

The Fight to Preserve Tesla's Wardenclyffe Laboratory

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Excerpt from Margaret Cheney's *Tesla: Man Out of Time* (Barnes and Noble Books, 1981, pp. 173-175)

The world system for broadcasting—a concept designed to incorporate almost every aspect of modern communications—was all over but the mourning. Yet as long as the tower stood, Tesla continued his efforts to complete it.

Exactly when all the workers left, no one could say. Thomas R. Bayles, the general passenger agent of the railroad station just across the road from the abandoned plant, only noticed that passengers had stopped getting off there. A caretaker remained on duty for a time. When curious journalists or research engineers showed up they were allowed to climb to the tower top with the sweeping view of Long Island Sound. For all that the tower looked so light, it was built entirely without metal, even down to the wooden pegs holding together the wooden uprights and cross members. After abandoning the plan for covering the dome with a copper sheathing, Tesla had installed a removable disk through which a beam of radiation could be projected to the zenith.

The visitors found the laboratory filled with curiously complex apparatus. In addition to much glass-blowing equipment there were a complex machine shop with eight lathes, X-ray devices, a great variety of high-frequency Tesla coils, one of his original radio-controlled robot boats and exhibit cases filled with thousands of bulbs and tubes. There were an office, library, instrument room, electrical generators and transformers, and great stocks of wire and cable. But after the watchmen left, vandals entered, broke things, ransacked files, emptied papers on the floor and trampled them.

"It is not too much to say," wrote a Brooklyn Eagle reporter, "that the place has often been viewed in the same light as the people of a few centuries ago viewed the dens of the alchemists or the still more ancient wells of the sorcerers. An atmosphere of mystery hung over the place, an unearthly influence seemed to be radiated from the alembic. . . as if drawn down from interstellar space and spread over the countryside to inspire wonder and awe in the minds of the nearby farms and villagers. . ."

. . . Marconi, with Carl F. Braun of Germany, won the Nobel Prize in physics in 1909 for their "separate but parallel development of the wireless telegraph."

Never for the rest of his life would Tesla give up on his concepts of power transmission and broadcasting. It was not a dream, he declared, "but a simple feat of scientific electrical engineering, only expensive—blind, fainthearted, doubting world."

Excerpt from Marc Seifer's *Wizard: The Life and Times of Nikola Tesla—Biography of a Genius* (Birch Lane Press, 1996, pp. 291-292)

In the last week of July [1903], just days before men came to cart away part of his equipment, the inventor fashioned a way to couple his behemoth and fire it up. As pressures reached their maximum, with the cupola fully charged, a dull thunder rumbled from the site, alerting the hamlet that something was about to happen.

Strange Light At Tesla's Tower

From the top of Mr. Tesla's lattice work tower on the north shore of Long Island, there was a vivid display of light several nights last week. This phenomena [sic] provoked the curiosity of the few people who live nearby, but the proprietor of the Wardenclyffe [sic] plant declined to explain the spectacle when inquiries were addressed to him. (*New York Herald Tribune*, July 19, 1903)

Tesla's mushroom-shaped citadel spewed forth a pyrotechnic eruption that could be gleaned not only by those who lived nearby but also by the populace inhabiting the shores of Connecticut, across Long Island Sound. But by the end of July the tower fell silent, never to raise its radio cry again.

In terms of science mysteries, one of the most intriguing sites for over a hundred years now is that of Nikola Tesla's Wardenclyffe Laboratory, some seventy miles outside of New York City. The brick structure of the lab itself, designed by architect Stanford White, sits on sixteen acres near Long Island Sound in East Shoreham, Long Island. While the fate of Wardenclyffe—the laboratory where radio broadcasting would have started twenty years before it actually reached commercial status in the United States and where wireless electricity might have started a century ago—hangs in the balance, Tesla's name is carried forward and he has become a sort of cultural icon. Rock star David Bowie played Tesla in the 2006 film "The Prestige" (starring Hugh Jackman, Christian Bale and Michael Caine). The Tesla Motor Company (www.teslamotors.com) is manufacturing beautiful, high-end electric cars to such buyers as movie star George

Clooney, California Governor Arnold Schwarzenegger, television host David Letterman, and a long list of celebrities. Company investors include Google founders Larry Page and Sergie Brinn, after initial investment by Paypal cofounder Elon Musk, who now runs the company. Tesla's name is memorialized in books, software programs, a rock band, an entire Brooklyn Academy of Music opera by Laurie Anderson, a superconducting linear accelerator in Germany, and inventions we use every day all over the world, involving AC electricity, radio, radar, fluorescent lighting and motors. But Tesla's Wardenclyffe Laboratory, with its 187-foot tall tower, is perhaps the most haunting and compelling image of a dream that might have been.

Nikola Tesla referred to his world broadcast center as being capable of "changing the planet into a human brain," much the same way that technology writers such as Nicholas

Carr (*The Big Switch: Rewiring the World, from Edison to Google*, W.W. Norton, 2008) talk about internet technology turning into the worldwide computer, the difference being that Carr is writing in 2008 and Tesla came up with this in 1900. Tesla was finally recognized as being the inventor of radio by the U.S. Supreme Court in 1943, a few months after his death. But he had the technology ready to broadcast at Wardencllyffe. "Marconi was transmitting Morse code, not continuous wave frequency," notes Marc Seifer. In *Wizard*, Seifer detailed the innovations and patents of Tesla that related to broadcasting, among them his work with John Hayes Hammond which led to a patent on a virtually unlimited number of wireless channels (the same technology as cell phones), and the 1904 work of Dr. Arthur Korn, a Munich electrical engineer who successfully transmitted wire photos. Korn is often credited with being the inventor of the television tube, and his apparatus, wrote Seifer, utilized "Tesla currents."

"He should have built the broadcast center at Niagara Falls and jumped the energy to England. He had calculated nodal points all over the world. I don't think Wardencllyffe would have successfully broadcast electric power, that he could have lit up homes from it, but I do think he would have succeeded with a global communication system. Tesla would have started radio at Wardencllyffe about 1904," Seifer explains, speculating that perhaps a smaller effort, broadcasting first from Long Island to Connecticut, might have been a more realistic start and not resulted in the disastrous ending with J.P. Morgan.

"Tesla never punted," sighs Marc Seifer. "He wanted all or nothing; that's what bugs me about Tesla. . ."

In May of this year, *New York Times* science writer William Broad's article ("A Battle to Preserve a Visionary's Bold Failure," www.nytimes.com/2009/05/05/science/05tesla.html) covered the background of Wardencllyffe and the fact that Agfa, the photo company who owns the site, has now completed a mandated Superfund site cleanup and was putting the property up for sale. The article portrays people involved with a decade long effort to have the Wardencllyffe site designated as a historical landmark and have a museum and science center built on the property.

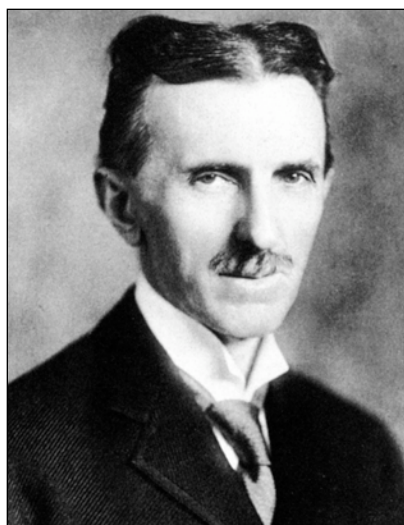
One of the individual's quoted in the *Times* piece was Jane Alcorn, president of the Tesla Science Center at Wardencllyffe effort. She provided an update of events that have transpired since May.

"Two weeks after the article ran, we had a National Trust for Historic Preservation event declaring 'This Place Matters,'

which was to draw attention in communities across the country recognizing sites worthy of preservation," Jane Alcorn relates. "We had over 150 people come out, from the school superintendent, to families, and even a dog named Tesla. The local government of Shoreham Village, the civic association, the town councilwoman and supervisor, a representative from the county executive office and a county legislator, and our New York state senator, all pledged support for the project." Indeed, driving into the village, one is greeted by signs declaring, "Welcome to Shoreham!" with an image of the Tesla tower on the signs. In September, Alcorn nominated Tesla for inclusion in the Long Island Technology Hall of



Wardencllyffe Tower and Laboratory



Nikola Tesla, 1920

Fame; Tesla will be inducted into the Hall of Fame in March 2010.

"Marc Alessi, who has represented our community in the Assembly since 2005, grew up on Long Island and lives here with his wife and two children, and has been very enthusiastic about the idea of a historic and science museum here." Alcorn continued. "In October 2009 he went to Belgrade, where the Tesla museum is located and Tesla is a national hero. There he met with the museum administrators, who offered a loan of Tesla material when the museum opens."

"Nikola Tesla's Wardencllyffe laboratory is such a fantastic historic landmark that it would be shameful not to preserve it," declares New York State Assemblyman Marc Alessi.

"I would definitely give my Tesla archives to a Tesla Museum located at Wardencllyffe," declares Marc Seifer. His book *Wizard* took fifteen years to research and write, during which time he traveled to Tesla's town of birth in Smiljan, Croatia, to the Tesla Museum in Serbia, to numerous sites in the U.S. where Tesla archives are located, as well as to Niagara Falls (site of two Tesla statues), where Tesla and Westinghouse harnessed the power of the falls to electrify the entire northeast, to Colorado Springs and to the site of Wardencllyffe where Tesla's most important story takes place. Seifer's biography of Tesla added to the information given in previous works, such as John J. O'Neill's *Prodigal Genius: The Life of Nikola Tesla* (1944) and Margaret Cheney's *Tesla: Man Out of Time* (1981, reference above), detailing more of the friendship and work collaboration between Tesla and Stanford White. "The fact that Wardencllyffe is a Stanford White building alone makes it a historic landmark," Seifer says. "It's hard to believe that New York, one of the richest states in the country, can't find the money to turn Wardencllyffe into a museum." Seifer's long relationships with the American-residing community of Yugoslavians who have long promoted interest in Tesla

include friendships with surviving Tesla nephew William Terbo, Alexander Marincic, former head of the Tesla Museum in Serbia, and Dr. Ljubo Vujovic, president of the Tesla Memorial Society of New York, whose organization fought to get a Tesla plaque on the site of the Hotel New Yorker on 34th Street in Manhattan, where Tesla lived the final years of his life (www.teslamemorialsociety.org).

Another Tesla museum supporter is Bill Wysock, whose company Tesla Technology Research (www.ttr.com) manufactures giant, extraordinary Tesla coils that have appeared in museums, theme parks such as Walt Disney park exhibits, MCA Universal's Studio Tour, movies, television shows, and media outlets worldwide. He has offered the donation of a giant Tesla coil for the Tesla Science Center at Wardenclyffe.

Shortly after the *Times* article ran in May, Seifer also swung into action, writing to Governor David Paterson of New York and meeting with Petar Ljubicic, Council General of the Croatian government, who said his government would be happy to contribute to the creation of a Tesla museum at the Wardenclyffe site. "Tesla was raised in Croatia and he was a great unifying character, also proud of his Serbian heritage. It was this kind of background that seeded his ideas for a world communication center through technology," says Seifer. Ljubicic attended a lecture Seifer gave at the Open Center in New York City about Tesla and Wardenclyffe.

Meanwhile, the work of Jane Alcorn and her board to create the Tesla Science Center at Wardenclyffe—combining with partners at other Tesla groups such as Gary Peterson in Colorado's 21st Century Books (a publishing and licensing arm of historical Tesla material) and the Tesla Memorial Society of New York—have received offers of support from all levels of government, from the local civic organization to the federal level.

"At the current time, the state historical status must be applied for by the owner, which is Agfa," says Jane Alcorn. Other Long Island science institutes, such as Brookhaven National Laboratory and Stony Brook University as well as other science museums in New York, are participating in discussions about the future of the site.

Assemblyman Marc Alessi arranged a meeting on December 11, 2009, in which he drew together representatives of Jane Alcorn's Tesla Science Center at Wardenclyffe, members of the Brookhaven town government, and private individuals with whom Alessi had discussed the possibility of their making a six month to a year bridge loan to match the \$850,000 from New York State in order for the

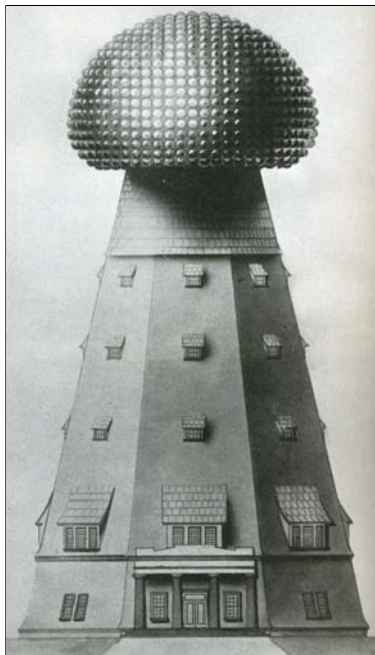
Wardenclyffe site to be purchased from Agfa. Alessi reports that the Department of Environmental Conservation has from six months to a year to give a final review on the clean-up of the land before it can officially be sold, and a county appraisal will likely wait on that review. He believes that funds can be raised to purchase the land.

"There is a tremendous interest in a local and international community of people who understand the enormous significance of Nikola Tesla's contribution to technology and innovation," Alessi says. "While Tesla was a naturalized American citizen, his birth place was in Serbia, where he is an enormous hero. His face is on the paper currency there. While I traveled there, the idea of the Wardenclyffe site being lost is horrifying, as it is to people all over the world, and the people who want to contribute come from all over the world. I have discussed the creation of a sister museum on Long Island that would be a sister museum to the Tesla museum in Belgrade. It would be a center for education and technology as well as an important historic landmark." The acquisition of the Wardenclyffe site is the primary focus first.

Alcorn and her board have been able to have a number of events and programs near the site, such as lectures by biographer Marc Seifer, an appearance by Tesla's nephew William Terbo, and filming of part of a lecture series they held by Robert Uth, who did a PBS documentary titled "Tesla: Master of Lightning." Dr. James Corum and Kenneth Corum, physicists who have done years of research and publishing on Tesla technology, have presented there. Alcorn has discussed plans to have events at the Tesla Museum at Wardenclyffe that will be broadcast on the internet in keeping with the original world broadcasting center plans Tesla wanted.

In early 2010, a new wave of activity towards acquisition will commence. After more than a decade of working towards acquisition of the site, the non-profit Tesla Science Center at Wardenclyffe group intends to continue until the dream becomes a reality. Tax deductible donations are being sought to assist the group in purchasing the Wardenclyffe site and to later construct a museum and science center. Visit their website (www.teslasciencecenter.org) for more information or to donate; donations can also be sent via mail to:

Tesla Science Center at Wardenclyffe
P.O. Box 552
Shoreham, NY 11786



A vision of the design of Wardenclyffe.



The lab building is all that remains at Wardenclyffe. This photo was taken from atop the tower in 1914 (before the tower was razed in 1917).