

Nikola Tesla: Unique Genius Or A Model For Everyone?

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Tesla's Approach to Creativity

Tesla's account of his own creative process. Here it is in full:

My method is different. I do not rush into actual work. When I get an idea I start at once building it up in my imagination. I change the construction, make improvements and operate the device in my mind. It is absolutely immaterial to me whether I run my turbine in thought or test it in my shop. I even note if it is out of balance. There is no difference whatever, the results are the same. In this way I am able to rapidly develop and perfect a conception without touching anything. When I have gone so far as to embody in the invention every possible improvement I can think of and see no fault anywhere, I put into concrete form this final product of my brain. Invariably my device works as I conceived that it should, and the experiment comes out exactly as I planned it. In twenty years there has not been a single exception. Why should it be otherwise? Engineering, electrical and mechanical, is positive in results. There is scarcely a subject that cannot be mathematically treated and the effects calculated or the results determined beforehand from the available theoretical and practical data. The carrying out into practise of a crude idea as is being generally done is, I hold, nothing but a waste of energy, money and time.

This is astounding to me because it's opposed to how virtually every creative person I know operates. It's certainly alien to my own creative process. After 10 years of practice, I can blog short pieces pretty efficiently -- grab an idea, introduce it, add commentary. But for longer pieces I have to write an outline in longhand first. Heck, even when I'm playing [Minecraft](#), when I want to build a large structure or design a redstone circuit, I have to draw it out in my notebook beforehand or else it becomes a hopeless mess.

Tesla's process is different -- it's the writing equivalent of writing an entire book in your head, down to the last punctuation mark. Then *editing it* in your head, and only *then* putting it down on paper. And Tesla wasn't doing this with words. He was practically inventing the modern world. Alternating Current. Tesla coils. Radio. Induction motors. Remote control. He was inventing all of those things in his head.

I'm not trying to gush, but you can't read about Tesla without being a little bit in awe of him. His achievements were incredible. But were those achievements unique? That is, was there some random combination of genes that gave Tesla the ability to model and create magnificent inventions in his head, making him a singular genius. Or is there, within the life of Nikola Tesla, a model that we can follow in our own creative lives?

Tesla and Modeling

For the most part, the answer is most likely the latter. To be sure, there are some things we can't replicate. For one thing, most people who've studied Tesla from his writing have come away with the conclusion that he suffered from Obsessive-Compulsive Disorder (for example, he had to complete all of his actions in multiples of three or else he'd force himself to repeat them).

But while we can't necessarily replicate Tesla's OCD, that doesn't mean we can't take the process of visualizing a creative result mathematically and perfectly before we end up making it concrete in the real world. One possible means of doing this is simply taking advantage of the power of computing. As Saul Griffith [recently noted](#), scientists and engineers are now using computers to achieve Tesla's ideal of a perfect visualization prior to making anything concrete.