Potential, Power and Enduring Problems

Reassembling the Anarchist Critique of Technology

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Contents

Abstract

Within anarchist thought there is a current that treats a critique of technology as a central component of a broader critique of society and modernity. This tendency – which can be traced through the works of Peter Kropotkin, Rudolf Rocker, and Murray Bookchin – treats technologies as being thoroughly nested within sets of powerful social relations. Thus, it is not that technology cannot provide 'plenty for all' but that technology is bound up in a system where priorities other than providing plenty win out. This paper will work to reassemble the framework of this current in order to demonstrate the continuing strength of this critique.

I.

Faith in technological progress has provided a powerful well of optimism from which ideologies as disparate as Marxism and neoliberal capitalism have continually drawn. Indeed, the variety of machines and techniques that are grouped together under the heading "technology" often come to symbolize the tools, bothliterally and figuratively, which a society uses to construct a modern, better, world. That technologically enhanced modern societies remain rife with inequity and oppression, while leaving a trail of toxic e-waste in their wake, is treated as an acceptable tradeoff for progress – while assurances are given that technological solutions will soon appear to solve the aforementioned troubles. Beyond the capitalist embrace of technology, the reactionary lust for technological power, or the techno-utopian longings of some forms of socialism, there is a current in anarchist thought that has consistently advanced a contrary approach to technology. It is not a view that eagerly embraces or hastily rejects technology, as such, but instead it is a view which recognizes that certain types of technology carry within them the kernels of particular forms of social relations – certain forms of modernity – regardless of whether a machine is run by a capitalist, a nationalist state, or a workers state.

While it would be quite difficult, or potentially impossible, to identify a single anarchist philosophy of technology, a line can be traced across the works of Peter Kropotkin, Rudolf Rocker and Murray Bookchin that provides a sturdy framework for an anarchist analysis of technology. These thinkers connect their broader critiques of power, control and hierarchy to the way that particular technologies may reify these imbalances, while still remaining aware of technology's liberating potential. This critical engagement with technology is a vital, if overlooked, aspect of these particular anarchists' thought and represents an element in anarchist theory that is further developed by the likes of Colin Ward, Paul Goodman and Herbert Read. Furthermore, the anarchist approach to technology characterized by Kropotkin, Rocker and Bookchin simultaneously echoes and is echoed by prominent thinkers associated with the broader critique of technology – notably Lewis Mumford who, arguably, appears within a broader constellation of anarchist or left-libertarian thought.

Though, it is certainly the case, that Peter Kropotkin never used a smart phone, the approach to technology developed by these anarchist thinkers remains vital today. For, even if these thinkers would be astounded by certain contemporary technologies they would be all too unsurprised by the way today's technologies still drive profits to the wealthy, exacerbate governmental surveillance, and mutilate the planet. The historian Judy Wajcman has written that "our common sense notion of 'modern' denotes a historical process of steady advance and improve-

ment in human material well- being, occasioned by technological innovation."[1] The critique that is visible in the particular anarchist current being reassembled in this paper recognizes that the potential for "advance and improvement" is not inherent in technology itself. Indeed, modern 'technological innovation' can regress and harm human well-being just as easily as it can help improve it. Therefore, reassembling this anarchist critique of technology is not undertaken because "we hardly dare to think" and thus "we consult musty books a hundred years old, to know what ancient masters thought on the subject,"[2] but because this anarchist analysis is still effective for questioning ideas of modernity, scientific progress, and technology's role in society.

Alas, too often it seems that what 'we hardly dare to think' about is the way that new technology often reinforces old power and advances a vision of modernity where machinery is used primarily to enrich the few instead of provide for the many.

II.

There is a certain hopeful orientation towards the future, and towards technology, that informs much of Peter Kropotkin's work. This is not the result of a wishy-washy belief in the inherent goodness of humanity or of a Marxist confidence in the inevitability of a coming proletarian revolution, but of his scientific observations related to the role of mutual aid as both a factor in the evolution of species and of the evolution of human societies. Despite the rise of capitalism, its consolidation of power, and the attempts by its primary beneficiaries to suppress the impulse towards mutual aid, in favor of an emphasis on the State and the Church, Kropotkin concluded that such efforts were not enough to "weed out the feeling of human solidarity, deeply lodged in men's understanding and heart, because it has been nurtured by all our preceding evolution."[3] For Kropotkin the tenacious survival of mutual aid could still be seen in a host of organized groups ranging from lifeboat associations to libraries to the Red Cross, all of which selflessly demonstrated how "the ethical progress of our race [...] appears as a gradual extension of the mutual-aid principles [...] so as to finally embrace one day the whole of mankind, without respect to its divers [sic] creeds, languages, and races."[4]

In Kropotkin's estimation the progress of human civilization bore the evidence of the oft unseen workings of mutual aid. Breakthroughs and advancements were not the result of a few 'great' individuals but were instead a testament to an uncountable number of forgotten people who had made essential contributions that allowed for the eventual breakthrough, and such advancements also included technological ones.[5] The inequity and exploitation with which the world was riven did not appear to Kropotkin as a reflection of a natural law but as a result of the power of "authoritarian" tendencies that had become increasingly dominant.[6] Thus, the fact that some were destitute while others lived lives of decadence was not because of the impossibility of providing 'plenty for all' but because the society was arranged in such a way as to keep the plenitude from being equitably distributed.

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[1] Judy Wajcman. (2015) Pressed for Time. Chicago: University of Chicago Press. p. 44.

[2] Peter Kropotkin. [1892] (2007) The Conquest of Bread. Oakland: AK Press. p. 238.

[3] Peter Kroptokin. (2006) Mutual Aid: A Factor of Evolution. Mineola: Dover Publications, Inc. p. 241.

[4] Ibid., 184–5.

[5] Op.Cit., fn. 2., p. 57.

[6] Peter Kropotkin. (1993) "The State: Its Historic Role," Fugitive Writings. Montreal: Black Rose Books.

Beyond the process of invention, it is in Kropotkin's vision of how all can have their deserved share in the present (and the future) that his thinking on technology becomes clearest – in particular what is evident is the high degree of potential that he sees in technology. When Kropotkin observes how "machinery, too, has become the exclusive property of the few,"[7] he is suggesting the way these machines can be operated by and for the people instead of by the people for the machine's owners. The Conquest of Bread is littered with appeals to the way in which technologies can improve lives and provide "plenty for all" (which includes plenty of leisure and plenty of fulfilling work), and where needs still exist these will be addressed through "the best machinery that man has invented or can invent."[8] Thus, Kropotkin approached technology from the capitalist present in which he was writing, while looking forward to the anarchist- communist future he envisioned – the future technologies he anticipated would be those that would best suit the needs of the community. Kropotkin noted that "whenever a saving of human labour can be obtained by means of a machine, the machine is welcome and will be resorted to"9 – though this would only function equitably in a society where the machine is used to improve the life of the worker instead of turning the worker into a cog within the machine. What emerges in Kropotkin's thinking from his commentary on mutual aid to his observations on the promise of agricultural technologies is a belief that if society can switch its orientation from "authoritarian" to "libertarian" than people "by the aid of machinery already invented and to be invented, should themselves create all imaginable riches. Technics and science will not be lagging behind if production takes such a direction."[9] This points to a sense that machines, under capitalism, are not able to function truly efficiently or rationally. That which is produced is excessive or unneeded.

The optimism of Kropotkin's writings, including those that take technology into account, speak to many of the very reasons why technology remains a font of hope. For technology truly does hold out the offer of "plenty for all" even if such "plenty" is yet to be distributed in such a way as to provide for all. Alas, the positive potentials that Kropokin saw in technology would be filled with holes by machine gun fire and ground beneath the treads of tanks only a few years after works like The Conquest of Bread and Fields, Factories and Workshops appeared. The economic, social, and political atmosphere of the period between the two world wars brought with it certain shifts in attitudes towards technology. Capitalism and socialism still paid fealty to the modernity ushered in by the machine, but technology also became a symbol of power for incipient fascist ideologies. While Kropotkin had emphasized the need to attach a "libertarian" ethos to technology, other thinkers attached a distinctly "authoritarian" vision to the potentials of technologicy. Thus the decorated World War One veteran Ernst Jünger marveled at how "technology's inherent claim to power has grown stronger," resolutely declaring: "technology is our uniform."[10] Similarly Oswald Spengler surveyed the new forms of technological power and feared that "the lord of the world is becoming the slave of the Machine" and thus he called for "Faustian man" (Western man) to reassert control lest the new technology be used against "Faustian civi-

[7] Op.Cit., fn. 2., p. 58.

[8] Ibid., 218.

[9] Ibid., 198.

[10] Ernst Jünger. (2008) On Pain. Candor: Telos Press. p. 31, 34. Italics in original text.

lization" (Western civilization).[11] The thought of these purveyors of "reactionary modernism"[12] presents a stark retort to Kropotkin, demonstrating the way in which technological power that could liberate people could also usher in an era of grotesque repression and barbarity. It is in this smoke filled atmosphere that Rudolf Rocker's technological critique adjusts Kropotkin's ideas to confront a world experiencing the way that technology can turn a continent into rubble.

While Kropotkin had emphasized the role that mutual-aid played in the development of human civilization, Rocker's Nationalism and Culture aimed to elucidate the role that "the will to power" played in shaping human history, an analysis which was darkly warranted against the backdrop of the "triumph of the will."[13] To Rocker, "the desire to bring everything under one rule, to unite mechanically and to subject to its will every social activity, is fundamental in every power,"[14] be it religious or state power, whether this state be fascist or Bolshevist, whether it be capitalist or pre-capitalist. Anarchism, for Rocker, thus appears as the counter to this "will to power" insofar as it seeks not the hording of power in a few hands or the transfer of power from one elite to another elite (or worker's vanguard) but the means of disseminating this power. Such freedom "from economic exploitation and from intellectual and political oppressions [...] is the first prerequisite for the evolution of a higher social culture and a new humanity."[15] Machinery and technology appear in Rocker's work as examples not so much of liberating potential but as ways in which "the will to power" is consolidated and exercised; and though such machinery may generate a great deal of human wealth ("plenty for all") this wealth winds up concentrated in only a few hands as workers, including women and children, fall victim to further exploitation.[16]

In a similar vein to Kropotkin, Rocker sees the subterranean workings of mutual-aid at work all across human civilization including in the arts and technical fields,[17] that "great men" are singled out for praise is less a result of their individual greatness than of the ideological workings of "the will to power." Writing in the midst of the fascist consolidation of power, Rocker's Nationalism and Culture bears witness to what the potential of technology can sow when it is commanded by authoritarian forces. Spengler had feared that "the exploited world" empowered by new technology "is beginning to take revenge on its lords."[18] But what Rocker observed was the fascist 'lords' tightening their grip on "the exploited world" and taking their revenge on any who had questioned their dominance. With words that eerily evoke Jünger's comment that "technology is our uniform," Rocker observed that "there is a real danger that we shall rush on to the era of the mechanical man with giant strides."[19] Rejecting the technological uniform and the Spenglarian call for "Faustian man" Rocker remained hopeful that humanity could emerge from the smoky darkness being made continually dimmer by technology. Seeing what technology could do in authoritarian hands, it became ever more imperative to reorient it toward libertarian goals.

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[11] Oswald Spengler. (2002) Man and Technics: A Contribution to a Philosophy of Life. Honolulu: University Press of the Pacific. p. 90, 103.

[12] Jeffrey Herf. (1984) Reactionary Modernism: Technology, Culture, and Politics in Weimer and the Third Reich. Cambridge: Cambridge University Press.

[13] Rudolf Rocker. (1978) Nationalism and Culture. Stillwater: The Croixside Press.

[14] Ibid., 16.

[15] Rudolf Rocker. (2004) *Anarcho-Syndicalism: Theory and Practice.* Oakland: AK Press. p. 18.

[16] Ibid., 20–2.

[17] Op.Cit., fn. 14., pp. 452–3.

[18] Op.Cit., fn. 12., p. 102.

[19] Op.Cit., fn. 14., p.. 247.

The vision of technology in the aftermath of WWI and in the midst of the early stages of WWII did not permit Rocker the same optimism that appears in Kropotkin's thought. Rocker's contribution to an anarchist critique of technology was in still seeing the role that mutual-aid plays in the development of technologies and the ways in which technology can benefit distributed power, while clearly elucidating a dire warning that "we have increased and developed our technical ability to a degree which appears almost fantastic, and yet man has not become richer thereby; on the contrary he has become poorer."[20] A further contribution that Rocker made to the anarchist critique of technology was in recognizing the ways in which technological power can repress the striving for autonomy and freedom as it reduces people to little more than cogs within the socio-technical apparatus.[21] The adherents of the "will to power" had discovered a staggering way of reifying and enhancing their power in modern technology and the modernity they constructed with it was one wherein the machines that could provide "plenty for all" instead produced bullets, uniforms, and bombs. Rocker wrote "that the men of science and technology have opened limitless possibilities to production is not disputed by anyone and needs no special proof. But under our present system every achievement of technology becomes a weapon of capitalism against the people and results in the very opposite of that which it was intended to accomplish."[22] After warning against the horrific ways in which the potential of technology can be harnessed in the name of power, Rocker moved to reground technology in the principles of mutual aid emphasizing that the task remains "to see to it that the achievements of technical ability and the fruits of labor are made equally available to all members of society."[23] For Rocker it was not sufficient to see capitalism as the sole problem, as the "will to power" that finds a powerful tool in technology predates capitalism and can easily exist in a post- capitalist world.

Whereas Kropotkin's work shows a certain emphasis on the potentialities of technology and Rocker focuses upon the way that technology reinforces societal power, Murray Bookchin synthesized the two views while rooting his own critique in an ecological perspective. Though Bookchin was apt to use terms such as "social ecology," and later in his life "communalism," instead of "anarchism," the philosophy developed by Bookchin helped bring the anarchist critique of technology into the twenty-first century.[24] Bookchin wrote about technology against the backdrop of the continued dominance of capitalism, the disappearance of the "left that was," and rising ecological destruction. Moving beyond the nascent concern with the threat of nuclear weapons which one finds in Rocker,[25] Bookchin recognized that capitalism not only represses countless people but also poses a grave threat to the future of life on Earth. Therefore, for Bookchin, it was not only necessary to move toward a "libertarian" society over an "authoritarian" one, but toward "an ecological society" as well.[26] Bookchin observed coldly that "unless science and technics can contain the pollution and simplification of the planet, there will decidedly be a crisis in the future that strips the biosphere of its very capacity to support complex life-forms."[27] This

[20] Ibid., 254.

[21] Ibid., 254–6.

[22] Ibid., 524.

[23] Ibid., 524–5.

[24] Murray Bookchin. (2005) *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy.* Oakland: AK Press. pp. 10–4.

[25] Cf., Op.Cit., fn. 14., p. 547.

[26] Op.Cit., fn. 25., pp. 411–47.

[27] Ibid., 14.

comment demonstrates deftly Bookchin's awareness of the potential of technology and the risks of its power.

The technological riddle that Bookchin found himself attempting to solve was the contrast between "a great sense of promise about technical innovation, on the one hand, and by a thorough disenchantment with its results, on the other."[28] Bookchin is wholly confident, as was Kropotkin before him, that technology can be used to ensure "plenty for all." Similarly, Bookchin saw the tendency towards power and hierarchy in history, but much like Rocker he did not see this as a reason to vilify technology, as such, but instead to point out the ambiguities of technology and the ways in which it can reinforce dominant forces, or demonstrate a liberating potential. While showing a concern for the way that "man, standardized by machines, is reduced to a machine,"[29] Bookchin did not see this standardizing effect as inherent in technology itself. Rather Bookchin saw, akin to Kropotkin, that technology could be harnessed by the "revolution" to provide enough for all once the machinery is redirected.[30] Bookchin remained quite cognizant of the deleterious impact that technologies steered by capitalism have had upon humanity and the world, but he argued for an reorientation that would "bring the sun, the wind, the earth, indeed the world of life, back into technology, into the means of human survival," and he noted that doing so "would be a revolutionary renewal of man's ties to nature."[31]

In thinking about the potential to move "Towards a Liberatory Technology," Bookchin engaged with the various ways in which moves in this direction might too easily go astray. For Bookchin "liberatory technology" is only possible within a "liberatory society,"[32] and he repeatedly cautions his readers not to confuse technology as such with technology as used by those in power. Thus, in what can only be interpreted as a retort to the likes of E.F. Schumacher and Ivan Illich, Bookchin warned against the false hope that can be conjured up by ideas such as "appropriate technologies" or "convivial tools," as such alternative forms of technology remain enmeshed in the larger sphere of governmental and capitalist power.[33]

A similar aggravated note appears in Bookchin's Social Anarchism or Lifestyle Anarchism, where he attacked the thinking of "anti- technology anarchists" by warning of the way such thinkers displace "capitalism with the machine, thereby shifting the reader's attention from the all-important social relations that determine the use of technology to technology itself."[34] Nevertheless, this is not to suggest that Bookchin advocated an unthinking embrace of all technology, to advocate for "liberatory technology" is to suggest that there are also "repressive technologies," it is to see an opposition between "libertarian technics" and "authoritarian technics."36 Instead of falling for the temptation to treat technology as a separate sphere of consideration, Bookchin insisted that technologies be seen as thoroughly embedded in a larger societal critique. As Bookchin noted "our technics can be either catalysts for our integration with the natural world or the chasms separating us from it."[35]

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[28] Ibid., 302.

[29] Murray Bookchin. (2005) "Towards a Liberatory Technology," *Post- Scarcity Anarchism*. Oakland: AK Press. p. 79.

[30] Ibid., 80–1.

[31] Ibid., 76.

[32] Op.cit., fn. 25., p. 328.

[33] Ibid., 329.

[34] Murray Bookchin. (1995) Social Anarchism of Lifestyle Anarchism: An Unbridgeable Chasm. Oakland: AK Press. p. 29.

[35] Ibid., 445.

Through the work of Kropotkin, Rocker, and Bookchin, the framework for an anarchist critique of technology emerges. Like much anarchist theorizing, it is more of an invitation for further thought than it is a tidy definitive answer. Yet an orientation nevertheless appears which recognizes the potential that technology has for providing "plenty for all" (Kropotkin), warns of the way that new technologies can dangerously enhance the "will to power" (Rocker), and argues for the development of new "liberatory technologies" that will allow the potential to triumph over the lure of power (Bookchin). Thus, it becomes evident, that these thinkers were not strictly critiquing technology. Indeed, Bookchin and Rocker warned against the tendency to focus too exclusively on technology. These are critiques aimed against the world in which those technologies are couched. Their critique of technology was by extension a critique of modern capitalist society. Yet, before further reassembling the framework of this critique it is worthwhile to take a slight detour through the thought of a figure on the outskirts of this anarchist critique, Lewis Mumford, whose work nevertheless provides many important bridges and tributaries.

III.

The "Critique of Technology" does not so much point to a definitive school of thought, as to a certain tendency in the history and philosophy of technology. It brings together a vague assortment of writers, activists and thinkers from a variety of political and philosophical perspectives whose main similarity is a shared critical stance towards technology. Though what is entailed in this critical stance varies from one thinker to the next. Despite the degree of ambiguity under the heading "critique of technology," there are traces of anarchist thought, which appear amongst several of the 'core' thinkers associated with the critique. Indeed, though the anarchism or anarchist leanings of some of these thinkers are often overlooked, the radical analysis of technological power that one encounters amongst certain 'critique of technology' figures features echoes of such political commitment.

At the core of Lewis Mumford's thinking, whether he was writing about technology, art, or cities, was his wrestling with the "fundamental difference between the good life and the 'goods life.'"[36] That this topic should be such a recurring feature in his work was not a reflection of Mumford's inability to define "the good life," but of his frustration at the way that "the goods life" had come to stand in for "the good life." In Mumford's classic work Technics and Civilization he provided not only a social and cultural history of technology's role in the development of civilization, but he also offered a bold vision of how humanity can harness its technological capabilities to provide "the good life" for all. Ensuring that all people are capable of enjoying the benefits of technologically wrought plenty was what Mumford called "basic communism" and he emphasized that "the claim to a livelihood rests upon the fact that, like the child in a family, one is a member of a community: the energy, the technical knowledge, the social heritage of a community belongs equally to every member of it, since in the large the individual contributions and differences are completely insignificant."[37] For Mumford, the onset of WWII appeared as a demand not to abandon such a vision but to press for it with even greater fervor: "The only right

[36] Lewis Mumford. (1970) The Myth of the Machine – Volume 2, The Pentagon of Power. New York: A Harvest / HBJ Book. P. 458. Mumford is here providing a bibliographical explanation for his book The Story of Utopias – within The Story of Utopias (Bibliobazaar, 2008) Mumford first makes use of this turn of phrase: "Thus the good life, as I have said elsewhere, was the Goods Life: it could be purchased" p. 146.

[37] Lewis Mumford. (2010) Technics and Civilization. Chicago: University of Chicago Press. p. 403.

anyone has as an American is to an equal share in the good life. Not a life of material abundance; but a life of comradeship, art, and love."[38] And in the aftermath of WWII, in the shadow of the dropping of the nuclear bombs, Mumford emphasized that such a "right [...] to an equal share in the good life" extended to all people's of the world.41 Though it was clear to Mumford that humanity had the capacity to provide one and all "an equal share" he was fully cognizant that such megatechnic powers could also be consolidated and directed to construct nuclear weaponry. Thus the second volume of Mumford's final, theoretical, work (the two volume The Myth of the Machine) features Mumford declaring in his starkest terms the need for a reorientation "to prevent megatechnics from further controlling and deforming every aspect of human culture," and such prevention would require the development of "an organic world picture."[39]

Mumford wrote extensively about technology (though he used the term "technics"); however, such writings, generally, avoided looking at pieces of machinery in isolation. Mumford's focus was not upon machines, as such, but on what machines meant for humanity, on the ways in which various technical regimes helped or hindered the fulfillment of "the good life." That humanity is unable to simply "invent its way out" of its human wrought problems was another leitmotif of Mumford's work, laid out clearly as early as his first book wherein he wrote: "it would be so easy, this business of making over the world if it were only a matter of creating machinery"[40] Despite Mumford engaging with technics as a way of advancing a critique of the totality of civilization there are several highly influential contributions that Mumford has made to the broader analysis of technology. He remains a prominent thinker for the fields of the history and philosophy of technology. Drawing upon the thought of one of his greatest influences, Patrick Geddes, Mumford wrote about technology as being divided into historic phases: "the eotechnic" (roughly from the year 1000 to 1750), "the paleotechnic" (the period of industrial development from 1750 to 1850), and "the neotechnic" (from the close of the paleotechnic era to the present day, as of Mumford's writing, in 1934).[41] Yet Mumford emphasized that one should not fall for the temptation of treating these phases as too neat or separate because there could be extensive overlap, and because human morals from "the paleotechnic" era did not suddenly disappear with the onset of "the neotechnic" era. Thus 'modern' was always a murky category. The machines that defined a new "technic" era did not mean that the society's ethics had reached a similar level.

The concept of "megatehnics" and the "megamachine," around which Mumford's The Myth of the Machine focused, is another central idea from his work, and it emphasized not "big machines" per se but the agglomeration of social, economic, and political systems of control, though this power was often reified in technological instruments.[42] A third contribution to the analysis of technics, by Mumford, that is of particular import for the present discussion, was his argument that "two technologies have recurrently existed side by side: one authoritarian, the other democratic"[43] – the former representing large scale control, routinization and power, whilst the latter

[38] Lewis Mumford. (1940) Faith for Living. New York: Harcourt, Brace and Company. p. 312.

[39] Lewis Mumford. (1970) The Myth of the Machine: Pentagon of Power (Vol. 2). San Diego: A Harvest/HBJ Book. p. 395.

[40] Lewis Mumford. (2008) The Story of Utopias. Charleston: Bibliobazaar. p. 175

[41] Op.Cit., fn. 39., p. 109.

[42] Lewis Mumford. (1967) The Myth of the Machine – Volume 1. Technics and Human Development. New York: A Harvest / HBJ Book. p. 3–13.

[43] Lewis Mumford. (1964) "Authoritarian and Democratic Techincs." Technology and Culture, Vol. 5, No. 1 (Winter). pp. 1–8, 2.

tools tended to be small scale, skill intensive, and autonomous.[44] The problem, as Mumford observed in his first book, was the way in which "scientific knowledge has not merely heightened the possibilities of life in the modern world: it has lowered the depths."[45] The position towards technics that appeared across Mumford's oeuvre was one that sees the immense potential of technology for providing all with "the good life," the cataclysmic dangers of such potential being used to further shore up those in power who benefited from displacing the vision of "the good life" with the "goods life," and a future oriented technical vision that saw the promise of technology being used for "the good" but which recognized that this change would come from people not from technology. That there were many similarities between Mumford's thought and that seen in the works of Kropotkin, Rocker and Bookchin was not coincidental.

Lewis Mumford was not an anarchist. At least, he did not identify as such. Yet Mumford's work often evinced the influence of certain anarchist thinkers and demonstrated such a rigorous emphasis on ethics, decentralization, autonomy, and the value of life that his critique of technology parallels the distinctly anarchist critique of technology that appears in the work of Kropotkin, Rocker and Bookchin. While Patrick Geddes had a particularly strong influence on Mumford, so too did the thought of Geddes' "friend and colleague" Peter Kropotkin.[46] Indeed, Mumford's "first public lecture in 1917" was at the "anarchist Ferrer Society" where he spoke about "Kropotkin and Regionalism."[47] Interest in Kropotkin's work was not abandoned by Mumford as his own thinking developed. Indeed Mumford repeatedly credited Kropotkin for his foresight and argued for the continuing validity of his ideas, as Kropotkin had foreseen "the opportunity for a more responsible and responsive local life, with greater scope for the human agents who were neglected and frustrated by mass organizations."[48] One can only imagine what Mumford might have written had Freedom Press published the edition of Mutual Aid to which he had agreed to contribute an introduction.[49] After all, as Colin Ward wrote in the introduction to Freedom Press's publication of an edited version of Technics and Civilization: "Mumford's debt to Kropotkin was profound and handsomely acknowledged."[50]

Kropotkin was a clear influence upon the work and thinking of Mumford. It is only fair to emphasize the important influence that Mumford had upon the thinking of Murray Bookchin as well. For, as Janet Biehl has noted, "Bookchin absorbed Kropotkin's ideas through Mumford. Not until the late 1960s or early 1970s would [Bookchin] read Kropotkin's books."[51] While Mumford's writings about decentralized city planning – likewise influenced by Kropotkin – had particular influence upon Bookchin, Mumford's writing about technology also had an important impact. The emphasis that Bookchin put upon the opposition between "authoritarian" and "libertarian" technics was not an accidental echo of Mumford's "authoritarian" and "democratic" technics, rather

[44] Ibid., 2–3.

[45] Op.Cit., fn. 43., p. 192.

[46] Lewis Mumford. (1982) Sketches from Life. New York: The Dial Press. pp. 147–8.

[47] Ibid., 214. Granted, it is worth mentioning that the audience found "the Regionalism…suspect" and the next day one of the members of the society accosted Mumford and "accused me of being a capitalist hireling." p. 147.

[48] Lewis Mumford. (1989) The City in History. New York: A Harvest Book. p. 515.

[49] Lewis Mumford. (1986) The Future of Technics and Civilization. London: Freedom Press. p. 3.

[50] Colin Ward. (1986) "Introduction." The Future of Technics and Civilization. London: Freedom Press. p. 13.

[51] Janet Biehl. (2011) Mumford, Gutkind, Bookchin: The Emergence of Eco- Decentralism. Porsgrunn: New Compass Press. p. 45

it was Bookchin purposely pushing Mumford's analysis a step further and willingly stepping away from Mumford's use of "the more socially respectable and amorphous term, democratic."[52]

Granted, the pushback that Bookchin was giving against Mumford's choice of the term "democratic" seems largely linked to the fact that the term "democratic" (especially when set-up in opposition to "authoritarian") has a non-radical veneer. However, to engage with Mumford's work in any detail (as Bookchin surely had done) is to recognize that what Mumford means by "democratic" and "democracy" is decidedly decentralist. Mumford's democratic vision was not based upon party politics but included his call for "basic communism" entailed "the equalization of advantages between economic classes and within the community now spread far too widely apart in their incomes and their social opportunities."[53] Indeed, by "democratic technics" Mumford clearly had in mind simple tools that remain under the control of their user. These would be the "liberatory tools" of a 'liberatory' society. And though Bookchin clearly had disagreements with some of Mumford's phrasing, Bookchin also made a point of defending Mumford from charges of being "anti-technology" and from the misuse of his thought by "anti-technology" thinkers.[54] As Bookchin noted, Mumford "favored [...] the sophistication of technology along democratic and humanly scaled lines."[55] Here, Bookchin appears to be using the term "democratic" as a compliment.

While Mumford's work and thinking have clearly been a great influence upon many anarchists, it is important to restate that he did not describe himself as an anarchist, though he does appear in Peter Marshall's history of anarchism amongst the "Modern Libertarians."[56] Yet, the influence of Kropotkin on Mumford is clear, as is Mumford's influence upon Bookchin. As contemporaries, roughly speaking, Mumford and Rocker may not have so clearly interacted with one another but it is evident that Mumford was familiar with Rocker's work. Mumford claimed that Rocker's Nationalism and Culture provided "keen criticism from the standpoint of philosophical anarchism."[57] It is not merely that Mumford was able to further popularize and advocate for Kropotkin's ideas, but that in doing so Mumford participated in the ongoing conversation around Kropotkin's ideas by keeping these concepts circulating and by providing a place for them within not just the critique of technology but within the history and philosophy of technology. The book for which Mumford won the National Book Award – The City in History – lauds Kropotkin's foresight and vision.[58] Mumford may not be a canonical figure in the history of anarchist thought, but the influence he has had cannot be ignored. Mumford's work helped to build and maintain the bridge between Kropotkin's ideas and contemporary critiques of technology. The question that consumed so much of Mumford's thinking – the opposition between "the good life" and the "goods life" – is a key question in the confrontation of megatechnic modernity, and this is the

[52] Op.Cit., fn. 25., p. 326.

[53] Lewis Mumford. (1946) "The Reasons for Fighting." Values for Survival. New York: Harcourt, Brace and Company. pp. 56–7.

[54] Op.Cit., fn. 35., pp. 31–3.

[55] Ibid., 33.

[56] Peter Marshall. (2010) Demanding the Impossible: A History of Anarchism. Oakland: PM Press. pp. 575–8. Interestingly, Ellul gets almost no mention in Marshall's book. He appears only in passing, despite Ellul's much clearer claim to a place in "a history of anarchism."

[57] Lewis Mumford. (1973) The Condition of Man. New York: A Harvest / HBJ Book. p. 442. Mumford also provided a quote for the cover of Nationalism and Culture declaring that it "is a book worthy to be placed on the same shelf that holds Candide, the Rights of Man and Mutual Aid."

[58] Op.Cit., fn. 51., pp. 514–5.

same matter that one sees struggled with in the arc of critique set out by Kropotkin, Rocker, and Bookchin.

While a technological advance may have the potential to provide "plenty for all" – this potential in and of itself is no guarantee that a just distribution will occur. The version of world civilization that is advanced and solidified by complex technologies is often simply an extension of power by those already in power. Technology may usher in a newer modern era, but such modernity can easily be a high-tech veneer atop distinctly antiquated power regimes. And these regimes may well predate or outlive capitalism. That technologies are not neutral artifacts but that they embody political values[59] is an important aspect of Kropotkin, Rocker and Bookchin's thinking about technology and its place in society. Yet, there is a somewhat tragic element to reading the predictions and prescriptions of these thinkers, as well as Mumford, in the twenty-first century. The technological abundance of the present age stands as a galling reminder that technology can help bring about "the good life" but that what it generally brings about is instead "the goods life."

Amidst the dominance of technology – the consolidation of power by the megamachine – "[t]oday [...] ideas of decentralization usually play a much different role, an expression of the faint hope one may still create institutions here and there that allow ordinary folks some measure of autonomy."[60] Yet, the anarchist critique of technological modernity that is evident from Kropotkin to Bookchin retains its heft precisely because it does not see this hope as 'faint' though it recognizes that the task of reconstruction is not for the faint of heart. What is recognized by this critique is that "we have merely used our new machines and energies to further processes which were begun under the auspices of capitalist and military enterprise: we have not yet utilized them to conquer these forms of enterprise and subdue them to more vital and humane purposes."[61] Though humanity may have advanced into an age of "neotechnics," the social, economic, and political structures that govern the society have not advanced nearly as much as the technology. Yet the analysis put forth by this set of thinkers does not wallow in despair but prefers righteous indignation. Technological advances have made it so that the prospect of "plenty for all is not a dream."[62] As these thinkers insisted: "we are faced not with an absolute shortage of materials but with an irrational society."[63]

Nevertheless, in attempting to think through the problems of "irrational society," these thinkers display certain theoretical weaknesses that, though they may be a reflection of the time in which they were writing, still display flaws in their technological critique. Though a current of an anarchist critique of technology appears in the work of Kropotkin, Rocker, Bookchin (and Mumford), it is still a critique being advanced by a group of Western men. The historiography undertaken in works like Mutual Aid, Nationalism and Culture, and The Ecology of Freedom all work to engage a broader view of world history and civilizations than one that exclusively privileges Western societies, and men – but if the critique started in such works is to have utility it must be acknowledged that there are some shortcomings in the selfsame works. Whereas Emma Goldman seems to be echoing sentiments similar to those advanced by Kropotkin when she wrote that "freedom, expansion, opportunity, and, above all peace and repose, alone can

[59] Langdon Winner. (1986) The Whale and the Reactor. Chicago: University of Chicago Press. pp. 19–39.
[60] Ibid., 96.
[61] Op.Cit., fn. 39., p. 265.
[62] Op.Cit., fn. 2., p. 66.
[63] Op.Cit., fn. 25., p. 349

teach us the real dominant factors of human nature and all its wonderful possibilities,"[64] the question remains whether or not women wind up being easily overlooked in this situation.

Though Kropotkin, as well as Rocker and Bookchin, clearly include women (and the whole of the world's peoples) in their goals of "well being for all," in The Conquest of Bread there are moments where on still sees women as fulfilling gendered tasks (such as cooking[65] and child-rearing[66]). Kropotkin recognized that 'woman's work' was not usually given the attention it deserved and thus he projected a future wherein "machinery undertakes three-quarters of household cares,"[67] yet such a claim, once more, about the 'liberating' potential of technology only serves as a reminder that 'liberating technology' in a rigidly hierarchical society may do little to truly advance those liberatory aims. Voltairine de Cleyre wrote of the repressive effects of women laboring in the domestic sphere, "she has done one thing in a secluded sphere, and while she may have learned to do that thing well [...] it is not a thing which has equipped her with the confidence necessary to go about making an independent life [...] the world of production has swept past her; she knows nothing of it."[68] Thus, the danger of simply emphasizing that 'machinery' will take over 'household cares' is the way in which such a stance sees the labor of women as only 'household cares' instead of treating this work as the labor that it truly is. Thus the focus on new machines risks perpetuating a gendered vision of labor against which Silvia Federici wrote, "only when men see our work as work – our love as work – and most important our determination to refuse both, will they change their attitude towards us."[69]

Thus the 'three-quarters of household cares' is important to reflect upon as it risks diminishing labor to merely 'cares' – a reflection that "the overalls did not give us more power than the apron; if possible even less, because now we had to wear both and had less time and energy to struggle against them."[70] Indeed the sphere of 'machinery' meant to alleviate women's labor in the home provides a particularly stark example of the way that supposedly liberating technologies can simply enhance an authoritarian (and patriarchal) social order. As the historian Ruth Schwartz Cowan has noted, in lines that echo Federici's comments regarding aprons and overalls, that women in "the second postwar generation, discovered that they were working even longer hours than their mothers had worked because of the double burden of housework and outside employment."[71] Machinery that 'undertakes' household cares may be quite helpful, but such machinery is not in and of itself a challenge to patriarchy.

Therefore, the question that lingers is the extent to which technologies can help promote an 'emancipation' for the entirety of the human species. As a somewhat defensive answer, it can be simple to highlight Bookchin's emphasis upon "libertarian technics" along with his focus on the way that such a technics can only truly exist in a libertarian society. Yet, it may be more accurate to focus upon Rocker's emphasis on power because the domination of women by men appears

[64] Emma Goldman. (1911) "Anarchism: What it Really Stands For." Anarchy and Other Essays. New York: Mother Earth Publishing. As Retrieved on May 7th, 2015 from <http://dwardmac.pitzer.edu/Anarchist_Archives/goldman/aando/anarchism.h tml>

[65] Op.Cit., fn. 2., pp. 150–7

[66] Ibid., 154.

[67] Ibid.

[68] Voltairine de Cleyre. (2001) "Those Who Marry Do Ill." Anarchy! An Anthology of Emma Goldman's Mother Earth (Peter Glassgold., Ed.). Washington D.C.: Counterpoint. p. 110.

[69] Silvia Federici. (1975) Wages Against Housework. Bristol: Falling Wall Press. p. 7.

[70] Ibid., p. 8.

[71] Ruth Schwartz Cowan. (1983) More Work for Mother. Basic Books Inc. p. 193.

as an early, and lasting, manifestation of the "will to power." As Goldman wrote, in an article on the importance of birth control, "if every male were emancipated from the superstitions of the past nothing would yet be changed in the social structure so long as woman had not taken her place with him in the great social struggle."[72] Or, to approach it from a slightly different angle, perhaps Goldman's comment that "time and time again the people were foolish enough to trust, believe, and support with their last farthing aspiring politicians, only to find themselves betrayed and cheated" can be read just the same with the terms "aspiring politicians" switched out with "technologies." To suggest that "libertarian technics" can provide "plenty for all" is only sufficient if this "all" genuinely encompasses all.

It is easy to imagine a further retort that today we are in an era of technological abundance; however, it may be that technology is abundant, not that abundance is being made more readily available. The promise still held out by high-technology is also that "plenty for all is not a dream" though this version of plenty offers mountains of "the goods" as opposed to "the good." While people may be vaguely aware of the abhorrent conditions under which the elements in their devices were mined, the exploitative conditions under which they were assembled, and the ecological hellscape their e-waste will contribute to once the device falls victim to planned obsolescence, what becomes clear for industrial society is that "the machine has not only run away without the driver, but the driver has become a mere part of the machine."[73] Here, Mumford's concept of the "megatechnic bribe" appears with harrowingly discomforting effect as an explanation for the way in which people are convinced to pick "the goods life" over "the good life." According to Mumford the bribe "appear[s] to be a generous bargain [...] if people are willing to surrender their life completely at source, this authoritarian system promises to generously give back as much of it as can be mechanically graded, quantitatively multiplied, scientifically sorted, technically conditioned, manipulated, directed, and socially distributed under supervision of a centralized bureaucracy. What held at first only for increasing the quantity of goods, now applies to every aspect of life."[74] Thus the high-tech accoutrements of modern society hold out the offer of increased freedom and autonomy but in accepting this people find themselves more thoroughly caught up in the authoritarian workings of the machine. After all, one can run only open-source software and encrypt everything done while online, but such purchases of individual freedom still rest atop a technologically blighted ecosystem. Technology may not be "our uniform" but it may have instead become our fashionable accouterment. As Bookchin noted "we who have created this machine must be awakened from our own slumber [...] we too occupy the very world we have sought to mechanize."[75]

Beyond the emphasis on potential and the threat of power, it may be that the most important element of this anarchist critique of technology is the way in which Kropotkin, Rocker, and Bookchin (as well as Mumford) showed no qualms in discussing the 'ethical' alongside the technical. Indeed, they emphasize that it is imperative to ground the technical in the ethical, and to suggest that much of the damage wrought by technology is a result of the two becoming divorced: "While man was subduing the forces of nature, he forgot to give to his actions an ethical content and to make his mental acquisitions serviceable to the community. He himself became

[72] Emma Goldman. (2001) "The Social Aspects of Birth Control" Anarchy! An Anthology of Emma Goldman's Mother Earth (Peter Glassgold, ed.). Washington D.C.: Counterpoint. p. 137

[73] Op.Cit., fn. 25., p. 361.

[74] Op.Cit., fn. 42., p. 332.

[75] Ibid., 324.

the slave of the tool he had created."[76] This emphasis upon ensuring that the technical advances were rooted in the needs of the community was what inspired much of Kropotkin's hope for the potential of technology, for advances in manufacturing technology and related advances in agricultural science[77] showed that technology could truly provide "plenty for all." In considering the meeting of such needs Kropotkin emphasized the primary problems of securing the essential goods for subsistence ("bread"),[78] but his sights were set beyond full stomachs: "after bread has been secured, leisure is the supreme aim."[79] This stance, too, was interwoven with Kropotkin's rich sense of the needs for ethical foundations, which he saw clearest in the practice of mutual aid. Kropotkin's observation – that "equality in mutual relations with the solidarity arising form it, this is the most powerful weapon of the animal world in the struggle for existence. And equality is equity"[80] – powerfully gestures towards the need to direct technology towards the satisfaction of the needs of all. And though these thinkers at times skated over questions relating to gender, their ethical focus provides space for such concerns to be asserted and given the emphasis they warrant. While rejecting the morality of capitalism as false, these thinkers do not embrace egoism but search for historic and ecological ethical foundations.

Where Kropotkin linked the ethical with representing a demand upon the potential of technology, and Rocker evoked the ethical as a way to reevaluate the power reified in technology, Bookchin's treatment of the ethical expanded upon such views and gave them an ecological dimension. By emphasizing that "technics does not exist in a vacuum, nor does it have an autonomous life of its own,"[81] Bookchin reaffirmed the need to see technological shifts in the context of the society that made use of them. Thus, Bookchin showed that the way to interrogate new technological shifts, and to consider older ones, was to look at these machines in the real context of their use – a machine was not good merely because it functioned, it could only be good by helping move humanity closer to "the good."[82] While categorically rejecting the notion that when it comes to technology small was synonymous with good and big always equivalent to evil,[83] Bookchin echoed Kropotkin's call for an emphasis on the satisfaction of real needs – though he tied this closely to an ecological awareness: "a technology for life must be based on the community; it must be tailored to the community and the regional level."[84] What the emphasis on ethics further demonstrates is that Bookchin's choice of the term "libertarian technics," as opposed to Mumford's less confrontational "democratic technics," was not simply a semantic quibble but a way of foregrounding that the difference between the two traditions of technology was not strictly instrumental or political but ethical. The task of constructing and using "libertarian technics" or "liberatory technics" could not be simply a 'less bad' option functioning quietly in the shadow of smoke stacks, it was instead a revolutionary tactic for transforming the world. For Bookchin, the problem of the transition from "authoritarian technics" to "libertarian technics" was not a technical problem but a result of the fact that "what we have not recognized clearly are the social, cultural, and ethical conditions that render our biotic substitutes for indus-

[76] Op.Cit., fn. 14., p. 253.
[77] Op.Cit., fn. 2., p. 228–31.
[78] Ibid., 97.
[79] Ibid., 138.
[80] Peter Kropotkin. (1993) "Anarchist Morality." Fugitive Writings. Montreal: Black Rose Books. p. 142.
[81] Op.Cit., fn. 2., p. 306.
[82] Op.Cit., fn. 30., p. 49.
[83] Op.Cit., fn. 2., p. 348.
[84] Op.Cit., fn. 30., p 81. Italics in original text.

trial technologies ecologically and philosophically meaningful."[85] "Libertarian technics" were not an investment opportunity for oil companies 'going green' they were a chance for humanity to reinvest itself in the natural world.

V.

That Kropotkin, Rocker, and Bookchin note the potential of technology, warn against its potential misuse, and attempt to envision a way in which the potential and power can be productively combined is not unique to these three thinkers. While Mumford may have become something of a woebegone footnote in contemporary discourse around technology – mentioned in passing whilst his larger criticisms often go ignored – he showed a similar broad analysis to the one developed by Kropotkin, Rocker, and Bookchin and helped to bring such anarchist critiques (particularly Kropotkin's critique) to wider audiences. Yet what these thinkers share that keeps their work vital both in terms of liveliness and usefulness is the way in which they tied their prescriptions not strictly to a critique of technology, as such, but that in critiquing technology they were simultaneously critiquing all of modern capitalist society. Thus, to still turn to these thinkers is not a reflection that, as Kropotkin warned, "we hardly dare to think" but instead a recognition that "[i]f we do not take the time to review the past we shall not have sufficient insight to understand the present or command the future: for the past never leaves us, and the future is already here."[86]

The current of anarchist critique regarding technology developed by the thinkers discussed in this paper has lost none of its ethical weight even as the technologies of modern societies have become ever more wondrous. By focusing on the core issues of ensuring "plenty for all" and resisting the allure of technological power, this anarchist approach to technology remains just as rigorous when applied to a smart phone as for critiquing a large factory. Indeed, the present surplus of technological "goods" while the human "good" remains distant stands as an unfortunate affirmation of the way in which new technologies can work to simply promote old power relations. Nevertheless, it is precisely by not rejecting technology as such that this critique is able to avoid the equally dangerous position of unthinkingly embracing all technology. And yet the most important contribution of the critique made by these thinkers may be in showing that to critique society, and to critique modernity, one must also be willing to critique technology.

[85] Op.Cit., fn. 2., p. 409.
[86] Op.Cit., fn. 39., p. 13.

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