## Chicago Works and

# Studies -2

With a critical text by Dr Michael J. Golec

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## Chicago Techniques Dr Michael J. Golec July 2022

In "Study for Power Forging Hammer" (2022), the Italian-German artist Friedrich Andreoni affixes an iPhone to the reciprocal hammer of a pneumatically powered hammer in a machine shop located in Chicago's Little Village neighborhood. Once secured, the camera is set to video record a broad section of the machine shop, where several machinists attend to various shop-related tasks. Conspicuously habitual acts of the shop machinists as they pass before the camera lensthe daily automatisms of tacitly organized work-are visually disrupted by the vertical motions of the hammer as it slams up-and-down to strike a piece of metal between it and the anvil below. As the camera's movement tracks the pounding tempo of the machine, the iPhone passes through a collar that extends from the cylinder that guides the piston, which drives the hammer. This physical arrangement-the artist having positioned the iPhone in relation to collar- rhythmically obscures the view from the camera's location, which, as Andreoni explained to me, "alternates between black frames and frames from the reality of this south side Chicago forge." The visible alteration of the recorded image of the interior of the machine and interior of the machine shop, which is exterior to the machine, approximates the mechanics of traditional cinematographic devices, namely the opening and closing of a camera shutter. But insofar as Andreoni achieves this analog effect through digital means, a beholder will eventually be struck by the way "Study for Power Forging Hammer" organizes three binary relations: interior/exterior, open/closed, and on/off. Yet there is a fourth relationship—or so I should like to suggest—that requires sustained attention.

Andreoni's representation of cinematic technique and its accompanying disclosure of binary structures is revealing, since it provides a key to understanding his broader concern with the dialectical relationship between "automatism" and "automaticity," concepts he derives from the use of the term dispositif (or apparatus) to describe how mutually reinforcing techniques of human creative production and disciplinary constraint are exploited in the technocratic control of human life. <sup>1</sup>In "Study for Power Forging Hammer," the two concepts are expressed in the visual shifts between the machine's automaticity and the machinist's automatisms. This oscillation demonstrates an important distinction related to the interrogation of the technical management of humans. In Discipline and Punish: The Birth of the Prison, Michel Foucault distinguishes between human automatism-or unconscious, habitual responsiveness-and non-human or technological automaticity mostly characterized by machines.<sup>2</sup> Within the space represented by "Study for Power Forging Hammer," Andreoni's implicit acknowledgement of Foucault's distinction is important, because the conflation of the two concepts would affirm a modern managerial strategy of humanizing technology by confusing human habit formation with the acquisition of mechanical efficiency. To put this plainly, a consequential distinction is made between the human use of tools versus the reduction of humans to tools. The former is related to the attainment of skill (or "skillful coping" defined as the interplay between sensory motor response, cognition, tools, and human action) and the latter is associated with processes of deskilling in keeping with human physical

1 The term derives from the French philosopher Michel Foucault and is later taken up by the Italian philosopher Giorgio Agamben. See Michel Foucault, The History of Sexuality, Volume I: An Introduction (New York: Vintage Books, 1980) and Giorgio Agamben, The Use of Bodies (Stanford: Stanford University Press, 2015). In relation to technology, Michael C. Behrent carefully outlines Foucault's Nietzschean turn, where he reconceptualizes power relations to include both stimulation and repression. See Michael C. Behrent, "Foucault and Technology," History & Technology 29, no. 1 (March 2013): 57.

2 For example, see the well-known chapter on "Panopticism" and Foucault's discussion of "political technology." Michel Foucault, Discipline and Punish: The Birth of the Prison (New York: Vintage Books, 1995), 205. routines imposed by scientific management or Taylorism, to name a much interrogated example.<sup>3</sup> Andreoni's achievement, however difficult, can be observed in the video recording's protraction of a dialectical relationship between human automatism and mechanical automaticity. In so doing, "Study for Power Forging Hammer" exposes their mutual interrelatedness, and points toward an integration of the two into a singular and overriding modern phenomena of "technique." or the rationalizing, optimizing, and systematizing order of the lifeworld. The topic of technique is frequently broached by the French sociologist and Reformed theologian Jacques Ellul, who most famously introduced the concept in The Technological Society. Quoting the now ubiquitous Taylorist adage, Ellul makes the observation in the form of a caution: "'The one best way:' so runs the formula to which our technique corresponds."4 Technique - think of it as the general project of optimizing methods of efficiency, organization, and control - insidiously transforms the non-technical into the technical. It does so, according to Ellul, through the totalization of "methods rationally arrived at and having absolute efficiency... in every field of human activity."5 Recognizing the pernicious organizational force of technique and its capacity to radically subsume human automatism and technological automaticity, Ellul writes, "Technical activity automatically eliminates every nontechnical activity to transform it into technical activity."<sup>6</sup> In "Study for Power Forging Hammer," Andreoni represents the gap between human automatism and technological automaticity in order to reveal the distinction of the non-technical from the technical and to deferat least for a moment-the ubiquity of the "rigorous autonomy" of technique.7

No doubt, the putative "rigorous autonomy" of technique raises the issue of anxiety that seems to arise whenever it is observed that abstract functionality—an ideal of efficient technocratic deployment—subordinates individual thought and action to a system that combines together the human and nonhuman in order to optimize a techno-social system's performance. The technocratic dream of amalgamating the human to the machine is more often than not foiled by resistant forces, one of which is human fallibility. Nevertheless, technocrats need not abandon the dream, for, as the French philosopher and sociologist Bruno Latour has explained, there are technological fixes for human fault.<sup>8</sup> The modern tendency to compensate for human imperfection by delegating thought and action to devices, however, is not without its own flaws that, in turn, require more fixes. Hence, integration and optimization seem to carry on unimpeded, regardless of skeptics pointing out the dehumanizing dynamic that prizes perfection and abstract functionality above all else. It would seem that technological determinism produces just this kind of pessimism. In response, Andreoni proposes that we need not assume, as the pessimists do, that all runs smoothly—as if abstract functionality inspires nothing but unabated integrations and optimizations.

3 For a comprehensive overview of "skillful coping," see Hubert L. Dreyfus, Skillful Coping: Essays on the Phenomenology of Everyday Perception and Action (Oxford: University Press, 2014).

4 Jacques Ellul, The Technological Society (New York: Knopf, 1964), 79.

5 Ibid., xxv.

6 Ibid., 83.

7 Ibid., 97.

8 The classic example is Bruno Latour, "Where Are the Missing Masses: Sociology of a Few Mundane Artefacts," in Shaping Technology/Building Society: Studies in Sociotechnical Change, Wiebe E. Bijker and John Law, eds. (Cambridge: MIT Press, 1992), 223-58. Suspending processes of ordering and transformation-or deferring the amalgamation of human automatism and technological automaticity to "technique" in Ellul's sense-is a consistent theme in works and studies that Andreoni made in Chicago between 2021-2022. In "Spurs" (2022), to take an exemplary work, Andreoni displays three hammered steel spurs (equestrian objects-or tools-attached to the heels of boots and generally used to activate the movement of horses) in a horizontal formation. Traditionally understood, a spur transmits the intention of a horse rider to move the horse, an act best exemplified in the colloquial saying, "to spur something on." At the same time, the spur holds or stores a world history of equestrian activities. In both senses, the spur acts as a mediating technology-a bridge or link-between a history of riding horses and between rider and a horse, whereby the automatisms of a skilled rider activate the automatisms of a trained horse. (Also, one can add saddle, bridal, harness, reins, and a range of other tools that are used for the exploitation of equine power toward human ends.) The coordinated bodily movements of both horse and rider are in keeping with legacies of discipline and training. The spur practically and symbolically organizes gestures and movements in an arrangement akin to a dynamic "cultural-technical montage."9 It alters both the automatisms of the rider and of the horse. And, importantly, following German media studies, seems to encompass gesture, movement, and (practical and symbolic) activation in the blurring effect of technique.<sup>10</sup> The dialectic of human and horse automatisms and technological automaticity represented by "Spurs," however, takes up the tool-object as a means to trace (or mark) the often-unacknowledged distance between the two concepts.11

It is worthwhile to consider the possibility that Andreoni could have represented the blurred assemblage of cultural technique with an installation that featured two spurs. If he had done so, this arrangement would have highlighted a symmetry (not to be confused with the rhyming dialectical relations in "Study for Power Forging Hammer," where the pairings are of binary opposites). The logic of this symmetry posits a rider's two legs, two heels, two boots, two stirrups, etc., as well as the horse's two flanks. At the same time, this symmetry acknowledges automatisms transmitted between rider and horse. A great deal can be said about the intricacies of the transmission of automatism between rider and horse (and vice versa), as both develop the required automatisms would be available for consideration in a display of two spurs, whether they were hung in an artworld setting, a barn, or in an equestrian outfitters store. He did not make this choice, however.

Andreoni's inclusion of a third spur is significant since its presence marks a delay in the process of coming-to-be-assembled into a regulated force through technique. On the one hand, the third spur gestures toward a system of production, whereby multiple riders are outfitted with tools for triggering equine automatisms. The third spur suggests the possibility of adding more, and, in

9 On the montage effect of cultural techniques, see Michael Cuntz, "Monturen/Montures: On Riding, Dressing, and Wearing. Nomadic Cultural Techniques and (the Marginalization) of Asian Clothing in Europe," in Cultural Techniques: Assembling Spaces, Texts & Collectives, Jörg Dünne, Kathrin Fehringer, Kristina Kuhn, and Wolfgang Struck, eds. (Berlin: De Gruyter, 2020), 144.

10 More specifically, see the German media theorist Erhard Schüttpelz's media-anthropology approach to "cultural techniques" in Erhard Schüttpelz, "Körptechniken," Zeitschrift Für Medien- Und Kulturforschung, no. 1 (2010): 101–20.

11 On the etymology of "spur" and its relevance to the concept of "trace," see Jacque Derrida, Spurs: Nietz-sche's Styles (Chicago: University of Chicago Press, 1979), 41.

doing so, of expanding the symmetry of automatisms beyond a single rider and horse. On the other hand, the third spur represents an act of suspension or deferral of an integration of rider and horse into a larger system. This means that a beholder of "Spurs" is confronted with the prospect that there is not a single rider; but, and this is crucial, there are not yet two or more riders. (To achieve the goal of assimilating multiple riders into a single force requires a fourth spur, which would multiply the symmetry introduced by a pair of spurs.) A multiplying of symmetrical human and horse automatisms results in the production of a technical or organizational automaticity characteristic of calvary formations and to industrial cattle ranching, to name two historically significant examples of equestrian techniques.

It is worth noting that, in its representation of a dialectic reminiscent of Ellul's eschatological sense of "the already and the not yet,"<sup>12</sup> Andreoni's "Spurs" makes a distinction that exists prior to technique's organizational force, a distinction that can be observed between the automatisms of horse riding and the automaticity of planned military conquest and the commercial organization of the massive production of food for urban centers. Conventionally understood, the logic of technique presupposes that technological automaticity fulfills what is latent in already existing automatisms that are vulnerable to large-scale control. In other words, technique combines all available automatisms in order to achieve the efficiencies of automaticity. Contrary to convention, the third spur in "Spurs" offers for consideration a possible reversal of an understanding of a standard linear sequencing of technological progress. Therefore, in a technocratic society, one might surmise that technique is always ever-present in the sense that, at its secular but theologically inflected founding, there exists a promise of deliverance from the inefficiencies of the lifeworld.<sup>13</sup> As an organizational technology, automaticity expresses this promise—or that which is yet to come—by coordinating what is already present in the commonplace automatisms of habit formation and tacit routine.<sup>14</sup>

As Ellul might observe, the penetration of technique into the world of horse riding to achieve the mustering of mounted soldiers and the large-scale production of beef transforms both "completely, and often at a stroke" into a technical milieu.<sup>15</sup> A condition of internal optimization or, as Ellul puts it, the maximization of efficient methods of organization and control contributes to the rigorous autonomy of technique. By technique's "autonomy" Ellul means that its optimal expansion does not rely on anything outside of technique, referencing only a legacy of its own procedures. Autonomy is the term that Ellul uses to describe the seeming self-directedness

12 See Jacques Ellul, "Epilogue: On Dialectic," in Jacques Ellul: Interpretive Essays, Clifford G. Christians and Jay M. Van Hook, eds. (Urbana: University of Illinois Press, 1981), 300.

13 On the capacity of modernity to refer to theology, see Giorgio Agamben, The Kingdom and the Glory: For a Theological Genealogy of Economy and Government (Stanford: Stanford University Press, 2011). On secular enchantments, see Eugene McCarraher, The Enchantments of Mammon: How Capitalism Became the Religion of Modernity (Cambridge: The Belknap Press of Harvard University, 2019).

14 Ellul remarks on the latent theological doctrine of technique in Jacques Ellul, The Presence of the Kingdom, 2nd ed. (Colorado Sprigs: Helmers & Howard, 1989), 70. According to Carl Mitcham, Ellul's analysis of technique in The Technological Society was inspired by a question posed by the Swiss Reformed theologian Karl Barth, regarding the former's use of the term "technique" in Présence au monde moderne: Problèmes de la civilisation post-chrètienne (1948), which was later translated into English with the title The Presence of the Kingdom. See Carl Mitcham, "Jacques Ellul and His Contribution to Theology," Cross Currents 35, no. 1 (1985): 1, n. 2. This raises the question of Ellul's metaphysics, which Behrent characterizes as being humanist (and in keeping with a cohort of French postwar critics of advanced technologies). See Behrent, "Foucault and Technology," 60-64. Reading beyond Ellul's The Technological Society, however, indicates that his metaphysics theistic, and that it is steeped in apocalyptic analysis (or revelation) and soteriology.

15 Ellul, Technological Society, 84.

of technique, which, as he argues, progresses for the sake of its own optimization. The advancement of autonomous technique results in instances of human autonomy becoming "proportionately feebler."<sup>16</sup> "Spurs" halts the process of optimization, freezing it at a stage just prior to the gathering of bodies and tools in order to perfect technique. Certainly, winning battles and feeding the inhabitants of cities are achievable goals of technical planning. Yet, as Ellul explains, more crucial to technical society is the successful coordination of non-technical and technical responsiveness to meet technique's "own internal necessities."<sup>17</sup> As self- regulating systems, military conquest and industrial food production are opportunities to enhance technique, automatically.

Autonomous or immanent optimization provides technique with infrastructural coherence, a phenomenon that often goes unrecognized both at practical and symbolic levels. Andreoni recognizes that infrastructural (technical) automaticity organizes the (human) automatisms of individuals who encounter (mechanical) automatic crossing- gates, as in the case of "Preparatory Study for SHIFT" (2020), and double span, drawbridges, as in "SHIFT (Bataan-Corregidor Memorial Bridge)" (2021) and "SHIFT (William P. Fahey Bridge)" (2021). All three works take as starting points the related physical installation of technologies—gates and bridges—that facilitate the unhindered movement of essential technologies—light-rail cars, in the case of the preparatory performance, and tall ships, in the two final performances. Like "Study for Power Forging Hammer," Andreoni's SHIFT series uses a video recording iPhone to document the commonplace automatic lifting of gates and bridges. In all three instances, affixed iPhones appear to float above the automatic coordination of technologies that constitute the light-rail/crossing gate/automobile/road infrastructure and the boat/river/bridge/ automobile/road infrastructure. This gives beholders a sense that, as the videos trace the arc of the apparatus, they are released from the infrastructurally imposed automatisms of everyday life.

Beholders, however, do not fully escape automaticity of infrastructure. The video images are accompanied by the relentless sound of the now ubiquitous safety device—ringing bells—that remind beholders (and drivers and pedestrians) that infrastructure still grounds them to a socio-technical "condition of contextuality."<sup>18</sup> The settings for the SHIFT series are infused with abstract functionality whereby the means of allowing the movement of water traffic below creates a new means for inhibiting the movement of road traffic above. Importantly, the new means of inhibition does not guarantee that all motorists will abide by the stubborn presence of an inaccessible roadway. Thus, in order to account for this statistically small but not insignificant instance of human fallibility, an additional means is devised—gates, flashing lights, and ringing bells—to remind motorists to halt their vehicles or risk suffering the devastating consequences of their oversight.

While seemingly suspended in mid-air, beholders of Andreoni's SHIFT series are confronted by an image situated between the mundane routine of automatism and the utopian promise of automaticity. At this particular stage in the sequence of images constituting each video in the

16 Ibid., 92.

17 Ibid., 134.

18 Paul N. Edwards, "Infrastructure and Modernity: Force, Time, and Social Organization in the History of Sociotechnical Systems," in Modernity and Technology, Thomas J. Misa, Philip Brey, and Andrew Feenberg, eds. (Cambridge: MIT Press, 2003), 190. series, there exists a momentary deferral of a principle of technique: freedom and constraint, or, to put this in a Foucauldian key of dispositif, mutually reinforcing acts of creation and hinderance. Because of Andreoni's effort, the city's interlocking infrastructures (from tall ships to tall buildings) are made incoherent in an image of the urban landscape turned at an angle. The automaticity of infrastructure, as it is portrayed in the SHIFT series, is turned in on itself, thereby revealing a glimpse at the autonomy of technique and its alteration of a human world. In his "Remarks on Technology and Art," Ellul observes that art in the age of technique is a "sort

of configuration of the technological universe." It is a "tangible sign of the system."<sup>19</sup> Importantly, art is not an exact replication of a "configuration of the technological universe," therefore it can play a role in de-mythologizing technique. As a "tangible sign," art can expose the inner workings of technique in order to challenge its autonomy and its internal necessities. Andreoni's Chicago artworks, including the three examples I highlight above, represent, what Ellul identifies as, a "technician's mentality."<sup>20</sup> They do so, however, with a guiding thought that any such mentality is fraught with delays, feints, gaps, and hesitations. If, indeed, such a mentality (or habitus) is an epiphenomenon of technique, then it bears the same possibilities and limitations. And, while human skillful coping—or the interaction between physiology, machines, and action—is automatic in the form of automatism, technological automaticity and its ongoing amalgamation of automatism need not be. The significance of Andreoni's Chicago artworks is in their resolute interrogation of formations that draw automatism and automaticity into alliances that potentially engender the hegemony of technique.

19 Jacques Ellul, "Remarks on Technology and Art," Social Research 46, no. 4 (1979): 829. 20 Ibid., 828. This publication is published in the course of the project planning of: *FOR BEGIN AND END TIMES*, Friedrich Andreoni's performance planned in partnership with Experimental Sound Studio Chicago, which was commissioned and conceived during Andreoni's residency time at ESS Chicago in 2022. *FOR BEGIN AND END TIMES* is a space related performative act for six or more car vehicles, in which different car alarms are triggered and activated through low frequencies impulses (30-300 kHz), initiating an acoustic and visual exploration which investigates the untapped potential of chaos before and after an event.

Friedrich Andreoni is an Italian-German artist born on the verge of the last century, who grew up between the Middle East and Europe. Andreoni works across multiple media including sculpture, sound, installation, performative acts, and video, operating independently around the world. His artistic approach gained shape under the influence of Hannes Brunner, Susan Philipsz, Ulrike Mohr and artists from the Raster Media group (aka Raster Noton). He recently spent a brief research time in the United States (2020-22) for which he was awarded fellowships from the DAAD and The Art Institute of Chicago. During this time he also worked with ESS (Experimental Sound Studio Chicago). Andreoni is a member of the Studienstiftung des deutschen Volkes since 2018. Recently his project *SHIFT* (2021-22) was presented within the program of the *4th Chicago Architecture Biennial: The Available City*.

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