

# 21<sup>st</sup> CENTURY

## SCIENCE & TECHNOLOGY

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### **America's Genius for Invention**

Review of "The Great American Hall of Wonders,"  
Exhibit at the Smithsonian American Art Museum,  
Washington, D.C., July 15, 2011 – Jan. 8, 2012  
by Timothy Rush

Anyone in the vicinity of Washington D.C. before January 8, 2012, should make an effort to see this remarkable exhibit. It only touches perhaps one-tenth of what could and should be said about the flowering of American arts and sciences in the 19<sup>th</sup> century, but it indelibly makes the point that the arts and sciences were, for the nation-builders of that time, *one and the same*.

The theme is set by the 1821 painting which announces the entrance to the exhibit, Charles Willson Peale's "The Artist in His Museum". It is a magnificent self-portrait at 81 years of age, by an intimate of Benjamin Franklin, a pre-eminent artist, naturalist, and inventor, who had assembled and supervised a Hall of Wonders. This was a Philadelphia museum with the twin themes of portraits of America's founding fathers, arrayed in a row above cabinets of dioramas of stuffed animals and birds, all facing the assembled bones of the first full skeleton of a mastodon excavated (by Peale himself!) in North America. Peale stands front and center in the painting at full length, lifting a brocaded curtain on his Hall of Wonders with a sweeping gesture of invitation.

One of Peale's sons, Rembrandt Peale, commented proudly that "It was a portrait painter, *Robert Fulton*, that gave us the power of steam navigation. It was a portrait painter, *S. F. B. Morse*, that devised the magic electric telegraph. It was a portrait painter, *C. W. Peale*, that first made porcelain teeth for himself and a few friends. And, I, though a portrait painter, lighted the first city with gas" (italics in original).

Among the treasures in this exhibit that exemplify this theme, are two astounding drawings by Samuel F. B. Morse that could have been taken out of the notebooks of Leonardo Da Vinci: "Series of Heads with a Gear," and "Profile of a Bearded Man and Design for the Atlantic Cable" (1842). For those unacquainted with Morse's superlative painting accomplishments, the concurrent showing of his masterpiece "Gallery of the Louvre" at the National Gallery of Art, is a must-see. For those who only know Morse as the inventor of the



electric telegraph and Morse Code, it is a treat to see the actual scale models he submitted to the U.S. Patent Office in 1837. (It is a nice overlay that the current exhibit occupies space in the building that was the Patent Office at that time.)

Similarly striking are two drawings by the great Philadelphia painter Thomas Eakins, "Perspective of a Lathe" (1860), and "Mechanical Drawings – 3 Spirals," which far from being simply illustrations, become works of art in their own right. In the same vein, the celebrated landscape painter of the West, Albert Bierstadt, is represented both with memorable canvasses of Indians hunting the buffalo, and a drawing of a patent application for a railway car which opened out into a house on wheels. Likewise, a celebration of America's railroad-building prowess, Jasper Cropsey's 1865 glowing "Starrucca Viaduct," together with his 1878 meticulous piece of draftsmanship, "Design for Gilbert Elevated Railway Elevation." And just to spice the mixture, there is the original patent drawing for inflatable chambers to lift steamships off shoals, by the master railroader himself, Abraham Lincoln.

The exhibit becomes something of a hodgepodge at times, lacks sufficient explanation in some of its identifications, and it lays on a veneer of modern environmentalist dogmas. But it succeeds movingly to portray what it correctly characterizes as "the 19<sup>th</sup>-century American belief that the people of the United States shared a special genius for innovation. [The exhibit] explores this belief through works of art, mechanical inventions and scientific discoveries, and captures the excitement of citizens who defined their nation as a 'Great Experiment' sustained by the inventive energies of Americans in every walk of life."

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