

Full disclosure: Dr. Roach is my brother-in-law and I was reluctant to print this review because I did not want give the impression of favoritism. However, this title appeared in JPMorgan's Next List for 2018 so I think it is reasonable to print Jeanette's review here.

***Simply Electrifying: The Technology that Transformed the World, from Benjamin Franklin to Elon Musk*, by Craig R. Roach*, BenBella Books, Inc., Dallas, 2017, 400 pages, ISBN: 978-1944648268**

A world without electricity would be a dark one indeed (both literally and figuratively). That's where Craig R. Roach starts *Simply Electrifying*: by asking the reader to imagine their world without the innumerable technologies that make our daily lives so much easier--technologies that predominantly run on electricity.

So who do we have to thank for this incredible energy that powers our lives? You've probably heard the story about how electricity was "discovered"--it involves founding father Benjamin Franklin, a kite, a key, and a lightning storm. Roach elaborates on the historical accuracy of this story and the impact of Franklin's experiment in his first chapter.

But what is electricity, really? When did it become something to be taken for granted? Where does it actually come from? How do we harness it? And who regulates how we use it?

These are all important questions Roach answers in his book--so even someone with little to no understanding of the "science" behind what electricity is (moving electrons), or the history of electricity (it's a rich one!), can read *Simply Electrifying* and walk away with a newfound knowledge of such a key aspect of their life.

Simply Electrifying is divided into five parts, or "ages" of electricity: The Age of Franklin, The Age of Edison, The Age of Big, The Age of Harm, and The Age of Uncompromising Belief.

Roach follows Franklin's discovery with James Watt's steam engine--an over two hundred year-old invention that cemented our modern dependence on coal-burning for electric power. Then, he takes a slight detour into the realm of the theoretical history of electricity: Faraday's Law of Induction and Maxwell's Equations.

After laying the groundwork, Roach details various inventors and their creations that employed the newfound electricity to power them, like Samuel Morse's telegraph and Thomas Edison's light bulb. He touches on the Tesla-Edison AC/DC debate, and the mass deliverance of electricity to American homes.

Then Roach moves on to FDR's New Deal policies, which included bringing electricity to rural areas of the United States in an effort to combat unemployment. Hoover Dam and hydroelectricity, coal power, and Einstein's $e = mc^2$ all make appearances.

The dangers of electricity--namely the potential hazards of nuclear power and pollution from coal-powered plants--along with California's electricity crisis in the 1990s and the fall of Enron come next.

Finally, Roach ends with Obama's Clean Power Plan (how will it really impact the American public?), George Mitchell's shale gas revolution (fracking!) and the man many see as a real-life Tony Stark and the future of electricity: Elon Musk.

Simply Electrifying is not a light read--clocking in at 375 pages, not counting footnotes and indices--but it reads like one. Roach's prose hits the delicate balance between informative and compelling, covering all the bases in an objective and still interesting way.

Review by Jeanette S. Ferrara, MA