"I Like Machines": Boris Artzybasheff’s Machine Aesthetic and the Ends of Cyborg Culture

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In 1935 the American Bookseller’s Association gave the “Most Original Novel of the Year” award to a quirky sci-fi tale of modern techno-mythology, Charles Finney’s *The Circus of Dr. Lao*. One of its more memorable characters, a small-town lawyer named Frank Tull, seems to illustrate a moment of transition in American culture between what Mark Seltzer has identified as the “machine-body complex” of modernity and what Chris Hables Gray has defined as a postmodern “cyborg culture” in which “Some of us may feel like ‘cogs’ in a machine, but we are really bodies hooked into machines, and bodies linked to other bodies by machines.” As Finney’s narrator explains, Frank Tull was a “man of many artificial parts”:

One of his legs was made of metal and fiber... Around his belly was an apparatus that fitted mouth-like over his double hernia and prevented his guts from falling out. A suspensory kept his scrotum from dangling unduly. In his left arm a platinum wire took the place of the humerus... In the shoe of his good foot an arch supporter kept that foot from spilling out. A wig covered the silver plate in his skull... He carried his head in a steel brace, for his neck was broken... One hundred years after he died they opened up his coffin. All they found were strings and wires. 2

Of course, if this Frank Tull character is a cyborg, he’s a rather messy one—a jumbled collection of prostheses, levers, plates, gears and girders, never quite able to contain or maintain the biological apparatuses that threaten to spill out everywhere on the page. As such, Frank Tull seems to embody a popular ambivalence about the role of technology in American culture in the mid-1930s. Was technology the answer to America’s problems, or the cause of them? The lavish illustrations for *The Circus of Dr. Lao*, drawn by a young Russian-American immigrant named Boris Artzybasheff, seem to draw out the significance of this question by evoking an uncanny combination of Finney’s quasi-Freudian critique of Fordist mythology and a surrealist aesthetic of anthropomorphous forms (see Fig. 1). 3 Although the Frank Tull character never makes an appearance in Artzybasheff’s illustrations for the novel, the cyborg figure so intricately (and satirically) described in Finney’s story does seem to appear in Artzybasheff’s artwork throughout the 1940s and 1950s. In fact, it is precisely Finney’s simultaneous fascination and critique of machine culture that seems to follow Artzybasheff throughout his career. For Artzybasheff, the cyborg figure of Frank Tull never quite goes away.

In this paper I argue that Boris Artzybasheff’s oeuvre provides not only a stunning visual register of the Fordist/Keynesian incorporation of machine technology into cybernetic systems of American consumption, anticipating the “flexible accumulation” of post-1970s (or “late”) capitalism, but also a critical ambivalence about the increasingly necessary mechanization of American life and consumption. 4 If Artzybasheff’s career depended on, and vividly dramatized the techno-plasticity of approaching late capitalism, his artwork nonetheless illustrates moments of a vivid, “cyborgic” critique of those same

Fig. 1. Boris Artzybasheff, *Illustration for The Circus of Dr. Lao* (1935) by Charles Finney (Rep. Lincoln: University of Nebraska Press, 2002).
I mean that there can be no part, as in any other machine, that is redundant.” Taylor/Fordism found its strongest advocate in the photographic starkness of Charles Sheeler's portraits of the Ford Plant at Highland Park (which I will discuss in more detail below), while artists such as Frida Kahlo, Diego Rivera, and the photography of Lewis Hine provided some of the most stunning visual critiques of Taylor/Fordism's monopoly capitalism.

One could naturally point to the 1939 New York World's Fair as the most obvious placem of transition, where the machines and gadgets that had occupied center stage in previous World's Fairs became suddenly secondary to the machine process that were beginning to dominate American consumer culture. The central exhibit at the Ford Pavilion, for example, was not the latest Ford automobile, but rather a miniaturized replica of the Ford assembly line, complete with automaton workers who performed the same duties repeatedly as the entire process slowly moved by. By the postwar era, these processes had become fully integrated into the American sense of national character. In 1951 Columbia graduate Rhoda Métraux, who worked closely with Margaret Mead throughout her career, prepared a "Report on National Character" for the Conditions of Military Service, Research, and Development Board at Columbia University, in which she demonstrated how American images and speech were becoming marked by the language of mechanization:

In American culture, figures of speech modeled on the body and on machinery are used interchangeably... [W]e say of a man that he is a live wire, or a dynamo of energy, or a dude, that he gets all steam up, that he shifts into high gear, or that he slips on a cog... here combining the man and the machine and the action performed. American attitudes towards health include treating the body in much the same way. Bodily parts should be cared for and repaired, the body should be inspected from time to time by experts to locate hidden trouble, and most body parts are regarded as repairable or replaceable.14

Naturally, one of the anxieties associated with such an observation was that “American attitudes towards the body and towards machinery are also related to attitudes toward manipulation.” If human beings were becoming more like machines, then perhaps they were becoming easier to control. In 1957 Vance Packard's scathing indictment of the advertising industry, The Hidden Persuaders, offered precisely this argument. Identifying a rising trend in advertising agencies to "channel our unthinking habits, our purchasing decisions, and our thought processes by the use of insights gleaned from psychiatry and the social sciences" which typically take place "beneath our level of awareness," Packard's book tried to expose the tacit assumption of human plasticity into mechanization at the core of postwar advertising. Advertisers, Packard argued, were annoyed by “our seemingly senseless
quirks" as consumers, but were pleased with our "growing docility in responding to their manipulation of symbols that stir us to action."

However, the advertising industry's basic assumptions about a consumer's cyborg-like plasticity in the 1950s could also be seen as a logical product of the social construction of postwar transnational capitalism. In wake of the Second World War, as the U.S. assumed the global responsibilities of the crippled British Empire, competition with the Soviet Union for the natural resources and economic integration of the decolonizing world constituted one of the most crucial dynamics in the Cold War. The democratic capitalism of the U.S. economy had to prove especially elastic in producing the markets and resources necessary for such an intense and rapid expansion. As Terry Eagleton has argued, "Capitalism wants men and women to be infinitely pliable and adaptable. As a system, it has a Faustian horror of fixed boundaries, of anything which offers an obstacle to the infinite accumulation of capital." In order for democratic capitalism to succeed, in other words, it had to develop not only an ability to harness human mechanism but also to an integrative flexibility with regard to the Third world's potential and market resources. The economic isolationism and provincialism of the pre-War days was no longer an option, as American corporations had to be able to move into the rest of the world, and to do so with border-transcending flexibility. In short, democratic capitalism in an age of mechanical integration and the transnationalization of the American economy would have to embody the logic of the cybernet.

The Ford Company, for instance, had struggled before the Second World War to accommodate for the flexible accumulation of new corporations that its main rival, General Motors, had begun implementing in the late 1920s. Henry Ford's insistence that you could have any color of Model T you wanted, "as long as it's black," reflected an earlier type of modernity built around the universalization of a single commodity. As Terry Smith has shown, the "universal" model of the Ford Plant's 1927-1928 transformation from the Model T to the flashier Model A is in many ways the failure of the Model T mode of production: "Ford Company failed to move wholly to the slightly but nonetheless significantly, different model of industrial modernity represented by General Motors," whose strategy had been "to hold prices at about a hundred dollars above the Ford, imitate the styling of more expensive cars, and introduce at least one significant engineering change every year." GM, in other words, represented a more flexible form of capitalism that the Ford Company finally joined up with during WWII, though Ford's profits would never reach the levels they had been in at the mid-1920s. GM had led the way to producing vehicles more in tune with the rising population of cybernetic organisms—people caught up in the new more flexible corporatism of postwar America.

How, then, did Boris Arzybashcheff's career dramatize (and vividly critique) this incorporation of the machine into more flexible systems of consumption? In answering that question it will be helpful to begin with the young immigrant's arrival in New York City at a time when machines and machine systems had become a central part of the experience of modernity. Born on May 25, 1899, in Kharkov, Ukraine, Arzybashcheff immigrated to New York in 1918 and rapidly gained a reputation for his imaginative engraving, and particularly for his work in illustration. Illustrating dozens of children's stories in the late 1920s and 30s, Arzybashcheff's work was usually described as "lavish," "beautiful," "charming" "vivid," and "imaginative." Many of these early illustrations depicted scenes of fantasy and mythology, dramatizing the plasticity of these forms in clear and vibrant detail. Hundreds of these illustrations were regularly on display in galleries throughout New York and Paris.

While many of these early works by Arzybashcheff demonstrate a brilliant attention to clarity and detail, they do not yet reflect a fascination with machine culture. It is crucial, however, to understand that as a young artist in New York City in the 1920s, Arzybashcheff would have no doubt been aware of the great "machine debates" that were emerging in the art world. The New York-based journal, The Little Review, for example, sponsored a "Machine-Age Exposition" in May 1927, publishing a special issue to commemorate the event, featuring articles on machine aesthetics and architecture. Artistic developments by the Italian Futurists and competing claims from Ezra Pound's Vorticist and machine aesthetics would have no doubt had some impact on the young Arzybashcheff. But if Arzybashcheff's later art shows that he was assimilating these different theories of machine-aesthetic, it is equally clear he was not interested in the competition for avant-garde status between Italian Futurism and Poundian Vorticism. His was a career that negotiated a more conservative balancing act between the corporations that would employ him and the artistic movements that surrounded him. His pursuit of artistic production inside the corporations of the mass media and corporate world would keep him far from Pound's fondness for Fascism, and perhaps even farther away from Breton and Dalí's quasi-Marxist revolutionary surrealism.

In a talk delivered at a meeting of the Trade Book Clinic in New York City in 1940, Arzybashcheff showed that he was acutely aware that this art was indeed a business. He describes the friction he would sometimes experience with publishers who would occasionally back out of illustration contracts, claiming "the times being what they are and business being what it is, we simply cannot afford the fancy trimmings." For the publisher "the artist is impractical," a fact that Arzybashcheff seems to lament, even as he acknowledges the material forces that determine it. The publisher "has to deal with ledgers, cost sheets and estimates..." It goes like this: 125 for $2,500; 50¢ here, 22¢ for advertising, 50¢ there; light, heat, air conditioning, then a cocktail party for the author ... and what's left at profit: 3 cents! And this comes only if he sells the book at all." Still, Arzybashcheff says "I resent ... [the publisher's] literal-mindedness, his lack of imagination, his inability or lack of desire to conceive of any other way of evoking an emotion or expressing a
thought than by stringing line upon line of little black symbols. And, as a result, his inability to educate his public to any other form of expression.27

But this gentle artistic resentment was hardly enough to pull Artybasheff away from the corporate mechanisms that continued to employ him. And besides that, where would he have gone? For Artybasheff, the avant-garde scene in New York seemed to be fraught with as many problems as the corporate publishing industry he resented. Picking up on a series of developments that Serge Guilbeut's book How New York Stole the Idea of Modern Art would later document in great detail, Artybasheff sees the commercialization of the avant-garde happening all around him:

Picasso paints "Still Life with a Guitar" and even before his paint has time to dry, the Sixth Avenue Shoe Stores begin using "abstract art" for their window backgrounds. Surrealism becomes important in Paris, reaches our shores overnight through the Museum of Modern Art into Bonwit Teller's. Then, through the Bonwit Teller windows on the sidewalk. (And literally so—remember Mr. Dalí's precipitation through their plate glass holding a bathtub in his hand?). It reaches Sixth Avenue in no time and already has been noticed on book jackets and in advertising.28

This effort to distance his work from both the corporate lack of imagination and the circus-like commercialization of the avant-garde is important to understand, as it establishes a pattern that will continue throughout Artybasheff's career, and, as I will demonstrate shortly, informs the critical ambivalence he conveys in his particular machine aesthetic.

In the late 1930s and early 1940s Artybasheff began illustrating articles for Fortune and other popular magazines, usually with vividly drawn graphic renditions of maps or other informational diagrams. In the September, 1940 issue of Fortune magazine, for example, Artybasheff provided a striking and colorful illustration for an article on how military pilots experience oxygen deficiencies and aeroembolism (decompression sickness or temporary blackouts attributed to nitrogen bubbles that form in the spinal fluid) when ascending rapidly to heights of 30,000 feet.29 In another, he provided a clear and detailed map of China's main roads and rivers, showing which areas were under Japanese control, and how Chiang Kai-shek was dealing with the distribution of oil and other natural resources.30

The overall purpose of these illustrations was to distill information for viewers, and present it in a concise image, making the articles more accessible for their upper-middle class readers. In this sense, Artybasheff's illustrations were very much in line with Henry Luce's initial objectives for Fortune, which emerged in the chaotic wake of the stock market crash in 1929. Teaming up with Briton Hadden, Luce's partner in founding Time in 1923, Luce had seized a marketing opportunity in designing a business magazine that lavishly outshone the black-and-white, stodgy trade journals of the late 1920s.

With colorful and lush advertisements, artistic photography (by Margaret Bourke-White), and the literary talent of Archibald MacLeish, John Kenneth Galbraith, Alfred Kazin, and others, Fortune quickly stood out as something new and interesting—an "upscale and intelligent upgrade of the older and more middle-class Time"31 and by 1940 it had become required reading on Wall Street.

That same year, impressed by his vivid illustrations, the editors of Fortune asked Artybasheff to begin designing covers for the magazine, and soon he had become a regular cover artist for not only Fortune, but also Time and other popular magazines, designing over 200 magazine covers throughout his career.32 In addition to these covers, Artybasheff was commissioned to do a wide variety of advertisements for companies like Shell Oil, American Airlines, Avco, Union Carbide & Carbon Corporation, and Xerox.33 It was at this point in his career that Artybasheff's art begins to show an increasing concern with the machine age, tinged with a dislike of, in his words, "every form of tyranny and control of thought including communism, fascism, jingoism and spread-eagleism."34

Consider, for example, his series of "Modern War Machines" published in

Fig. 2: Boris Artybasheff, "Modern War Machines: Battleship." From Artybasheff's Art Is... (Rep. Ken Steacy Publishing, Victoria, British Columbia, 2006).
and willingness to work at any task, no matter how arduous or monotonous it may be. I would rather watch a thousand-ton dredge dig a canal than see it done by a thousand spent slaves lashed into submission. I like machines.38

Despite the enthusiasm in this statement about the machine as a liberating prosthesis, Arthybasheff’s work in the 1950s actually seems to reflect a deeper ambivalence about the potentially exploitative possibilities of the machine age. In Figs. 4-6, for example, we see all of the massive, steamy machinery of steel production plants, railroads, hydraulic presses, automatic screw machines, wire drawing machines, spring forming presses, electric welders, tractors, and wire cloth looms—each an industrialized anthropomorphism. At one level, these meta-mechanisms (literally, machines making machines) seem like happy engines, or jaunty motors come to life. But are these machines become-people, or vice versa? Is the expression on the face of the “Hydraulic Press” (Fig. 4) one of happy liberation, or tedium, boredom or dejection? Isn’t the massive smelting pot in “Filling Ingot Molds” (Fig. 5) moving to the right, and thus creating the tortured faces of the anthropomorphic molds as it goes? Are the vacant eyes in the “Blooming Mill” (not shown) intended to evoke admiration for the machine age? Are the twisted limbs around a steel cylinder in “Hydraulic Radial Drill” (Fig. 6) the appendages of a something happy or something tortured? Is it a bit hard to believe, in other words, that Arthybasheff is simply exulting in the egalitarian spirit of the machine-as-person, designed to alleviate burdens and accelerate production.

Fig. 3: Boris Arthybasheff, “Modern War Machines: Tank.” From Arthybasheff’s ART IS WAR (Rep. Ken Steacy Pub., 2006).

Life magazine (November 3, 1941), just prior to the attack on Pearl Harbor (See Figs. 2-5). In these images Arthybasheff’s machines and the human forms they are designed to replace or assist become literally the same object. In “Battleship,” a Japanese figure in full military regalia serves as the main mast for the ship, while in “Tank,” a collection of forward-marching legs (those of German troops) make up the tank’s mechanized tread, while trembling antitank guns cower in defense, no doubt interpreted as the weak French forces positioned beyond the Maginot Line. Given these ominous and twisted forms, it may come as a bit of a surprise that in a collection of his drawings published in 1954, entitled ART IS WAR, Arthybasheff would criticize the poet Heinrich Heine, who had complained, “The perfection of machinery, which is applied to everything, and has superseded so many human functions, is to me something dismal. This artificial life of wheels, cylinders and a thousand little hooks, pins and teeth, which move almost passionately, fills me with horror.”33

In the form of a letter to Heine, Arthybasheff replies,

As many a poet, you are dismayed by the soullessness of machinery, then proceed to damn the obedient servant, which machinery is, for its master’s own numskullery! . . . I am thrilled by machinery’s force, precision

Fig. 4: Boris Arthybasheff, Hydraulic Press, From ART IS WAR (Rep. Ken Steacy Pub., 2006).
By way of contrast, it may be helpful to turn to one of Artybashcheff's contemporaries who seemed truly content with the Fordist triumph of the machine age. Commissioned by the Ford Company in the early 1930s to produce a series of images celebrating Ford technology, Charles Sheeler painted his "American Landscape" in which machines not only dominate the picture, but appear to have achieved a kind of immortal status (See Fig. 7). The only biological form in the painting is a tiny worker, walking along the canal, dwarfed by the sublime rationality of the machine landscape (in fact, the two groups of railroad look as though they might move together and quietly crush this human form out of the picture entirely). Whereas Artybashcheff's paintings show twisted, writhing, bending forms, Sheeler's machine culture projects a highly controlled, cool rationality.\(^{39}\) Reflecting his famous infatuation with Fordism, nothing in Sheeler's paintings is out of order or mysterious.\(^{39}\) There is no twisting or turning in Sheeler because Fordism has completely rationalized the landscape, freezing history. Later in his career (and as I will discuss more fully below), Artybashcheff would also work for Ford, and had no qualms about doing so, but one never gets the sense that he worshipped the Fordist machine system the way Charles Sheeler did.

Unlike Sheeler, then, Artybashcheff's illustrations seem to not only celebrate the beauty of the machine-as-person but also draw attention to the dangers of such a system's exploitative potential. Indeed, one finds a very
similar ambivalence in his work regarding the person-as-machine in an age of high capitalism. For better or for worse (and that’s really the tone of his art), Arzybashcheff is certainly the realm of the cyborg. By way of contrast again, notice the difference between the 1894 illustration of an industrial engineer in Fig. 8, in which the designer of a machine factory sits serenely poised to operate the gears and levers of his creation (evoking a kind of majestic calmness), and Arzybashcheff’s “Executive of the Future,” (Fig. 9) published in Esquire, 1952, in which the designer has literally become a machine, embodying the corporate mechanization of management and labor. As if directly embodying William Whyte’s notion of the “organization man,” or perhaps David Reisman’s “other-directed” radar-led corporate employer, Arzybashcheff’s mechanical executive has four robotic arms, a computerized brain, and a host of buttons at his mechanical fingertips, connecting him instantly to the intricate networks of his modern corporate body. In fact, it would not be difficult to see Arzybashcheff’s “Executive of the Future” as a direct illustration of Vannevar Bush’s 1945 proposal for a “memex” machine of the future. Known primarily for anticipating many of the developments of the personal computer era, Bush’s speculative essay posits a moment in the future when people would sit at a desk facing a pair of “translucent screens.” On the desk, “there is a keyboard, and sets of buttons and levers.” Input into the “memex” will occur through the keyboard, but Bush also proposes something more radical:

The impulses which flow in the arm nerves of a typist convey to her fingers the translated information which reaches her eye or ear, in order that the fingers may be caused to strike the proper keys. Might not these currents be intercepted, either in the original form in which information is conveyed to the brain, or in the marvelously metamorphosed form in which they then proceed to the hand? By bone conduction we already introduce sounds into the nerve channels of the deaf in order that they may hear. . . With a couple of electrodes on the skull, the encephalograph now produces pen-and-ink traces which bear some relation to the electrical phenomena going on in the brain itself.40

If it is fairly easy to see Arzybashcheff’s “Executive of the Future” as the artistic dramatization of Bush’s “encephalographic” system, one is nonetheless forced to ask whether Arzybashcheff is endorsing or critiquing such a system. Observe, for instance, the strange melancholy that seems concentrated in the executive’s eyes. Notice the quaking, turning lips. Is this a powerful Fordist executive or a child trapped in a painful machine, ready to cry?

In almost all of Arzybashcheff’s illustrations one sees a constant withering of the previous boundaries between the machine and the human. His recurring fascination with the machine’s ability to incorporate itself into human life and to literally inundate one’s normal everyday existence with systems and objects of mechanization registers an important moment in postwar American consumer culture: somatic flexibility in the incorporation of the machine. In an analysis of Fortune magazine covers from the 1930s and 1940s, the highly acclaimed online site for American Studies at the University of Virginia provides an important artistic backdrop for this mechanized plasticity. As the authors of the site explain, Fortune covers from the early 1930s show a subtle and non-intrusive incorporation of the machine into pastoral scenes, the machine becoming simply part of the larger agrarian landscape. By the 1940s, however, the machine has gradually taken over the aestheticized field, dominating the landscape. According to the University of Virginia’s online history:

In these [later Fortune] covers, the pastoral has completely disappeared and the machine takes over. The machine is no longer represented as an object in a literal, pictorial setting, but is removed from any referential and realistic context. It is no longer represented as an identifiable tool for the use of humankind. Rather, it is the most abstract, purely visual and

Fig. 8: Corwin Linson, “The Engineer” (1894), illustration for Stephen Crane’s story “In the Depths of the Coal Mine.”

Fig. 9: Boris Arzybashcheff, “The Executive of the Future.” From As I See (Rep. Ken Steacy Pub.).
structural aspects of the machine that are being portrayed. Instead of a machine, we have the representation of its parts and movement. In short, not only has the machine taken over the garden, but the machine itself, has been replaced by mechanization. Thus, the abstraction of the machine depicts the domination of mechanization.41

As Leo Marx's classic study The Machine in the Garden has illustrated, the vigorous and "masculine" encroachments of industrial objects into pastoral and "virgin" settings is a common theme in American literature. Marx identifies the period between 1840 and 1860 as the moment in American literature when these seemingly universal concerns about the intrusion of mechanized civilization into the unspoiled idylls of the pastoral realm become a kind of national theme.42 However, if during the 1840s and 1860s the gradual incursion of the machine into the conceptual field illustrates the dynamics of the "machine in the garden," Arzybasheff's art in the 1940s and 1950s simply demonstrates the next step in the industrialized reconfiguration of the pastoral: the machine in the gardener. For instance, in the March 12, 1951, issue of Life magazine Arzybasheff humorously illustrates the limitations of human beings in a modern environment, dramatizing precisely these mechanized dynamics.

"Improved Design for Modern Man" shows an "Adam-and-Eve-style" male and female cyborg, each with mechanized, rebuilt parts that facilitate their participation in the machine age (Fig. 10). For each of the modern improvements, Arzybasheff includes clever descriptions. An arrow pointing to a protuberance on the man's nose explains, "Plastic handle of dainty design to fit a woman's hand." And pointing to a hook jutting out from the man's chest, "Handy-Grip grapple hook for holding on to bar, subway strap or office desk." The woman (pink, of course) is portrayed as the precise, mechanical opposite of the man, with a "manhole" in the head "for easy access to brain compartment by psychoanalyst." And an extra arm "boneless, therefore absolutely flexible, for zippering dresses in the back, also holding cigarette, gesticulating and signaling turns while driving." The description below the woman explains, "Almost everything is changed except the female legs, which Arzybasheff considers perfect now."43 Here, then, Arzybasheff has finally illustrated Charles Finney's cyborg-lawyer Frank Tull, only he has given him a wife as well.

Jennifer Gonzalez has argued that "Visual representations of cyborgs are... not only utopian or dystopian prophesies, but are rather reflections of a contemporary state of being."44 A variety of sociological and anthropological studies written at the time Arzybasheff was creating these images show just how much a burgeoning realization of cyborg life had incorporated itself into the American "state of being." Ruth Benedict's 1934 study Patterns of Culture, for instance, argued that American "national character" was marked by a special capacity for the moralization of industrial mechanization. In 1954 Reuel Denney, a professor of social sciences at the University of Chicago, found that in a review of several different studies of American "national character," one

Fig. 10: Boris Arzybasheff. "Improved Design for Modern Man." From As I See (Rep. Ken Steacy Pub).

thing they all agreed on was that the American character is "much engaged by the need to internalize the human meaning of industrialism."45 British social anthropologist Geoffrey Gorer similarly noted in The American People in 1948 that products in the American marketplace had taken on a "symbolic aura" in which the realms of the biological and mechanical functions had begun to overlap.46 Thus, although Walter Benjamin had observed in the mid-1930s that the work of art in the age of mechanical reproduction had lost its traditional "aura," scholars in 1950s began noticing that the machine itself had begun to emanate an "aura" of its own.47 And what this new "aura" seemed to emanate was precisely that the rigid Fordism of Charles Sheeler's day had long since given way to a more Arzybasheff-like flexibility between human and machine.

It should come as no surprise, then, that when the Ford Company decided to celebrate its fiftieth anniversary, they would ask Boris Arzybasheff to act as illustrator, and to paint a picture of the Ford Company that reflected a corporate history bursting with variety and transnational expansion. In the first of his illustrations (Fig. 1), a long and winding strip of paper (or perhaps ticker tape?) shows the colorful evolution of Ford automobiles, beginning with Henry Ford's first 1903 Model and ending with the 1953 Ford Truck. What is so fascinating about this illustration, however, is that the standard, black-only, mass-produced Model T appears as though it were only a brief moment in a consistently diversifying Ford inventory. The intertwining effect of the paper strip implies that there are several cars chronologically folded between those
transgression of these boundaries. The subsequent parameters of that boundary dissolution remain open. It is true that from the dominant social hierarchies, "one should expect control strategies to concentrate on boundary conditions and interfaces, on rates of flow across boundaries—and not on the integrity of natural objects."

Of course, Boris Arztybasheff would hardly share Donna Haraway's anti-capitalist yearnings. But the potential ambivalence that Haraway finds grounded in the figure of the cyborg seems perfectly dramatized in Arztybasheff's anthropomorphic machine/bodies. He clearly needed the burgeoning transnational system of techno-capitalism to keep his artistic life going, but his work also demonstrates a subtle critique of the body-machine integrations that structured such a system. Arztybasheff may have agreed with Le Corbusier that machine culture offered a kind of aesthetic "sensibility," such that in our modern world, "The machine begins to live, it has a form and a spirit." But he was also much less inclined to accept the Fascist undertones of a Le Corbusian metropolis in which the human being becomes a machine. As he would explain in 1940, "This is an era of loud noises and great confusion."

Notes

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On the "flexible accumulation" of late capitalism, see David Harvey, _The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change_ (NY: Blackwell Publishers, 1989), 141-172.

5 I use the term "techno-plasticity" to refer to moments when developments in industry and technology are thought to cause an intense dissolution of previously rigid economic, social, or semiotic/representational boundaries. The elucidation of techno-plasticity should not be seen as an unveiling of technological determinism, but rather an attempt to understand how machines were themselves (as David Nye explains) "social constructions." That is, technology is understood to be "causing" these various moments of plasticity precisely because "technologies are central parts of American self-representation, tourism, narrative practice, and visual sensibility." See David E. Nye, _Nanotimes and Spacetimes: Technology and the Construction of American Culture_ (Chicago: U of Chicago P, 2004), 5.

6 N. Katherine Hayles, _How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, Informatics_ (Chicago: U of Chicago P, 1999), 34; Joel Dinerstein's "Technology and Its Particular Discourse: On the Verge of the Posthuman" offers a trenchant critique of this particular discourse in American culture. See _American Quarterly_ 58.3 (Fall 2006): 569-596.


8 Franz Boas even argued that biological states themselves were (to a degree) culturally constructed. See Boas, "Changes in Bodily Form of Descendants of Immigrants (1910-1913)," in _Race, Language, and Culture_ (NY: Macmillan, 1940), 607-69. For an excellent discussion of Robert E. Park and the Chicago School of Sociology, see Henry Yu, _Thinking Oriental: Migration, Contact, and Exoticism in Modern America_ (NY: Oxford U P, 2002).


12 William Carlos Williams, "Introduction to The Wedge," in _Selected Essays of William Carlos Williams_ (NY: New Directions, 1969), 526; See also Tichi, _Shifting Gears_, 267.

13 Smith, _Making the Modern_, 408.


15 Ibid., 350.


17 Harvey, _Postmodern Condition_, 336-337.


19 Smith, _Making the Modern_, 104-106.

20 Adele Clarke uses David Harvey’s text to make this connection between modern and postmodern bodies more specific. See Clarke, "Modernity, Postmodernity & Reproductive Processes," 139-155, 145.


22 Steven Heller has recently praised Artybashbeff's design skills, citing his "uncanny ability to render the minutest detail with such exactitude that the viewer was forced to read a picture as though it were a page of hieroglyphics. And while these glyphs required some translation, they were never so dense, arcane, or absurd as to hinder comprehension." See _The Graphic Design Reader_ (New York: Allworth Press, 2002), 159.


24 Artybashbeff would similarly distance himself from Freudianism, although I agree with Steven Heller that such a move was a bit disingenuous. Heller sees the often allegorical nature of Artybashbeff's work as already demanding a kind of Freudian interpretation. Heller might also have pointed out that many of the early drawings by Artybashbeff (as seen in _As I See_ are direct illustrations of Freudian diagnostic conditions.

25 Boris Artybashbeff, "Let George Do It! A Talk Delivered at a Meeting of the Trade Book Club in New York City, December 4, 1940" (NY: The American Institute of Graphic Arts, 1941). 10. This and other rare papers and documents are collected in the Artybashbeff archives at Syracuse University.

26 Ibid., 12.

27 Ibid., 31.


37 For a discussion of Charles Scheeler’s unutterable faith in Fordism, see Smith, *Making the Modern*, 103-127.


41 In addition to the 219 covers he did for *Time* magazine, Artybashoff also did covers for *Life, Esquire, American Artist, Mechanix Illustrated*, and *Darts & Decals.* Other corporations that Artybashoff worked with included Alcoa Cruise Lines, Casco, Parker Pens, Wackies Spencer Steel Corporation, and Parke, Davis & Company (Research and Manufacturing Laboratories).

42 *At I See*, no pagination.

43 Ibid, no pagination.

44 Jack E. Steele, who coined the term “Bionics” in 1959 to refer to “the discipline of using principles derived from living systems in the solution of design problems,” has more recently reiterated Artybashoff’s argument in a medical context: “People would see at the hospital why I never got angry at the patients. I put them in as malfunctioning machines. It’s stupid to get angry at machines. And other people say, ‘Oh, don’t you care about people?’ Certainly, I happen to love machines.” See *Interview* in *The Cyborg Handbook*, 68. One is similarly reminded here that in Henry Ford’s autobiographical *My Life and Work* (1923), he had argued that since only 12% of the 7882 distinct operations needed to assemble a Model T required brawn and the extension of human agency through the forms of technology that represent it. See
gendered roles of Euro-American culture are rarely challenged in the visual representations of cyborgs." See "Envisioning Cyborg Bodies," 270.


48 Qtd. in ibid., 16.


50 Another (unsigned, and probably not by Arzybashcheff, but still important) illustration in the volume, a map entitled "Ford Around the World" shows Ford's ongoing transnational expansion throughout the globe, identifying manufacturing, assembly, and sales plants in Santiago, Buenos Aires, Alexandria, Dagenham, Yokohama, Singapore, Bombay, and several other international locations. As the caption in the center of the page explains, "The responsibility of Ford's management extends far beyond the shores of the U.S.A. Ford products are manufactured and distributed throughout the world." See Ford at Fifty, 88-89.


52 Ibid., 22.


On Things Multiple: An Interview with Michael Moorcock

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A career as expansive and diverse as Michael Moorcock's resists summary. A constellation of terms might be more suggestive: prodigious, visionary, smart, satirical, multiple. Famous for his science fiction and fantasy novels, Moorcock has produced a vast body of work that includes essays, screenplays, computer games, and music lyrics. He has collaborated with or inspired work by rock bands (Hawkwind, Blue Öyster Cult), graphic artists (Brian Tawn, Grant Morrison, Alan Moore), and a host of other fiction writers, including Brian Aldiss, M. John Harrison, Norman Spinrad, James Sallis, and Storm Constantine. To speak of interdisciplinarity and the technological imagination, there is perhaps no one more qualified than Michael Moorcock.

Born in London in 1939, and now residing in Texas, Moorcock started his literary career at the age of fifteen, when he became editor of the Tarzan Adventures magazine. Moorcock began to sell his own short stories to various science fiction and fantasy periodicals, and, in 1964, he took over editorship at New Worlds. A traditional science fiction magazine, New Worlds became, under Moorcock's direction, a platform for experimental writing and the alternative culture of the period, publishing early work by authors such as J.G. Ballard and Brian Aldiss. Although the revamped magazine was initially condemned by a conservative mainsteam (who found its new content, Moorcock observes, "obscene, blasphemous, nihilistic"), this so-called New-Wave phase of New Worlds is credited for inspiring innovative strains of science fiction such as slipstream, New Weird, and cyberbunk.

One of Moorcock's most celebrated literary creations is the Eternal Champion, an archetypal heroic figure who appears in various incarnations throughout Moorcock's fiction. What distinguishes the Eternal Champion from the stereotypical fantasy hero is his physical and contextual indeterminacy: he can take on any shape and operate in any dimension or universe. In this, the Eternal Champion personifies one of Moorock's enduring literary themes: