Prototype Script for Climate Interpretation in The Elms Audio Tour

Excerpt from "Soot in the Mortar: Climate Crisis Interpretation at The Elms"[1]

Aislinn Pentecost-Farren, May 2022

One way to introduce climate origins interpretation at The Elms is to add information to the existing audio tour for the site. The Preservation Society of Newport County offers its primary public tour of The Elms as an audio-only tour through a smartphone app, which is included with the price of admission (there is also a twice-daily tour of the Servants' Quarters on the top floor and working areas in the basement, which is docent-delivered).[2] Twenty-six primary audio-tour stops lead visitors through each room and the major areas of The Elms. Each stop includes 1-4 secondary stops that engage with specific objects or stories in that area. Visitors can listen to the stops in the suggested order or in any order they wish, navigating the stops using a list or a map of The Elms. The stops are brief, lasting about two minutes or less.

Because of the tour's modular form, adding new content is possible without re-recording the existing audio - perhaps it was designed to facilitate additions. My proposed interpretation below adds new secondary stops to several existing primary stops, and proposes a new primary stop in the sub-basement of The Elms, which is not currently included in the audio tour. For additions to existing stops, I have included an overview of the primary stop to provide context for my proposed additions.

Because this Appendix is intended to stand-alone as a sample script for additions to the existing audio tour, the script will be repetitive for readers of the entire thesis. The proposed stops do not encompass all the research included in the thesis, nor do they approach the full potential of research that can and should be done. These new stops present a sample of climate connections that can be made for The Elms visitors as proof of concept. There are no current plants to implement this script at The Elms, but the intent is for the Appendix to be a resource for The Elms' staff and stakeholders to facilitate consideration of climate change interpretation for visitors.

<u>House Entrance</u>

Welcome (*Existing Primary Stop)*

The first stop on The Elms tour introduces Edward Berwind and the prominence of his business:

> "Welcome to The Elms, the 1901 summer home of Edward Berwind and his wife, Herminie. I'm Monty Burnham, chairman of the Board Trustees of the Preservation Society of Newport County. The name Berwind might not be as familiar a name as other titans of industry, such as Vanderbilt and Astor, but in the Gilded Age, Philadelphian Edward Berwind was the merchant-prince of coal. Berwind coal fueled the Vanderbilt railroads, the New York subway, and the United States navy. The Berwinds' new cottage cost 1.4 million to build, about 28 million today, all for a house only used 8-12 weeks of the year."

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[1] Aislinn Pentecost-Farren, "Soot in the Mortar: Climate Crisis Interpretation at The Elms," *Theses (Historic Preservation)*, August 8, 2022, https://repository.upenn.edu/hp_theses/730.

[2] The Preservation Society of Newport County, "Newport Mansions," Apple App Store/Google Play, Version 3.7. (2021), https://www.newportmansions.org/plan-a-visit/audio-tours

The audio goes on to relate the story of The Elms opening as a museum, "3 weeks after its date with the wrecking ball."

Berwind's Success and Our Climate Today (*Proposed Secondary Stop)*

Where did the money to build The Elms come from? Berwind made millions because he capitalized on a major shift in American society -- the expanding use of coal, for everything from manufacturing, to transportation, to home heating. Around the time Berwind entered the coal business, American coal companies mined 80 million tons of coal. By the time he built The Elms, coal mining had almost quadrupled.

The explosive growth of coal fueled Berwind's business and financed The Elms. But the impacts of the coal boom can also be seen on the global climate. During the same period in which Berwind established his business, the carbon in the atmosphere accumulated at an exponential rate. This carbon is now a significant contributor to the current global climate crisis.

To learn more about Berwind's business and climate, make sure to visit the miniature coal train in the Elm's basement, featured near the end of the audio tour.

(1 minute)

<u>Berwind's Library</u>

Library *(Existing Primary Stop)*

The third stop on the tour takes the visitor into Edward Berwind's library. The tour discusses the masculine Renaissance Revival aesthetic of the room in the context of Berwind's business success. The tour states that the measure of a Gilded Age man was making his fortune through "individualism, hard work and discipline." The tour points out that "he died a millionaire during the depression. He knew how to run a business and make money. So, in a time when showing your wealth was the measure of your success, he certainly made an impression." This picture of Berwind's affluence is a poignant contrast to the interpretation possible around the 1936 Tiffany & Co. Anniversary Medal displayed on Berwind's desk.

The proposed secondary stop for this room also incorporates an object not yet on display at The Elms -- the Letter from the Coal Miner's Daughter. I suggest that the letter be encased in a protective display so that it can be read by visitors on Berwind's desk next to the medal. Alternatively, a scanned copy of the letter could be displayed, which could be handled and easily replaced. If displaying the letter is not possible, the corresponding lines of the script can be edited out.

Medal for Mining Heroes (*Proposed Secondary Stop)*

On Berwind's desk is a small medal in a gilded frame. This commemorative medal was issued by Tiffany & Co. on the 50th anniversary of the Berwind White Coal Mining Company. The medal depicts a miner who appears to be contemplating a lump of coal while rays of light glow around him. The design portrays the miner as a hero, with a muscular, naked torso, crouched in a pose reminiscent of Classical sculpture.

In reality, coal miners were rarely treated like heroes. Mining was difficult and dangerous work. In the late 1800s, miners were paid according to the weight of the coal they mined, not the time they spent at work. Any precautions they took were on their own time, which did not encourage safety. Between

1880 and 1923, more than 70,000 miners died on the job. They died in mine collapses, gas explosions, and machinery accidents.

They also suffered from black lung disease caused by breathing coal dust for years in the mines. On Berwind's desk near the medal is a hand-written letter, left at The Elms after it opened as a museum. The author's father died from black lung after working in one of the Berwind-White coal mines. In response to safety issues and others, coal miners formed unions during the early 1900s at an unprecedented rate, using strength in numbers to demand better working conditions and pay.

Berwind's success depended on his ability to manage the demands of miners. He needed to keep miners working without increasing his costs. The widespread use of coal depended on its low cost. If Berwind raised prices, customers might purchase less. Berwind's business predicament reinforces that the coal boom depended on cheap labor. Without exploiting coal miners, coal may not have been inexpensive enough to be widely adopted. Without coal, our world and our climate would look very different today.

This medal was manufactured as a collector's item, and likely not presented to a miner.

(2.03 minutes)

<u>Heating Grates</u>

Stair Hall (*Existing Primary Stop)*

An introduction to the second floor discusses the numbers of bedrooms, and the weeks of work required to ready The Elms ready for the Newport season.

Stairwell Heating Vents (*Proposed Secondary Stop)*

If you look down from the top of the stairs, you'll see two large rectangular heating vents on the wall by the landing. These vents were designed for The Elms by the studio of Berwind's renowned interior decorator, the French art dealer Jules Allard. Allard oversaw each element of The Elms' interiors, including what we might see as everyday utilitarian details like heating vents. The basket-weave pattern with tiny flowers you see here is repeated in different shapes and sizes on many heating vents throughout the house. The vents connect each room to hot air chambers warmed by the coal-fired furnaces in The Elms' basement. Berwind used three coal-fired furnaces running simultaneously to ensure that The Elms was comfortable.

Berwind made his fortune from the coal boom in the late 1800s and early 1900s. Prior to the time of Berwind's business, most of the energy generated in the Unites States came from wood burning and waterpower. As the year 1900 approached, the United States transformed into a coal-powered country, and Berwind was one of the biggest names in the business. Coal also fueled a dramatic rise in carbon emissions. By the time The Elms was built, carbon in the earth's atmosphere was increasing exponentially. The first recorded rise in global temperature caused by fossil fuel emissions was recorded in 1938, just two years after Berwind's death. Berwind lived during and profited from the origins of the climate crisis, exacerbated by the coal business.

At first glance, nothing at The Elms seems to reveal its financial background or connections to the origins of climate change. However, thanks to the heating system, coal determines the climate in every room. Today, The Elms is heated with oil, but the Preservation Society of Newport County is looking into converting it to geothermal heating like several of its other mansions, which would be more sustainable.

(1:55 minutes)

Coal Storage Room, Coal Carts, and Coal Tunnel

Coal Underneath The Elms (*Proposed Primary Stop)*

Walk down the basement passageway, past the kitchens and the visitor bathroom. At the end of the hall is a door that leads to a narrow metal staircase into the sub-basement. Descend the stairs and walk through the doorway directly in front of you at the bottom.

Just as a booming coal industry was beneath Berwind's wealth, an enormous coal-fired heating system was beneath his mansion. The miniature railway you see here shuttled coal into the storage room through a tunnel under The Elms' garden. The far end of the tunnel opens with a trap door to the sidewalk, where coal deliveries were unloaded. Records suggest that The Elms architect Horace Trumbauer employed a miniature train system because Berwind did not want coal or ash to be spilled in the garden. It is ironic that a man whose fortunes relied on coal did not want its dirtier characteristics to be visible from his windows.

Berwind's fortunes were not the only thing that relied on coal. Today's global climate crisis, which accelerated during the period of Berwind's business, also has its origins in the coal boom. England, and then the United States, led the world in converting to coal energy, which laid the foundations for increased pollution and the climate disruptions we face today.

Listen to the other stops in this section of the audio guide to learn more about Berwind's business, the climate crisis, and the small train in this basement.

(1:25 minutes)

Miniature Trains, Enormous Gains, and Climate Change (*Proposed Secondary Stop)*

The wheeled carts in this room are original parts of The Elms' miniature railway. They were manufactured by C.W. Hunt, an engineering firm in New York that made transportation machinery for factories and mines.

These carts were pushed by hand. Rounded knobs at the top corners were advertised as comfortable to grip. Tracks under the wheels allowed easier pushing when the carts were full. The door on the end hinges downwards to form a chute that allows the person unloading the cart to shovel coal without having to reach over the upper edge.

During Berwind's day, the coal industry and the rail industry depended on each other. Coal fueled train engines and the furnaces that made the rails. Rail companies purchased coal to power trains and made it possible to bring coal from remote mines to urban customers. Berwind bought rail company stock and joined railway boards, so that he could influence the industry to benefit his coal business.

Railways and coal mining are intertwined with the history of climate change. As Berwind's story shows, rail was a major factor in creating both the demand for and access to coal that drove America's shift to coal power. This expanding use of coal generated some of the original carbon emissions responsible for changing our climate today.

(1:20 minutes)

Burning Berwind's Coal (*Proposed Secondary Stop)*

Follow the small gauge train track through the arched doorway to the boilers, the core of The Elms' central heating system. Three large boilers ran simultaneously to heat The Elms. The boilers burned coal to heat water for steam, which was piped throughout the house. However, instead of heating radiators inside the rooms, the steam heated a radiator in a chamber hidden underneath each room. This prevented heating elements, such as radiators, from detracting from a room's elegant appearance. Air warmed in the hidden chamber then rose into the room via gravity through decorative vents designed by Jules Allard.

Most homes in this period did not have central heat, and instead burned coal in individual heating stoves in each room. The boilers you see here are more like ones used in large institutions and factories, not in private houses. In Berwind's time, using coal to power a factory was relatively new. Most factories in the United States used waterpower until the 1870s. Manufacturers damned rivers and streams to push water wheels or turbines that powered machines. Waterpower was cheap, safe, and relatively easy to access on the many waterways of the United States.

However, it was harder to find workers in the countryside, and waterpower was unreliable - freezing, droughts, and flooding could interfere with production. Coal power allowed factories to relocate to cities, where there was cheap labor, independent of location near a waterway, that was reliable year-round. When companies like Berwind's made coal widely available at a low price, factories made the switch. The rising percentage of carbon in the atmosphere during Berwind's lifetime was partially due to factories switching from waterpower to coal boilers like these. Imagine the black smoke that must have puffed out of The Elms' chimneys.

(1:45 minutes)

<u>Conclusion</u>

Conclusion and Goodbye (*Existing Primary Stop)*

The final stop of The Elms' audio tour thanks the visitor and invites them to take the Servant Life Tour. Then, before giving them directions out of the building, it encourages them to get involved in preservation wherever they live:

> "Your ticket contributes to directly to the preservation of this great house for its next century of life. Saving such a house was a great financial risk at the time, but as you've seen, it was worth the effort. Near where you live, there may be historic houses and open space threatened by development. It took the concerned involvement of only a few people to save this historic house. You may be able to make the same difference in your hometown as well."

Culture, Wealth, and Coal at The Elms (*Proposed Secondary Stop)*

Preserving The Elms allows visitors today to glimpse the splendor of Newport's Gilded Age – from art and architecture, to lifestyle, to the hidden labor that kept the house running smoothly. Preserving The Elms also gives visitors the opportunity to ask how such an incredible home came to exist in the first place. Because of Edward Berwind's coal empire, The Elms is a symbol of economic and social forces that enable wealth to concentrate in the hands of a few, and create catastrophic change in our planet's climate. The climate crisis is caused not only by the unsustainable choices of individuals, but by an economic system that makes better choices very difficult. It prioritizes massive profit for winners such as Berwind – and his contemporary counterparts – the kind of wealth visible at The Elms. Solving the

crisis requires not only mitigation of the effects but a shift in our economy and society. By preserving The Elms, we preserve a reminder of what needs to change to ensure the survival of the planet.

(1:05 minutes)