Toronto International Film Festival: Part 3

The Current War—about Edison, electricity and the 1880s—and Alexander Payne's *Downsizing*—about "downsizing"

By Joanne Laurier 28 September 2017

The Current War

"At 32, I wrestled nature into a glass"—Thomas Edison on his invention of the light bulb.

In the last two decades of the nineteenth century, two electric power transmission systems competed for dominance in the US. The "War of Currents" involved an intense clash between three legendary inventor-businessmen, Thomas Edison, George Westinghouse and Nikola Tesla, to determine whether direct current (DC) or alternating current (AC) would become the standard.

Edison and his Edison Electric Light Company championed the direct-current system, in which electric current flows constantly in one direction, while Westinghouse (Westinghouse Electric Company) and Tesla promoted the alternating-current system, in which the current periodically alternates.

Alfonso Gomez-Rejon has directed *The Current War*, whose title plays on the media's original name ("War of Currents") for the conflict. As the film opens in the 1880s, Edison (Benedict Cumberbatch) has already developed the first incandescent light bulb.

Dubbed "The Wizard of Menlo Park," the location of his industrial research laboratory in New Jersey, Edison secures the financial backing of the bulbous-nosed financier J.P. Morgan (Matthew Macfadyen) to light up five Manhattan blocks. Edison then hires a brilliant, young Serbian mathematician and engineer, Nikola Tesla (Nicholas Hoult), to help solve the problem of direct current, that is, its loss of energy in transmitting over distances.

Meanwhile, Pittsburgh industrialist George Westinghouse (Michael Shannon), collaborating with his chief engineer Frank Pope (Stanley Townsend), has begun working successfully with alternating current—the eventual future of most electrical distribution.

It's not long before Tesla quits Edison, having failed to extract from the latter a promised \$50,000. After an unsuccessful effort to create his own firm, Tesla eventually joins forces with Westinghouse. (In 1883, Nikola Tesla developed the "Tesla coil," a transformer that changed electricity from low voltage to high voltage.) Soon, Westinghouse has more than half as many generating stations as Edison. The race as to who will take the reins of the burgeoning electricity industry is relentless and fierce.

Attempting to thwart his rival, Edison begins to claim that Westinghouse's system is lethal. "Just as certain as death," Edison announces, "Westinghouse will kill a customer within six months after he puts in a system of any size." Soon after, Edison receives a letter from a dentist in Buffalo asking for help in creating a more humane instrument for capital punishment: the electric chair! But Edison has notably always insisted "the one device I will never build is that which takes a human life."

In this case, however, competition trumps principles. Operating underhandedly to discredit Westinghouse, Edison works behind the scenes to associate the electric chair with Westinghouse and the dangers of AC. Death by electrocution, Edison publicly, and falsely, proclaims is the act of being "Westinghoused."

At a certain point, Morgan, who now controls Edison's company, merges the latter with Thomson-Houston Electric Company to form General Electric, sidelining Edison. Ultimately, Westinghouse proves successful in the current war, winning the contract for the Chicago World's Fair in 1893, and later, installing hydroelectric power at Niagara Falls—the brainchild of Tesla.

The Current War is instructive and lively, bolstered by the talents of Cumberbatch and Shannon in particular. It offers a glimpse at the era of the birth of American industrial capitalism. The movie argues that Edison developed the first industrial research laboratory—Menlo Park—not for self-glorification or profit, although these were elements, but to advance human progress.

Credit should be given to the film for taking a strong stand against capital punishment. It features the first electrocution, of William Kemmler (Conor MacNeill) in New York in 1890. The execution lasted eight horrifying minutes. Westinghouse would later comment that "they would have done better using an axe." A reporter who witnessed the event claimed that it was "an awful spectacle, far worse than hanging."

Supporting actresses, Katherine Waterston as Marguerite Erskine Westinghouse and Tuppence Middleton as Mary Stilwell Edison, pull their weight in enhancing the drama. The engineer Samuel Insull (Tom Holland) is effective as Edison's managerial counterpart. According to the Institute for Energy Research, Insull became known as the "Henry Ford of the modern electricity industry." Insull would also become an unscrupulous business magnate and, interestingly, one of the inspirations for the character of Charles Foster Kane in Orson Welles's *Citizen Kane*.

The collection of personalities in *The Current War* is remarkable—Edison, Westinghouse, Tesla, Insull, Pope and others. These were large figures in an era of large figures, many of them entirely ruthless and predatory. The destruction of slavery in the Civil War opened up a period of massive industrial growth in the US (the steel industry between 1870 and 1913, for instance, grew at an *annual* rate of 7 percent).

The film's over-emphasis on personalities and personal feuds is misplaced. This is not to dismiss Edison's genius, and his more than 1,000 patents, or Tesla's, but in the end the pressing, irresistible needs of American industry would have been met, one way or another. *The Current War* presents intriguing and suggestive material, but doesn't entirely know what to make of it.

Is the legitimate fascination with this industrial-technological history bound up with a distrust of or disgust with the current crowd of "business leaders" in the US, virtually every one of them a speculator, financier, Wall street parasite? It's hard to say, but the filmmakers' treatment of the 1880s and 1890s does omit the central productive force that emerged in that epoch, the working class. During the general period covered in *The Current War*, ferocious class battles erupted, including the Great Railroad Strike of 1877, the Haymarket riot in Chicago in 1886, the Homestead steel strike in 1892 and the Pullman strike of 1894. None of this history gets so much as a mention.

Nonetheless, while the movie tends to skim the surface of this rich and vital history, *The Current War* is thought-provoking in its presentation of a host of iconic figures who helped usher in modern society.

It is worth recalling Tesla's speech at the Niagara Falls opening ceremony on January 12, 1897:

"We have many a monument of past ages; we have the palaces and pyramids, the temples of the Greek and the cathedrals of Christendom. In them is exemplified the power of men, the greatness of nations, the love of art and religious devotion. But the monument at Niagara has something of its own, more in accord with our present thoughts and tendencies. It is a monument worthy of our scientific age, a true monument of enlightenment and of peace. It signifies the subjugation of natural forces to the service of man, the discontinuance of barbarous methods, the relieving of millions from want and suffering."

Downsizing

Alexander Payne's new movie *Downsizing*, is an uneven science-fiction satire that proposes to solve the earth's ecological problems by "downsizing," or physically shrinking, human beings. The creator of such noteworthy films as *Election* (1998), *About Schmidt* (2002) and *Nebraska* (2013), Payne employs, in *Downsizing*, a light, though slightly smug touch in attempting to address pressing social ills.

His film features Matt Damon and Kristen Wiig as Paul and

Audrey Safranek, a lower middle-class couple with thwarted dreams and nearly empty pockets. Paul, always having wanted to be a surgeon, is now an occupational therapist at Omaha Steaks in Omaha, Nebraska. The Safraneks' drab and financially overstretched lives render them susceptible to the claims of Norwegian scientists—who have invented a technology that can reduce "organic material at a cellular level"—that miniaturization will solve a myriad of problems.

For example, the Safraneks are informed that their net worth of \$150,000 will be the equivalent of \$12 million in the tiny model community called "Leisureland." In addition, it will not only be financially advantageous to be shrunk, but the procedure will help save the planet! Flashy sales seminars, with cameos by Neil Patrick Harris and Laura Dern, extol the virtues of being reduced to five inches high. The amusing Jason Sudeikis as Dave Johnson, connected to Paul's high school days, enthuses over his doll-house-size existence.

Payne's film is at its best when it drolly visualizes the shrinking process. Dental fillings must be removed so heads don't explode and giant (that is, normal size) nurses transfer the newly miniaturized into tiny hospital beds with spatulas. Audrey backs out after her head and one eyebrow are shorn, leaving her husband to sign divorce papers with a pen several times his size.

As for Paul, he soon realizes that Leisureland is not the Shangri-la he was told to expect. Not only is his Serb neighbor Dusan (a wonderful Christoph Waltz) loud and vaguely depraved (along with his friend played by Udo Kier), but the community is afflicted by acute social polarization, with dark slums hidden away from the glitzy moneyed class. In fact, included in Dusan's team of house-cleaning maids is Ngoc Lan Tran (Hong Chau), a one-legged Vietnamese activist shrunk against her will by the government. (Chau, who was born in Thailand to Vietnamese parents, grew up in Louisiana. Unfortunately, her harsh Vietnamese accent, intended to be humorous, is mostly nerve-grating.)

As problems with "Leisureland" begin to emerge, so do the problems with *Downsizing* —it becomes muddy and unfocused and even unclear in its attitude toward climate change. Payne's movie seems finally to go off in several directions at once, none of them satisfying.

However, it delivers a bite with questions like, "Should you [tiny people] get the same rights as normal-size people?" or, when it mentions the concerns of Homeland Security: downsizing illegal immigrants and terrorists can make breaching American borders much easier!

To be continued

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