

"Tell me a story of (about or from) science. Who are the characters? What is its beginning, middle - and how does it "end"?"

Egocentrism and profit as barriers in scientific progress;

The story of Nikola Tesla.

It all began one rainy midnight in 1856. Smiljan, a small village in modern Croatia, was violently tortured by thunder and lightning, as if the destiny of the newborn was already known. Some years later, in a quite similar setting, he was able to harvest the freely available energy in the environment and supply his home with electricity, whilst every other household was covered in darkness. This is the story of Nikola Tesla, an ingenious engineer who struggled to introduce his inexhaustible variety of inventions to the world. Noteworthy barriers to his progress included Thomas Edison and several bankers.

From early on, Tesla was determined to devote time and effort into science. One of the best ways to pursue his aspiration was to migrate to the USA. Thereat, he worked alongside Thomas Edison, the famous inventor of the direct current (DC). However, a paramount problem was associated with the DC: the wires used would turn hot and the electric supply was limited to the vicinity of the power plant. Tesla was first to identify the nature of this issue. The current was exceedingly high and hence, lots of energy was "lost" in the form of heat. He pioneered the alternate current (AC), which, unlike the DC that flowed in a single direction, could surge interchangeably in both directions (backwards and forwards). What makes this current especially interesting is its ability to induce electric flow in adjacent yet unconnected conductors. Moreover, with the help of a device known as a transformer, voltage and current can be altered to achieve more efficient and safer energy distribution to distant sources. Subsequently, as an eminent scientist trying to protect his reputation, Edison stopped funding Tesla, forcing the latter to resign, yet accurately predict: "Let the future tell the truth, and evaluate each one according to his work and accomplishments. The present is theirs; the future, for which I have really worked, is mine".

The next step in Tesla's career involved approaching bankers and successfully asking for funding. Thereafter, he engineered the famous Wardencllyffe tower, an enormous construction consisting of thousands of electrodes, able to wirelessly light lamps several kilometers away, by harvesting energy from the environment. When he presented his results, funding immediately ceased. This tower posed a financial threat to both banks and companies, as it would reduce the sales of coal and other fuels. Tesla's estimate, that just twelve such towers should suffice to supply the whole of the US with electricity, led to the demolition of his creation. An anti-gravitational "vehicle" able to fly independently of fuels, was the genius's next promise. As expected, it was once again rejected by his funders. Last but definitely not least, came the "Death Beam", a machine capable of generating concentrated high speed particles travelling in a thin, invisible "line". Tesla's demonstration, which involved annihilating a couple of airplanes, impressed the bankers, who then insisted that he should send his plans to a scientific

regulatory committee for “approval”. Here lies the amazing part. Tesla provided them with an incomprehensible part of his invention, entitled the “Peace Beam”. When challenged for clarification, he revealed he had split the “missing” parts between the English, Japanese, Germans and Russians. Only if all of them united would peace be able to prevail, due to fear of mutual destruction.

Tesla was found dead in 1943. The fate of his written work remains uncertain; some suggest it was confiscated by the US intelligence agencies. Nevertheless, his awareness of the frequency in which the human brain functions (6-8Hz) was surprising for the era: "The human being is a self-propelled automaton entirely under the control of external influences. Willful and predetermined though they appear, his actions are governed not from within, but from without". Could the whole of mankind, though, be no more than sheer puppets? Theorists suspect the High-Frequency Active Auroral Research Program (HAARP) as a possible puppeteer. This system operates by transmitting energy to a specific atmospheric layer known as the ionosphere, aiming to analyze its composition. Some believe it is even capable of manipulating weather conditions. Furthermore, concerns relate to the presence of a reflector in the atmosphere, returning this energy. Would it be possible, indeed, to influence people with “messages” –imagine them like packets-, which are “wrapped” in a frequency of 6-8Hz? This thread however, may lie beyond the scope of this essay.

The realm of science is profuse in breathtaking stories. The life of Nikola Tesla, though, stands out from the plethora of tales. It constitutes the quintessence of how profit can drive science to putrescence. Additionally, it demonstrates the paramount importance of teamwork, rather than individual success. Science is similar to a ladder: each step unites with the backbone, and the collective contribution eventually allows us to reach the top. After all, General Yiannis Makriyiannis emphasized in his memoir: "We stand for all, not for one" (1907).