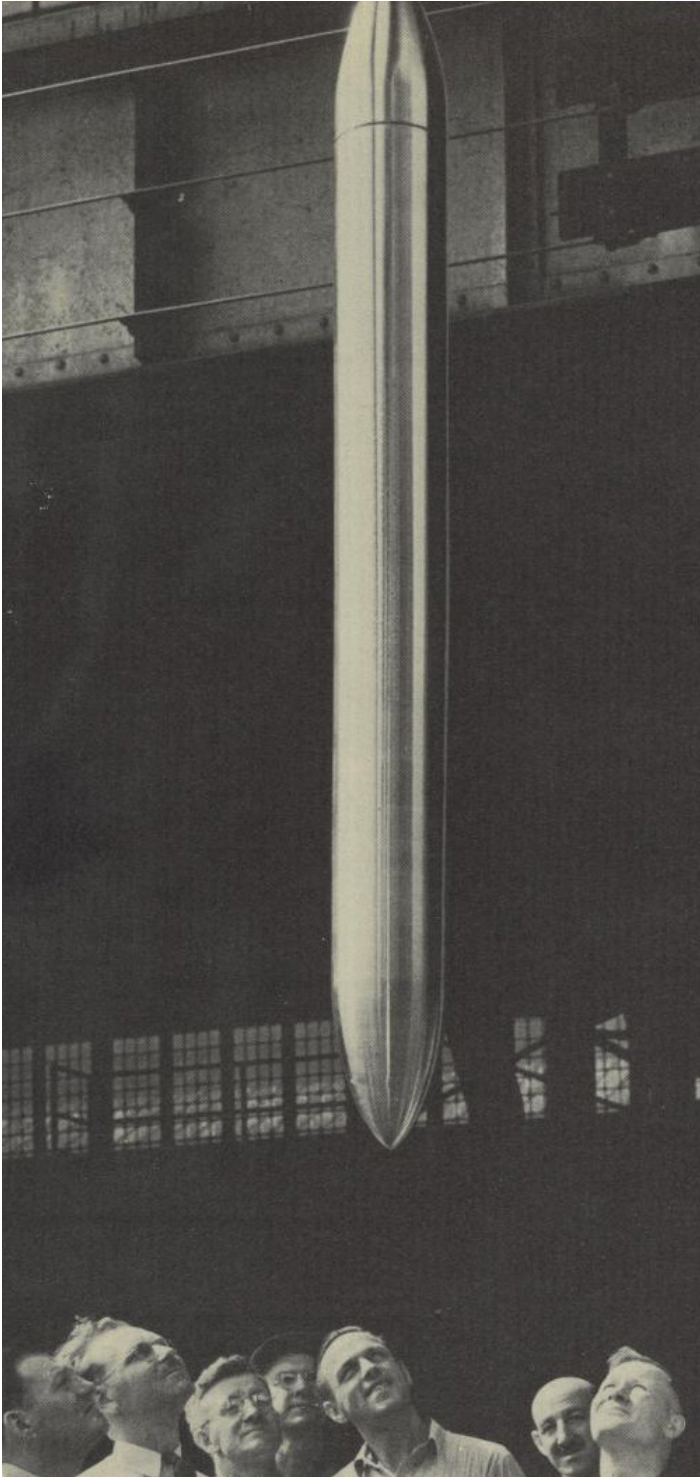


“Time Machine”: The Westinghouse Time Capsule, the “World of Tomorrow” and the Changing Understanding of Time at the 1939 World’s Fair

By Evan Stark, Washington University in St. Louis



Courtesy of the New York Public Library

On September 23, 1938, months before the opening of the 1939 New York World’s Fair, a crowd gathered at the fair’s future site of the Westinghouse Electric & Manufacturing Company exhibit. They gathered to bury a part of the fair that would not see the light of day for 5,000 years. At noon, Westinghouse’s torpedo-shaped Time Capsule descended down a 50-foot-deep concrete-lined hole under what would become the Westinghouse exhibit¹. The Time Capsule was designed to hold a plethora of objects that Westinghouse hoped, when uncovered in 6939, would give the future a glimpse of life in 1939.

The Westinghouse Time Capsule was the first so-called “time capsule” and it was, in many ways, a product of its time. At a fair whose theme was “The World of Tomorrow”, Westinghouse was staking the foundation of its exhibit, both figuratively and literally, on a project that revolved around the present. Even amidst the economic challenges of the Great Depression, Westinghouse seemed driven by of a sense of duty to preserve the present for the future, rather than by its financial bottom line. Despite the contrast between the Time Capsule project with the fair’s theme, and the economic pressures of the Great Depression, the Time Capsule was built precisely because of the social, political and economic circumstances of 1939. At this World’s Fair, ideas of progress and science, competition between corporations and governments, fascination with past, and apprehension about the future were manifest in Westinghouse’s Time Capsule project. Since it addressed fairgoers’ aspirations and concerns in 1939, the Time Capsule was one of the

1 “RECORD OF TODAY BURIED FOR 6939: 5,000-Year Time- Capsule Is Lowered Into Well on the World’s Fair Grounds CONTAINS 1,000 PICTURES 10,000,000 Words Compressed Into 1,100 Feet of Microfilm Give Message to “Posterity Newsreel Is Included Headings of 15 Sequences 100 Solid Objects Enclosed Speculates on Posterity,” *New York Times*, September 24, 1938.N.Y., United States”, “page”：“19”, “source”：“ProQuest”, “event-place”：“New York, N.Y., United States”, “abstract”：“The 5,000-year Time Capsule, containing a condensed record of our present day civilization for the inhabitants of the earth in the year 6939, was deposited yesterday at high noon, the moment of the Autumnal Equinox, at the site of the Westinghouse”, “ISSN”：“036243 31”, “shortTitle”：“RECORD OF TODAY BURIED FOR 6939”, “issued”：{“date-parts”：[[“1938”, 9, 24]]}], “schema”：“https://github.com/citation-style-language/schema/raw/master/csl-citation.json”}

more successful and memorable exhibits at the Fair. By reconciling the varied conditions in which it was built and debuted, the Time Capsule redefined the conceptualization and physical manifestation of time in the twentieth century.

Construction and Contents

As Westinghouse hoped to show, the Time Capsule was an example of meticulous engineering. First and foremost, the Time Capsule was specially designed to protect an internal collection of items. As such, the Capsule was made of two larger parts: the Capsule and its contents. While Westinghouse employed similar scientific methodologies in designing the Capsule and selecting its contents, the two served distinct roles within the project itself.

Westinghouse's *The Story of the Time Capsule* meticulously chronicles the details of the Time Capsule's construction, underscoring the project's emphasis on science. The exterior of the over seven-foot-long capsule was built out of a new resilient alloy, Cupaloy, designed to have: "the hardness of steel, yet has a resistance to corrosion equal to pure copper... [such that] in the soil it becomes the anode and therefore will receive deposits rather than wasting away." Furthermore, the interior was "lined with an envelope of Pyrex glass, set in a water-repellent petroleum base wax... [and] washed, evacuated and filled with humid nitrogen, an inert, preservative gas."² By explaining the science and engineering behind the project, Westinghouse demonstrated that it was not only believable, but also feasible that the Time Capsule could withstand 5,000 years underground.

This emphasis on, and implicit faith in, science extended to the selection of the Time Capsule's contents. The contents of the Westinghouse Time Capsule were intended to provide a "cross-section of our time" to those living in 6939.³ The capsule included 35 "objects of common use" and 75 samples "of common materials, ranging from fabrics of various kinds, metals, alloys, plastics, and synthetics to a lump of anthracite and a dozen kinds of common seeds."⁴ Westinghouse provided a complete list of the contents in both the Time Capsule and *The Story of the Time Capsule*. On that list, items were grouped into five broad categories, with smaller subcat-

egories ranging from "Contributing Convenience, Comfort, Health, Safety" to "Pertaining to the Grooming and Vanity of Women", that covered much of everyday life.⁵ Ranging from a woman's hat to an electric lamp to a pack of cigarettes, the selection of items was eclectic, yet comprehensive. Aside from everyday items, the capsule's contents also included a guide to reconstructing the English language, along with personal notes from Albert Einstein, Thomas Mann and Robert Millikan. Additionally, the Time Capsule contained a wide-ranging collection of microfilm that totaled nearly 22,000 pages of text covering religion, politics, public health, scientific inventions and major industries.⁶ These items, taken together, were intended to cover almost every facet of daily life in 1939, from the physical to the philosophical.

Designed to help locate the Time Capsule in 6939, Westinghouse's *The Book of Record* was the only object manufactured explicitly for the Time Capsule.⁷ *The Book of Record* contained not only a brief introduction to the project and the accomplishments of the twentieth century, but also detailed instructions to find the capsule using several different scientific techniques based on astronomy, geography and metallurgy. To further ensure the capsule would be found, 3,650 copies of *The Book of Record* were published and distributed to libraries around the world. Westinghouse was so sure that it had gathered sufficient information about the present that it asserted "no man living knows as much about us as those who study this Time Capsule will know."⁸

Westinghouse sought to demonstrate that the objects selected were inherently important to a scientific and scholarly understanding of 1939.⁹ This responsibility fell to the Westinghouse Time Capsule Committee. This internal corporate committee drew upon the expertise of outside "archaeologists, historians and authorities in virtually every field of science, medicine and the arts" to help select the objects in the Time Capsule.¹⁰ Westinghouse went so far as to disclose that "where several competitive items of equal archaeological value were available, but only one could be included, the item selected was chosen by lot."¹¹ While this disclaimer was intended to show that Westinghouse filled the Capsule fairly and methodically, the Time Capsule Committee had significant latitude to select the included items.

Despite Westinghouse's emphasis on the seemingly

2 *The Story of the Westinghouse Time Capsule* was a special Westinghouse publication intended to explain the details of the project to the public of 1939.

The Capsule was no diminutive feat of engineering. The details of the Capsule's dimensions included its size (seven and a half feet long, eight and three-eighths inches in diameter) and its weight (when filled, weighed over 800 pounds).

Westinghouse Electric and Manufacturing Company, *The Story of the Westinghouse Time Capsule : What the Project Means, How the Time Capsule Was Constructed, What It Contains, How It Will Be Protected against Vandalism, How Word of Its Location Has Been Left for the Future* (East Pittsburgh, Pa. : Westinghouse Electric & Manufacturing Co., 1939), 10.

3 Ibid., 11.

4 Ibid., 14–15.

5 Ibid., 24. These two categories were highlighted to illustrate the wide variety of items selected and to also demonstrate the distinctions Westinghouse in categorizing the contents of the Capsule. Some items from "Contributing Convenience, Comfort, Health, Safety" include an alarm clock and a toothbrush. Some items from "Pertaining to the Grooming and Vanity of Women" include make-up and a rhinestone clip.

6 Ibid., 13.

7 Ibid.

8 Ibid., 15.

9 Ibid., 14–16.

10 Ibid., 14.

11 Ibid., 24.

objective selection of the Time Capsule's contents, a closer look at the included items reveals a tendency to favor corporations and to ignore Westinghouse's competitors. Firstly, there was a tendency to select items manufactured by, or pertaining to, corporations. Items with explicit ties to corporations comprised 65% of the physical objects and 48% of the microfilmed material. Secondly, only four percent of physical objects and five percent of written materials were explicitly linked to governments.¹² Meanwhile, Westinghouse included its own products or references to itself thirty times, while its prime competitor, General Electric, was never mentioned.¹³ These trends undermine the supposed objectivity of the Time Capsule Committee's selection process.

Furthermore, the selected objects do not focus on specific individuals. While the Time Capsule was intended to be experienced by individual fairgoers and rediscovered by individuals from 6939, there are scant references to specific people in the Time Capsule. Aside from the three letters written by Einstein, Mann, and Millikan, along with film footage of President Roosevelt, Fiorello LaGuardia and Grover Whalen, important individuals were not prominently featured. Thus, in the context of a project spanning millennia, Westinghouse made the case that the future would value *how* people lived in 1939, not *who* lived at that time. By minimizing the presence of individuals in the Time Capsule's contents, Westinghouse implied that in order to understand a society, the individual did not matter as much as the society's material culture.

"The World of Tomorrow" and the Business of the World's Fair

Westinghouse's rationale for producing the Time Capsule was explicitly connected to the fair's theme, "The World of Tomorrow", and to the fair as a business opportunity. The fair was designed to showcase how the future could be glimpsed in 1939. Additionally, the exhibiting companies' business strategies influenced the fair as both a business itself, and as an event at which companies publically promoted their products.

In *The Book of Record*, Westinghouse explained "there will rise again a civilization of even vaster promise standing upon our shoulders, as we have stood upon the shoulders of ancient Sumer, Egypt, Greece, and Rome. The learned among that culture of the future may study with pleasure and profit things now in existence which are unique to our time, growing

out of our circumstances, needs, and desires."¹⁴ Just as Western society owed much to the developments of past civilizations, so too would those living in 6939 depend on the twentieth century. Therefore, in order to better serve the future, Westinghouse had a special responsibility to intentionally preserve the accomplishments of the twentieth century. Thus, the contents detailed in *The Book of Record* and enclosed within the Time Capsule were not only noteworthy in their own time, but also inherently important to the future. As such, the Time Capsule likely resonated with fairgoers caught in the midst of the Great Depression, and the aftermath of one world war with the threat of yet another, making them receptive to the Time Capsule's aura of optimism.

On the other hand, the World's Fair was a commercial event where corporate exhibits competed for the fairgoers' patronage and attention. While the Time Capsule was not a product that could be sold to fairgoers, Westinghouse's substantial investment in the Time Capsule project reflected its view that the capsule was a prudent business decision. In 1953, the *New Yorker* countered *The Book of Record's* idealistic narrative, exposing the Time Capsule as a brilliantly successful public relations stunt.¹⁵ As recounted in the article, in the late 1930s, Westinghouse Electric and Manufacturing Co. was locked in a heated rivalry with General Electric (GE). While Westinghouse was profitable, GE was winning the hearts and minds of American consumers. Westinghouse executives worried that consumers did not have "true love" for their company and that "the public still thought of it [Westinghouse] as backward looking."¹⁶ Therefore, G. Edward Pendray was hired to revamp Westinghouse's public relations.¹⁷ Even with Pendray's help, in 1937 Westinghouse's gross income dropped five percent despite doubling its advertising budget. Westinghouse's business troubles set the stage for Pendray's idea for a radical project to transform Westinghouse's reputation.

Adding to Westinghouse's public relations troubles, *Fortune* ran a highly critical article in February 1938 compar-

12 The lack of government-linked materials may be an attempt to further suggest that the project was free and independent of outside influence. However, this could also be the byproduct of intense competition between corporations and governments to fuel progress in the 1930s. See section *Competing Conceptions of Progress: The Corporation Versus the State* with regard to competing agents of "progress" at the World's Fair.

13 Statistical analysis of the contents of the Time Capsule was completed using the list of included items found in *The Story of the Time Capsule*. Direct linkages/references/ties to corporations rely on whether a specific company name is mentioned in the title of the item/written material's entry in *The Story of the Time Capsule*.

14 Westinghouse Electric and Manufacturing Company, *The Book of Record of the Time Capsule of Cupaloy: Deemed Capable of Resisting the Effects of Time for Five thousand Years: Preserving an Account of Universal Achievements, Embedded in the Grounds of the New York World's Fair, 1939* (New York: Westinghouse Electric & Manufacturing Company, 1938), 13.

15 S.E. Hyman and S.C. McLelway, "Onward and Upward with Business and Science," *New Yorker*, December 5, 1953, 194,196–206,209–16,219.

16 *Ibid.*, 194.

17 G. Edward Pendray was well known as a proponent of space exploration and science. A graduate of the University of Wyoming and Columbia University, he was the science editor at the New York Herald Tribune. His eventual success at Westinghouse would lead him to later open his own public relations firm. His connection to the 1939 Time Capsule remains one of his well-known accomplishments. Elizabeth Neuffer, "G. E. PENDRAY, 86, ROCKET PROPONENT," *The New York Times*, September 20, 1987.

ing Westinghouse to its rival, GE. While Westinghouse was accused of “commercial ineptitude”, GE was praised for investigating “the desires of the American public [and had] gone back to the laboratory to satisfy those desires.”¹⁸ By doing so, *Fortune* confirmed Westinghouse’s fears that it was losing the battle for the American consumer. Pendray recognized that the fair’s theme offered the opportunity to design an exhibit that could demonstrate the company’s unprecedented innovation.¹⁹ He pitched his idea for Westinghouse to build, as he called it, a “time capsule” for the fair. Some Westinghouse executives were hesitant to back the project but, as Pendray explained, the “time capsule” could link the struggling company “with science, the stars and so forth – the wonders of the universe,” capturing the imagination and curiosity of the public in the process.²⁰

Pendray’s project was a success, reversing Westinghouse’s negative press coverage leading up to the fair. When the Time Capsule was buried, press coverage was not only extensive, but overwhelmingly positive. The media, much like Pendray had hoped, linked Westinghouse to the wonders of science, and saw the company as an innovator.²¹ As public perception of Westinghouse improved, so did the company’s finances. In the years that followed the Time Capsule’s debut, Westinghouse posted improvements in its annual sales. Pendray’s idea for the Time Capsule not only helped to change Westinghouse’s reputation, but also proved to be a prudent business decision.²²

New York City, much like Westinghouse, also looked to the fair as a way to improve its reputation and finances. Initially, the 1939 World’s Fair was conceived as a stimulus for Depression-era New York. In order to be successful, the Fair hoped to build upon the tradition of previous American World’s Fairs, by using a unique architectural design and overall theme. While past fairs in Chicago, Buffalo and St. Louis had all embraced similar architectural styles, the New York fair’s embrace of Art Deco and Bauhaus would further differentiate it from its predecessors.²³ Furthermore, while Chicago

“had dazzled the world” in 1893 and 1933 with its two World’s Fairs, Philadelphia “had hallowed its past at the 1876 Centennial” and St. Louis had bewitched visitors with the Louisiana Purchase Exposition in 1904, New York had yet to hold a fair that marked its place as a financial and cultural center.²⁴

Constructing the fair was a tremendous undertaking, directed by The New York World’s Fair, Inc.²⁵ Thus, the “World of Tomorrow”, much like its predecessors, was fundamentally a business venture.²⁶ Financed through bonds, and fees from exhibitors, the fair consisted of over 375 buildings and 100 large exhibits. While many past fairs either explicitly referenced the past (Philadelphia’s Centennial) or thematically stopped at the present (Chicago’s 1933 “Century of Progress”), the 1939 World’s Fair was unique in its emphasis on the future. Emphasizing the fair’s thematic break with celebrations of the past, exhibitors were prohibited from using any previous architectural style.²⁷ Thus, Art Deco and Bauhaus architecture dominated the fair, giving the fair a unique appearance.²⁸ The 1939 World’s Fair, therefore, became a venue where exhibitors not only could, but were forced to, discard traditional approaches to their exhibits. Pendray’s Time Capsule succeeded at the fair in part because the project was innovative and visionary. Other exhibits, like General Motors’ (GM) Futurama and even the Fair’s iconic Tylon and Perisphere, attempted to bridge the gap between the known present and the uncertainties of the future.²⁹ In order to successfully bridge that gap, the fair and its exhibitors, including Westinghouse, had to communicate their understanding of progress to millions of fairgoers.

18 Quoted in Hyman and McLelway, “Onward and Upward with Business and Science,” 194.

19 Pendray was a science fiction fan, including the prospect of life on other planets. His interests translated well to a Fair that, thematically, was oriented to the possibilities of science and industry.

20 Hyman and McLelway, “Onward and Upward with Business and Science,” 198,200.

Furthermore, Cupaloy, Westinghouse’s newest alloy, had no practical commercial use. The Capsule was an opportunity to showcase the alloy and probably helped aid Westinghouse’s decision to build the Capsule.

21 *Ibid.*, 196.

22 *Ibid.*, 197. Westinghouse’s sales had increased annually up until the publication of the *New Yorker* article.

23 A. Joan Saab, *For the Millions: American Art and Culture between the Wars*, The Arts and Intellectual Life in Modern America (Philadelphia: University of Pennsylvania Press,

2004), 130–135.; Rydell mentions the influence of past fairs on the design and style of their successors. The 1901 fair in Buffalo, while embracing color as opposed to the “White City” of 1893 Chicago, still relied on the City Beautiful movement for architectural inspiration at both Chicago and at Omaha in 1898. Therefore, fairs looked to each other for inspiration. However, the 1939 fair’s ban on prior architectural styles was a fundamental ideological and visual break from the influence of past fairs. Robert W. Rydell, *All the World’s a Fair: Visions of Empire at American International Expositions, 1876-1916* (Chicago: University of Chicago Press, 1984), 130–135.

24 Stanley Appelbaum and Richard Wurts, *The New York World’s Fair, 1939/1940: In 155 Photographs by Richard Wurts and Others*, 1ST edition (Dover Publications, 1977), viii.

It should be noted that New York did hold an exposition in 1853 but was, when compared to other past Fairs, was, according to Appelbaum and Wurts, “low key” and not in the same echelon as the other American Fairs.

25 James Mauro, *Twilight at the World of Tomorrow: Genius, Madness, Murder, and the 1939 World’s Fair on the Brink of War*, 1st ed (New York: Ballantine Books, 2010), 19. Mauro 19

26 For example, 1904 and 1907 fairs were constructed by the Louisianan Purchase Exposition Company. See

27 Saab, *For the Millions*, 130–135.

28 *Ibid.* See footnote 23.

29 Appelbaum and Wurts, *The New York World’s Fair, 1939/1940*, 5, 19–21, 110–111.

Competing Conceptions of Progress: The Corporation Versus the State

The understandings of progress presented at the 1939 World's Fair emphasized abstract goals driven by institutions, rather than the innovation and success of individuals. In contrast to past fairs in the United States, which embraced the American System of competitively awarding medals to individuals and exhibitors on account of their perceived merit, in 1939 there were few celebrations of individual accomplishment. Therefore, Westinghouse was not competing to win a prize for the Time Capsule itself. Instead, Westinghouse was competing for the public opinion and consumer loyalty. For companies like Westinghouse, connecting themselves to ideas of progress was the way to fairgoers' hearts.³⁰ At the 1939 fair, ideas of progress were dominated by collective entities that could not only afford to build elaborate testaments to "progress", but that were also perceived as agents of change: corporations and governments.

Corporate ideas of progress, "The Good Life" and the potential of technology were all incorporated into the 1939 World's Fair. The general corporate understanding of progress was illustrated by the idea of "The Good Life" in advertising. As later analyzed by Belk and Pollay, "The Good Life", is understood to be "an end rather than a means, and as focusing on the material rather than the spiritual world."³¹ Religious and societal emphasis on the merits of hard work and humility prevented corporations from successfully promoting explicit consumerism. However, "The Good Life" suggested that the

value of material possessions, such as appliances and automobiles, was not necessarily in the accumulation of possessions themselves, but rather in the experiences these products could provide.³²

Westinghouse's 1937 advertisement for its Model X washing machine highlighted that the company understood the value of "The Good Life" and the modernization that made it possible. Juxtaposing crude stick-figure representations of the physical work of "Wash Day" with a clean-cut picture of the washing machine, Westinghouse demonstrated the usefulness and modernity of its appliances.³³ Even the name "Model X" evoked the unknown possibilities that came from using Westinghouse products. As such, Westinghouse implied that it saw unlimited possibilities for both its products and for its customers.

Westinghouse and other companies took explicit steps to emphasize "The Good Life" at the 1939 World's Fair. E.B. White, who wrote about his experience at the fair, remarked that at General Motor's popular Futurama exhibit he could hear "the soft electric assurance of a better life – the life that rests on wheels alone."³⁴ For its part, Westinghouse also sought to show fairgoers the positive potential of its technology. While the Time Capsule was the highlight of Westinghouse's exhibit, the exhibit also included Elektro, a talking robot, and the Tower of Light, all of which served as futuristic representations of what Westinghouse's innovation could accomplish.³⁵ The exhibit also included a film about the stereotypical Middleton family, which demonstrated that Westinghouse, through its embrace of science and development of technology, would provide a plethora of middle-class post-Depression jobs. For Westinghouse and other companies, corporate progress was dependent on a link between innovation and the consumer.

Corporate materialism, however, was not the only vision of progress in the 1930s. In the aftermath of the Great Depression, the state occupied a new place in shaping the course of social change and progress. In the United States, President Roosevelt's New Deal expanded the role of government in promoting ideas of progress. For example, the creation of the Works Progress Administration (W.P.A.) in 1935, and the W.P.A.'s involvement in The Federal Art Project, propelled

30 The 1876 Centennial and the 1893 Columbian Exposition both featured competitions between individual exhibitors and companies that helped to define the industrial scientific progress featured at each Fair. Judges gave awards to individuals or companies based on their invention's perceived merit in fields as varied as farming machinery, beer and artillery. Medals, ranging from gold to bronze, or ribbons (in the case of Pabst's, a blue ribbon for its beer in 1893), were awarded on the basis of the invention, quality, utility and "fitness for the purposes intended", but notably not aesthetics or presentation. This particular process of judgment and recognition become known as the American System. In Britain and France, exhibits were not only evaluated on their function, but also on appearance. The 1933 "Century of Progress" Fair in Chicago attempted to do away with the American System. Declaring that "the competitive idea of other fairs is not in the modern spirit", organizers of the 1933 Fair sought to portray "industry for the comfort of man." As such, the focus of that fair shifted from exhibited inventions to less tangible aspirations. By 1939, the break with the American System was complete. See Bruno Giberti, *Designing the Centennial: A History of the 1876 International Exhibition in Philadelphia*, Material Worlds (Lexington: University Press of Kentucky, 2002), 154–174.; "History," *Pabst Blue Ribbon*, accessed December 13, 2014, <http://pabstblueribbon.com/pbr-history/>.

31 Russell W. Belk and Richard W. Pollay, "Images of Ourselves: The Good Life in Twentieth Century Advertising," *Journal of Consumer Research* 11, no. 4 (March 1, 1985): 887.

32 For discussion and further reading on "The Good Life" see Belk and Pollay, "Images of Ourselves."

33 Michael Golec, "Graphic Visualization and Visuality in Lester Beall's Rural Electrification Posters 1937," *Journal of Design History* 26, no. 4 (2013): 401–15.

34 E.B. White was, and still is an acclaimed author and writer. Some of his more famous works include *Stuart Little* and *Charlotte's Web*. E. B White, *Essays of E.B. White* (New York: Harper & Row, 1977), 143.

35 Westinghouse's exhibit, like many at the Fair, was highly experiential. Westinghouse built an exact replica of the Capsule for its above-ground exhibit so that fairgoers could see for themselves the Capsule and its contents. Appelbaum and Wurts, *The New York World's Fair, 1939/1940*, 60–61.

art into the realm of both social and economic progress.³⁶ In doing so, the WPA harnessed ideas of artistic expression as a way to rally Americans around the state as a bastion of change and development.

The passage of New Deal legislation involved the government in the world of businesses.³⁷ For example, legislation like the Wagner Act implied that corporations could not be trusted to ensure the rights of their employees and consumers without regulation.³⁸ While the New Deal was initially popular, its continued expansion alienated certain voting demographics. Whether it was the financial burden of welfare programs, Social Security's perceived infringement of personal liberty or the unease with President Roosevelt running for a third term, wealthy voters were becoming increasingly skeptical of government's role in assuring progress.³⁹ This shift in demographic support for the New Deal underscored the opportunity for companies to effectively promote their ideas of progress at the World's Fair. Due to the effects of the Great Depression, fairgoers who could afford the price of admission tended to be relatively wealthy. As E.B. White observed, some people of modest means found attending the fair to be prohibitively expensive.⁴⁰ As such, fairgoers were more likely to be those with the means to buy futuristic products and would be more receptive to corporate, rather than government-sponsored, progress.

The specter of government interference in science compounded growing unease regarding the New Deal. Scientists feared that increases in federal funding for scientific research would inadvertently politicize their work. In the years leading up to the fair, some scientists grew concerned that the use (or misuse) of science's credibility in populist social agendas risked confusing science with politics. Among them was physicist Robert Millikan, who argued that corporations were the better benefactors of scientific research because of their support for a laissez faire social and economic system.⁴¹ Corporations, since they had an implicit need for consumers to understand

the products that they were buying, were best able to educate the public about science in everyday life.⁴²

The Time Capsule's success was buttressed by its blend of art and technical innovation, suggesting that Westinghouse was a comprehensive source of progress, both corporate and otherwise. In keeping with the fair's aesthetics, exhibit designers, such as Norman Bel Geddes successfully convinced "large American corporations that beauty – of the Bauhaus and Art Deco persuasion – could help sell their products."⁴³ The Westinghouse Time Capsule, with its sleek torpedo-shaped design, mirrored the modern architecture of not only the Westinghouse building, but also of the fair overall.⁴⁴

Additionally, the Time Capsule paired notions of corporate progress with an embrace of neutral science. Westinghouse relied upon scientists to make the Time Capsule project politically and economically neutral, appearing to demonstrate a genuine concern for the whole of humanity. The inclusion of Millikan's letter in the Time Capsule suggests that Westinghouse had sufficiently divorced itself from politics to his satisfaction. Together, Westinghouse's pairing of science with new artistic styles in its exhibit suggested corporations were capable of advocating for both materialism and immaterial culture.

At the Intersection of Past, Present, and Future

The Time Capsule's ability to channel popular fascination with the past further enhanced its resonance with fairgoers. Popular interest in archaeology in the early twentieth century was a source of inspiration for the Time Capsule project. For example, Howard Carter's 1922 discovery of King Tutankhamun's Tomb ignited the "King Tut's Tomb' craze."⁴⁵ Carter's discovery not only captured the public's attention, but also raised the profile of archaeologists, who strove to learn about the past from its incidental remnants. Westinghouse capitalized on this interest in archeology and ancient Egypt with the Time Capsule. *The Book of Record* explained that the project's 5,000-year duration was inspired by Egypt. If Egypt had flourished 5,000 years before 1939, then people of 6939 would "think of us [1939] standing at history's midpoint."⁴⁶ Furthermore, Westinghouse contended "every age considers itself the pinnacle & final triumph above all eras that have gone before." As such, Westinghouse sought to display an inspirational optimism that 6939 would hold 1939 in the same esteem afforded ancient Egypt.⁴⁷

36 Saab, *For the Millions*, 15–17. The W.P.A not only paid artists but also taught, as A. Joan Saab explains, "the American public how to appreciate as well as create art and... [recognize] the American artist as a legitimate worker.

37 Howell John Harris, *The Right to Manage: Industrial Relations Policies of American Business in the 1940s* (Madison, Wis: University of Wisconsin Press, 1982), 178.

38 *Ibid.*, 19–22, 194.

39 As V.O. Key Jr. has argued, by the Presidential elections of 1936 and 1940, a large percentage of wealthy Democratic voters had abandoned Democratic President Roosevelt and instead voted Republican V. O. Key, *The Responsible Electorate: Rationality in Presidential Voting, 1936-1960* (Cambridge: Belknap Press of Harvard University Press, 1966), 7.

40 White, *Essays of E.B. White*, 144.

41 A personal note from Millikan was included in the Time Capsule. Peter J. Kuznick, "Losing the World of Tomorrow: The Battle Over the Presentation of Science at the 1939 New York World's Fair," *American Quarterly* 46, no. 3 (September 1, 1994): 350, doi:10.2307/2713269.

42 *Ibid.*, 360.

43 Quoted in Saab, *For the Millions*, 134.

44 Appelbaum and Wurts, *The New York World's Fair, 1939/1940*, 58–59.

45 William E. Jarvis, *Time Capsules: A Cultural History* (Jefferson, N.C. ; London: McFarland & Co, 2003), 141.

"Tomb of Tutankhamun," *British Museum*, accessed December 15, 2014, http://www.britishmuseum.org/whats_on/past_exhibitions/1972/archive_tutankhamun/tomb_of_tutankhamun.aspx.

46 Westinghouse Electric and Manufacturing Company, *The Book of Record of the Time Capsule of Cupaloy*, 5–6.

47 *Ibid.*, 4, 18.

Therefore, it was crucial for Westinghouse to consult archaeologists when selecting the Time Capsule's contents. Despite its optimistic tone, *The Book of Record* also notes that if Egypt had disappeared only to be rediscovered again, then "history teaches us that every culture passes through definite cycles of development, climax, and decay. And so, we must recognize, ultimately may ours."⁴⁸ The acknowledgement that civilization as it was known in 1939 may not survive called into question the fair's futuristic optimism. This sense of foreboding was an ever-present element of life in 1939 that was eventually accepted and incorporated into both the Fair and the Time Capsule.

Despite incorporating the past and focusing on the future, both Westinghouse and the World's Fair could not ignore the present. At the 1939 World's Fair, the legacy of World War One, the present Great Depression, and the threat of another war in Europe loomed large. Following the precedent of earlier fairs, The Fair Corporation had aggressively courted nations to participate in the 1939 Fair. From the start, political rivalries influenced which nations chose to participate. For instance, the Soviet Union was the first to agree to build a pavilion and "Western Europe, thus challenged, could not lag behind." The Fair eventually counted 60 national participants and international organizations including the League of Nations. In order to underscore the Fair Corporation's goal of demonstrating "the interdependence of all states and countries in the twentieth-century world", most national exhibits were grouped together around the Lagoon of Nations. However, worrisomely absent was Germany, which opted to save the money it would have spent on its exhibit for the possibility of war.⁴⁹

While the Westinghouse Time Capsule was buried before the outbreak of hostilities, the project addressed the general apprehension regarding the threat of another war in Europe. Given this looming threat, it is important to note that the name "Time Capsule" was not the original name of Pendray's project. Originally, the project was initially called the "Time Bomb" but Westinghouse feared public perception of the project would be clouded by memories of World War One and fears about future conflict.⁵⁰

The time capsule also included three personal letters to the future—written by Robert Millikan, Thomas Mann and Albert Einstein—all incorporating a similarly fatalistic approach to the present, especially regarding war. Millikan wrote that, "[a]t this moment...the principles of representative ballot government...such as are represented by the governments of the Anglo-Saxon, French, and Scandinavian countries, are in deadly conflict with the principles of despotism... If the reactionary principles of despotism triumph now and in the future, the future history of mankind will repeat the sad

story of war and oppression as in the past." Mann built upon this pessimistic sentiment by stating that "the hopes we center on you, citizens of the future, are in no way exaggerated." Finally, Einstein summarized the sense of inevitable doom by explaining "people living in different countries kill each other at irregular intervals, so that also for this reason anyone who thinks about the future must live in fear."⁵¹ With this unparalleled opportunity to speak to the people of 6939, these men chose to reinforce the present threat of war. Einstein, however, ended by writing "I trust that posterity will read these statements with a feeling of proud and justified superiority." By ending with a line that chided the present, but that also represented an optimistic view of the future, the Time Capsule clung to the fair's idealistic interpretation of the future.

Westinghouse preemptively addressed this anxiety about the prospect of war by returning to archaeology. If the Earth could protect the remains of ancient Egypt, then the Time Capsule would also be safe underground. Thus, Westinghouse's decision to bury the capsule was rooted in an almost obsessive desire to protect the Time Capsule and, by extension, the present. One of Westinghouse's primary concerns was "thieves or persons whose curiosity is greater than their sense of obligation to the future."⁵² This concern is evidenced by Westinghouse's belief that burying the Time Capsule 50 feet below ground in a sealed shaft would make removal prohibitively expensive and that this depth would protect it from anything on the surface.⁵³ The Time Capsule had been buried in order to protect it from 5,000 years of danger. Safely underground, the Time Capsule offered the hope and the assurance that life—particularly the American way of life—in 1939 would not disappear from the pages of history.

As the fair progressed, Westinghouse's precautions seemed not only reasonable, but also reassuring. As nations fell to Nazi Germany, their respective pavilions were draped in black cloth. The visual change to the exhibits brought the abstract idea of the European conflict directly to the Fair. Furthermore, the bombing of the British Pavilion on July 4, 1940—supposedly by Nazi sympathizers—shattered the fair's thematic separation from the present.⁵⁴ As such, the Time Capsule resonated with the public because its implicit importance was reinforced by current events. Furthermore, because governments seemed destined to fight yet another destructive war, Westinghouse, rather than national governments, became an institution that could be trusted to act responsibly in the best interests of the future.

48 Ibid., 5.

49 Appelbaum and Wurts, *The New York World's Fair, 1939/1940*, xii.

50 Hyman and McLelway, "Onward and Upward with Business and Science," 198–200.

51 Westinghouse Electric and Manufacturing Company, *The Book of Record of the Time Capsule of Cupaloy*, 46–49.

52 Westinghouse Electric and Manufacturing Company, *The Story of the Westinghouse Time Capsule*, 7.

53 Westinghouse also commissioned a study by the U.S. Coast and Geodetic Survey to combat "the common notion" that the East Coast was sinking. The Time Capsule was found to not be at risk from rising sea levels.

54 Mauro, *Twilight at the World of Tomorrow*, 291.

The Time Capsule and Its Precedents

While the Time Capsule was innovative and intriguing for its contents, its duration and means of preservation, it was not the first modern attempt to preserve the present for the future. As William Jarvis explains, a time capsule can be loosely defined as any “effort to portray the contemporary present culture...to future recipients of that message carrying device.”⁵⁵ A more strict definition (using the Time Capsule as the basis for its own categorical definition) would require time capsules to be “deliberate deposits targeted for future recipients” with the target date “set at the time of their initial deposit.”⁵⁶ Given this definition, the 1876 Century Safe and the 1900 Detroit Century Box can be considered predecessors of the Time Capsule. However, the Time Capsule was so inherently different from these proto-capsules that it firmly established the general cultural interpretation of what constituted a “true” time capsule.

The Century Safe, which debuted at the 1876 Centennial in Philadelphia, was the first proto-capsule. The Century Safe, directed and donated by Mrs. Charles Diehm, was dedicated to U.S. civil servants. Its target date was the 1976 U.S. Bicentennial at which it was to be opened by the Chief Justice of the United States. When the Safe was finally sealed in 1878, it contained a signature book, a book on temperance, a list of 300,000 government workers and the pens used to sign the enclosed autographs.⁵⁷ The focus of the Century Safe was on the individual. Its collection of written sources and its use of a secluded location set a precedent for the Detroit Century Box.

The Century Box was similar in style and scope to the Century Safe. Much like the 1876 Box, this deposit was the brainchild of one person, Detroit Mayor William Maybury. The Box featured letters from Detroit citizens and was sealed in December, 1900 to be opened in January, 2001. In his handwritten letter to the future mayor of Detroit, Maybury mentions the economic and technological progress of the nineteenth century. However, he emphasizes that the “the papers in this box will bring...a correct knowledge of present conditions, and possibly words more or less, prophetic of the future. How correct our prophecies may prove we know not, for we write them with hesitation and doubt, but yet with hopefulness.”⁵⁸ The Century Box,

much like the Century Safe, relied on written sources and was designed to last for 100 years. However, the Box’s optimism for the future, as well as information about Detroit in 1900, was an important development that inspired future projects.

While the 1939 Time Capsule incorporated some elements of these two predecessors, its differences signaled a transition to a “new” way of defining a “time capsule”. Though the Time Capsule contained written sources (on microfilm) and three personal letters, it emphasized a representative collection of artifacts that reflected almost all facets of life in 1939. The Time Capsule’s scope was beyond that of either the Century Safe or Century Box, while also emphasizing institutions, not individuals. As such, the Time Capsule reflected a different set of priorities and resources. While Diehm’s Safe sought to honor public service and the Detroit Box emphasized individual conceptions of the future, the Time Capsule was concerned with preserving the present and serving Westinghouse’s business priorities. Lastly, the Time Capsule transcended a single lifetime, a single millennium and quite possibly a single civilization. The Time Capsule project’s unprecedented nature called into question the function and representation of time in the twentieth century⁵⁹.

Understanding the Past, Present and Future through the Time Capsule

Situated in the present, the fair’s “World of Tomorrow” bore the marks of the circumstances in which it was produced. It was nearly impossible to envision and demonstrate future change at a venue like the World’s Fair, unless it was already feasible within the bounds of current technology and understanding. The future was potentially disconcerting because it had the potential to be completely alien to those living in 1939. Even the changes proposed at the fair were unsettling to fairgoers. When confronted with a display of apple trees growing underneath glass canopies, E.B. White proclaimed “The apple tree of Tomorrow, abloom under its inviolate hood, makes you stop and wonder. How will little boy climb it? Where will the little bird build its nest?”⁶⁰ The Time Capsule, with its collection of familiar items, allowed for a projection of the present into the future in such a way that the unknown became reassuring.

The Time Capsule’s timespan and internal contents successfully altered the conceptualization of the future which consequently altered the conceptualization of the present.⁶¹ Instead of focusing on potential experiences

55 Jarvis, *Time Capsules*, 19.

56 *Ibid.*, 13–16, 46.

57 “Congress Warming To a Long-Held Gift Of 1876 Mementos,” *New York Times*, October 18, 1974, <http://search.proquest.com/hnpnewyorktimesindex/docview/119968067/abstract/BD50F1AE4374460BPQ/2?accountid=15159>.

58 William Maybury, “Letter from William Maybury, December 31, 1900,” *Detroit Historical Society Digital Collection*, December 31, 1900, [http://detroiths.pastperfect-online.com/33029cgi/mweb.exe?request=field;fldseq=67523.11,12\]\]}\]](http://detroiths.pastperfect-online.com/33029cgi/mweb.exe?request=field;fldseq=67523.11,12]]}])],”schema”:”https://github.com/citation-style-language/schema/raw/master/csl-citation.json”}

59 The Crypt of Civilization project, although started before the Time Capsule, is generally considered to come after the Time Capsule because the Time Capsule was sealed in 1938 while the Crypt was sealed in 1940. Jarvis, *Time Capsules*, 7, 156.

60 White, *Essays of E.B. White*, 143.

61 For more information on the dichotomy of time and change,

of the future, the Time Capsule asked the present to reflect on itself. The very nature of the Time Capsule suggested that society would advance in a linear fashion, building upon the technological knowledge of the 1930s. However, because 6939 was five millennia removed from 1939, it was safe to suggest that whoever might discover the Time Capsule might live in a world so different from the present that it would not, could not, be comprehensible to the present. The explicit suggestion that the present civilization would collapse, and yet still survive through the Time Capsule, was reassuring in the face of a tumultuous twentieth century.

Thus, through its moderation of time, the Time Capsule redefined how time should be comprehended. Departing from an individually centered conception of time, the Time Capsule asserted that it did not truly matter, in 5,000 years, *who* lived but *how* they lived. If the past could be reconstructed using “things”, then the present owed it to the future to demonstrate what life was like in 1939 through objects that could both carry meaning across time and inspire curiosity and fascination. Time was not an abstraction; it was manifest in the material present.

The Time Capsule’s lasting effect on the modern understanding of time is demonstrated through the subsequent popular expectation that artifacts serve the role of “time capsules”. In 1976, the Century Safe was opened to a muted reception. It provided few insights into how people lived in 1876. However, its opening set off a time capsule craze. As detailed by the *New York Times*, people began burying everything from cars to suits in the ground in the hope of leaving some trace of themselves in the Earth to be recovered at a future date. It is remarkable that, for individuals in 1976, the preservation of their own personal legacy was not their name in a signature book, but, in the case of one person, in their buried Chevrolet.⁶²

Additionally, “time capsules” from the nineteenth century (and even the eighteenth) dominate twenty-first century headlines. For the press, it is irrelevant that the capsule discovered in the head of a lion statue at Boston’s Old State House or the capsule supposedly left behind by Paul Revere in Boston, are not technically “time capsules”. It is irrelevant that they lack a designated opening date or had no instructions on how or where to retrieve them. It is irrelevant that these deposits are probably just modern

examples of the ancient tradition of enclosing within the cornerstone of a building or statue some record of those who built it.⁶³ By defining a “time capsule”, the Westinghouse Time Capsule did not just create a new category of items known as time capsules. Rather, the words “time capsule” became synonymous with a sense of connection to the past. The Time Capsule’s lasting legacy was its ability to demonstrate that physical objects could manifest this connection to the past, regardless of the original intentions of their preservation.

The 1939 Westinghouse Time Capsule was the product of the World’s Fair and the confluence of different motivations, desires, and concerns that dominated the late 1930s. In a fair that focused on the future, the Time Capsule merged the present and a fascination with the past into a project that went beyond an imagined view of the future and provided a tangible, intentional, contribution to the future itself. The intense competition between corporations in their drive for innovation and progress gave rise to the Time Capsule. Built as a supposedly scientific project designed to preserve life in 1939 for future generations, the Time Capsule was also a celebration of corporate ingenuity and technological innovation. The Time Capsule was designed as a public relation stunt, yet succeeded in ways Westinghouse never intended. Besides helping to reverse Westinghouse’s fortunes, the Time Capsule resonated with the public, combining a fascination with archaeology with the worries of the immediate future. Despite the threat of war, the Time Capsule offered hope that not only would material remnants of present survive, but also that civilization might learn from the mistakes of the twentieth century. Thus, in a tumultuous period dominated by corporations and national governments, the nature of the original Time Capsule was the result of its own overarching circumstances. The Time Capsule’s effect on the modern understanding of time, the past, and the present’s responsibility to the future is still felt today whenever a new “time capsule” is buried in the ground.

and their respective cyclical and linear components see Stephen Jay Gould, *Questioning the Millennium: A Rationalist’s Guide to a Precisely Arbitrary Countdown*, Rev. ed (New York: Harmony Books, 1999). As part of Gould’s analysis, he explores the role of countdowns and millennia in Western conceptions of time.

62 Benjamin Franklin, “Bicentennial Opens Up New Interest in Time Capsules: Bicentennial Time Capsule a New Rage,” *New York Times*, June 21, 1976, <http://search.proquest.com/hnpnewyorktimesindex/docview/122861797/abstract/CD3780C51E4C4AA3PQ/1?accountid=15159>.

63 Jarvis, *Time Capsules*, 86–87.

Susanna Kim, “Why Baltimore Is Hesitant to Open 1915 Time Capsule,” *ABC News*, October 30, 2014.

Kevin Conlon, “Paul Revere’s 1795 Time Capsule Unearthed,” *CNN*, December 12, 2014.

Kiera Blessing, “Old State House Time Capsule Opened; Contents in Fine Condition,” *BostonGlobe.com*, October 15, 2014.