Architectural and Historical Information on Daniel Wesson's White Cliffs Mansion in Northborough



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Attached is a report on the Daniel B. Wesson Mansion (White Cliffs) in Northborough Massachusetts. It contains architectural information along with information regarding Mr. Wesson, the Smith & Wesson Company and the advanced water system he built to support the water features used on this property.

1) Architectural Overview

The Shingle Style of architecture of the Victorian Era is considered by some architectural historians (Vincent Scully) to be the first truly American architectural style, rooted in the geometry and details of the Colonial period. We do know that Wesson hired Bruce Price to design a house for him in Springfield after completion of White Cliffs. Price was a New York architect, mostly remembered for his design of Tuxedo Park, north of NYC and Chateau Frontenac in Quebec City. We also know that Daniel Wesson hired Calvert Vaux to design a house in Worcester for his daughter and her new husband, Dr. Bull, several years before the construction of White Cliffs. Vaux was a partner of Frederick Law Olmstead during the design and construction of Central Park in NYC. Although the architect for White Cliffs has not been identified (we are still looking for this information), it is highly probable that Wesson hired an architect versed in the Shingle Style.

After the deaths of his wife's parents, Daniel B. Wesson (of Smith & Wesson fame) agreed to his wife's request that they build a summer home at her childhood address. This mansion was built when he was 61 years old and completed in 1886. It contained elaborate carvings, stained glass windows, gas lit chandeliers, 17 fireplaces and 32 rooms. European craftsmen were brought in for the construction. It was said that each room was made of wood from a different part of the world with furniture to match. After the completion of the mansion the Wessons came to Northborough every summer until about 1901, when their health began to fail.

Recent Architectural Descriptions of the Property

Mr. Tom Reardon of Benoit and Reardon Architects, Worcester MA (2015)

One of the distinguishing features of the Shingle Style is that the importance of the individual interior spaces is reflected in the scale, placement and type of the exterior windows. Also, the flowing interior space is mirrored in the continuous use of wood shingles on both the walls and roof. A well designed Shingle Style house is completely integrated both inside and out. The White Cliffs does exhibit many of the stylistic features of the Shingle Style, most notably the continuous application of wood shingles on the roof and exterior walls; the banks of windows on the exterior; towers, bays and recessed porches; varied patterns of wood shingles; a spacious entry hall; stained glass windows and Japanese influenced millwork details. The well preserved interiors are also excellent examples of the late Shingle Style.

Mr. Bruce Cloutte of Public Archaeology Survey Team, Inc. (PAST), Storrs, CT (2009)

Even with alterations, the Wesson mansion stands as the most elaborate house in Northborough from the Victorian period, an excellent example of the asymmetry of form introduced as part of the Queen Anne style. Other defining characteristics of the style abundantly evident in the house include richly detailed chimneys and variegated exterior materials, including wood shingles in an impressive range of patterns.

Ms. Pauline Chase-Harrell of Boston Affiliates, Boston MA (2008)

The dominant white painted asymmetrical cross gable Queen Anne structure is two and a half stories with several additions. A large two and one half stories flat roofed tower dominated the south main façade and it also mimicked on the rear of the house. Two patterned masonry chimneys, one on the main façade and one on the side further emphasize this dramatic building. To the west is a projecting single bay with an upper porch supported by decorative columns with brackets. A spindle balustrade and decorative shingles on the tympanum further embellishes it. Many of the windows throughout have decorative stained glass with small panes surrounding larger panes. Decorative shingles clad much of the house in addition to wood clapboards.

Mr. Brian Smith of Northborough, MA (in 1994 Video on White Cliffs)

White Cliffs is a marvelous example of late Victorian architecture, describe as "consisting of highly irregular plans, discontinuous asymmetrically masked forms and the manipulation of surfaces with varied textures. Roofs were high and punctured by many variously shaped dormers".

Exterior Architecture

The current exterior of the White Cliffs mansion will be compared to the description of the "Shingle Style" architecture as described on the Wentworth Inc. website. The numbers reference photographs of the architectural details remaining on the building today. (http://www.wentworthstudio.com/historic-styles/shingle/)

Overview

Appearing on the American scene between 1880 and 1900, the Shingle Style is distinctly American in its wood construction typically blending into natural surroundings. The houses were often built on stone foundations that seem to emerge from bedrock (1). Thus, the massive, horizontal structures appeared to hug the ground. Porches (2a), balconies (2b), and large windows (2c) encouraged a tactile interaction with the out-of-door. Developed in New England, the style was most popular in seaside resorts. Although indisputably of American origin, the Shingle Style borrowed liberally from other Victorian styles. Its porches, shingles, and asymmetrical forms (3), for example, were from Queen Anne. Shingle Style's informality and eclecticism was a clear expression of American individualism. Freedom of design was encouraged; asymmetry was preferred. Architects handled proportion and architectural details as sculptural compositions.

Characteristics

In contrast to the other Victorian-era styles, Shingle Style de-emphasized applied decoration and detailing in favor of complex shapes wrapped in cedar shingles (4a). Its few decorative details (4b) tended to enhance the irregularity of the construction, with the shingles tying the diverse forms together.

Materials

Roofs and walls were covered in shingles, which could be stained, painted, or allowed to weather naturally, depending on the weather and location. More expensive homes had rough-hewn stone foundations and even stone porch columns and stone walls for the first floor (5).

Roof

Complex roof forms were common. Gables (6a) were usually arranged asymmetrically, although paired or symmetrically arranged cross gables were not unheard of. Dormers (6b) were sometimes used to add visual complexity to the roof. The most common dormer was the gable, although the careful observer can find dormers with hip roofs, shed roofs, eyebrow windows, polygonal shapes, and curved tops.

Towers

About a third of Shingle Style homes had towers (7), with tower roofs often blended into the main volume of the house to form a continuous roofline.

Windows

Shingle Style houses had numerous windows, some of ample proportions (15a), some rather small (15b). The typical double-hung window was commonly arranged with a single-pane sash at the bottom and a multipane sash above (15c). For large wall areas, windows were arranged in rows of two, three, or even more (15c). Transoms or decorative windows in round, square, or rectangular shapes were also used (15f).

Entrance

Most Shingle Style homes had porches (8), possibly because people actually had the time to relax on them. Porch supports were often plain with simple straight balusters used for railings. Other support options were classical columns, shingle-clad columns, or stone supports. All porch designs related in some way to the adjacent wall or trim material.

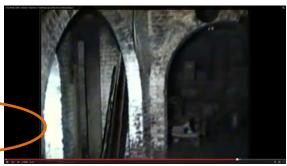
1) Natural Surroundings

The mansion is located on a bluff overlooking the Old Boston Post Road and the Assabet River. The building sits on a height of land 340 feet above sea level adjoining a rock outcrop that rises to 350 feet. At this location it is 100 feet above and 725 south of the Assabet (an original boundary line) and 30 feet above Main Street (Rt.20, Old Boston Post Road).









Top Left: Northborough GIS map showing elevations and distance to the Assabet River

Top Right: Mansion view from the main road showing its elevation

Bottom Left: Ledge is seen in this early photo, it still exists but is now overgrown with brush

Bottom Right: Basement support system of large brick arches (from 1994 Video)

2a) Porches

The original porches on the building are not lost, they have only been enclosed. Many of the architectural details of the porches still remain within the enclosures. Two porches are shown below.



Top: Original south facing porch construction

Left Center: Enclosed porch showing remaining details of the architecture

Right Center: Enclosed porch showing the original stonework

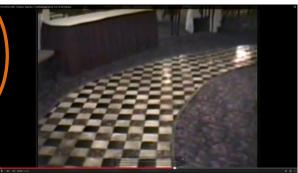
Bottom: Closeup of detail









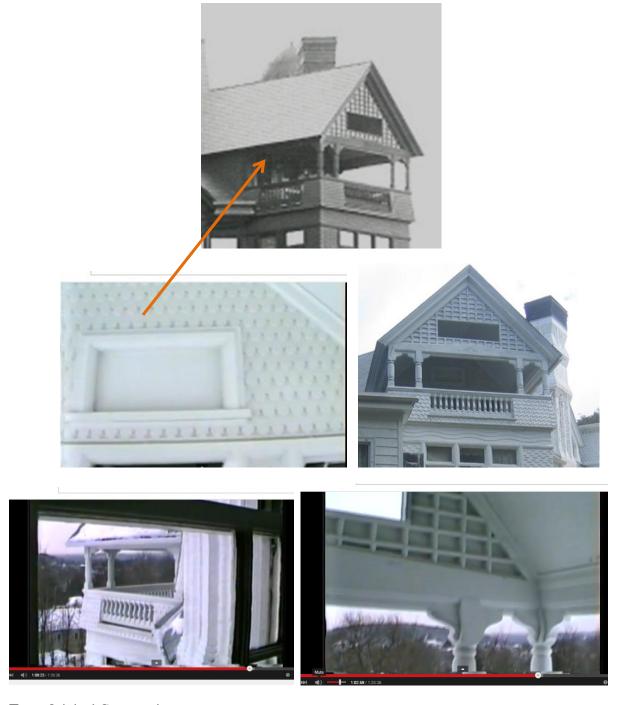


Top: Original large porch construction **Left Center:** Enclosed porch showing remaining details of the architecture **Right Center**: Enclosed porch showing the original exterior stonework

Botton Left: Showing original brick work and arch details

Bottom Right: Showing original tiled porch floor

2b) Balcony



Top: Original Construction

Other Photos: Other than a coat of white paint, all the balcony details remain including the cedar shingle designs, the banister and balusters and posts as seen from both on and off the porch..

2c Large Windows









Top Left: Banks of large windows on the ground and second floor of south facing tower

Top Right: large windows below the upper balcony

Bottom Left: Set of three large windows on the ground floor containing stained glass

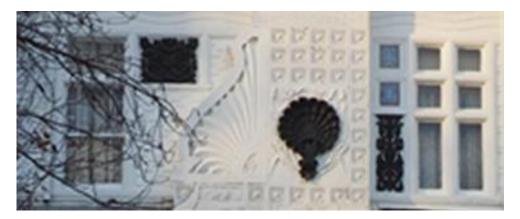
Bottom Right: Large Tower Windows as seen from the interior

3) Asymetrical Forms









Top: The overall design of the building is asymetric as shown by the relationship between the towers, porches, windows and chimneys

Other Photos: Notice the variety of asymetric window designs around three different large chimenys

4a) Shingles













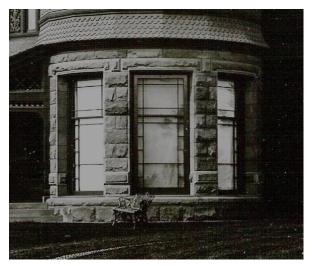
There are three basic shingle designs see on the exterior walls; wavey, staggered and scale. These photographs show that the original designs are intact on many sections of the exterior.

4b) Decorative Details



Decorative features remain from the original construction. They are primarily painted black today. All chimineys have decorative stonework, three are shown.

5) First Floor Stone Walls







The first floor of the two towers are all constructed with stone. **Top Left:** The Original South Tower **Top Right:** Current Painted South Tower **Bottom:** Current base of the Northwest Tower (now enclosed)

6a) Gables







Three of the gables present on the building today

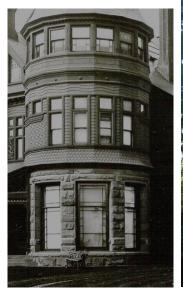
6b) Dormers





The dormer is still present on the south facing roof.

7) Towers









Both Towers still remain. The South facing tower is nearly complete. The first floor of the Northwest tower is now enclosed within the banquet hall. The original dome roofs were replaced prior to 1940.

Top: South Tower

Bottom: Northwest Tower

8) Entry Way







As with the porches, the main entryway was not destroyed during renovations in the 1960's, it was enclosed.

Top: Details of the original entryway architecture can still seen in todays enclosed entryway. Also, the original exterior doors remain.

Bottom: The original entryway

9) Walkway



An original walkway remains from the original construction

Interior Architecture

When completed, the White Cliffs mansion contained elaborate carvings, stained glass windows, gas lit chandeliers, 17 fireplaces and 32 rooms. It was said that each room was made of wood from a different part of the world with furniture to match. Examples of the current interior are given with the reference numbers below.

The Shingle Style Interior Architecture of the late 1880's has several distinct characteristics. A prominent one is a large front lobby with a grand staircases, fireplace and built in staircase benches (IA-1). There is an open floorplan (IA-2) with the formal areas off the main lobby. Raised wood panneling in the formal rooms are common (IA-3). These may be maple, mahogeny or oak and may reach to the ceiling. Elsewhere beadboard and battens may be found (IA-4). Parlors may be done in European styles whereas dining rooms, staircases and mantels could be in a Colonial revival style. The millwork (IA-5) and metal working would be ornate and very detailed (IA-6). Stained glass windows are common (IA-7) along with elaborate fireplaces (IA-8) and ornate ceilings (IA-9).

IA-1) Front Lobby





The entryway opens into a large paneled lobby.

Left: Facing the entryway, one can see the ceiling, woodwork and large opening into the room on the left.

Right: Facing the Fireplace, one can see the grand staircase leading to the second floor, the ornate fireplace and the warming bench near the fireplace.

IA-2) Open Floor Plan









The open floor plan is exhibited by the large entryways between the different rooms.

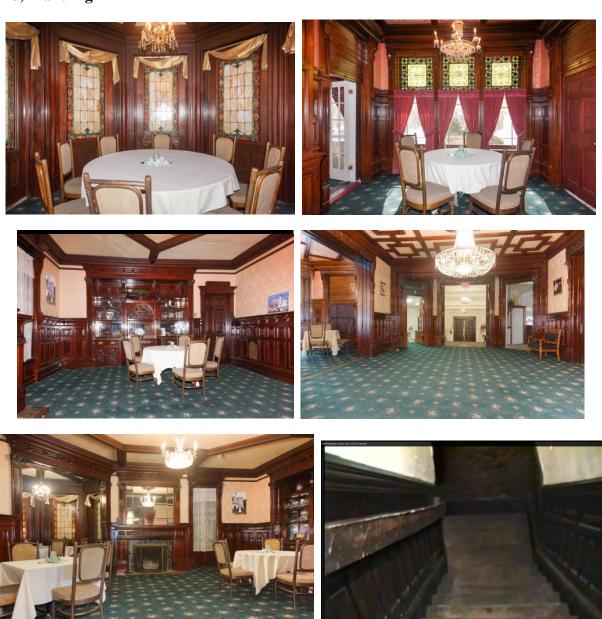
Top Left: Between the Lobby and the Dining Room

Top Right: On the second floor between the Main Hall and a Tower Room

Center: Between the Library and an adjacent room

Botton: Between the seond floor main hall and the adjacent room

IA-3) Paneling



Wall panelling is evident throughout the building.

Bottom Right: paneling on a back staircase leading from the second to the first floor

IA-5) Millwork



Top Row: Grand Staircase Ornamental Millwork **Others:** Milwork Framing Room Openings









Top: Grand Stairway from Second Floor

Center: Post on back stairway showing craftmenship in private sections of the mansion

Bottom Left: Maple Leaf carving in room built with maple wood **Bottom Right:** Oak Leaf carving in room built with oak wood











Top: Dining Room
Middle Left: Fireplace detail
Middle Right: Front Door detail
Bottom: Additional Carvings

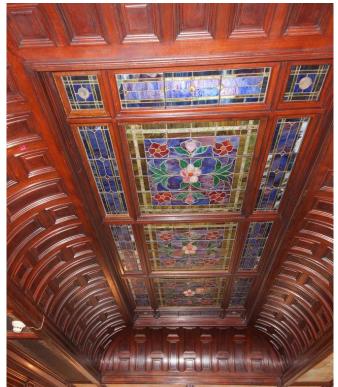
IA-6) Metal Working



Top & Middle: Fireplace Details **Bottom**: Door Knobs

A-7) Stained Glass Windows





These two windows are the iconic stained glass windows of the mansion

Top: This Spider and Fly window was removed from the outside second floor balcony and reinstalled inside the mansion

Bottom: This large stained glass ceiling is directly above the grandstaircase







Additional Stained Glass Windows

IA-8) Fireplaces

The mansion was built with 17 fireplaces. Six are shown below.











Ceilings

Several of the ornamental ceilings are shown below











Additional Architectural Features











Top: Tile work and marble wash basin **Center**: Crown Molding and cherub

Bottom: Section of bench on the third floor that sourounds the large stained glass ceiling over the Grand

Staircase.

2) Mr. Daniel Wesson & White Cliffs

At the age of 18 Daniel Wesson apprenticed himself to his brother Edwin (a leading manufacturer of target rifles and pistols in the 1840's) in Northborough, Massachusetts. There he met his future wife Cynthia Hawes (DW-1). Since her father objected to the marriage fearing that Daniel was a "mere gunsmith" with no future, they eloped in 1847. Little did her father know the success he would have in later years.

Mr. Wesson was a very innovative inventor which allowed the Smith & Wesson Company to prosper by continuing to improve their products and protect the designs with patents. By 1865 his reported income was \$160,000 making him the wealthiest man in Springfield MA where he had his home and manufacturing facility. After the death of Cynthia's parents she requested that they build a summer home partially on the land her parents owned. The White Cliffs mansion was not completed until 1886 when Mr. Wesson was 61 years old. Construction costs were on the order of \$300,000, a considerable price in those days. It contained elaborate carvings, stained glass windows, gas lit chandeliers, 17 fireplaces and 32 rooms. European craftsmen were brought in for the construction. It was said that each room was made of wood from a different part of the world with furniture to match (DW-2). After the completion of the mansion the Wessons came to Northborough every summer until about 1901, when their health began to fail. Although quite a masterpiece in the "Shingle Style" of architecture, it pales in comparison to his Springfield home built some 10 years later (DW-3).

As a philanthropist, Daniel Wesson founded the Hampden Homeopathic Hospital in Springfield with a donation of \$100,000. This was later known as the Wesson Memorial Hospital. He and his wife died 3 weeks apart in 1906.

Some information regarding Mr. Wesson from locals interviewed shortly after his death in 1906.

- Mr. Charles Anson Rice noted that Daniel Wesson and his brothers "were quiet, sober and industrious".
- He also commented about the lion fountain that Daniel Wesson gave to the town. It appears there was a dispute over its location. "This caused the placement of the lion fountain a rupture within the community. The Wesson fountain had a sort of cold reception. What would have become of the thing, the Lord only knows, if certain enterprising citizens had not assembled one night when the greater part of Northboro was sound asleep and firmly planted that fountain where it has since remained, directly in front of the Town Hall."
- A Mr. Henry Leonard, who was the superintendent of Daniel Wesson's property, mentioned "I have never met a more kindly man, He was just in all his dealings with his fellows and his death was a great loss to his family and friends, He took a great interest in his conservatory, said to be one of the finest buildings of the kind in the state, while his power house for the water supply was also a favorite structure."

A newspaper article in 1910 reported that Alfred Thomas, born in England and settled in Worcester, had bought the property.

- Thomas retained "everything but the water rights at Bartlett Pond," for by this time town water was available.
- He was quoted as saying that "the place appealed to me because of its English style. The mansion looks like English, and the surroundings are decidedly English. I have a fancy for that kind of style. An Englishman is brought up to like trees and flowers about him, and that's just what appeals to me most on this property."

• Mr. Thomas was a manufacturer and vice president of a street railway in Worcester, summered in the White Cliffs as the Wessons had done and used it until 1926.

Thereafter the White Cliffs had other owners, but since the World War II era it has served as a site for social functions, weddings, and as a restaurant. The large function room and kitchen were added in 1969.







DW-1: Daniel and Cynthia Wesson

DW-2: White Cliffs summer home shortly after completion

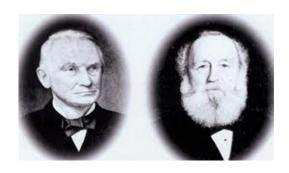
DW-3: Springfield home of the Wessons

3) The Smith & Wesson Company

The story of Smith & Wesson starts with two men (SW-1) who shared a dream to develop a firearm that could use a fully self-contained cartridge, eliminating the need to load a firearm with a loose ball and powder. Smith & Wesson met in 1850 while working as subcontractors to a firearms firm in Windsor, Vermont. Their original company failed in 1854 so they sold their invention to Oliver Winchester and by 1866 this technology became the basic design for the famous Winchester Repeating Rifle.

In 1856 Smith & Wesson started another company that used their patented cartridge with their newly designed small revolver called Model #1 (SW-2). The onset of the Civil War was a huge boost to their business. By 1865 they each had reported incomes of \$160,000 per year making them the wealthiest men in Springfield MA. After the Civil War, they started selling to the European and Asian markets where political problems were occurring. In 1873 Mr. Smith retired at the age of 65. By 1885 Wesson's sons, Walter and Joseph assumed management positions (SW-3). Joseph was also an innovative firearms designer while Walter was a skilled administrator.

Today Smith & Wesson is highly regarded for their innovation and quality in the personal protection and firearms businesses. They are still in business today with its major production facility and headquarters located in Springfield Massachusetts and some 1750 employees.







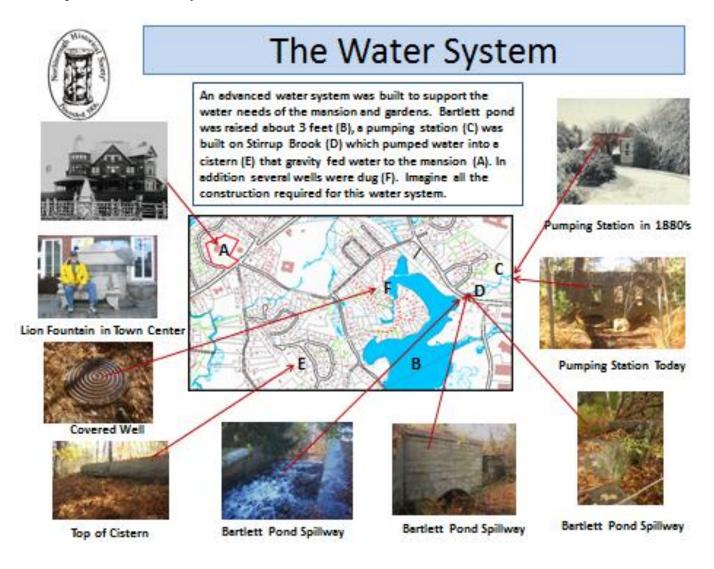
SW-1: Horace Smith and Daniel Wesson

SW-2: Revolver Model #1

SW-3: Daniel Wesson with his sons Walter and Joseph

4) Water Supply System

An advanced water system was built to support the water needs of the mansion and gardens. Bartlett pond was raised about 3 feet; a pumping station was built on Stirrup Brook which pumped water into a cistern that gravity fed water to the mansion. In addition several wells were dug. This was quite an engineering project considering the time frame. It required approximately 1.5 miles to move the water from the pump house to the cistern and finally to the mansion grounds. Imagine all the construction required for this water system.



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