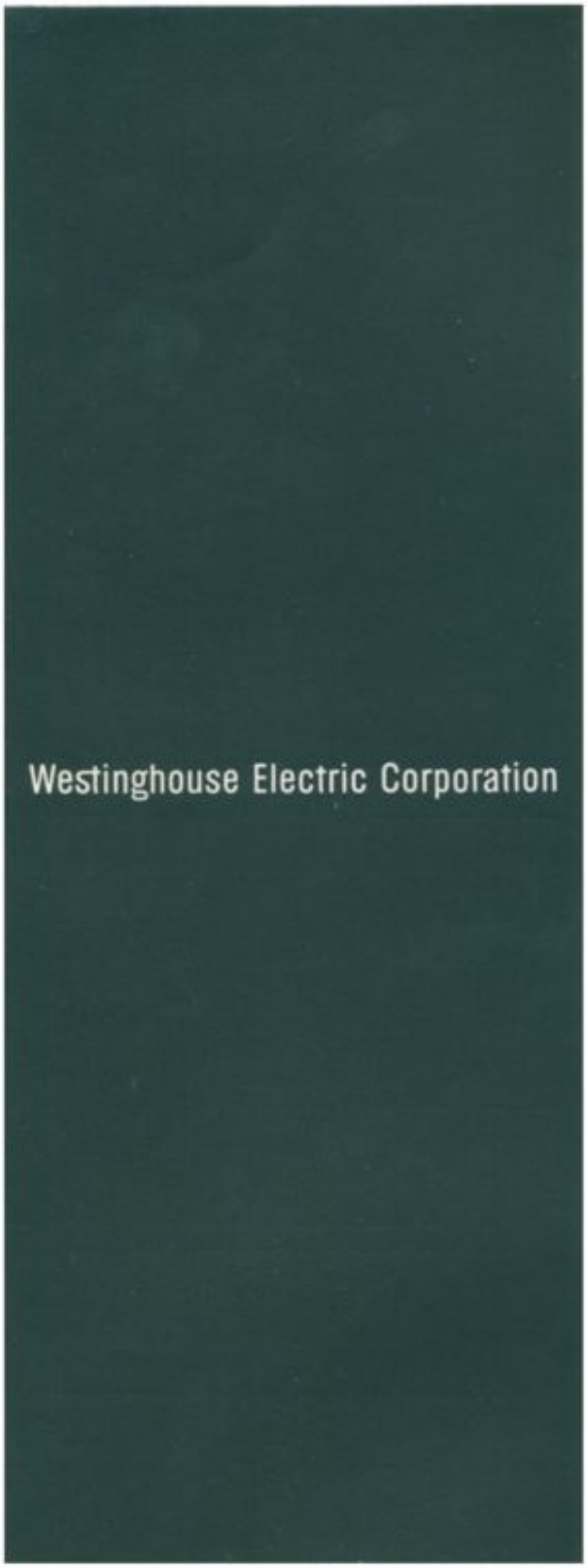


"I believe that
man will not merely endure:
he will prevail."
William Faulkner

Poised against the Long Island sky, high above an open air pavilion is suspended a slim metal tube-shining proof that man endures and indeed prevails.

Positioned there is a silvery duplicate of the Westinghouse Time Capsule of the 1964-65 New York World's Fair. The torpedo-shaped capsule will carry a message 50 centuries into the future heralding man's unprecedented progress during the past 25 years.

Visitors passing through the pavilion pause at exhibits and ponder what they would select for this incredible journey. What best records the follies and fortunes of our times?

"The formation of the United Nations," offers a well-dressed housewife from Ohio.

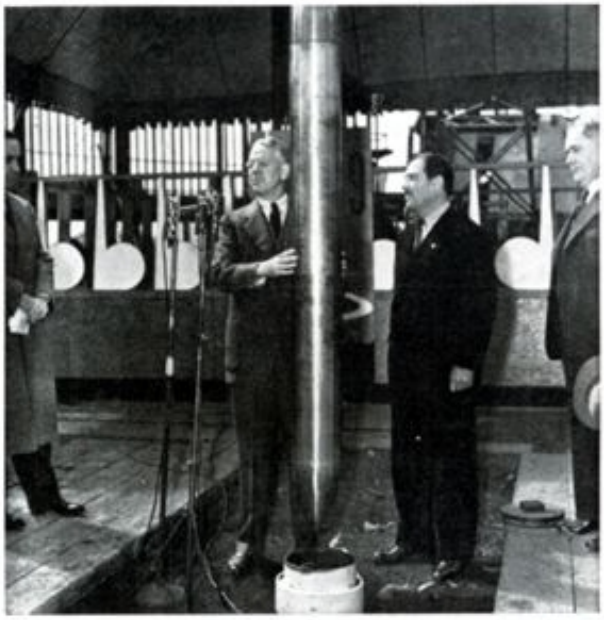
"A filmed record of World War II," candidly remarks a gray-haired lumber dealer from Maine.

"A Beatles record," quips a sun-burned teenager from California.

Off-hand remarks like these typify the myriad opinions that Fair visitors register as they parade through the Westinghouse Electric Corporation pavilion. And centered above them, spurring imaginations, is the Time Capsule, dramatically suspended 50 feet in the air from three 100-foot pylons. At the conclusion of the Fair, the Time Capsule will be buried beneath the site, to be unearthed 5000 years from now. Like its sister entombed 10 feet away–the famed Westinghouse Time Capsule of the 1938-39 World's Fair–Time Capsule II will bring up to date the chronicle of the "history, faiths, arts, sciences and customs" of our civilization.

If Time Capsule II represents many things to many people today, imagine what those excavators in 6939 A.D. will think when they discover our metal shells and this legacy we have left behind.

Travelers to the Westinghouse pavilion record their names for reproduction on special miniaturized microfilm that will be slipped into Time Capsule II before it is sealed, thus preserving a genealogical record for descendents 150 generations from now. But names are secondary; what should we leave that best mirrors the progress of those remarkable years since the days of the Trylon and Perisphere?



Beginning its 5000-year sleep, the 1938 Westinghouse Time Capsule was lowered into its resting place in the historic scene shown here. The late Grover A. Whalen (right), then president of the New York World's Fair, and A. W. Robertson (left), then Westinghouse chairman of the board, watched the capsule being lowered.

From Dawn to Now . . . The Task Begins

That question faced Westinghouse a quarter of a century ago as it embarked on the historic first Time Capsule project.

Let us go back to 1938 and the Westinghouse Time Capsule I. Begin first by selecting a jury. Their task: Select the legacy.

Wading through piles of suggestions the committee assembled a varied collection of historical material that would effectively document our civilization as it was in 1938. Archeologists in that unimagined future may be puzzled by what they uncover but in 1938 this material reflected civilization as it paused briefly at a world's fair in New York City.

A Woman's Hat and a Slide Rule

Tourists to the Fair today are amused by some of the articles on display in one of the three exhibit areas

The contents for the 1938 Westinghouse Time Capsule were checked at the company's lamp division in New Jersey where the first capsule was packed for its journey. Objects ranged from an alarm clock to a baseball.

at the Westinghouse pavilion. Twenty-five years of accelerated living suggest the inevitable . . . "Is that how we were then?"

How we were "then" is represented by dozens of articles of common use ranging from a woman's hat to an engineer's slide rule but not excluding a safety pin, a can opener, and a toothbrush. Also on exhibit is a listing of 75 examples of such representative materials as fabrics, metals, plastics and a variety of seeds. Into Time Capsule I went these materials along with 35 articles of common use. Also encapsulated were brief messages addressed to the future from scholars like Dr. Albert Einstein, physicist and creator of the Theory of Relativity, whose equation $E=mc^2$ was to mean so much in the ensuing years.

"See What We Did"

To cram as much material as possible into Time Capsule I the pages of books, magazines, newspapers, circulars, catalogs and pictures were reproduced on three and a half reels of microfilm. And the committee foresightedly added a small viewer for reading the microfilm along with instructions for making a projector. A newsreel was added to show historic and characteristic scenes of the time–an address by President Franklin D. Roosevelt and a Miami fashion show.

And Only 25 Years Later . . .

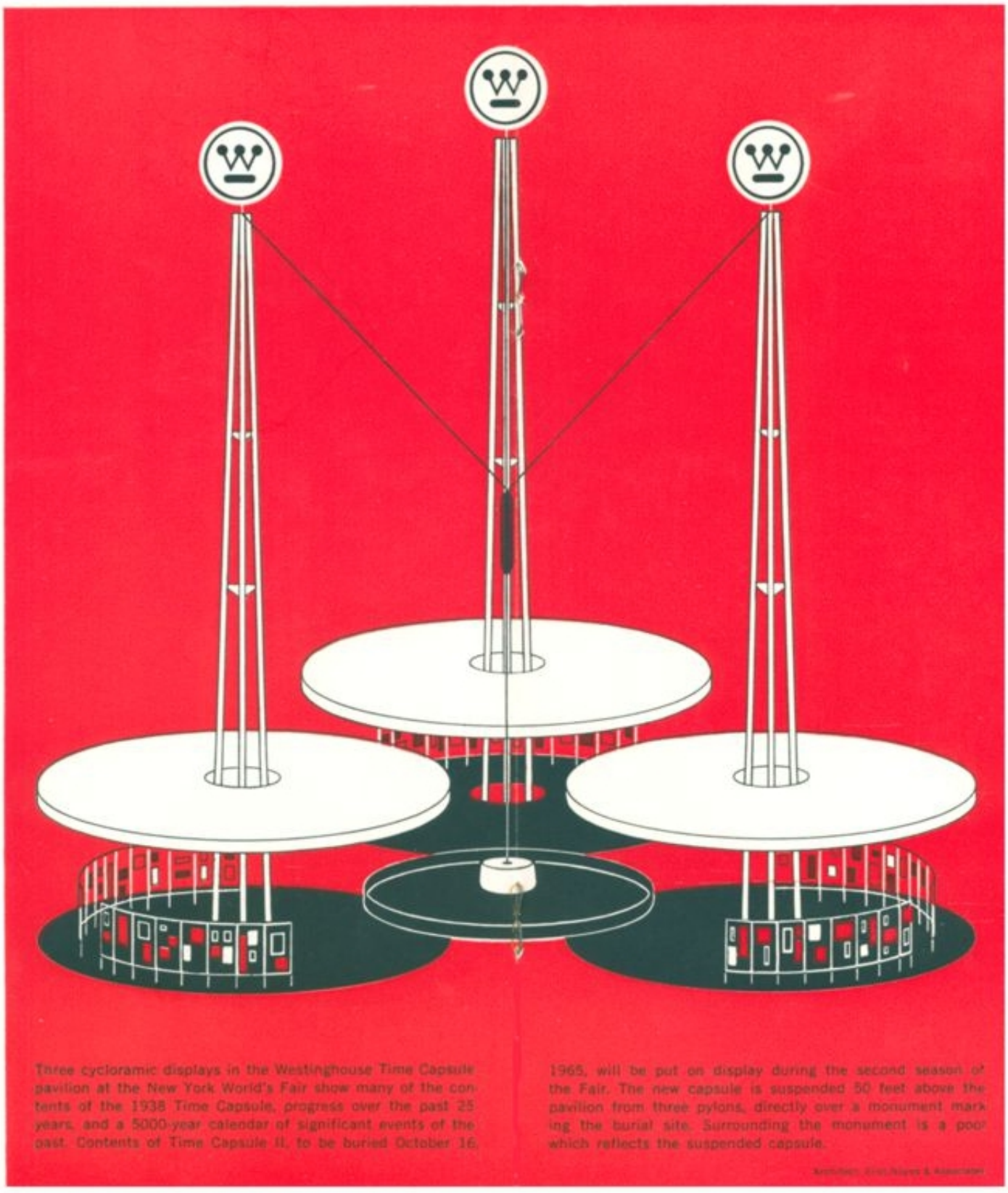
The advent of another World's Fair and the rush of events since 1939 launched Time Capsule II. In a quarter of a century, man split the atom, danced the twist, ran the four-minute mile, scaled Mt. Everest, fought another World War and began to probe space and the seas.

Dr. Leonard Carmichael, retired secretary of the Smithsonian Institution and distinguished chairman of the Time Capsule II Selections Committee, described the committee's function as "to make selections to bring the 1938 Time Capsule up to date, and to aid peoples 5000 years from now in understanding our present civilization and the rapid pace of progress that we have been experiencing."

The encyclopedic chore of selecting contents for

The diagram shows how Time Capsule II is constructed. The Kromarc stainless steel capsule contains a glass inner shell which will provide an air-tight envelope for the capsule contents. On the right, metallurgist H. D. Greenberg, who supervised construction of the new Time Capsule, gives the gleaming, torpedo-shaped structure its final check-out.

Dr. Leonard Carmichael is chairman of the distinguished 14-man Selections Committee choosing the contents for Time Capsule II. Dr. Carmichael is retired secretary of the Smithsonian Institution.



Three cycloramic displays in the Westinghouse Time Capsule pavilion at the New York World's Fair show many of the contents of the 1938 Time Capsule, progress over the past 25 years, and a 5000-year calendar of significant events of the past. Contents of Time Capsule II, to be buried October 16, 1965, will be put on display during the second season of the Fair. The new capsule is suspended 50 feet above the pavilion from three pylons, directly over a monument marking the burial site. Surrounding the monument is a pool which reflects the suspended capsule.

the Second Time Capsule fell to a blue-ribbon panel of 14 Americans whose credentials are as impressive as their assignment:

Dr. Detlev W. Bronk, President, The Rockefeller Institute, and past President, The National Academy of Sciences

Dr. Ralph J. Bunche, Under Secretary, United Nations, and recipient of the Nobel Peace Prize

Dr. Vannevar Bush, Honorary Chairman, Massachusetts Institute of Technology Corporaton, and former President, Carnegie Institution of Washington

Dr. James B. Conant, former U. S. Ambassador and former President, Harvard University

Dr. Watson Davis, Director, Science Service

Dr. Hugh L. Dryden, Deputy Administrator, National Aeronautics and Space Administration

Dr. John Kieran, Writer and Naturalist

Dr. Henry Allen Moe, President, American Philosophical Society

Dr. Eugene Ormandy, Music Director, Philadelphia Orchestra

Dr. Alfred Newton Richards, Pharmacologist, past President, National Academy of Sciences

Dr. Glenn T. Seaborg, Chairman, Atomic Energy Commission, and winner of the Nobel Prize for Chemistry

Dr. William E. Shoupp, Vice President, Research, Westinghouse Electric Corporation

Mr. Andrew Wyeth, Artist

One of the bullet-shaped end pieces of Time Capsule II is welded into place at the East Pittsburgh plant of Westinghouse Electric Corporation. The capsule is made of Kromarc, a "super" stainless steel having unusual weldability.

Assisted by four advisory subcommittees in Europe, Far East-Oceania, Latin America and Africa-Middle East, the committee's selections will be on cycloramic display at the Westinghouse pavilion during the second season of the Fair. Members of the committee are authorities in such fields as atomic energy, arts and entertainment, commerce and industry, communications, education, the humanities, how we live, medicine and health, science, space, sports and recreation and world events.

As the committee began its quest, Westinghouse found itself traversing familiar terrain and matching new technology to solve an old question–can the capsules last for 5000 years?

Westinghouse Research Laboratories in Pittsburgh found the answer in a new super alloy called Kromarc. Exhaustive chemical testing said this new stainless steel would be an excellent jacket for Time Capsule II because of its ability to resist corrosion.

Soil samples from 50 feet below ground at the Fair site in Flushing Meadow Park revealed that the Long Island soil is almost completely lacking in chloride ions, a major cause of metal corrosion. Re-

J. E. Paterson of the Westinghouse Research Laboratories examines a sample of soil taken from 50 feet down in New York City's Flushing Meadow Park. The soil was given a detailed chemical examination to determine the exact nature of the 50-century resting place of the Time Capsule.

ports Dr. F. P. Byrne, manager of the company's Research Laboratories' analytical chemistry section: "We have concluded that there is little possibility of severe corrosion of the Kromarc capsule by soil of such analysis."

The Messengers

The two capsules bear many similarities. Time Capsule I was made from a Westinghouse developed metal called Cupaloy, a copper, chromium and silver alloy tempered to the hardness of steel. Time Capsule I was cast in seven sections while the second Time Capsule is constructed in three parts. The center section was cast by the U. S. Pipe & Foundry Company of Burlington, N. J. The two bullet-shaped end pieces were cast separately by Esco Corporation of Portland, Ore.

As with the original capsule, the contents of Time Capsule II will be sealed inside an air-tight glass envelope. Air within the envelope will be evacuated and replaced by an inert gas that will prevent the contents from deteriorating. The metal capsule will then be sealed. Protection of the contents will be insured in much the same way as was Time Capsule I. In the case of Time Capsule I, the U. S. Bureau of Standards examined all the materials for durability. Care was taken not to include any objects which might produce fumes or acids capable of attacking other articles. All liquids were ruled out and organic objects such as seeds were hermetically sealed in glass receptacles. Film was placed in aluminum containers and other objects were individually wrapped in heavy rag paper and tied with linen twine.

When the packing of the inner envelope of glass was completed, the air inside was exhausted, replaced with nitrogen, and enough moisture injected to equal the humidity found in an ordinary room. Then the glass envelope was heated and sealed. Finally, the inner envelope of glass was placed in the metal shell, and the cap of the capsule was secured to form an airtight seal.

Time Capsule II will be finally laid to rest on October 16, 1965–designated Time Capsule Day at the Fair. The 300-pound tube will be provided the same survival insurance as its predecessor. Lowered in

Veteran Westinghouse machinist Carl W. Buehrig machines to final shape the tubular body of the gleaming Time Capsule II. Machine work on the capsule was carried out at the East Pittsburgh plant of Westinghouse.

To assure that future generations would have the exact location of Time Capsule I, a "Book of Record" was printed in 1938. Copies were distributed to safe repositories throughout the world. A supplement to the "Book of Record," announcing Time Capsule II, will be mailed to these same locations.

place, the seven foot, six inch capsule will be coated with pitch, surrounded by concrete poured down a shaft and left secure beside its sister capsule.

Permanent Sentinel

Above the spot where the Westinghouse Time Capsules rest, a granite monument will stand as a permanent sentinel. This memorial, produced by The Rock of Ages Corporation, says:

The Time Capsules
Deposited
September 23, 1938
And
October 16, 1965
By The
Westinghouse Electric Corporation
As A Record Of
Twentieth Century Civilization
To Endure For 5,000 Years

A Monastery in Tibet, A Library in Manhattan

How will the capsules be found?

Some day 5000 years hence in a monastery in Tibet, or perhaps in a library in Manhattan, a book will provide the key. The "Book of Record," printed on permanent paper with special ink, describes in exact terms the latitude and longitude of the burying place of the capsules. Some 3,000 copies of the "Book of Record" are in libraries, museums, monasteries and other safe repositories around the world. A supplement to the "Book of Record," announcing Time Capsule II, will be mailed to these same locations.

In a message addressed to posterity, the book requests that its contents be translated into new languages as they supersede the old. Instructions for making and using instruments to locate the capsules electromagnetically are included in the "Book of Record." It also contains an ingenious key to the English language to aid archeologists of the future should knowledge of our present language be lost.

And Ahead?

And what of the years to come? A cure for cancer? Weekend trips to the moon?

No matter to what great heights we ascend or to what great depths we descend, we of the Twentieth Century bequeath to the Seventieth Century proof that man not only endures, but he also prevails.

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