

# NIKOLA TESLA: FORGOTTEN GENIUS OF ELECTRICITY AND HIS HISTORIC WARDENCLYFFE LABORATORY

Joint Seminar of IEEE Long Island Chapter on SSIT,  
PACE, GOLD, WIE, LM Affinity Group  
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About 1900 to 1920

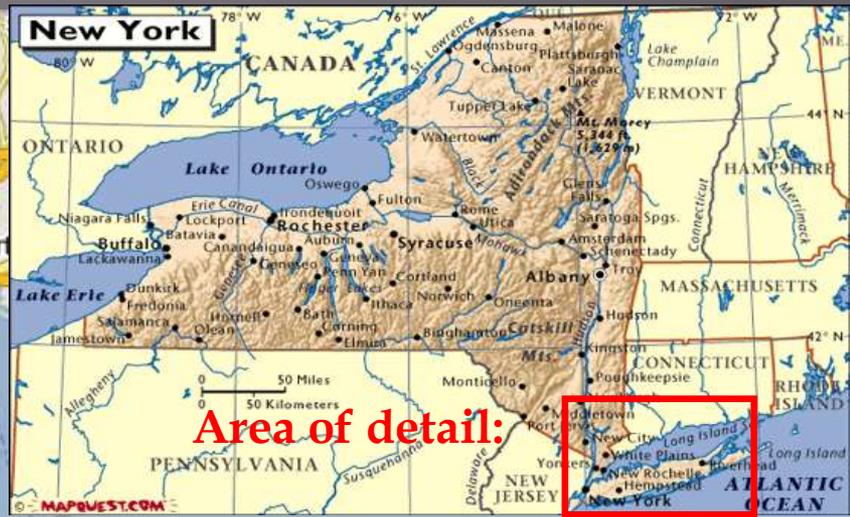
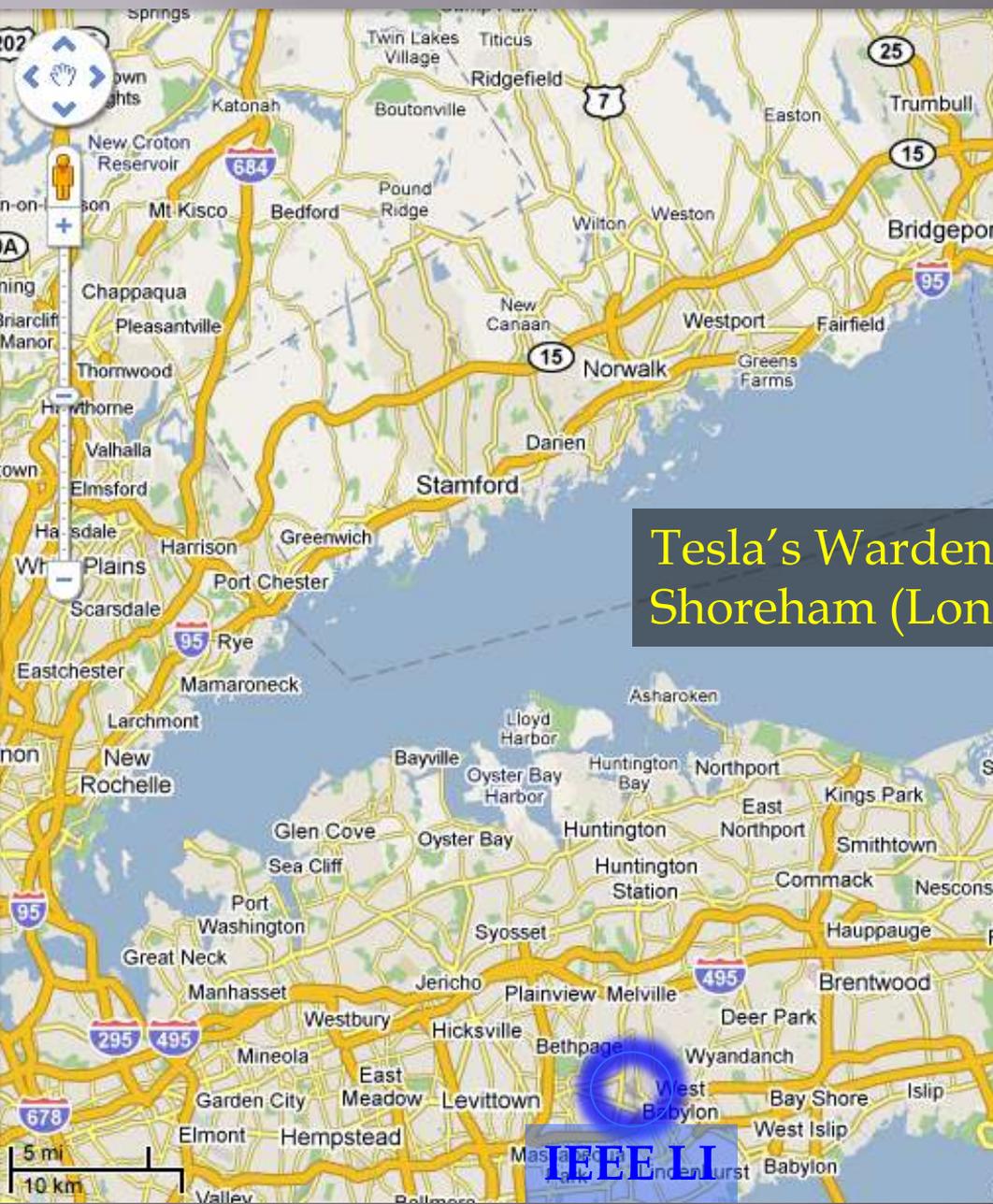


Tesla Wardenclyffe Project Archives



Tesla Wardenclyffe  
Project Archives

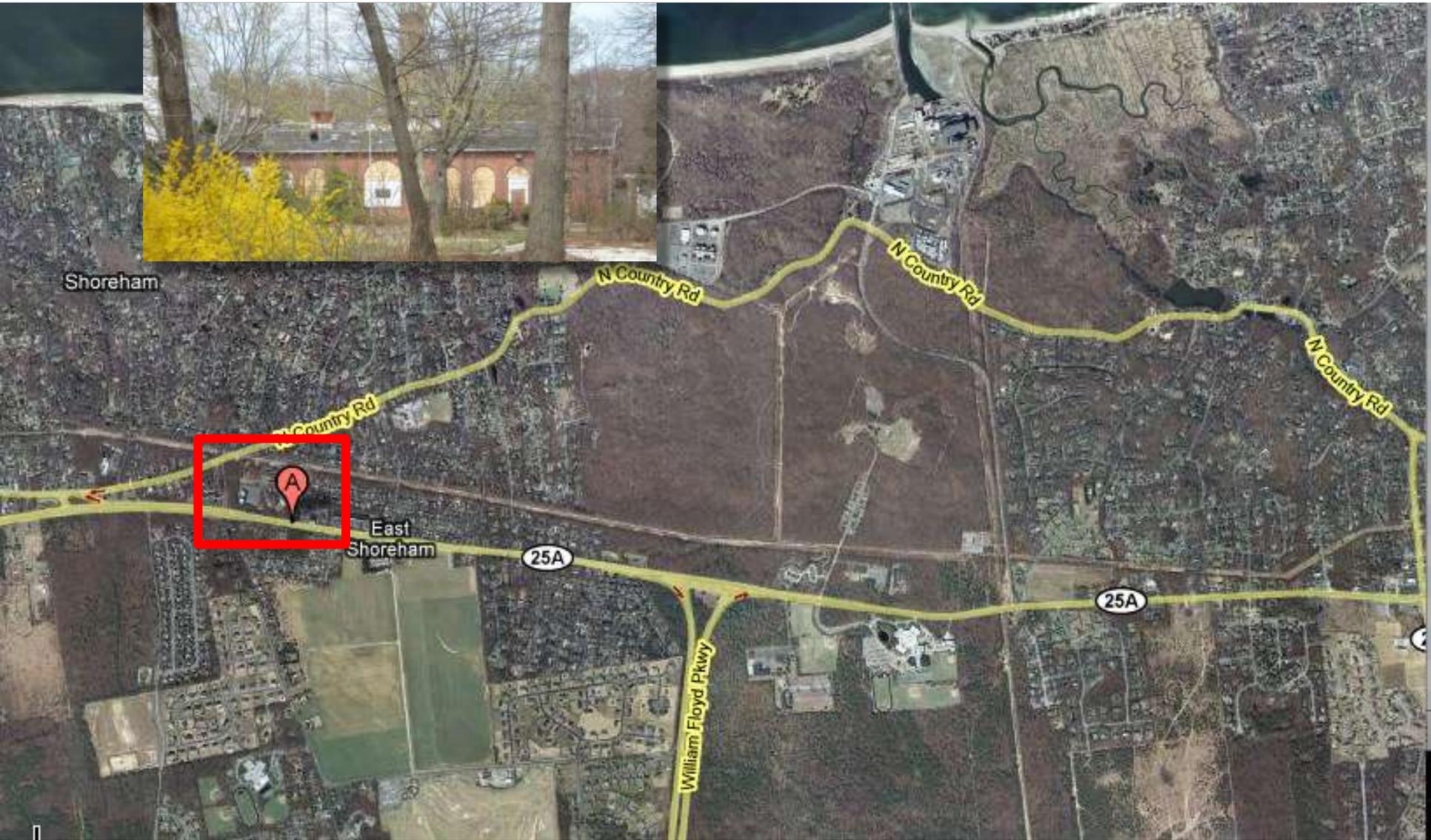
Source: Tesla Wardenclyffe Project  
[www.teslascience.org/archive/archive.htm](http://www.teslascience.org/archive/archive.htm)



Tesla's Wardenclyffe lab in Shoreham (Long Island), NY



# Tesla's Wardencllyffe Lab Location in Shoreham (Long Island), NY



# Eulogy by Mayor La Guardia



January 10, 1943; Speech Written by Louis Adamic

<http://www.youtube.com/watch?v=IEK7g0tqvDE>



# Tesla: Biographical Synopsis

## SIGNIFICANT PLACES

- Born July 10, 1856 in Smiljan, Croatia (ethnic Serb)
- 1875, Graz, Austria (studies)
- 1882, Paris (Cont. Edison)
- 1884, New York City (Edison)
- 1893, Chicago, World Expo
- 1899, Colorado Springs
- 1902, Shoreham, NY (Wardenclyffe)
- Died January 7, 1943 at the New Yorker Hotel
  
- 1943, Supreme Court confirms Tesla as inventor of radio
- 1960, SI unit for magnetic flux density named "Tesla"

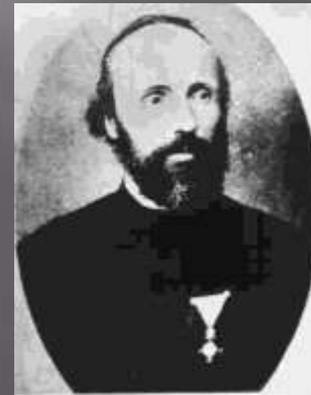
## ACTIVITIES

- 1882, induction motor; rotating magn. fields
- 1886, Tesla Electric Light & Manufacturing
- late 1880s, brushless induction motor, Tesla coil; collab. w/Westinghouse; research on x rays; "War of the Currents"; rescinded income from AC royalties
- 1891-1893, demonstration of wireless energy & communication
- late 1890s, remote control ("teleautomatics", early robotics); electric spark plug; wireless transmission
- 1895, Niagara Falls (Westinghouse)
- 1900s, Wardenclyffe tower facility
- 1904, reversal of radio patent: to Marconi

# Birthplace, Smilja, Croatia



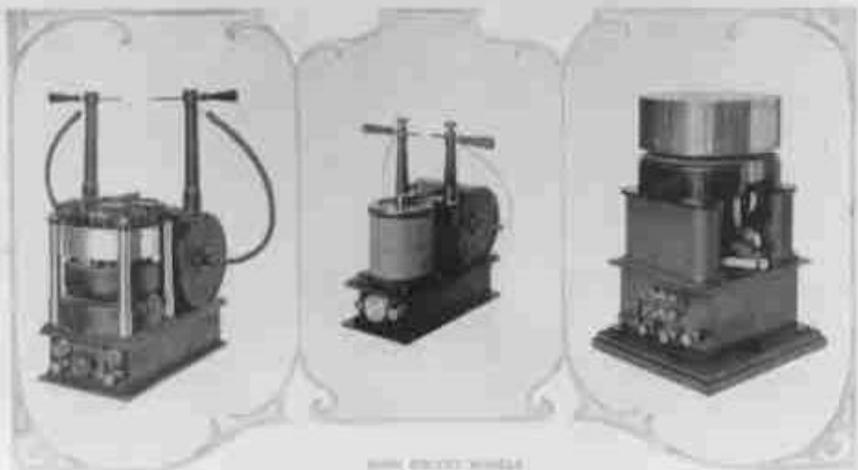
Source: Wikipedia.org



Tesla's father



Nikola Tesla  
ca. 1879

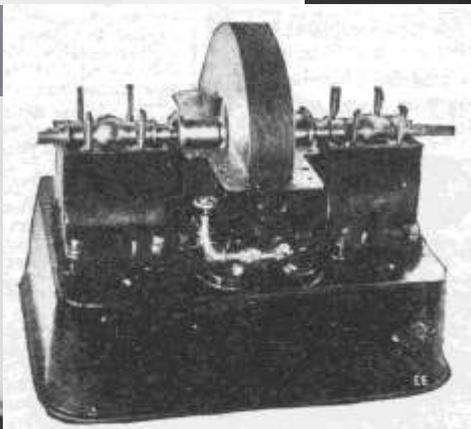
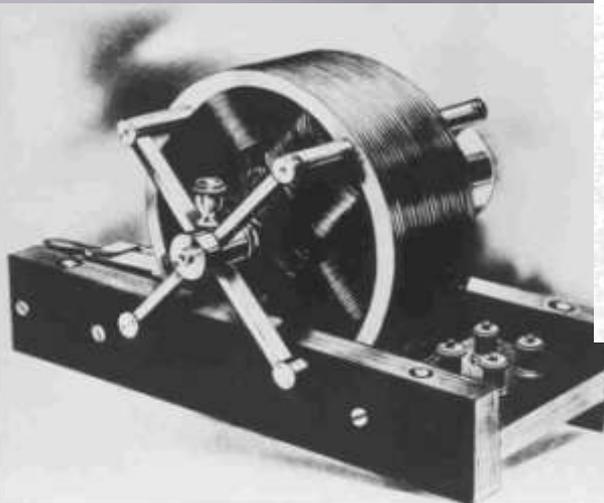


WIRE ELECTRO-MOTORS

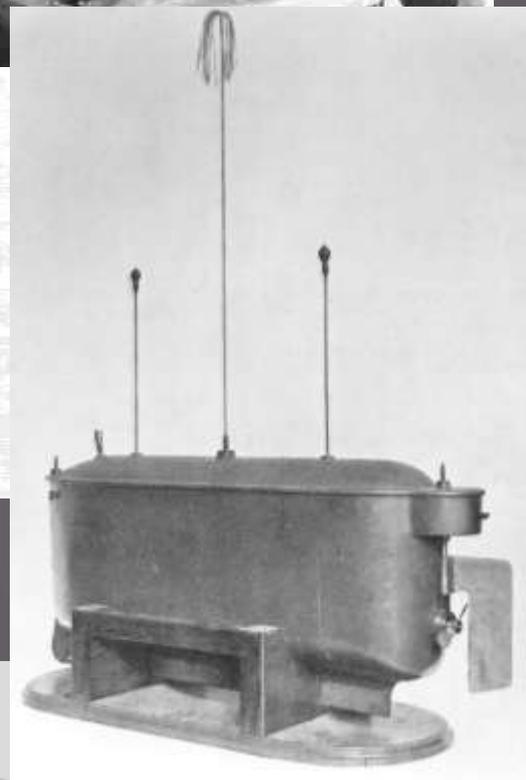


Nikola Tesla  
ca. 1885

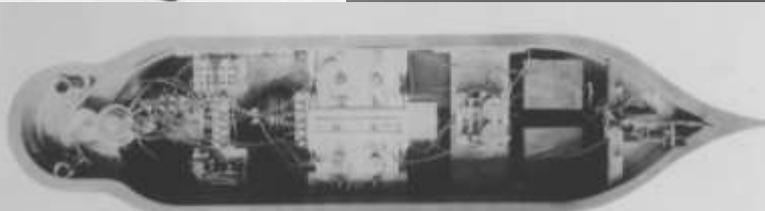
2-phase motor



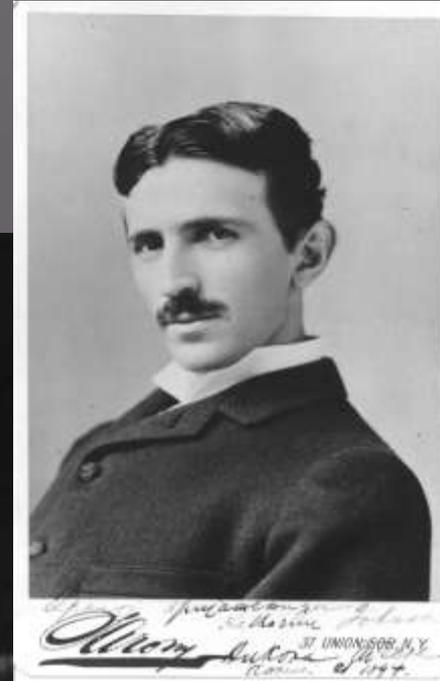
Blade-less turbine



"Tele-automaton"  
ca. 1898



# World Columbian Exhibit, Chicago (1893) “City of Light”



Powered by Westinghouse Electric Co.  
with Tesla's Polyphase ("AC") System

# Westinghouse Pavilion

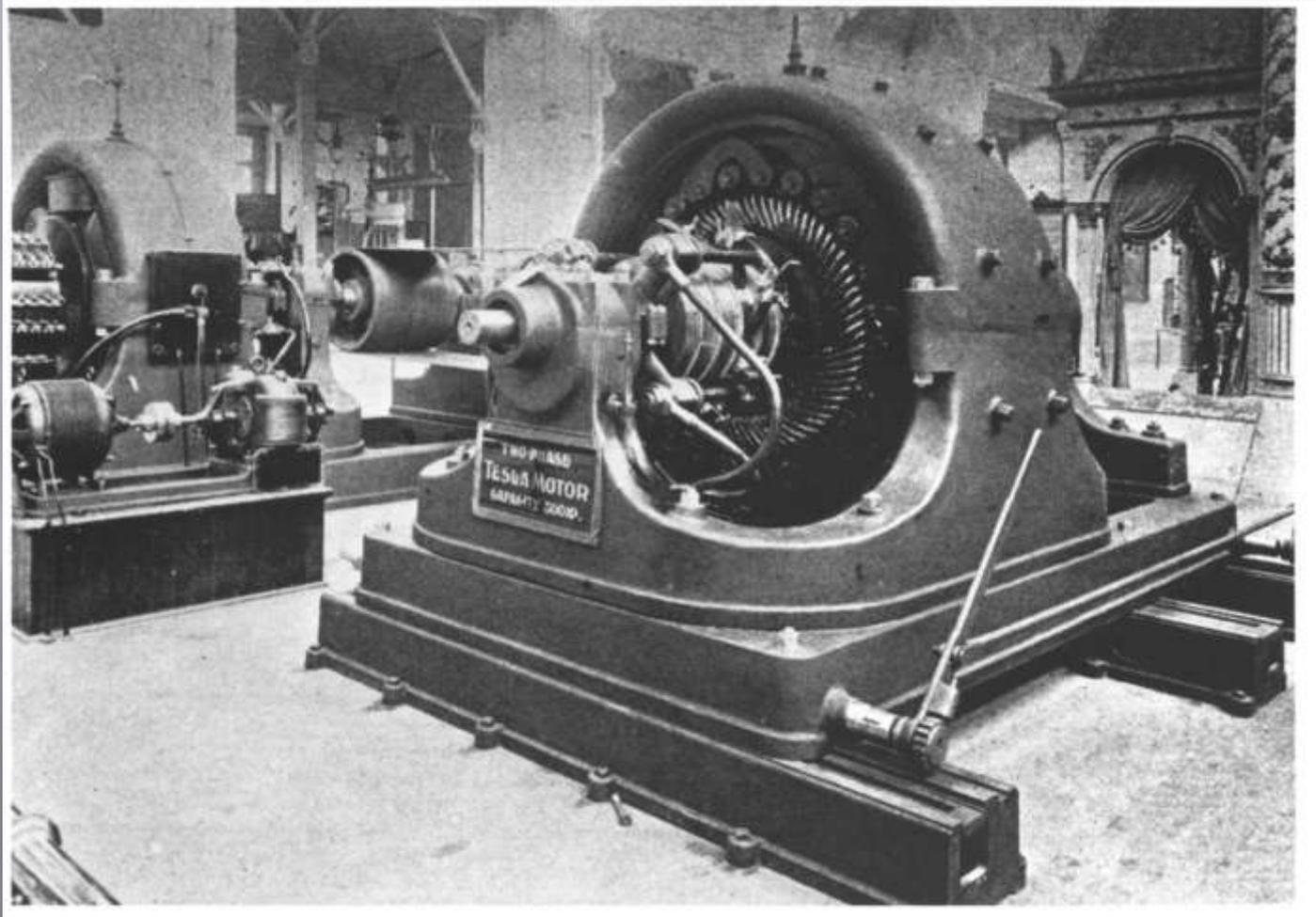


“Westinghouse  
Electric  
Manufacturing Co.  
Tesla  
Polyphase  
System”

# Light House Lens, Electric Building, Columbian Exposition



# Tesla's AC Motor

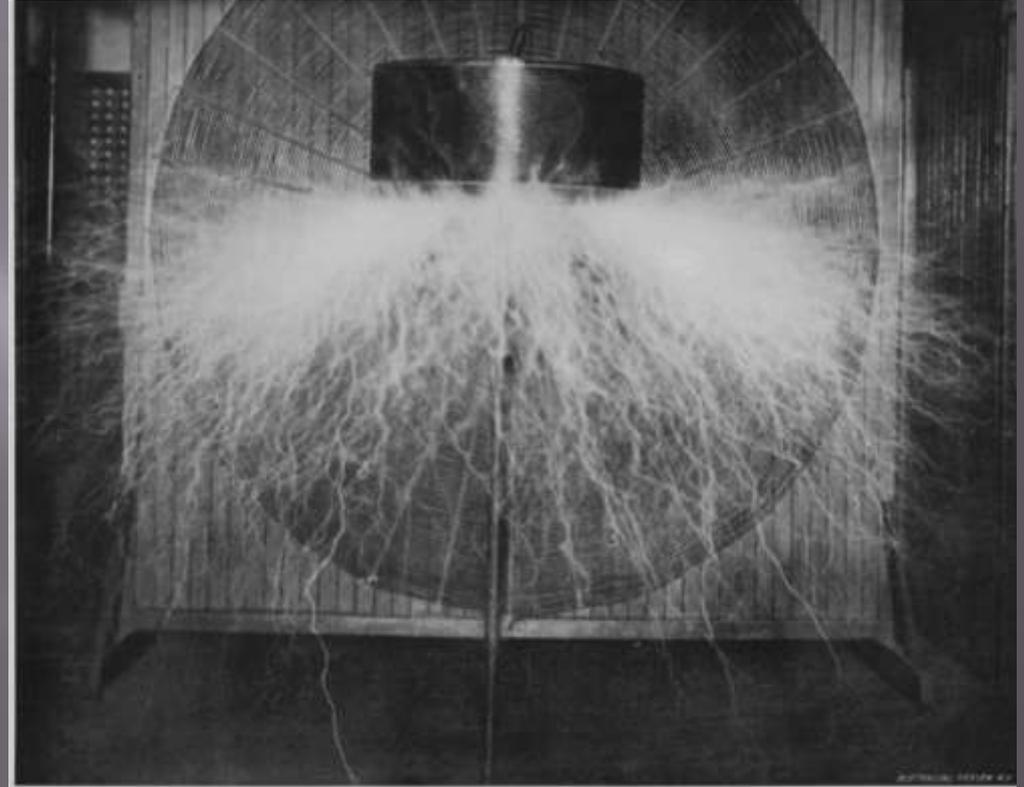


Source: Tesla Wardencllyffe Project  
[www.teslascience.org/archive/archive.htm](http://www.teslascience.org/archive/archive.htm)

# NYC, Houston Street Research Laboratory



**Experiment with currents of high potential and high frequency (1899)**



**Burning nitrogen produced by the discharge of an electrical oscillator generating twelve million volts (1899)**

Source: Tesla Wardencllyffe Project  
[www.teslascience.org/archive/archive.htm](http://www.teslascience.org/archive/archive.htm)

**Tesla holding gas-filled phosphor coated wireless light bulb (1898)**

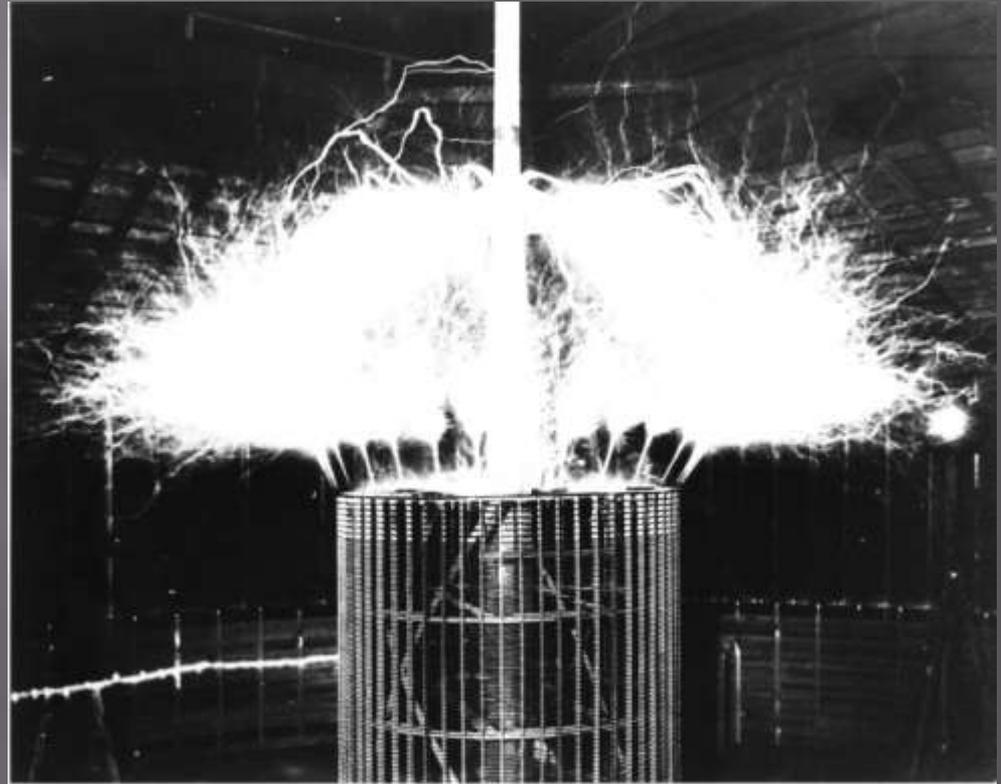


**Mark Twain in Tesla's Lab holding the loop over the resonating coil with Tesla on the switch in background (1895)**

# Niagara Falls, Westinghouse



# Colorado Springs, CO: Wireless Energy Transmission



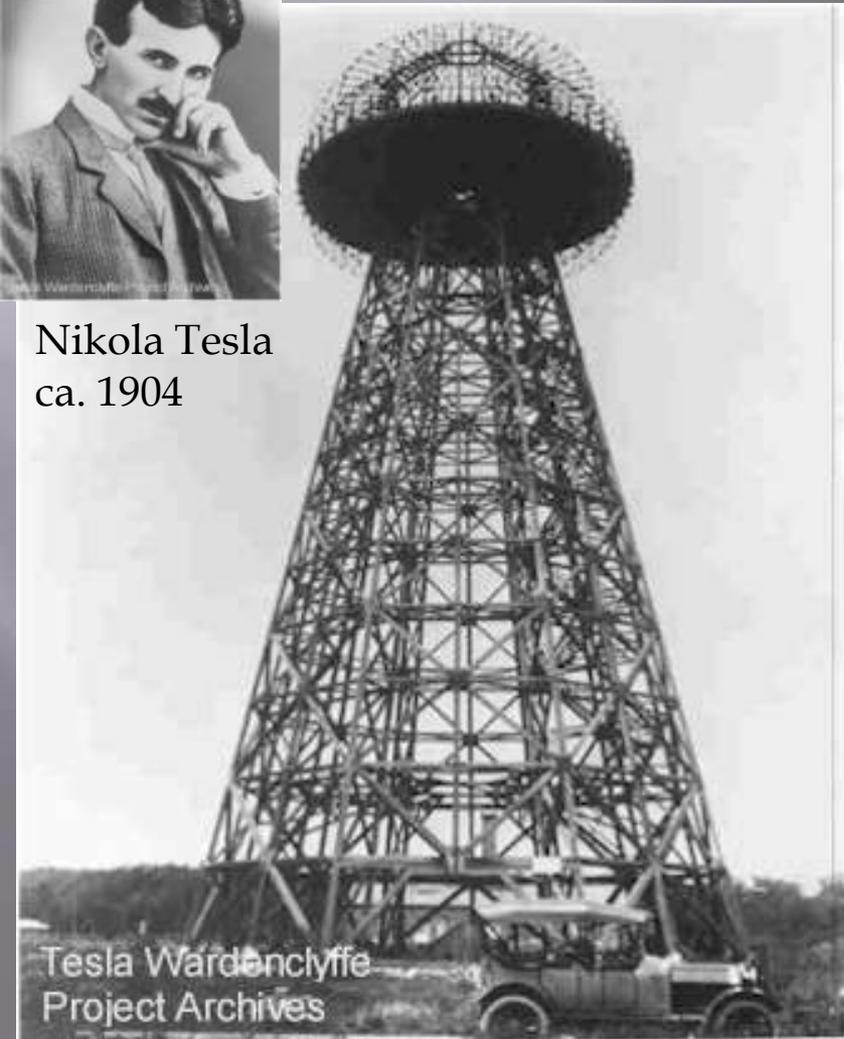
Source: Tesla Wardencllyffe Project  
[www.teslascience.org/archive/archive.htm](http://www.teslascience.org/archive/archive.htm)

# Shoreham, NY: “Wardenclyffe”



Nikola Tesla  
ca. 1904

About 1900 to 1920

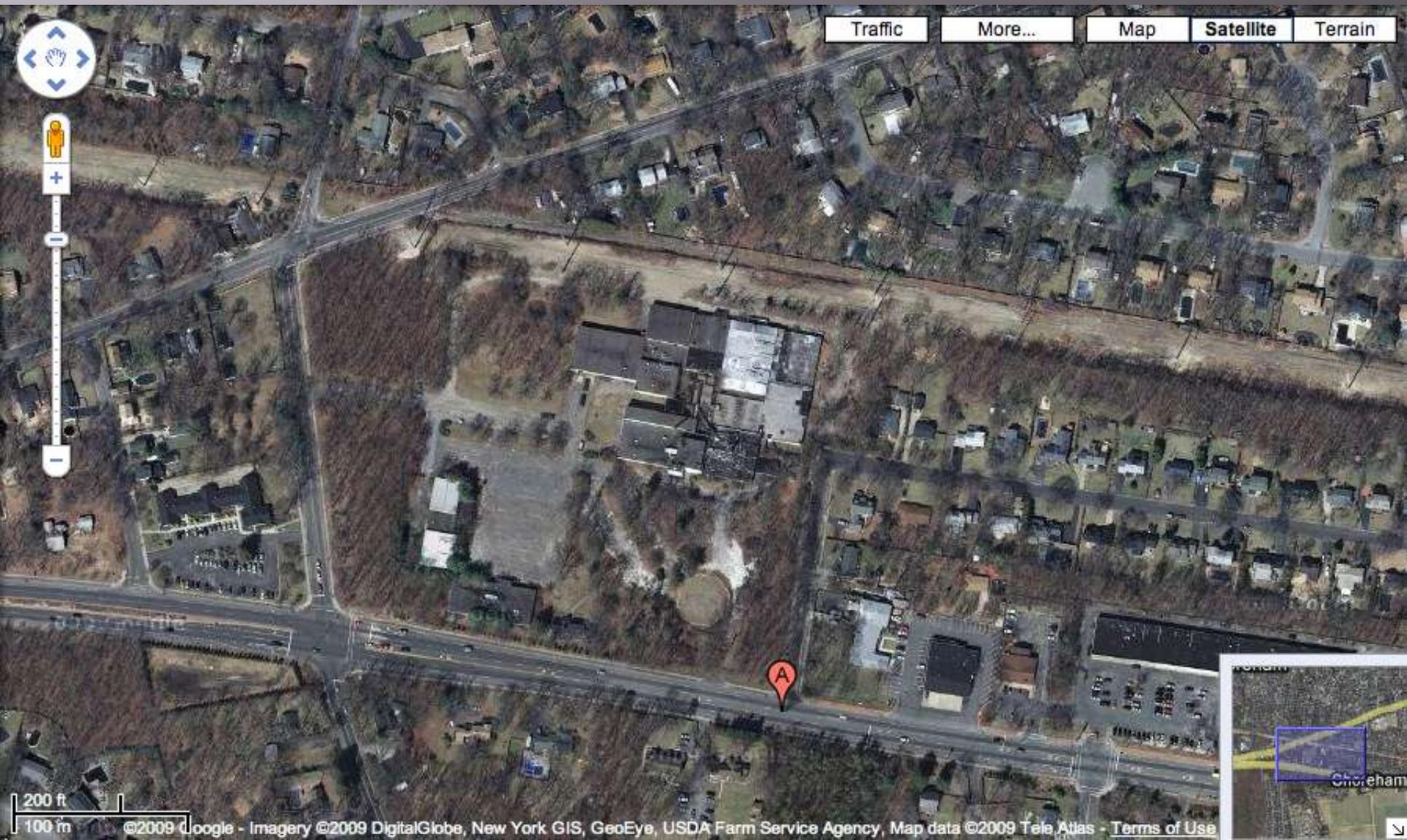


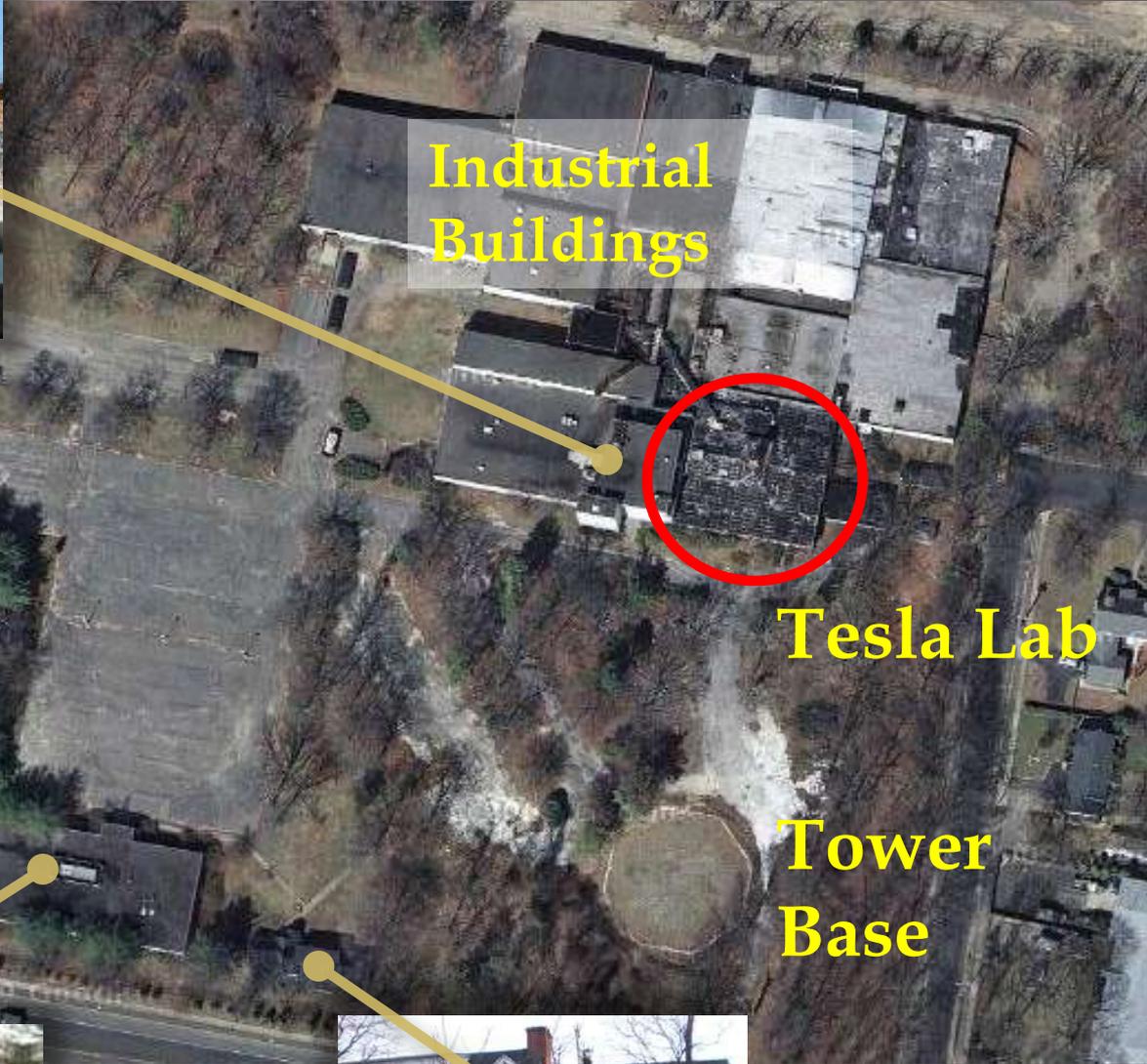
Tesla Wardenclyffe  
Project Archives



Source: Tesla Wardenclyffe Project  
[www.teslascience.org/archive/archive.htm](http://www.teslascience.org/archive/archive.htm)

# Wardenclyffe Site, After Cleanup



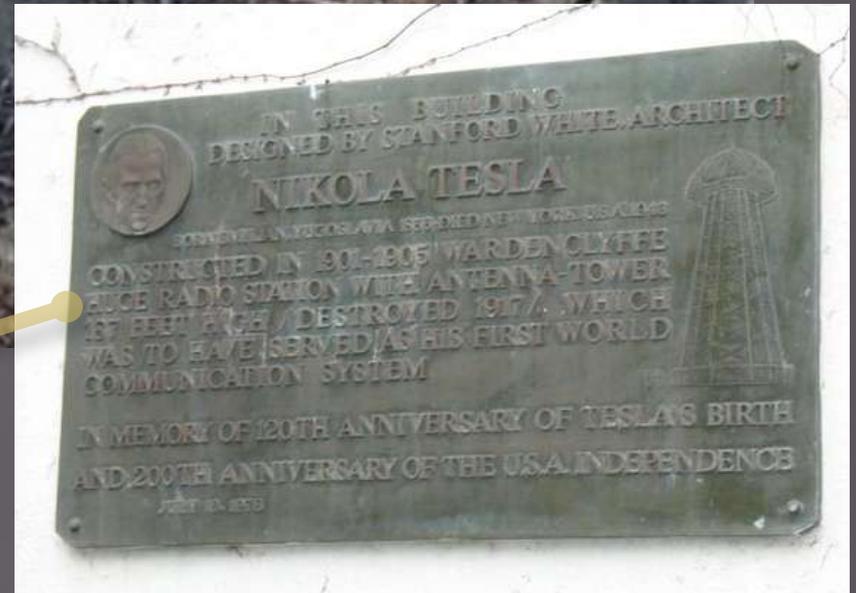


Industrial Buildings

Tesla Lab

Tower Base





1976 plaque: stolen in 2009

Historical Windows  
and Doors Boarded-up





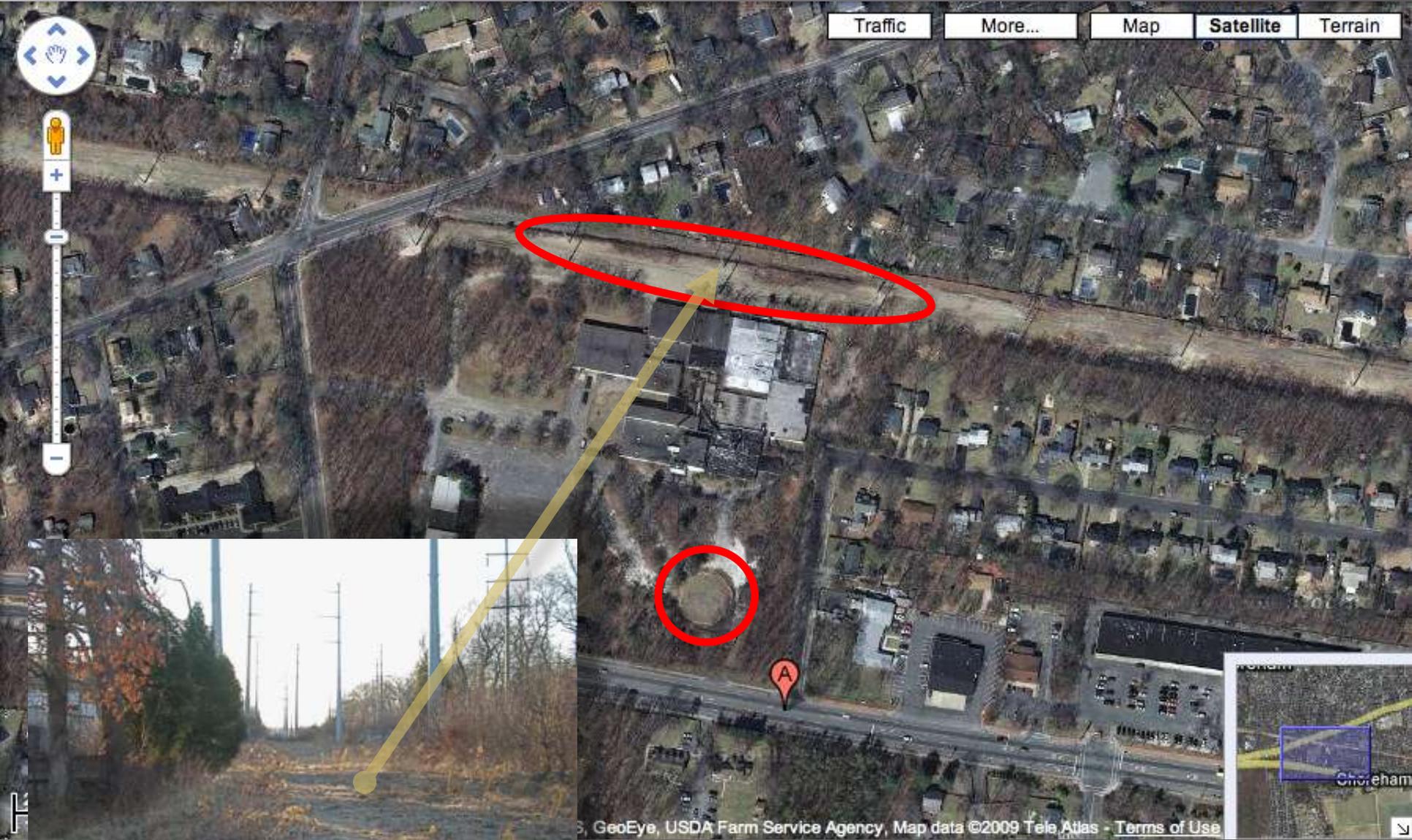
**Tesla's laboratory: designed  
by Stanford White**

**Tower base, stabilized with  
a cement slurry; capped with  
clean fill**



**Original window frames and doors**

# Areas of Major Cleanup—Completed



# Tower base: Octagonal concrete foundation with granite slabs, steel anchors



(Modern Marvels film crew at work;  
see History Channel: "Mad Electricity")



After removal of tower in 1917.

Later, after collapse of tower base concrete foundation.

Wardenclyffe Project Archives



Source: Tesla Wardenclyffe Project  
[www.teslascience.org/archive/archive.htm](http://www.teslascience.org/archive/archive.htm)



Then...

Tesla Wardenclyffe Project Archive



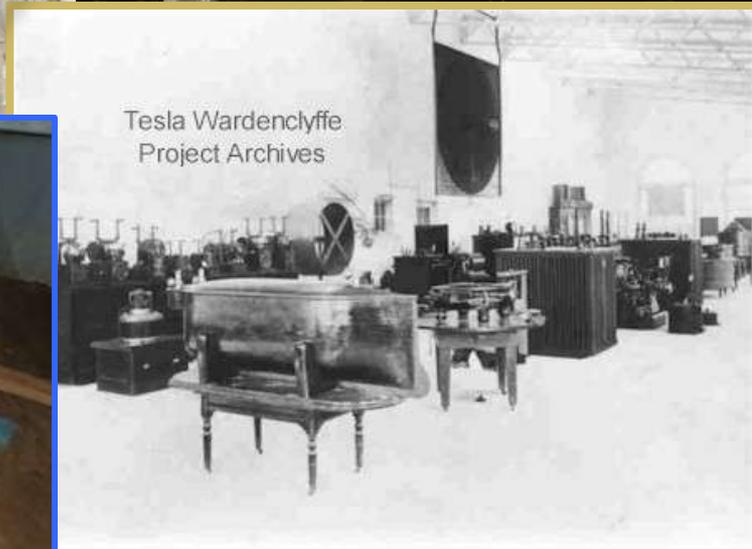
2009

...and now

Note, second floor creates attic  
over office and lab space



Additional Pictures from 2009 Visit



Additional Pictures from 2009 Visit



**May 30, 2009 Event  
"This Place Matters"**



**May 30, 2009**

**(See video by Ron Haugen at  
YouTube.com.)**

<http://www.youtube.com/watch?v=Y0o7IgoFn2M>

# Recent Noteworthy Events

The 2010 LITHF Inductees Tesla Inducted into Long Island Hall of Fame in 2010



Leo A. Guthart



Nikola Tesla



Dr. Boris Metlitsky



Dr. Nicholas P. Samios

Tesla Tower Featured on  
“Welcome to Shoreham”  
Road Signs



# Site Visit in April 2011



Building Interior Shows  
Extensive Signs of Vandalism

# The Road Ahead: Fundraising, Outreach, Partnerships

- ▣ Conceptual Goal:  
5–10 Million US\$ beyond acquisition
- ▣ Cleanup complete
- ▣ Property available for sale
- ▣ Looking for private-public partnership for acquisition
- ▣ Potential partners for development
  - all levels of government
  - synergistic organizations
  - corporate sponsors
  - supporters like you

- ▣ Fundraising pyramid



Grants, Corporate Donations,  
Individual Memberships

# TESLA SCIENCE CENTER AT WARDENCLYFFE

HOME

ABOUT

NEWS & EVENTS

NEWS ARCHIVE

WARDENCLYFFE

LINKS & RESOURCES

CONTACT

PHOTO GALLERIES

UPCOMING EVENTS

## ANNOUNCEMENT

### TESLA CONFERENCE 2011: Exploring Tesla's Technologies

Saturday, November 5, 2011, 8:00 AM–4:30 PM EDT, at  
Brookhaven National Laboratory ([Registration](#))

## OUR MISSION

Develop Nikola Tesla's last and only existing laboratory, in Shoreham, NY (USA) into a science and technology center and museum.



## HOW YOU CAN HELP

Recently, the current owner, the Agfa Corporation, completed the environmental cleanup. Please help us take the vital next steps.

Please donate securely online via PayPal. Just click the



# DONATE

## BECOME A MEMBER

## LATEST NEWS & EVENTS

[Website Upgrade](#)

[TSC Informs Local Public at Duck Pond Day](#)

[Fragments From Olympus](#)

[Visit to Wardenclyffe](#)

## TSC ON **twitter**

Two more scientists signed on to speak at the conference: Dr. Erik Johnson, speaking on Tesla & x-rays, and Dr.... <http://t.co/fRQCmkib>  
8 hours ago · reply · retweet · favorite

Conference sponsors include IEEE Long Island Chapter, Brookhaven National Laboratory, the New Yorker Hotel, and... <http://t.co/Yc4lywF3>  
3 days ago · reply · retweet · favorite

Countdown to the Conference: 28 days! Don't forget to register this weekend.

[Countdown to the Conference: 28 days!](#)  
3 days ago · reply · retweet · favorite

Launched

[www.TeslaScienceCenter.org](http://www.TeslaScienceCenter.org)

Tesla Science Center at Wardenclyffe announces

# TESLA CONFERENCE 2011

Exploring Tesla's Technologies



Saturday, November 5, 2011 Hilton Garden Inn 2038 Old Country Rd Riverhead, NY

## Evening Reception:

**Kip Rosser**

Theremin performer

**Joseph Sikorski & Victor Elefante**

Filmmakers, Fragments From Olympus



## Concurrent Events:

**Teslamania!**

A program by and for teachers of physics.

**Tesla Global Radio Meet-up – "TeslaGRAM"**

A ham fest, from many of Tesla's residence and laboratory locations throughout the world.



# Tesla Conference 2011 "Exploring Tesla's Technologies"



Photographs: Bob Kelly,  
Impromptu Street Photography

# Tesla Conference 2011 "Exploring Tesla's Technologies"



Photographs: Bob Kelly,  
Impromptu Street Photography

# Tesla Conference 2011

## “Exploiting Tesla’s Technologies

(& THE TRANSMISSION OF ENERGY W/O WIRES)

by

J.M. Hardesty, K.L. Corum and J.F. Corum, Ph.D.

[http://www.nedyn.com/rf\\_history.html](http://www.nedyn.com/rf_history.html)

Science Center Conference  
Long Island, NY Nov. 5, 2011



Photographs: Bob Kelly,  
Impromptu Street Photography



# Tesla Conference 2011 "Exploring Tesla's Technologies"

Photographs: Bob Kelly,  
Impromptu Street Photography

# Ways to Help

- ▣ Spread the word
- ▣ Solicit community support for a public-private partnership, income from site; e.g., “Wardenclyffe Science Commons”
- ▣ Help with fundraising
- ▣ Donate time and money



# Acknowledgments

- ▣ **Supported** with grants from Brookhaven Town, Suffolk County, NY State, Memberships and Donor Contributions
- ▣ **Images courtesy** of Robert Kelly, Gary Peterson (TWP), Harvey Yau, David Ellis, Google Maps, TSC
- ▣ **Special thanks** to David Alcorn, James Alcorn, Marc Alessi, Sam Aronson, Chris Bach, Jeff Behary, Tim Bishop, Karen Blumer, Jane Bonner, Mike Caracciolo, Peggy McKinnon Clark, Harriet Copel, Ken Corum, Jim Corum, Carol Davis-Wiebelt, Girish Desai, Charlene Graff, Martin Haley, Jim Hardesty, Mark Lesko, Dan Losquadro, Michael Krause, Kevin McCarrick, Gary Peterson, Marc Seiffer, Robert Uth, Bill Terbo, Kevin Ward, Ljubo Vujovic, Ken White, Bill Wysock, Jim Yeck;  
SWR High School Students, Principals, and Superintendent;  
local Boy Scouts, Residents, Civic and Historical Societies;  
Rocky Point Rotary Club;  
Tesla Memorial Society, Tesla Wardencllyffe Project;  
Agfa, BNL, NYS-DEC, SUNY at Stony Brook;  
Town, County, State, and Federal Elected Officials;  
Speakers, audience, sponsors, and supporters at Tesla 2011;  
Filmmakers Joe Sikorski, Michael Calomino, Victor Elefante  
("Fragments from Olympus")

**All slides are from the  
Tesla Conference 2011  
“Exploring Tesla’s Technologies**

**Q & A**

**Thank You**