“The Art of Killing by Electricity”: The Sublime and the Electric Chair

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In July 1896, an article in the Scientific American praised “The Progress of Invention during the Past Fifty Years.” The author, Edward W. Byrn, celebrated “a splendid, brilliant campaign of brains and energy, rising to the highest achievement amid the most fertile resources.” New technological devices of incredible richness and diversity had been invented, immense progress and marvelous growth had been achieved, and people felt overwhelmed by a “gigantic tidal wave” or “flashing meteors that burst upon our vision.” According to Byrn, the Western world had been created anew by the modern, especially the American, man who had touched matter “with the divine breath of thought” and had thus acquired almost supernatural qualities. This technological enlightenment inspired “emotions of wonder and admiration at the resourceful and dominant spirit of man.” Thus, according to Byrn, the man-made but nevertheless hardly comprehensible world of technological wonder caused a sublime experience among late-nineteenth-century Americans.1

In the middle of this world of technological wonder stood the electric chair, which was developed for the execution of the death penalty in New York State during the 1880s. When electricity and capital punishment merged in the “deadly dynamo,” death by electrocution was widely perceived as an advance of civilization. It was part of the remodeled, modern world described in the Scientific American and in many more magazines and writings, and, as such, it was understood to give society a sense of elevation. Though the electric chair was an incorporation of a still-mysterious power, it seemed to signify the human ability—or at least that of white educated males—to understand apparently supernatural forces, to conquer them, and to use them for positive, culturally beneficial effects. Looking at the history of the electric chair through the lens of the sublime helps explain how the electrocution of four death row inmates on July 7, 1891, in Sing Sing state prison could have been cele-

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brated as "great scientific experiment" and as further advancement in "the art of killing by electricity."²

The following article investigates the interrelationship of technology, concepts of progress, the sense of the sublime, and the death penalty in nineteenth-century America. I will try to accomplish this by conceptualizing the sublime not as confined to an aesthetic theory, but rather as a well-established pattern of discourse shaping the contemporary mode of perception, thought, and action. I will then narrow the field to the perception of electricity and finally to that of the electric chair and the first electric executions in the early 1890s.

The Sublime

With the Enlightenment, the human ability to subdue and control natural powers became a crucial element in the concept of civilization. To the enlightened contemporaries of the eighteenth century, mankind was continually improving its comprehension and control of natural forces by systematizing them and establishing the laws of their operation. The systematic nature of the world, not the incomprehensibility of many of its phenomena, gave reason to exalt the Creator. The God-given human ability to reason and the corresponding potential for self-development were the foundation upon which a new cultural order would be created. Even in the Age of Reason, however, there was a widespread desire to confront impenetrable, mysterious phenomena and to experience fear, wonder, and bewilderment, a desire intensely discussed by numerous writers. Many people sought proximity to tragedy, horrifying spectacles, and threatening natural forces such as lightning and thunder. Encounters with death were considered particularly alluring borderline experiences because death was inevitable and unimaginable at the same time, as Immanuel Kant maintained in an essay about "the end of all existence." Confrontations with such overwhelming phenomena, however, generally had to be indirect. The confrontation had to cause real horror for at least a fraction of a second, but the observer had to perceive the incident from a position of safety that guaranteed his survival. Under these circumstances, a horrifying confrontation led to an extremely intense existential awareness

for the observer, and as such the frightening experience was at the same time joyful, pleasant, and desirable.\(^3\)

The quest for "delightful horror" was based on pure sensual desire, but those who were able intellectually to penetrate their desire and who became aware of their emotion and attraction elevated themselves to a higher intellectual and cultural level. They conquered not only frightening natural phenomena but also their own fear by means of a strong mind, education, and willpower. They transformed nature into culture, elevated themselves above the outside world, enhanced the perfection of their individual as well as their collective self-control and intellect, and advanced civilization as a result. In earlier times, by contrast, confrontation with expressions of natural and divine powers had caused amazement, horror, and fear, but within a civilized mind it created an enhancing, sublime feeling. Thus, a supposedly supernatural experience was transformed into a source of individual and collective inspiration and development.\(^4\)

A position of safety guaranteeing the survival of the observer could be created by various means. Being under a shelter during a storm could make a sublime experience possible. The lightning rod, a technological development, functioned as a virtual shelter. It not only enabled people to observe thunderstorms in closer proximity and thus more intensively, but it also made the observers feel a superiority over the initial incomprehensibility and menace of the storm. The natural spectacle still had the ability to cause horror and fear, but they could be conquered by means of human inventiveness and transformed into a sublime sensation within the observers.\(^5\)


In the course of the nineteenth century, the concept of the sublime shifted; man-made creations and achievements became the major triggers of the sublime. Technological devices, machines, and buildings increasingly incorporated the qualities necessary to create a sublime experience. They were so large, so complex, and so dynamic that they seemed to be embodiments of supernatural power; at the same time, they were created by mankind. They signified an almost supernatural ability to overcome and subjugate the forces of nature. Moreover, the technological world was understood as the sign of a divine mission, for God had blessed occidental humanity with the ability to recognize his revelations in the forces of nature, to penetrate those revelations, and to take possession of them.6

The American continent offered an ideal terrain for the creation of sublime experiences in general and specifically the so-called technological sublime. From the very first explorations of the continent, descriptions and reports showed that nowhere did nature seem more exciting and at the same time more frightening than in the New World. Yet, until the late eighteenth century, only the educated elite consciously sought confrontations with nature in order to experience the sublime. For men such as Thomas Jefferson or John Quincy Adams, the Natural Bridge in Virginia and Niagara Falls were wonders of nature embodying divine greatness and signifying a unique alliance between America and the Almighty. Nevertheless, in his Notes on the State of Virginia, Thomas Jefferson expressed astonishment that even people who lived near the Natural Bridge never or only rarely visited it in order to be awed by it. It was only in the nineteenth century that the American wonders of nature became intensely attractive to many people. Traveling to places such as the 215-foot-tall natural stone arch in Virginia or to Niagara Falls acquired the character of a pilgrimage.7

From the 1820s on, the technological wonders of American civilization such as canals, bridges, and trains caused waves of excitement. To contemporaries they represented the ability of American culture to shape nature’s extraordinary power, to enable vast numbers of people to travel long distances, and to speed up the advance of civilization. Even the last remnants of the static awe aroused by the sheer omnipotence of nature and the size and power of its wonders gave way to faith in human intelligence and achievement. The American politician and natural explorer George Perkins Marsh stated in 1860 in the Christian Examiner that the “sublime conceptions of extended space, of prolonged duration, of rapid motion, of multiplied numbers, and of earthly grandeur and beauty and power” had been transformed into a permanent component of “our mental constitution” by modern science and technology. Marsh contended that “obedience to [nature’s] dictates is the law of all lower tribes of animated being, [but] it is by rebellion against her commands and the final subjugation of her forces alone that man can achieve the nobler ends of his creation.” In Marsh’s eyes, this “subjugation of nature” was the decisive difference between “the

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human and the brute creation . . . and the extent of [man's] victories over Nature is a measure not only of his civilization, but of his progress in the highest walks of moral and intellectual life.” It was considered an expression of divine intentions, because the Lord had blessed occidental man with the magnificent ability to create a technologically perfect world. Even at Niagara, in the middle of the nineteenth century, the fascination shifted from the natural spectacle to its technological appropriation, as shown by Elizabeth McKinsey in her study of Niagara as the “icon of the American sublime.” Approximately sixty thousand visitors annually traveled to the falls by train; they were attracted no longer only by the incredible waterfalls but also by a bridge over the river that demonstrated the triumph of the engineer over nature and provoked an almost greater sensation of the sublime than did the falls themselves. The bridge demonstrated that the power and largeness of nature in America could be overcome and subdued because there existed a “corresponding largeness and generosity of the spirit of the citizen,” as Walt Whitman announced in the introduction to his 1855 Leaves of Grass.8

Electricity and the Sublime

Electricity was a central agent in the field of natural forces destined for subjugation by technological progress and for the alleged perfection of civilization. In the eighteenth century John Wesley referred to electricity as “the soul of the universe” because it had a mysterious strength that seemed to be an expression of divine greatness. Members of the international scientific community declared the eighteenth century to be the “electric century,” and researchers such as Benjamin Franklin and his colleagues were fascinated by the immense power of the “electrical fire” that could be artificially produced by means of a Leyden jar or silently drawn out of a thundercloud with a long pole or even a kite. Medical researchers revitalized numb limbs with the so-called electric balm, and novelists speculated about the life-giving force of electricity. Mary Shelley’s famous scientist Victor Frankenstein ignited “a spark of being” in a previously lifeless body by means of the “glimmering and seemingly ineffectual light.” A stroke of lightning gave him the power to break through the bounds of life and death “and pour a torrent of light into our dark world,” as Frankenstein philosophized.9


Mary Shelley’s novel was originally published in 1818, and electricity remained a mysterious force throughout the nineteenth century. In 1896, Harper’s New Monthly Magazine published a long article on electricity; the very first sentence posed the question, “what is electricity?,” and the response was, “that is a question no man can yet fully answer.” Nevertheless, in the course of the nineteenth century, the rising control over this still inexplicable power was increasingly fascinating. In 1858 the British physicist and natural philosopher Michael Faraday stressed that the divine quality of electricity revealed itself in its following natural laws that had been established and put to use by man—which caused a very sublime sensation:

Electricity is often called wonderful, beautiful; but it is so only in common with the other forces of nature. The beauty of electricity or of any other force is not that the power is mysterious, and unexpected, touching every sense at awares in turn, but that it is under law, and that the taught intellect can even now govern it largely. The human mind is placed above, and not beneath it, and it is in such a point of view that the mental education afforded by science is rendered super-eminent in dignity, in practical application and utility; for by enabling the mind to apply the natural power through law, it conveys the gifts of God to man.

In 1860 George Perkins Marsh maintained that a smart and courageous researcher such as Benjamin Franklin deserved more respect and praise than the powerful gods and heroes in Greek mythology:

In the whole range of those mythologies which are built on the apotheosis of mortal heroes, or the deification of the powers of spontaneous nature, in the cosmogonies of the ancient bards, in the warfare of Gods and the Titans, we find no such theme for ode or anthem as the recent history of scientific research and triumph supplies in abundant profusion. Which is fitter to be celebrated in immortal song, the fiction of a Jupiter launching the forked lightning to avenge a slight offered to a favored mortal, or the true story of the sage philosopher, who, by the aid of a child’s toy, forged fetters to chain the thunderbolt?  

Faraday and Marsh emphasized electricity’s potential to shape and improve human life. In the 1840s, the electromagnet, the telegraph, and the first electric engines were invented, ensuring a permanent role for electric current in daily life. Effective use of electricity increased in the 1870s, launching an epoch in which the historian Thomas P. Hughes locates “the American genesis.” In this period, according to Edward Byrn’s 1896 article, the United States was seized by a 

gigantic tidal wave of human ingenuity and resource, so stupendous in its magnitude, so complex in its diversity, so profound in its thought, so fruitful in its wealth, so beneficent in its results that the mind is strained and embarrassed in its effort to expand to a full appreciation of it.


As Byrn emphasized, "The old world of creation is, that God breathed into the clay the breath of life. In the new world of invention mind has breathed into matter, and a new and expanding creation unfolds itself. . . . He [man] has touched it [matter] with the divine breath of thought and made a new world."\(^{11}\) 

In particular the transformation of electrical energy into light caused a sensation. Just like a thunderbolt coming from the clouds, an initially invisible electric power produced a clearly visible effect. The difference was that electric light was made by and under the control of mankind. In the 1870s and 1880s, light shows fascinated the public. Enormous arc lamps bathed the central squares of numerous cities in glaring light. In Wabash, Indiana, or Cleveland, Ohio, in Philadelphia, Boston, San Francisco, or New York, contemporary reports of arc light demonstrations draw a uniform picture. When the large, strange lamps that seemed almost as powerful as the sun turned darkness into bright and shining light, the spectators were overwhelmed with awe and fell on their knees; "many were dumb with amazement," as the Wabash Plain Dealer described such an event in 1880.\(^{12}\)

It was no longer God alone who gave the world light; the awe and worship that had once been devoted exclusively to the deity and its representation in nature were now given to man-made technology. In the following years, the electrification of public spaces spoke of a city's prestige and status. Thomas Edison's 1879 filament light bulb played a crucial role in the spreading of the "electric light" phenomenon. The opening of the first power station, on New York's Pearl Street, in September 1882 is considered a turning point in the history of electricity and artificial illumination. Its steam-driven dynamos produced direct current (DC). With the power station and the bulb, the lights were turned on in New York's financial district, and by the middle of the decade electric streetlights were commonplace in larger American cities. The alternating current propagated by George Westinghouse made the transfer of high-voltage electricity over long distances possible and cost-effective, and the vision of the electrification of America could become reality. In 1896, generators at Niagara Falls, using water power, began to produce the alternating current (AC) that powered the lights in Buffalo and set the Buffalo Street Railway in motion. In the following years, the corridors and galleries of the Niagara Falls Power Station became a more awe-inspiring attraction than the bridge over the river or the falls themselves. Only in September 1907 did the natural wonder of the waterfalls attract national attention again—when they were illuminated by artificial lights at night.\(^{13}\)

The importance of electricity production and use to the concept of an advanced, superior society was manifested by various exhibitions around the turn of the cen-


12 The Wabash Plain Dealer from February and April 1880 is quoted in David E. Nye, Electrifying America: Social Meanings of a New Technology, 1880–1940 (Cambridge, Mass., 1991), 2–3; references to similar reports from other cities can be found in Rudolph and Ridley, Power Struggle, 24–27.

13 Nye, Electrifying America, 58–59; Rudolph and Ridley, Power Struggle, 28–29; Robert Friedel and Paul Israel, Edison's Electric Light: Biography of an Invention (New Brunswick, 1986). Concerning the relationship of direct and alternating current, see Andre Millard, "Thomas Edison, the Battle of the Systems, and the Persistence
tery. Electricity and in particular light were staged as visible indicators of progress and an auspicious future. At the 1893 World's Columbian Exposition in Chicago, 90,000 light bulbs and 5,000 arc lamps illuminated the fairgrounds, powered by the largest power station in the world, which itself could be admired in the Machinery Hall of the exhibition. Ten thousand of those bulbs flashed on the eighty-two-foot-tall Edison Tower of Light; a gigantic searchlight, the biggest in the world, was the crowning glory of the tower. Eight years later at the Pan-American Exposition in Buffalo, 240,000 bulbs were turned on at dusk in a crescendo of brightness, and the Electric Tower rose to a height of 391 feet. At the base of the tower was a model of Niagara Falls approximately sixty feet high. A sublime vision of America with electricity at its center was presented in Buffalo as it had been in Chicago, and an electric streetcar carried the visitors from one attraction to the next. In Chicago's Electricity Hall, true masterpieces of human capability were on display: electric heating, telephones for long-distance calls, dishwashers, and washing machines, to name only a few examples. In contrast to the exhibition's so-called White City, "authentic" villages from other cultures were presented on its Midway, and they were chronologically arranged to reveal the alleged superiority of the "white" American civilization displayed in the White City. In this manner, observed an impressed yet skeptical Henry Adams, the Chicago world's fair seemed to mark a leap in evolution that would have startled Charles Darwin. The Chicago Tribune saw in the fair an opportunity to "descend the spiral of evolution" and to trace "humanity in its highest phases down almost to its animalistic origins." Electricity and the sublime were woven tightly into a discourse that constructed a belief in racial and civilized superiority.14

The exhibitions presented mankind's seemingly boundless possibilities. They presented electric light, machines, and dynamos as symbols of science, civilization, and ongoing progress. They embodied to their contemporaries a "long series of beneficent triumphs" of science over nature and over the irregularity of life, as an article on "Electricity and Life" maintained in the North American Review. The immeasurable strength of electricity "for thousands of years had been hidden in the universe, waiting for nineteenth-century man to literally find it out," as Harper's New Monthly Magazine proclaimed in October 1896.15

Although this world of machines was created by man, the apparently boundless technological potential and the variety of achievements could also cause a bewildering loss of orientation and intellectual confusion among contemporaries. Up to this time, such a man as Henry Adams had experienced that sort of confusion only through confrontation with metaphysical phenomena, as he himself stated. For

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This Harper's New Monthly Magazine illustration features an enormously powerful generator unit of New York’s Edison Station. The unit lit 25,000 electric lamps and was operated by a single man. The machine dwarfs the operator pictured in the foreground, transmitting the idea of the technological sublime to the magazine’s readers. Reprinted from Harper’s New Monthly Magazine, Oct. 1896.

Adams, however, the unbelievably fast, precise, and noiselessly working electric dynamo had metaphysical qualities as well—it not only was a machine but appeared to be an occult mechanism. As the embodiment of infinite energy, in Adams’s eyes, the dynamo was comparable to the Virgin Mary, whom he described as the ultimate...
symbol of reproductive energy in the history of mankind up to that moment: “She was goddess because of her force; she was animated dynamo; she was reproduction—the greatest and most mysterious of all energies.”16 In turn-of-the-century America, it was not the Virgin Mary, but the generator, that was the ultimate revelation of mysterious energy, as Adams emphasized. The dynamo represented the fertility of both natural and supernatural power and their effects on human life. Thus, the dynamo was the archetype of the technological sublime: it remained incomprehensible and metaphysical, but it was the embodiment of the domesticated natural power that elevated human existence to a higher level.

The Electric Chair

At the end of the nineteenth century, electricity seemed to be under human control. It produced clearly visible and noticeable effects and promised an inexorable upswing in the spiral of civilization. By means of electricity, mankind had succeeded in bringing light into darkness, in producing heat through pushing a button, in smoothly crossing vast spaces, in multiplying industrial production, and in curing, regenerating, and stimulating human bodies. Even the body itself was understood and defined according to the latest paradigms of research in electricity and medicine. Whereas eighteenth-century researchers had enthused about living in an electric century, contemporaries at the turn of the nineteenth to the twentieth centuries philosophized about an approaching “electrical millennium.” Part of this electric world—man-made and overpowering at the same time—was the deadly dynamo. Among the electrical wonders on display at the Chicago world’s fair, for instance, was an original electric chair that had previously done its mortal work in Sing Sing state prison in New York. Visitors could admire it in the midst of the sublime technological presentation of the White City, whereas a guillotine was presented on the Midway, among other historical curiosities that helped visitors grasp the evolutionary history of mankind.17

For more than a century, the lethal effects of electric current had been extraordinarily fascinating for researchers. Benjamin Franklin and his contemporaries had debated the possibly fatal consequences of an electric shock, and they had tested the destructive power of electricity on animals. How great a shock a man could endure was a question of burning interest, and it was tempting to increase the power of a battery or to pool the power of numerous batteries to find the answer. Researchers reported having experienced electric shocks themselves as sudden and painless and not causing any visible sign of bodily harm or mutilation. Benjamin Franklin knocked down six men with the power of two Leyden jars, and his conclusion must


be regarded as almost visionary: “Too great a charge might, indeed, kill a man... It would certainly, as you observe, be the easiest of all deaths.”

In Franklin’s days, “the easiest of all deaths” was a highly debated topic, especially in the discourses of medicine and law—two fields that in the following decades would play a major role in the shaping of the concept of civilization. The age of rationality, empathy, and civilization beginning in the late eighteenth century spurred calls for a change in the execution of the death penalty. The performance of a slow and agonizing “rite of execution” on the scaffold did not seem appropriate for an enlightened society that understood itself as being rational and humanistic. Nonetheless, only a few political theorists and law experts in North America or Europe were of the opinion that the death penalty should be totally abolished. The new cultural and political paradigms required a transformation of the execution procedure, however; the defendant’s life should be taken as quickly and as painlessly and even as invisibly as possible. On the west European continent, this change of concepts was embodied in the swift mechanized beheading of the guillotine. In England and the United States, hanging remained the preferred means of execution, but the performance at the gallows was more and more de-ritualized.

The debate about the most appropriate means and ritual of execution never ceased. Starting in the mid-1830s, Pennsylvania, New York, and the New England states moved execution sites behind prison walls. In the late 1860s, criticism of executions increased again, focusing now on the physical suffering of the defendants. Bodily pain was considered the worst evil, and a civilized society had to combat it; the North American Review maintained in 1849 that “the man who maintains that pain is no evil, is regarded simply as a madman.” In 1846, ether had been introduced into surgery as an anesthetic.

Referring to the death penalty in 1869, the writer Edmund Clarence Stedman emphasized that death alone, and not physical torment, had to be the punishment and that any prolongation of the throes of death should be deemed cruel and unnecessary. According to Stedman, a slow execution did not comport with the tenets of a


civilized society and—combined with changing perceptions of pain and suffering—seemed to contradict the Eighth Amendment of the Constitution, which forbids cruel and unusual punishments. Much too often, an instant and painless death at the rope caused by a quick break of the neck remained wishful thinking. Stedman stressed that in more than half the cases death occurred only after a long struggle by slow suffocation. Furthermore, sometimes the length of the rope and thus the height of the fall were not correctly calculated according to the defendant's body weight, and the head was torn off during the execution. Such torments and unsightly scenes were incompatible with the self-image of a civilized and technologically advanced society, and they were an obstacle to cultural perfection. A solution had to be found to represent the adequate progress in civilization, and in *Putnam's Magazine* Stedman expressed the vision that "doubtless, with new scientific knowledge, a painless mode of killing may be discovered,—as by an electric shock or some deadly anaesthetic."21

In the 1870s and the 1880s, the press offered more gruesome and detailed descriptions of hangings than ever, and it also demanded a search for new methods of execution that would cause a quick, clean, and non-disfiguring death. At the same time, a new type of accident proved that such a death could obviously be achieved. Power stations and power lines had multiplied, and the number of fatal accidents—particularly in the urban centers of the Northeast—had increased accordingly. In two years in New York State alone, over ninety deaths from direct contact with electrical installations were reported. The suddenness and the apparent painlessness of dying by electricity made an impression. Death as such had lost none of its fascinating and gruesome qualities, for it still meant "the end of all existence," but electricity promised to reduce the moment of dying to a split second and to strip death of its supposedly archaic characteristics. In the guise of electrified civilization, death could occur without being associated with struggle, sorrow, and bodily destruction, as Elbridge T. Gerry, a New York lawyer, philanthropist, and major proponent of electric executions, emphasized in 1889 in the *North American Review*. Commenting on the increasing accidental electrocutions, he noted:

> In every case the action of the current was so instantaneous as to leave not the shadow of a doubt that death was literally quicker than thought. The body was not mutilated; there were no indications of any death-struggle; none of physical pain.22

The advanced technological capability of civilized mankind seemed to open up a path toward the perfection of the death penalty. In an age of seemingly limitless human ingenuity and invention, the task of constructing a reliable electric machine for the allegedly perfect and painless execution of the death penalty was considered simple and easy to solve. Technological progress promised to transform an execution


from a representation of an archaic desire and longing for violence and cruelty into a
performance signifying advancement, perfection, and sublimity. An artificially
induced death that occurred quicker than thought and caused neither pain nor mutilation—that was the promise of electricity. In contemporary perception, such an execu-
tion would enhance human civilization, and thus, even as a destructive and deadly
force, electricity would further unfold its constructive potential.23

Experts on electricity fostered a political debate on the use of electric current for
 executions in the state of New York. The electricians’ explanations even impressed
New York governor David B. Hill who in his annual message in January 1885 called
for a commission of experts to scrutinize the best means of execution. Established
shortly thereafter, the commission consisted of Elbridge T. Gerry, a law expert named
Matthew Hale, and a dentist named Alfred P. Southwick. After three years of work
and consultation with more than two hundred experts especially in medicine and
technology, the commissioners presented the hundred-page Report of the Commission
to Investigate and Report the Most Humane and Practical Method of Carrying into Effect
the Sentence of Death in Capital Cases. The New York press reacted enthusiastically to
the publication of the commission’s analysis and to the proposal to put “the electric
bolt in place of the rope.” In the eyes of the New York Times commentator, electricity
would transform executions into anesthetic, painless acts of mercy, further increasing
the separation between civilization and barbarism. There was even talk about “eutha-
nasia by electricity” because death would be “certain, swift and painless.” Execution
by electrocution was perceived as awe-inspiring for the solemnity and impressiveness
of its performance, and not for its barbarous cruelty. According to the Times, New
York would be credited for being the first community in the world “to substitute a
civilized for a barbarous method of inflicting capital punishment, and to set an exam-
tple which is sure of being followed throughout the world.” The novelist and critic
William Dean Howells commented on the electric execution frenzy in January 1888
in a letter to Harper’s Weekly by juxtaposing the collectively constructive and individ-
ually destructive effects of electricity as follows:

There is apparently no reason why this mysterious agent which now unites the
whole civilized world by nerves of keen intelligence, which illuminates every enter-
prising city, which already propels trains of cars and promises to heat them, which
has added to life in apparently inexhaustible variety, should not also be employed to
take it away.24

The commission’s report presented an “instantaneous and painless death” as a syn-

onym for civilization and progress and as an expression of the scientific approach of a

23 Gerry elaborates on how easily an electric killing machine could be constructed: Gerry, “Capital Punishment
by Electricity,” 325. On the ambivalent conceptualization of a humanitarian society and the longing for the per-
ception of violence, see Karen Halttunen, “Humanitarianism and the Pornography of Pain in Anglo-American
Culture,” American Historical Review, 100 (June 1995), 303–34; and Karen Halttunen, Murder Must Foul: The

24 Elbridge T. Gerry, Matthew Hale, and Alfred P. Southwick, Report of the Commission to Investigate and Report
the Most Humane and Practical Method of Carrying into Effect the Sentence of Death in Capital Cases (Albany, 1888).
1888, p. 23.
modern and advanced society. Since the publication of the report, this type of “state manslaughter,” to quote a sarcastic note by William Dean Howells, this “killing by electricity [that] was almost the same as not killing at all” was called for in almost every comment and statement on the execution of the death penalty, and most experts agreed that only an electric jolt could immediately and painlessly kill. As stated in the commission’s report, electricity was considered “the most potent agent known for the destruction of human life,” and this capacity was primarily attributed to the rapidity of its transmission. According to the commission, the guillotine and the gun also killed quickly (though not nearly as quickly as electricity), yet the visible destruction of the bodies and “the profuse effusion of blood which it involves” signified an archaic desire for violence and cruelty, making executions by shooting and particularly beheading intolerable. The only alternative method to cause death without bloodshed and mutilation was lethal injection, which was opposed by the medical profession because of its close association with the practice of medicine.25

Possibly the only serious alternative to the electric current was still the rope, because it was institutionally and historically embedded in American culture and society. But the commissioners’ analysis of the gallows as a primitive instrument of execution resembled a long and detailed diatribe against the brutal and barbaric rituals of prehistoric times. According to the report, “suspending the criminal by a cord around his neck from a branch of a tree” was the most archaic form of execution, and the gallows was described as “the only piece of machinery that has stood stock-still in this era of progress. There it stands, the same clumsy, inefficient, inhuman thing it was when it first lifted its ghastly framework into the air of the dark ages.” It was not surprising that the report described “many accounts of various shocking scenes at the gallows,” which widely established “a strong general prejudice among cultural and high-minded persons.” The technologically advanced and enhanced execution by electricity was considered as a sharp contrast to the rope. According to the report, through electricity, man could overcome the traditional and almost anthropologically embedded “passionate desire to inflict physical pain and suffering, even the utmost agony possible,” on his enemies. That desire characterized “almost all primitive forms of capital punishment, indeed the remark is true of all early forms of punishments.”26

It is particularly noteworthy that the medical and technological experts who had been interviewed by the death penalty commission reacted to the deadly dynamo as Henry Adams reacted to the electrical displays at the Columbian and other exhibitions around the turn of the century. Amazed by human capability and captivated by a technologically sublime sensation, the experts praised the power of nature, which was thought to have been absorbed and taken under control, even though none of them knew exactly how electricity killed. They were captivated by the “silent and infinite force” of the dynamo. That was evident from the experts’ elaborations on death, pain, and the rapidity of the electric transmission. One expert explained, for instance, that “an electric discharge occurs in one hundred thousandth of a second, or ten

thousand times more rapidly than nerve transmission.” The paralysis of the brain would actually occur in the very same moment as the electric shock was initiated, and the human being was expected to be “dead before the nerves can communicate any sense of shock.” As stated in the report, “an electric shock of sufficient force to produce death cannot in fact produce a sensation which can be recognized”—it was considered impossible that pain could be felt. Moreover, the major criterion for the significance of a force was the influence it exerted on human life—whether that force was represented by the dynamo or the Virgin Mary. After all, the deadly dynamo exerted a two-way effect on human existence: first, with incomprehensible but nevertheless measurable and human-generated power, the dynamo could take an individual from life to death. Second, such an advanced execution elevated society to a higher state of civilization. Thus, the electric chair promised that an advance to a higher level of technological and cultural perfection on the evolutionary spiral would be achieved at the moment of execution. Efforts to achieve this climb were considered an obligation; the execution commission maintained, “It is the duty of society to utilize for its benefit the advantages and facilities which science has uncovered to its view.”

As New York’s governor Hill legalized execution by electrocution on June 4, 1888, the enlightened public celebrated a significant step in the history of humanity. It was said that the state of New York was the spearhead of civilization and had left its mark in the annals of humanity. One of the leading figures in the technical implementation of the execution law was Harold P. Brown. He was working with Thomas Edison and had been in the electricity business since the first arc lights had been put up in the 1870s. Brown published a hymn of praise for electric execution in the North American Review. In his presentation, the electrical apparatus appeared as an occult mechanism whose infallibly deadly power unfolds at the push of a button and is displayed by magic instruments. Brown praised the incomprehensible speed as well as the painlessness and silence of the new method, even before it had been used for the first time:

Dials of electrical instruments indicate that all the apparatus is in perfect order and record the pressure at every moment. The deputy-sheriff closes the switch. Respiration and heart-action instantly cease, and electricity, with a velocity equaling that of light, destroys life before nerve-sensation, at a speed of only one hundred and eighty feet per second, can reach the brain. There is a stiffening of the muscles, which gradually relax after five seconds have passed; but there is no struggle and no sound. The majesty of the law has been vindicated, but no physical pain has been caused.—Such is electrical execution.

From the summer of 1888 on, the press regularly published detailed reports on experiments on animals that were sacrificed “on the altar of science.” Readers were informed about the exact type, size, and weight of the animals, the specific resistance of their skin, and the strength and length of the electric shock to which they were...
exposed. It was specifically emphasized that after the execution—apart from being lifeless—their bodies were in perfect condition. There was no doubt that in these experiments the "fatal current" proved to be the most potent force known to modern science; Westinghouse's alternating current seemed particularly to exhibit "superior death dealing qualities" and would be used for the first execution. The optimism was almost boundless, and hardly anyone doubted that a man's life would end by electrocution at high voltage after fifteen seconds at most. Several states considered following New York's example by introducing new execution laws of their own.29

"Kemmler the First: Sentenced to Be Executed by Electricity" was the headline of the New York Times on May 15, 1889. Massive enthusiasm spread when the twenty-eight-year-old vegetable peddler William Kemmler from Buffalo was sentenced to death by electric shock, because he had murdered his lover, Tellie Ziegler, with an ax. Only the Westinghouse Company tried to intervene on Kemmler's behalf. George Westinghouse, the company's chief investor, was the leading advocate for AC, which, in contrast to Thomas Edison's direct current, was more efficient and less expensive but at the same time was said to be more dangerous than DC. Edison's lobby had done its best, and AC was chosen as the lethal weapon against crime because of its reputation as more powerful; it was thus stigmatized as too dangerous for regular use. Westinghouse saw his business interests endangered and therefore organized and paid for the best defense team Kemmler could get. Kemmler's lawyers contended that electric execution was possibly cruel and definitely unusual, and therefore it was unconstitutional. They even carried the case to the Supreme Court, and in the hearings they claimed that the fatal effect of an electric shock was not certain at all.30

The press accused the Westinghouse Company, Kemmler's lawyer (Bourke Cockran), and his witnesses of acting out of economic self-interest and of hindering the progress of civilization and humanity. The contention that a knowledgeable use of electricity, "properly applied for the purpose of producing death," did not lead to an instantaneous and painless death was dismissed as devoid of all reason and "supremely ridiculous" from a scientific point of view. To substantiate that claim and underline the power of electricity, the concerted force of nature was called upon, and electric current was explicitly described as a form of lightning controlled by man that paralyzes the brain before it can feel any pain at all. Therefore, death by electricity was called 100 percent painless, and in the courts numerous experts confirmed the statement in the commission's report: "The brain has absolutely no time to appreciate a sense of pain." Competent Westinghouse witnesses objected that modern science still knew too little about electricity to make definite statements of that kind; finally, how electricity kills was still unknown, a fact that even Thomas Edison had to admit in the end. Still, the objection was dismissed as unpersuasive and was not

29 New York Times, July 31, 1888, p. 8; ibid., March 9, 1889, p. 5; see also ibid., Aug. 4, 1888, p. 8; ibid., Dec. 6, 1888, p. 5; ibid., Jan. 7, 1889, p. 5; ibid., Feb. 3, 1889, p. 3; and ibid., May 8, 1889, p. 4.
allowed to stand in the way of civilization and progress. Even if everybody had to admit that "any mode of execution is liable to misadventures, [and] there is necessarily something experimental in the first trial of a new mode of execution," the probability of a failure of this experiment with William Kemmler was considered "infinitesimal." A New York Times editorial remarked on July 13, 1889: "In fact, the whole contention seems too fantastic and unsubstantial to deserve serious consideration. Everybody knows that electric currents less powerful than it is proposed to employ do kill men instantaneously and without pain." The courts agreed "that it is within easy reach of electrical science at this day to so generate and apply to the person of the convict a current of electricity of such known and sufficient force as certainly to produce instantaneous, and therefore painless, death." 31

The defendant's lawyers failed sufficiently to deconstruct the belief in a sublime perfection of mankind by a technologically progressive execution. After all, as Schuyler S. Wheeler, an expert on electricity who was also involved in the animal testing, contended in Harper's Weekly, electricity was still considered "mysterious, almost supernatural," but at the same time "the science born a short time ago has furnished the possibilities for the arts of applied electricity at once so potent and so novel that the world is carried away with them." Wheeler emphasized that machines powered by electricity produced "results strangely unlike everything previously seen," and thus they appeared "almost magical." Like Henry Adams, Wheeler showed his fascination with the seemingly boundless potential of the electric motor. He stressed that the dynamo provided a precisely dispensable, absolutely silent, and clean power suitable for such diverse instruments as sewing machines, trains, fire brigades, medical instruments, various forms of illumination, and an execution machine. Alongside descriptions and sketches of a jumbo magnet, an electric locomotive, and a motorized sewing machine, Wheeler's article included a detailed description and clear sketch of the killing apparatus. Thus, Wheeler and Harper's Weekly explicitly embedded the electric chair in the spectrum of technological wonders that enhanced human existence. Moreover, that development was understood as an expression of a transcendental power. 32

Within this context, William Kemmler's imminent execution was portrayed as the most important experiment in the history of both electricity and the death penalty, and Kemmler himself was considered a pioneer of science. The press reported meticulously about the installation of electric chairs in the newly created death rows in Sing Sing and Auburn prisons; Kemmler was to be executed at Auburn State Prison. During the tests of the execution machine, light bulbs were arranged on boards that would control and display the force of the electric current. Furthermore, when the lights "glowed brilliantly" and "burned brightly," they visualized and aestheticized the

31 New York Times, July 10, 1889, p. 4; ibid., Feb. 15, 1890, p. 3; ibid., July 13, 1889, p. 4; ibid., July 19, 1889, p. 4; ibid., July 13, 1889, p. 4; "In re Kemmler, 136 U.S. 436 (1890)," FindLaw. See also New York Times, March 22, 1890, p. 4; ibid., July 11, 1889, p. 8; ibid., July 12, 1889, p. 8; ibid., July 16, 1889, p. 8; ibid., July 17, 1889, p. 8; ibid., July 25, 1889, p. 8; and ibid., July 26, 1889, p. 4. For further details, see Denno, "Is Electrocution an Unconstitutional Method of Execution?" 578–94.

Like various other inventions powered by electricity, such as a motor-run sewing machine, a fire engine, or medical instruments, the execution machine pictured here was supposed to illustrate the advanced technology of the late nineteenth century. Reprinted from Harper’s Weekly, Feb. 25, 1888.

mysterious power of the electric machine. The bright light emanating from the twenty-four bulbs satisfied the execution professionals and the public, because it signaled that the machine was “ready to receive the murderer”—the march of progress and the triumphal procession of the electric chair seemed unstoppable.33

Finally, on the evening of August 5, 1890, more than twenty experts in the fields of medicine, technology, and law gathered in the Auburn prison to see William Kemmler die. At the gates of the prison, an ever-increasing mass of people flocked together in order to be as close as possible to William Kemmler’s death and to “the climax of the long contest that has been going on over the beginning of electrical execution.” The crowd did not yell and mob the site, as they had done at public executions on the gallows; rather, according to press reports, they remained “silent” and “in awe,” mirroring the crowds’ behavior at the first displays of illumination: “There was no noise. There was no loud talking,” recorded a journalist: “Everybody spoke in a subdued way as though a feeling of awe had settled upon them.” In the prison, each of the experts was sure that the machine would more than satisfactorily complete its work and, moreover, that Kemmler’s autopsy would be added to the annals of medical history. It was said that the whole world had its eyes on Auburn, and hardly anyone doubted that the triumph of electrocution would occur on the morning of

33 On the lamps, see New York Times, Dec. 29, 1889, p. 12; ibid., Dec. 31, 1889, p. 4; ibid., Aug. 2, 1890, p. 2; and ibid., Jan. 1, 1890, p. 5. For a clinically detailed report on the setting up of the electric chairs, see ibid., Feb. 12, 1890, p. 9; ibid., Feb. 15, 1890, p. 3; and ibid., April 29, 1890, p. 8.
August 6. The vision of a clean use of violence in the name of the people was finally expected to come true: “Death will take the place of life under conditions which famous men of science have devised”—and what could possibly go wrong?34

On August 7, readers must have been stunned by the headline of the *New York Times*: “Far Worse than Hanging: Kemmler’s Death Proves an Awful Spectacle.” Terms such as “horror,” “suffering,” “disgust,” and “disgrace to civilization” dominated the first columns of the report on William Kemmler’s execution. Against all contemporary reasonable expectations, the fatal current, which had been praised so much, had to be turned on twice to accomplish Kemmler’s death, and, according to the press, the execution “was so terrible that the word fails to convey the idea.”35

In the beginning, the procedure had obviously gone according to plan. The witnesses awaited the imminent revelation in the execution chamber. Kemmler accepted his fate with stoic calmness, allowing the preparations to be completed, until he sat in the chair in front of a semicircle of witnesses, “with the light from the window streaming full on his face,” to quote from the description of the *New York Times*. At 6:42 A.M. the electricity was turned on for seventeen seconds, and afterwards no one doubted the death of the experimental object. But Kemmler had not died. The current had to be switched on again; the carefully controlled situation gave way to chaos. Kemmler’s dying did not contribute to a sublime sensation at all but invoked instead the archaic fascination with horrifying experiences; according to the press, the witnesses, “horrified by the ghastly sight,” could not turn their eyes from the obviously suffering man in the agony of death. In the end, no one could tell for how many seconds or even minutes Kemmler had remained a part of the electrical circuit, since no one had been able carefully to control the procedure any more. The electricity flowed, Kemmler’s blood vessels began to burst, the hair and skin under the electrodes burned, “the stench was unbearable,” and people collapsed. “Kemmler was literally roasted to death”—the demonstration of humanitarian progress, technological perfection, and an advance in civilization seemed to have ended in shame and disgrace.36

On another, more analytical level of the reports, however, a different picture was presented. The evils of Kemmler’s electrocution were reduced to the visible part of the performance. Experts of medicine and technology agreed that Kemmler must have lost consciousness almost in the very moment when the button was pushed—only a hundredth of a second was said to have separated the final push and the end of all sensation. Within that logic, though Kemmler had obviously been alive for a while, he had felt no pain. If his body had shown signs of pain and suffering, it was the sort of pain that could not be felt. The almost unbearable slowness and the torturous sight of his dying was explained away by the excitement and organizational glitches of the event and by technical problems with the machinery, including insufficient contact of the electrodes to the body and voltage that was much lower than

34 *New York Times*, Aug. 6, 1890, p. 1; *ibid.*, April 29, 1890, p. 8; *ibid.*, Aug. 5, 1890, p. 1. For the gathering of the crowd, see *ibid.*, Aug. 7, 1890, pp. 1–2.


36 *Ibid.* Reporters had to rely on witnesses and on their imagination because the press was excluded except for two members of news agencies: see Madow, “Forbidden Spectacle,” 538–55. *New York Times*, Aug. 7, 1890, p. 2.
planned. The intention of avoiding the association of violence, cruelty, and barbarism with the death penalty in order to ensure and perform the progress of civilization had not been fulfilled, but proponents of electric execution insisted that the victim had not suffered at all. The secretary of the State Board of Health of New York, Dr. Louis Balch, was one of numerous experts who assured that “from the first shock the prisoner was virtually dead, suffered no pain, and had no return to consciousness.”

Some details of the execution by electricity needed refinement; the validity of the principle, however, was said to have been confirmed. Under different, better circumstances, life could doubtless be taken in a flash. Moreover, the commentator in the New York Times conjectured that, with a sufficiently high voltage, Kemmler’s execution should have been declared a “wonderful success.” To demand the abandoning of electric executions and the return to the gallows as a consequence of this event was dismissed as “absurd” and “puerile.” In a more cautious comment, the New York Tribune stated that “the result of the execution in reference to the greatly agitated question as to the superior humanity of the new method over hanging, is not conclusive.” But skeptical interpretations of this sort were rarely given and were often counterbalanced by the commentators themselves. Dr. E. C. Spitzka, for example, an expert in forensic medicine and one of the physicians who were responsible for the execution, at first maintained that “the death chair will yet be the pulpit from which the doctrine of the abolition of capital punishment will be preached.” Nevertheless, he then emphasized that the “emotional side of our nature” was aroused by William Kemmler’s execution, but from a rational point of view, according to Spitzka, “the heaving of [his] chest and abdomen are explained by the relaxation of the muscles, and the consequent expulsion of the air. It is absurd to say that he was not dead [immediately]. . . . The execution at Auburn accomplished its object.” Still, most commentators were more emphatic and agreed with Alfred Southwick, a member of the execution commission, who even named William Kemmler’s death “the greatest success of the age.” Southwick emphasized that electric execution “is a grand thing and destined to become the system of legal death throughout the world.” Thus, New York seemed to be ahead of the rest of mankind and to have taken a large step toward a perfect society.

Eleven months later, the press announced the approach of “the second experiment” in electric execution. This time, all safety measures appeared to have been taken, and the performance of a state-ordered death promised to be “a perfect success.” The arrangements in general and the electric chair in particular were described as a “perfect execution plant” that was under “absolute control.” Therefore, the execution would be carried out with an “accuracy” that was described as “wonderful.” The belief in the perfected and precise technology was so boundless that in the early

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morning of July 7, 1891, four men were destined to die in Sing Sing state prison's electric chair. This time the press rejoiced afterwards; "the Kemmler butchery" would probably remain the only partial "failure" of the new method, and yesterday's undertaking had been "entirely, emphatically successful" and "eminently satisfactory." The immediate deaths of the four men signified human control over the power of nature. Each was "stone dead as quick as lightning," one of the obviously impressed witnesses remarked before he left for a hearty breakfast with a healthy appetite, according to press reports. The execution of the four men had not only been the most humane execution of all times but also the least gruesome. The new method, stressed the physician Alphonse Rockwell, one of the most knowledgeable experts on electricity and its effects on the human body, "meets all the requirements for killing decently, a man sentenced to death." In the contemporary perception, the fourfold execution in Sing Sing marked a great step forward in the history of mankind, and it illustrated the progress "in the art of killing by electricity," as stated by Rockwell's colleague, Alfred Southwick.39

"Electric execution has come to stay" was a major prophecy of the following days. In October 1891 the official report on the executions in Sing Sing indicated that in at least two of the four cases signs of life had been registered after the first electric shocks had been applied, but no general doubts about the complete success of the project were raised. The immediate unconsciousness of the four electrocuted men was naturally assumed. Furthermore, electrocution was not at all discredited in the state of New York when in December 1891 "scenes of horror" occurred during the next experiment in Sing Sing's execution chamber. In order to kill the murderer Martin D. Loppy, the current had to be turned on four times. According to witnesses' reports, Loppy convulsed heavily, the flesh under the electrodes burned, and one of his eyeballs burst. The medical experts testified again, however, that the man had been instantaneously unconscious and therefore had died painlessly.40

The cultural configuration of the era did not give room for a fundamentally different interpretation.41 The ability to channel the forces of nature and to transform them into controlled energy was considered the engine of civilization and progress as well as a sign of divine blessing. In particular, electricity was the promise of the age; electric light and dynamos had the aura of the supernatural, and at the same time they signified the boundless genius of man. The electric chair was deeply woven into this understanding, and it promised a quick, painless, and ultimately immaculate execution that would cause a sublime effect on society. The moment of state-ordered

39 New York Times, Nov. 28, 1890, p. 2; ibid., April 19, 1891, p. 3; ibid., July 8, 1891, pp. 1, 4; Alphonse Rockwell and Southwick quoted ibid. Alphonse Rockwell was a professor of electrotherapy in New York and was the coauthor of an important study on the use of electricity in medical therapy: George M. Beard and Alphonse D. Rockwell, *On the Medical and Surgical Uses of Electricity* (New York, 1871).


41 Neustadtner refers to a "technological imperative": Neustadtner, "Deadly Current," 82.
death was to be associated not with violence or cruelty, but with an ordered, civilized, and enhanced society. This conception was conveyed within the context of Leon F. Czolgosz’s execution in 1901. The death of President William McKinley’s assassin was reenacted in a film produced by Thomas A. Edison, Inc. The film begins with a panoramic view of Auburn State Prison to provide an authentic setting, and the execution scene opens with a shot of the chair. It shows how the power of the dynamo is tested with a lamp board, thus referring to the enlightening and enhancing effects of electricity under human control. Then, Czolgosz is strapped into the chair to be executed in a clinically sterile procedure: within less than a minute, three short electric shocks stream through his body. There are no traces of violence inscribed onto his body; there is no burning flesh, no stench, no horrifying procedure portrayed. Finally, two doctors coolly confirm his death, which is announced by the warden. In this short film, the execution of a capital punishment unfolds a double sublimity of death and human inventiveness. First, an individual’s death is reproduced on celluloid, which was celebrated as a new technology that would reproduce life. Second, in the film, a clean, almost supernatural death caused by the dynamo, the embodiment of the infinite power of nature that is now channeled by the hands of man, is revealed to a larger public.42 Such an execution by electricity signified cultural perfection; therefore, even in the moment of the infinite destruction of human life, electricity exerted a constructive energy. In the reform era of progressivism in turn-of-the-century America, the electric chair became the prevalent method of execution, and numerous U.S. states were to follow New York’s example in the early twentieth century.43

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