

WHITE SULPHUR SPRINGS, WEST VIRGINIA

John W. Lund
Geo-Heat Center

A large, historic, health-oriented mineral springs resort, The Greenbrier, occupies 2,600 ha (6,500 acres) in an upland valley of the Allegheny Mountains near the West Virginia-Virginia border in the eastern U.S. Natural mineral water at 17°C (62.5°F) and with a high sulfate content is piped to individual soaking tubs of the mineral-bath wing, where it is heated by electricity to the desired temperature. Tubs are drained and filled after each use, so no chemical treatment is required. Water from a fresh-water spring is piped to an outdoor pool and the Grand Indoor Pool, where it is treated with chlorine and heated by steam. Thus, this mineral spring is not really geothermal, but has a two-century history of use by a spa resort (Loam and Gersh, 1992).

A chemical analysis of the spring gives a flow of 1.6 L/s (25 gpm) with sulphate 1400 mg/L, bicarbonate 210 mg/L, magnesium 130 mg/L, sodium 22 mg/L, silica 17 mg/L, chloride 17 mg/L, hydrogen sulfide 13 mg/L, potassium 1.2 mg/L and iron 1.1 mg/L (from *Springs of West Virginia*, West Virginia Geological and Economic Survey, 1986).

EARLY INDIAN LEGEND AND HISTORY

The Indian legend speaks of two young lovers who came to the valley to escape the notice of their elders. An enraged chief, catching them, shot two arrows, one killing the boy and the other barely missing the girl. Where the second arrow hit the ground, a sulphur spring appeared. The legend says that when the last drop of water is drunk from the spring, her lover will be restored to life (Conte, 1989).

The forests near the spring were originally inhabited by Shawnee Indians, and the small marsh around the spring was an ideal hunting spot due to the deposits of salt. Reports from early European settlers indicated that the Indians valued the curative powers of the water. In 1778, a Mrs. Anderson, hearing of benefits of the mineral water, was carried 25 km (15 miles) on a litter to the wilderness springs in order to attempt a cure for her chronic rheumatism (Conte, 1989). Following the Indian custom, a tree was felled and hollowed out as an improvised tub. It was then filled with spring water and heated with hot stones. Mrs. Anderson bathed in the water and drank from the spring. In a few weeks, the pain from the rheumatism receded and the news of her recovery spread rapidly to other settlers in the region. As a result, numerous log cabins were built around the spring in the next few years to house the crowd of visitors.

The earliest description of the spring was by Mr. Leven Gibson around 1787 (Conte, 1989):

"The Spring, then in its natural state, emptied its water from between two flat rocks about twenty

inches wide and about four inches apart, falling into a pool about three feet deep. I never saw the spring muddy--the changes of the weather had no effect in increasing or diminishing the quantity of water."

SETTLEMENT AND USE BY EUROPEANS PRIOR TO THE CIVIL WAR

Indians and the French and Indian War (1756-1763) prevented any serious settlement of the area until near the end of the 1700s. The land was originally surveyed around 1750 and then received the name Greenbrier region. In 1784, Michael Bowyer received clear title to 385 ha (950 acres) along Howard's Creek, a tributary of Greenbrier River, site of the present-day golf course. At the same time, Thomas Jefferson wrote of the spring in his "Notes on the State of Virginia (1784)", and noted of this spring and others in the vicinity that none had undergone careful chemical analysis and the medical benefits had not been studied enough to justify more than just an enumeration of the cures.

By the end of the 1700s, a primitive resort existed at "Bowyer's Sulphur Spring" consisting of log cabins around the spring. The access to the resort was assisted by the construction of the James River and Kanawha Turnpike through the mountains connecting Virginia with the Ohio River valley. This route, later named the Midland Trail, is present day U.S. 60, and portions of Interstate 64. Other springs were also being developed in the area: Sweet Springs, Warm Springs and Hot Springs.

The first half of the 1800s saw the development of Bowyer's wilderness resort into the south's grandest resort by his son-in-law and daughter, James Calwell and Polly Bowyer. The resort then took the name "White Sulphur Springs" a name derived from the white deposit left by the water on the surrounding rocks (Conte, 1989). A tavern had been constructed earlier by Michael Bowyer, and this was followed by a spring house to enclose the source of water. The spring house was a symbolic altar of health and a recognition of the importance of the spring in the commercial development of the resort. The top of the roof support a carved image of an Indian queen in costume carrying a bundle of arrows and a bowl--reinforcing the Indian legend (Figure 1). Meals were served in the tavern, reported to handle as many as 100 at a sitting. Parties and balls were also held in the tavern. To resort guests who sometimes complained about the rates, lodging, or food, James Calwell would reply somewhat like this, "You are paying me eight dollars a week for the use of the waters; I am giving you your food and lodging free" (Conte, 1989).



Figure 1. The earliest known photograph of the Spring House, taken in the 1850s, showing the original statue atop the dome (Courtesy of Mr. James S. Patton).

In the 1830s and 40s, the resort grew in guest capacity from about 200 to over 700, and the number of buildings was three times as many. The living quarters consisted of the older log cabins, ivy-covered white houses and magnificent private residences with tall white columns called the Colonnades. These rows of houses were built around a square facing the tavern and spring. The resort area grew from the original 385 ha (950 acres) to nearly 2,800 ha (7,000 acres), its size today. In 1857, a new hotel was begun, that became known throughout the nation as the Old White Hotel. It was large by the standards at that time, over 120 m (400 ft) across at the front with 228 guest rooms on the two upper floors, and a dining room, parlors, several reception rooms and a ballroom on the first. The dining room was the largest in the U.S., seating 1200 guest comfortably. By this time, the resort was handling crowds up to 1600 people.

Notable people who frequented the resort prior to the Civil War included Henry Clay, Dolly Madison, Daniel Webster, Davy Crockett, Francis Scott Key, John C. Calhoun, Presidents Martin Van Buren, John Tyler, Millard Fillmore, Frankling Pierce and James Buchanan, and Colonel Richard Singleton and Colonel Wade Hampton II, two of the wealthiest men in the south.

In 1838, Dr. John Jennings Moorman, began work at White Sulphur Springs, and transformed the practice of taking the waters from an act of faith into a systematic method of health care. Over the next 45 years, he became a nationally recognized authority on the uses and abuses of mineral water (Conte, 1989). His first published work in 1839, "A Directory for the Use of the White Sulphur Waters with Practical Remarks on the Medical Properties and Applicability to Particular Diseases" contained direction to avoid the misuse of

sulphur water by using and drinking them in moderation. The most common error at the time was the belief among visitors that "they benefitted in proportion to the quantity which they drink" (Conte, 1989). As a general rule, he recommended four to eight glasses per day, working up to ten or twelve at most after two weeks, and believed that two weeks was the minimum period of time for the water to be effective, and its benefits began to appear only after three to six weeks (Figure 2).



Figure 2. Visitors in the Spring House practicing one of the daily rituals of White Sulphur Springs.

Dr. Moorman felt the best use of the water was for the bowels, liver, kidneys and skin. He stressed that the water was not a panacea and therefore, prescribed it for only a limited range of diseases, including dyspepsia (derangement of the functions of the organs of digestion--his definition), chronic rheumatism, neuralgia, jaundice, scurvy and a few others. He found it of limited use, along with other treatments, for addiction to alcohol and opium. The sulphur water should not be used, he wrote, for acute diseases, cancerous infection, or heart problems. He did acknowledge that a cure, or at least relief, derived from a combination of drinking the water (he thought that bathing in the water was useful only after drinking the water for a period of time) plus attention to a moderate diet, sensible clothing, daily exercise, abstaining from liquor and breathing the clean mountain air. Others tried to counter his skepticism with extravagant claims that a veritable fountain of youth poured forth from the spring. One visitor wrote, "It cures ugliness itself, being a kind of elixir of external youth," and furthermore, it "restores physicians to health, causes sailors to forget, and lawyers to confess the truth."

Dr. Moorman was also involved in recommending the sale of the spring water in bottles and barrels for home use, starting in the early 1840s. The marketing effort was so successful that in later years this branch of the resort's operation became a major source of income. However, there was a controversy concerning whether the water's curative powers lay in its gaseous contents or in its solid salt contents. The contention from rival spring bottlers was that the gases escaped before the time they were consumed. Dr. Moorman felt it made no difference, and the resort continued to bottle the water. It was billed as "America's Favorite Morning Laxative" and the sales continued as late as 1942, when the bottling equipment was dismantled (Figure 3).



Figure 3. 1920s literature promoting the mineral waters.

THE CIVIL WAR YEARS

The state of West Virginia was created from the western part of Virginia by President Lincoln's proclamation in 1863. White Sulphur Springs was included in this new state, just over the Virginia boundary. Both Union and Confederate

troops stayed at the resort and several battles were fought nearby. The resort was also used as a hospital, especially after "The Battle for the Law Brooks" in 1853 with Colonel George S. Patton, grandfather of the World War II general of the same name, commanding the Confederate troops to protect the Virginia State Law Library in Lewisburg. There is a mass grave of 16 unknown Confederate soldiers located on the Greenbrier property. The resort was saved from burning by the Union Troops through the efforts of Captain H. A. Dupont in 1864. After the war, General Robert E. Lee and other military leaders spent time at the resort.

THE GOLDEN AGE OF RESORT HOTELS

Social activity at the resort quickly returned after the "War Between the States" (Figure 4); however, its financial situation was not the best. Much needed repairs to the property had to be delayed until debts were settled. One bright event was the arrival of the first train in 1869, providing passenger service on the Chesapeake and Ohio Railway. This guaranteed the resort's survival, especially since it was the only resort among the Springs of Virginia that could boast of service directly to its main gate. The railroad made the act of traveling pleasurable, as travelers from Washington, D.C., for example, reached the resort in 15 hours rather than the four or five days necessary in the past. Not only were the resorts



Figure 4. Brochure cover after the Civil War showing the resort's location in the new state of West Virginia.



Figure 5. An 1883 poster showing the resort's location on the C&O Railway.

made accessible by the railroad to wealthy patrons, but to more middle-class travelers as well (Figure 5). More were traveling; but, a trend that developed throughout the U.S. brought about by this ease of travel, their stays were for shorter periods.

The resort then became a grand resort hotel on par with the most elaborate competitors spring up across the U.S. (Figure 6). White Sulphur Springs resort had two special characteristics that the newer resorts did not have: a deep-rooted historical environment, and perhaps, the more crucial feature, scores of classic Southern Belles. A popular saying at the time (1889) was: "The Lord made the White

Sulphur Springs and then the southern girl, and rested satisfied with his work."

Unfortunately, all of these advantages were not enough. No owner during the nineteenth century were ever able to make the resort financially solvent, at least for any length of time. Thus, in 1910, the resort was purchased by the Chesapeake and Ohio Railway and then immediately turned its attention and considerable funds towards restoring the declining resort. Tennis courts and a golf course were laid out at this time. A new Bath Wing was added, and to insure that it stayed the nation's best health resort, a team of medical experts traveled to many of the famous spas of Europe to insure that the therapy and equipment offered matched the finest in the world. The company brochures proclaimed that the resort was "A European Cure in America." This later had special meaning, as it was difficult to travel to Europe for "the cure" during World War I.

The Bath Wing featured a huge pool on the first floor, "which might have been the pride of Rome" as described by one writer (Figure 7). It measured 30 m (100 ft) by 13 m (42 ft), and at the time was one of the largest in the world. It was housed under a glass dome and encircled by broad walks. On the second and third floors were hydrotherapy services including mud baths using mud obtain from the bed of nearby springs, used in the treatment of gout, rheumatism and neuritises; the Vichy Bath, a massage under a spray of water at moderated temperature; and an Inhalation Room with "Apparatus for the inhalation of the volatile properties of the mineral water" useful for treating the nose, throat, lungs and certain types of asthma (Conte, 1989).

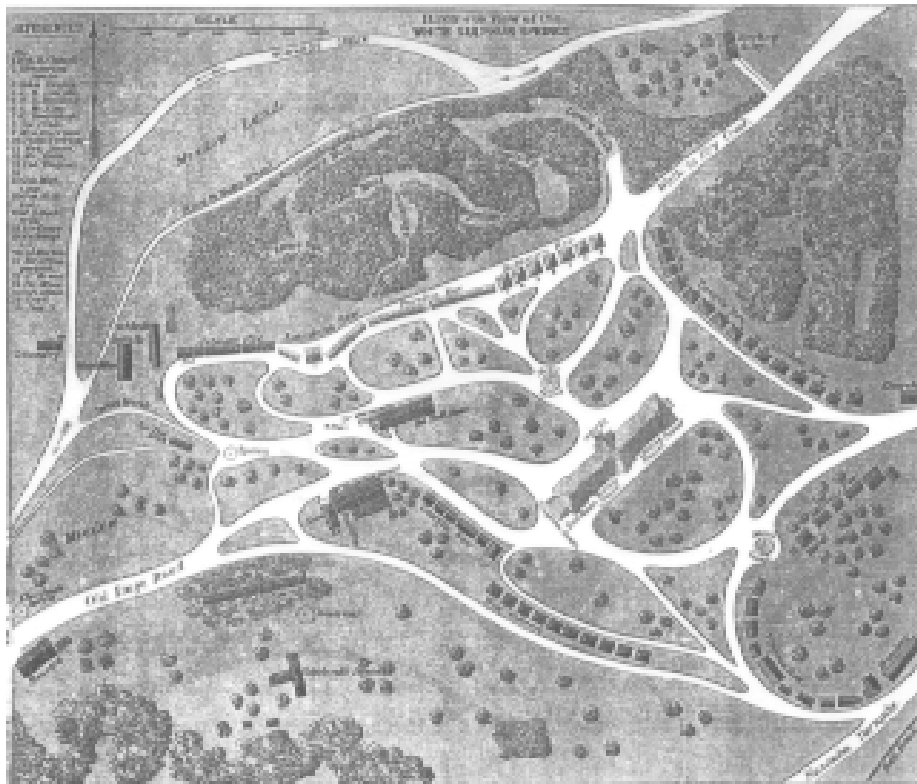


Figure 6. Map from 1880 showing the layout of the resort's grounds.



Figure 7. The indoor pool at the Greenbrier opened in 1912.

The other major structure completed about the same time (1913) was The Greenbrier Hotel. It was six stories high, and had 250 rooms, with a ballroom, billiard room, card room, dining room and shops. It was fireproof stone and concrete, unlike its wooden predecessor Old White, and built in Georgian architectural style. It forms the central section of today's building. The Old White was torn down in 1922 when it couldn't pass the West Virginia fire inspection code. The Greenbrier Hotel was rebuilt and doubled in size to 580 rooms in 1930. An airport was also opened around this time. Tennis and golf became two major attractions for the resort, with Sam Snead as one of the young golf pros.

Notable personalities who stayed at the resort prior to World War II included: Presidents William Howard Taft and Woodrow Wilson, Mr. and Mrs. Joseph P. Kennedy, Mr. and Mrs. Cornelius Vanderbilt, Eleanor Roosevelt, Babe Ruth, Mary Pickford, Booth Tarkington, Bing Crosby, Ethel Barrymore, Generals John J. Pershing and Billy Mitchell, and the Prince of Wales (later King Edward VIII of England). The Duke and Duchess of Windsor returned to the Greenbrier after the war as private citizens.

WORLD WAR II

In December 1941, The Greenbrier became the temporary house for diplomats from the Axis powers until exchanges for American diplomats held overseas could be officially negotiated. The entire resort then housed representatives from

Germany, Hungary, Italy, Bulgaria and later included Japanese diplomats. They were all finally exchanged by July 1942. The resort then reopened for a short six-week period to the public, before being "drafted" into wartime duty again as a hospital for the U.S. Army. The Greenbrier was condemned under the War Powers Act, and the C&O Railway was paid \$3.3 million for a resort that was estimated to be worth \$5.4 million. It was converted into a 2000-bed military hospital, with most of the bulk of the elaborate interior furnishings auctioned off. The new facility was named Ashford General Hospital, after the Army doctor who did much of the research on epidemic diseases in Puerto Rico. After investing nearly \$2 million in the transformation, the hospital was formally dedicated in October 1943. The press nicknamed it "The Shangri-La for Wounded Soldiers." Prisoners of war from Germany and Italy were used for workers in the kitchen, laundry and on the grounds. A number of American generals, such as Eisenhower, Bradley, Marshall, Clark, Ridgeway and Wainwright were visitors or patients here.

POST WAR YEARS

The hospital was closed in 1945 and then sold back to the C&O Railway for about the same price as it was condemned for in 1942. After investing over \$12 million into renovating the property under the decorating skills of Dorothy Draper, it was opened to the public again in 1948. It was recognized at this time that many business leaders aged prematurely largely because they neglected to maintain their health; thus, the Greenbrier Clinic was created in 1947 where executives would attend to their health through preventative medicine.

Many important conferences and meetings were held at The Greenbrier in the post war period. Notable ones were The United Mine Workers of America headed by John L. Lewis, a secret meeting of the Secretaries of the Army, Navy and Air Force with the Joint Chiefs of Staff, the Annual Governor's Conference in 1950, and the North American Summit Conference hosted by President Eisenhower in 1956. In 1952, work was started on the new West Wing so as to better accommodate these conferences. A secret bomb shelter was constructed under the building at the same time, designated for occupancy by members of Congress in the event of an emergency during the "Cold War." In 1974, Colonial Hall was also added with a spacious meeting room and a dining room capable of seating 1,200 guests. In the 1950s and 60s, The Greenbrier advertized itself as "America's Informal Business Capitol" and in the 1980s one writer described the resort as an "alternate Camp David for America's permanent government."

Famous guests who stayed at The Greenbrier after the war included all the U.S. Presidents from Eisenhower through Clinton, Prince Rainier and Princess Grace of Monaco, Debbie Reynolds and Eddie Fisher on their honeymoon in 1955, and Indian Prime Minister Nehru.

In 1956, The Greenbrier's engineers installed an outdoor swimming pool, a task that proved extremely delicate because the pool was designed to sit directly over a number of underground tributaries feeding the ancient spring of sulphur water. The other major event relating to the mineral waters

was the opening of the new Mineral Bath and Spa Building in 1987. This is a luxurious facility for the oldest of rituals, "taking of the waters."

PRESENT TIME

Today, The Greenbrier is a major social and health resort, with golf and tennis as major attractions. It offers the same constant appeal: a splendid setting for the pursuit of health, pleasure and agreeable society.

According to their spa brochure: "The Greenbrier offers a variety of a la carte services to help guests attain total health and fitness, beauty and grooming. In addition to the centuries-old rejuvenating treatments..., many inspired by European spas, we offer innovative exercise programs tailored to your personalized needs. The Greenbrier Spa features an indoor pool with heated wet-deck... Our bath facilities include soak tubs, individual whirlpool baths, swiss shower,

scotch spray, steam, sauna and therapy rooms for massage... Our natural mineral waters are freshly drawn in facilities carefully cleansed and sterilized between treatments, with temperature fully regulated to guest preference."

The National Park Service designated The Greenbrier a National Historic Landmark in 1990, in recognition not only the resort's place in history, but its preservation of the past.

REFERENCES

Conte, Robert S., 1989. *The History of The Greenbrier - America's Resort*, Pictorial Histories Publishing Co., Charleston, WV.

Loam, Jayson and Marjorie Gersh, 1992. *Hot Springs and Hot Pools of the Northwest*, Aqua Thermal Access, Santa Cruz, CA.