

Science Fiction, Ecological Futures, and the Topography of Fritz Lang's *Metropolis*

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"I was a great lover of science-fiction and I knew a lot of writers...Then came the War and we found out that the things really invented by scientists went far beyond the imagination of science-fiction. So much so that today science-fiction is no longer what it was."

Fritz Lang, from a 1965 interview with Peter Bogdanovich²

Fritz Lang's film *Metropolis* (1927) displays a science fiction vision of a mechanized urban future. In the neoliberal capitalist context of 2012, Lang's images and ideas can appear deeply outdated. Nevertheless, this cinematic imagining of future conditions of life continues to resonate strongly as the film keeps attracting spectators and critical attention, thereby offering us a significant opportunity to analyze the ideological foundations upon which we have constructed our notions of human society, including our approaches to ecology. In fact, we might leverage the datedness of *Metropolis*, since studying this modernist motion picture affords us a little critical distance from the present so that we might critique our current capacities to imagine ecological futures by comparing them with Fritz Lang's mechanical future from the past. After all, Lang himself claims in the epigraph to this essay that science fiction was eclipsed by actual techno-scientific developments in his lifetime.

In particular, this essay focuses on the ideological implications of *Metropolis* building its dystopian vision of an industrial capitalist society without overtly engaging in ecological matters. The copasetic resolution of the film, with Freder embracing the role of mediating heart between his father, the capitalist head, and the laboring hands, implies by its narrative logic that industrial capitalist society is sustainable so long as it is infused with humanism. Nonhuman biophysical participants in the system of industrial production are thereby absent from the city and from the cautionary message the text appears to convey. No one speaks of them, and they do not appear on the screen. As such, *Metropolis* diverges from other science fiction futures of people living inside machines, most of which feature either human alienation from the nonhuman biophysical world, as in E.M. Forster's 1909 short story "The Machine Stops," or the

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² For this quotation, see Peter Bogdanovich's *Fritz Lang in America*. In this book, Lang also mentions that the initial inspiration for *Metropolis* came from the view of New York when he and Thea von Harbou arrived at night by ship in 1924, and he claims that he invented the rocket-launch countdown in *Frau im Mond* (1929).

decimation and/or loss of that nonhuman world through industrial exploitation, war, or other causes, as in Alex Proyas' *Dark City* and the Wachowski Brothers' *Matrix* films.

It is tempting to read Lang's exclusion of ecological matters as a representation of the loss of so-called Nature. Such a reading would fit seamlessly with standard ecocritical approaches to the historical Industrial Revolution and subsequent forms of industrial production.³ Rather than take this well-worn approach—which I consider a mystifying nostalgia for a past that never was—this essay applies an ecology-focused ideological critique to *Metropolis* to show how the film's exclusion of ecological matters makes visible fundamental contradictions in how we imagine our ecological future. More specifically, I explore the film's urban topography to analyze its ideological contradictions and to extrapolate their ecocritical implications. In the gaps between overt narrative content and the latent contradictions that dwell within them, we catch a glimpse of the desires and fantasies that structure our perceptions of the ecological past, present, and future(s). Such perspectives on our own ecological fantasies enable us to imagine ecological futures anew without simply reproducing, or inadvertently improving, the retrograde activities that brought about the ecological crises we face.

As a final introductory note, this essay incorporates other texts that comprise the *Metropolis* supertext: Thea von Harbou's novel by the same name that served as blueprint for the screenplay she and Lang co-wrote, and the Japanese anime homage by Rintaro among them.⁴ While the range of *Metropolis* texts might well serve as a central topic for an ecocritical essay, here they primarily help illuminate key contradictions in Lang's film through their differences from it. For, in these predecessor and progeny texts, we observe continuities and breaks that help us attend to the 1927 film against what is shared and shifted across its textual lineage.

Metropolitan Vistas

This critical tour of the topography of *Metropolis* begins with the composition and contents of the shots that present the widest, most comprehensive and objective vistas of the city. The various shots of the cityscape grant the most totalizing perspectives of *Metropolis*, and yet their composition belies this sense of our seeing the city's totality. Most significantly, the point of view from which every vista shot is seen remains firmly located within the city and its structures. The ecocritical significance of this comes from the lack of distance inherent to points of view inside the city. One of the standard ideological functions that the cinematic grammar of such objective, panoramic shots serve is to make the spectators feel as if they are observing the entire system of the

³ See, for example, Carolyn Merchant's *The Death of Nature: Women, Ecology, and the Scientific Revolution*.

⁴ The history of Lang's film is one of the most fascinating in the field of cinema studies. Martin Fernando Pena has recounted the extensive history of the many *Metropolises* and his own discovery in Buenos Aires in a book titled *Metropolis* (currently available only in Spanish), a sample of which has been translated into an English piece entitled "Metropolis Found" available online: <http://www.fipresci.org/undercurrent/issue_0609/pena_metropolis.htm>.

place, in this case an urban ecosystem, as it operates. In this sense, cinematic vista shots work on a smaller scale like the photographs of Earth from space that inspired James Lovelock to develop the Gaia Hypothesis. In *Gaia: A New Look at Life on Earth*, Lovelock writes, “To my mind, the outstanding spin-off from space research is not new technology. The real bonus has been that for the first time in human history we have had a chance to look at the Earth from space, and the information gained from seeing from the outside our azure-green planet in all its global beauty has given rise to a whole new set of questions and answers” (8).⁵ We might apply Lovelock’s sentiment to the advent of cinematic technologies that appear to give us chances to look at our lives, real and (science) fictional, from a new perspective.

Unlike the Earth-from-space images, as well as aerial urban cinematography shot from helicopters and airplanes or computer-generated to recreate the same effects, Lang’s city shots never appear to be composed from the outside, even though they give us the impression of an external, total view. As a result, every view of the modernist skyscraper architecture and multi-layered elevated highways and flyways remains partial, incomplete. We see segments of overlapping buildings and infrastructure, but vast tracts of the city remain hidden out of sight. Even the structures in the immediate foreground are blurred beyond comprehension as the point of view from which we see them is too close. The significance of the place-bound composition of these perspectives and the resultant partial views for an ecocritical reading is that they confound any fantasies we might wish to maintain of being exempt from the world we are observing. There is no escape from *Metropolis* just as there is no escape from ecosystems or from ecology. We may desire a position and perspective outside of systems—ecological, political, or economic—from which to issue cautionary warnings to ourselves, but somehow the formal composition of such cautionary narratives undermines, and thereby makes visible, the impossibility of this same desire. In other words, we see in the panoramic shots of *Metropolis* the contradictory imagination of ourselves as exterior to and uninvolved in this place as well as interior to and complicit with it.

In addition to the interior-exterior contradiction, the cityscape images contribute to the spectators’ understanding of the city as an urban ecosystem. Although every view is partial, the architecture, infrastructure, and the flows of air and auto traffic within the city appear orderly, exuding a certain harmony of motion. As such, the urban activity demonstrates a science fiction vision of this future city as a place of social equilibrium and balance. But this impression is built upon a contradiction. On the one hand, we are entranced by the wonderful working of this city-machine, dazzled by its complex grandeur as well as the apparently supreme functionality of its form. *Metropolis*, after all, does work, at least from a vista point of view. On the other hand, this streamlined place of order embodies deep anxieties over the prospects of repressive totalitarian futures. We find ourselves both desiring *Metropolis* and being disgusted by it at the same time.

⁵ For an ecocritical analysis of this image, see Ursula Heise’s *Sense of Place and Sense of Planet: The Environmental Imagination of the Global* (4-11).

This contradiction is historically significant since Lang's cityscape vistas are clearly modernist, especially if read through Fredric Jameson's notion of "cognitive mapping" and the schism between modernism and postmodernism. According to Jameson, the postmodern city continually shifts and sprawls, defying our capacity to comprehend it and to orient ourselves within it (*Postmodernism* 51-52), in contrast to the absolute order apparent in the vista shots of *Metropolis*. Therefore, the anxiety these shots raise over repressive totalitarian futures appears typically modernist as it is founded in a belief in the possibility of total human control over their environment. That this film continues to resonate so well today implies that this fundamental belief in a human capacity to exert full control over the biophysical world retains its hold to some degree, in spite of the fact that contemporary neoliberal capitalist society has manifested very different forms of social and ecological control than Lang put before the spectators' eyes in 1927. Weirdly, then, to react with anxiety to these panoramic scenes is to continue believing in the modernist idea that human beings truly are capable of total control, social and ecological.

To approach this somewhat difficult claim through a cinematic counterpoint to *Metropolis*, consider a similar cityscape in Ridley Scott's *Blade Runner* (1984), an obvious postmodernist counterpart to Lang's film. *Blade Runner* emulates the imagery of *Metropolis* in many ways, including vistas seen from within the city, but instead of the machine-like order of the German city, Scott's vision of 2019 Los Angeles displays a decrepit city falling apart even as it buzzes with chaotic activity. As a city rife with people and activities that do not contribute to any visible order whatsoever, this future Los Angeles resists cognitive mapping. Likewise, the forms of control have shifted. Social control is enacted, not through brutal repressive order, but through the dispersion and isolation of the poor as well as the urban flight of the wealthy all the way to off-world colonies. Siegfried Kracauer has made a similar remark when he includes in his fine analysis of Lang's *Metropolis* a quote from Goebbels: "Power based on guns may be a good thing; it is, however, better and more gratifying to win the heart of a people and to keep it," after which Kracauer comments, "In *Metropolis*, the heart triumphs but for the industrialist's continued power position" (164). In *Blade Runner*, unlike *Metropolis*, ecological control does not exist at all since the city is visibly polluted and the wealthy are fleeing Earth itself, in an inversion Lang's vision: here, the natural world does intrude upon the workings of industrial capitalism and totalitarian control.

In juxtaposing *Metropolis* and *Blade Runner*, we perceive a historical shift in science fiction future cities. Vista shots of *Metropolis* and Los Angeles both embody and reflect back to us our present anxieties about control, freedom, and the conditions of the place in which we live. Their simultaneous relevance to the social imaginary today enhances and complicates the contradiction embedded within *Metropolis* of our desire for and disgust with the harmony of modernist human power. While the cityscape of *Blade Runner* more closely represents the realities of our lives and urban ecosystems today, *Metropolis* continues to appeal to us, perhaps so we can retreat into its fantasy of human capacity for total control as we confront ecological crises that, like the

postmodernist city, defy our cognitive mapping abilities. After all, if we classify global climate change using Jameson's notion, clearly the scale and indeterminacies of this planetary problem match the postmodernist difficulties of cognitive mapping. Thus, by lingering over the import of the bird's-eye views in *Metropolis* and their counterparts in *Blade Runner*, we begin to interrogate the desires and contradictions that prevent us from imagining and enacting sustainable ecological futures.

The Garden in the City

Against the background of this analysis of the vista shots and their contradictions in form and contents, this section of our topographical tour visits the Eternal Gardens. Although the gardens appear only for a short time on screen, they are vital to the narrative and particularly crucial to any ecocritical reading of *Metropolis*. In terms of narrative vitality, the spatial transgression by Maria and the children she takes care of happens in the Garden.⁶ Their unexpected presence catalyzes Freder's journey from this pleasure dome for the wealthy elite down into the confines of the subterranean factories populated by the exploited working masses. This turn of the plot makes the Eternal Gardens a key site for any analysis of the film and even more crucial for an ecocritical approach as this tiny, exclusive place within the city contains the only visual gesture at a biophysical world different from the city as a place designed, built, and inhabited exclusively by human beings. The exceptionality of the Gardens in the film is underscored by a multi-page pastoral scene in Harbou's novel when Josaphat parachutes out of the airplane Joh Frederson put him on after Josaphat betrayed his charge, Freder.⁷ As such, the novel does provide the existence of a pastoral non-urban setting outside of Metropolis, while the film neither leaves the city nor even implies that there is an outside of the city.

The Gardens refer to another biophysical world, different from Metropolis. But the giant mushrooms, plants, and other simulated beings in this place have all been manipulated and modified to fit some fantasy vision. Regardless of its origins, this fantasy vision does not appear to inspire in Freder or anyone else a sense of attachment to, longing for, or mourning over a realistic extra-metropolitan biophysical place. So, even though the giant mushrooms and everything else in the Gardens are referents, and we cannot say with certainty whether these things are living organic matter or inert sculpture, the design and existence of the Gardens are first and foremost a testament to the power of human fantasy and desire, regardless of what form, natural or otherwise, they may take.

From an ecocritical perspective, the Gardens seem to convey the loss of Nature as part of Lang's dystopian science fiction vision of the future. An ecocritic might ground

⁶ For stylistic clarity, "Maria" refers throughout the essay to human Maria as I do not discuss actions taken by robot Maria.

⁷ See Thea von Harbou's novel, *Metropolis*. This passage provides not only a pastoral elsewhere outside the city, but it also describes this scene from the bird's-eye view of an airplane: "The aeroplane hovered homelessly above a strange earth, like a bird not able to find its nest" (113).

such a claim in the apparent disconnection from any realistic knowledge of the biophysical world that the Gardens symbolize, so that the giant mushrooms would function as a sign of urbanite ignorance of the nonhuman world. However, I interpret the strangeness of the Gardens differently. Instead of providing the spectator with a chance to feel superior to the Metropolitan elite because we know what mushrooms and nonhuman animals look like, the Gardens testify to the power of human fantasy and desire in relation to Nature. Nature is an ideological apparatus of capital, not in the sense of false consciousness, as if these urbanites were simply seeing things the wrong way, but in the sense that no one has ever seen Nature as such. So, rather than smugly criticize Joh and Freder Frederson for their detachment and ignorance, we should read *Metropolis* as a reminder to dig into the fantasies and desires around which we construct our own concepts of, and purposes for, the idea of Nature.

To take this argument one step further, consider the human activities that take place in the Gardens. Clearly they are a place for Freder to enact fantasies, the only place where we see him engaging in sexually suggestive behavior. Yet his pleasures are not tied to the Gardens as simulated nature; instead, Freder's eyes are locked onto the woman scantily clad in translucent gauzy clothing whom he chases and by whom he is chased. For Freder, it seems that this exclusive club could have any theme at all, just so long as it includes attractive women and sexual pursuit. By comparison, Yoshiwara, the bourgeois night club of Metropolis, offers essentially the same form of sexually suggestive entertainment, but without the natural setting and the elite status of its clientele. The similarity in form and difference only in content between Yoshiwara and the Gardens underscores the fact that the film does not attach any meaning to the Gardens as nature.

Within this framework, the Gardens serve as the site where the plot starts out. As Freder is frolicking away the day, Maria and a group of workers' children under her supervision step out of an elevator and break the fantasy spell. She has brought the children here to see the astonishing fantasy places that exist in Metropolis, and to imagine a future in which they, too, will frolic in places like the Gardens with their "brothers," as she puts it. Ironically, this spatial transgression highlight the implausibility of the quasi-natural setting, but instead the necessity for all people to access such places of relaxation and splendor in order to make the city a just and sustainable place. This emphasis on access to, rather than the contents of, the Gardens is reinforced by the fact that in seeing, the children and Maria are also seen. Freder is mesmerized by these out-of-place children and by Maria's beauty and her purity. Yet, one might argue that Freder does and does not see the intruders since Maria seems to replace the nearly-nude nymph as the object of Freder's fantasy gaze.

As Freder's handlers recognize the impact of the spatial transgression, they hurriedly remove the intruders in an attempt to restore the fantasy spell of the Gardens. However, the boundaries have been breached, and this spatial transgression conveys an important ecological insight about interconnectedness that resonates with the latent ideological import of the bird's-eye views. The Gardens were constructed as a refuge

from the regular operations of the city, but Maria and the children's appearance disturbs this presumed distance, which can be read as an indication that the fallout of unsustainable social and economic practices cannot be repressed indefinitely. While the Gardens make this message more directly apparent with regard to labor exploitation in the narrative, this setting, perhaps unconsciously on the part of the filmmakers, connects its message of interconnected topography and the return of the unsustainable repressed to ecological structures that are as hidden from the elite's view as the condition of the working class.

Significantly, while this small nonhuman biophysical place marks one of very few topographical points of difference within the city and within the narrative arc of the film, it does not provide a model for a natural alternative to Metropolis. The Gardens do not even reappear in the film, as if the place had served its function and then been discarded just as any natural resources after we have used them up. Counter-intuitively, then, the film's refusal to valorize or fetishize Nature makes *Metropolis* especially poignant for ecocritique. By keeping all aspects of the narrative within the city, *Metropolis* provides an unblinking glimpse at the meaning of interconnectedness, at a moment when the systems and conditions we have built threaten our own lives and have seemingly excluded all nonhuman others, have perhaps even annihilated them once and for all.

The film's topography does not afford the spectator any fantasies of a pastoral elsewhere, like the farmland that appears in the novel, or any other eco-nostalgic places. In meta-textual terms, the film does not grant us an Eternal Gardens to retreat to for reprieve from the relentless horrors of the industrial capitalist conditions on display. Like Freder in the film, we are contained in this mechanized city. The characters in the film sadly leverage the revolutionary necessity that these industrial horrors produce only to achieve a purportedly more humane version – however unlikely – of the same unsustainable conditions of life. But we might learn valuable lessons from their failure about the necessity for taking a clear look at the unsustainable world we have created and the necessity to imagine an entirely new world if we truly wish to pursue sustainable ecological futures that include human beings in them.

Down into the Machines

The disruptive appearance of Maria and the workers' children in the Gardens makes Freder aware for the first time that other parts of Metropolis exist. He reacts with a simple, naïve curiosity driven in part by the fantasy Maria has sparked in him, as opposed to the jaded scorn his father shows throughout the film to those who work to maintain the city and the Fredersons' lavish lifestyle. *Metropolis* invites the spectator to identify with Freder and to appreciate his humanist sentiments, the very thing that makes him capable, according the narrative logic of the text, of mediating between his father and the laboring masses. Freder's curiosity drives him to venture into the, to him, unfamiliar area of the subterranean machines. The vertical topography of machine and non-machine labor reminds us of H.G. Wells' Morlocks in *The Time Machine*, though that

narrative paints the science fiction future with the proletariat growing stronger and savvier but more savage and detestable in their rise—a wholly different vision from Lang's. While Freder is down amongst the machines, he witnesses other people unlike any he has known in the Gardens or elsewhere in the rest of the elite capitalist topography as well as the brutal conditions of their exploited laboring lives. He reacts to these visions with horror, both at their lives of labor and at his own ignorant complicity in their exploitation.

It is important to recall that by the time we, the spectators, join Freder on his journey down to the machines and see the scene as focalized through his response, we have already been down in this place via the objective shots of exposition that Lang uses to open *Metropolis*: "objective" in that the opening shots do not represent any particular character's focalization. Nevertheless, the opening sequence establishes an ideological tone that primes us to align our reactions with Freder's humanistic one. Lang begins with close-up footage of machine components, including rotating cogwheels interlocked and driving each other, a cinematic version of the phrase "cog in the machine"—a pejorative figure of producing things collectively. These cogs and other components are frequently multiplied on the screen through superimposition of three or more shots to amplify the dizzying effect of the mechanical complexity and to heighten the sense of the machine's and machine-society's inescapability. From this imagery, the film cuts to human workers taking up their places at the machines, moving frantically to keep up with the automated pace of labor. Very simply, Lang edits this juxtaposition of images to say cinematically that the subterranean workers of Metropolis are mere cogs in the machine, bereft of autonomy, individuality, their very humanity. In this way, the opening sequence already sets the pejorative ideological tone for the film and especially for the part in which we focalize the machines through Freder's eyes.

This ideological tone is crucial to Lang's science fiction vision of an industrial future as the film was released during rapid industrialization in communist and capitalist countries of the world. While Lang uses cogs as a visual marker of the dehumanizing horror of machines, and Charlie Chaplin used ultra-complex cogwheel machines to similar effects through two well-known scenes in *Modern Times* (1936), the Soviet director Dziga Vertov incorporated footage of machine components and people at work that is uncannily similar to Lang's but coded as the positive result of collective labor into his 1931 film *Enthusiasm: Symphony of the Donbass*, an excellent example of the "city symphonies" film genre of modernist documentaries on people's lives within human-built urban environments. The approximately contemporary production of films using nearly the same images to represent people interfacing with machines as enslaved or liberated serves as a reminder that the machines we deploy in our narratives are steeped in the ideologies that shape the ways we perceive people, places, and people's interactions with and within places. This means that representations of machines provide insight into the ideological formations that shape the possibilities and limits of our ability to think about ecology and imagine ecological futures, and since science fiction is the genre par excellence at combining machines and imagined futures, the

subterranean machines are a crucial piece of Metropolis topography for ecocritical attention. This section explores two aspects of the machines beneath Metropolis: (1) the allegorization of the machines, primarily through Freder's focalization, and (2) the representations of the dignity of human labor.

When we enter the subterranean place of the machines with Freder, his perceptions take over. For only a very brief moment does Freder actually see the machines; then, as if the scales had been peeled from his eyes, they transform into the giant head of Moloch, his gaping maw consuming the human workers of Metropolis. While this projection of Moloch onto the machines of industrial capitalism is meant to reveal the essence of this society, I will argue that it does something quite different. In fact, this nearly instantaneous allegorization of the machines fails to confront them in their materiality, mystifying instead the real conditions of the factory and its place in the ecosystems of the city by integrating them into a transcendental religious narrative.

To give this ideological critique an ecocritical turn, just consider the extent to which *Metropolis* persists in our culture as a science fiction allegory that we use as if to remind ourselves to avoid this particular future. To underscore this point, consider as well the extent to which *Frankenstein* (Mary Shelley's and her novel's many bastardly progeny) continues to serve the same cautionary function in today's social imaginary. These allegorical mystifications hinder our ability to analyze our relationships to technology and the impacts of technology on the world, and to imagine sustainable ecological futures. Some critical responses to *Metropolis* similarly focus on the machines and human-machine interfaces rather than the precise material conditions. Thomas Elsaesser comments on the visual juxtaposition of Freder taking over the labor of worker #11811:

The violence of the modern functional object as it presents its smooth surface and imperturbably regular motion to the eye all but disguises the extent to which the fading image is cancelled not just visually, but contradicted by the one that follows. The annihilation, however, is not in the image but resides in the transfer of meaning that the superimposition gives to the neutrality of the clock. Its hands seem to 'pick up' the inert ones of the dial, but instead of echoing Freder's effort, the clock distances itself from him by its indifference. Wheels within wheels, one is tempted to resume, moving inexorably towards entropy and exhaustion. (65)

The problem with this analysis is that the labor we see beneath Metropolis is surprisingly erratic rather than exhaustingly, rhythmically regular. When we see Freder take over for 11811, we should be struck by the absurd randomness of the motions required to match the giant arms or levers of the machine to the lights that come on. While this labor appears brutal and exhausting to be sure, it is out of character with the consistent precision of machines in general and of the city as it has appeared in the bird's-eye views.

Lotte Eisner applies a similar critique directly to the human-machine scenes in *Metropolis* when she writes in *The Haunted Screen*: “Their [the underground laborers] entire person is geared to the rhythm of the complicated machines: their arms become the spokes of an immense wheel, their bodies set into recesses of the façade of the machine-house represent the hands of a gigantic clock” (226-29). I do not entirely agree with Eisner on this point. Although a number of scenes are orchestrated so that multiple laborers are seen from a distance moving to the machines’ rhythms, when Freder engages with Georgi, a.k.a. 11811, this laborer’s movements are totally erratic, and they continue to be that way when Freder takes his place. Here, the exhaustion of labor comes not from matching the high speed of mechanical rhythm or of the monotony of regularity; instead, exhaustion results from the unpredictable irregularity of this labor.

In addition, we never see the machines actually producing anything. In fact, it is only once Foreman Grot shuts down the heart machine at Joh Frederson’s request that we come to know through the resultant flood and the electrical blackout in the upper level of the city that the machines maintain the utilities of Metropolis—though, oddly, even Joh Frederson seems genuinely surprised when the city’s lights go out, and he of all people should know what the machines do. Lang, therefore, does not give any visual indications that industrial capitalist production confronts the nonhuman biophysical world as mere matter to feed into our machines to produce what we want and discard the remains. Clearly, the machine scenes of *Metropolis* do not propose any arguments like Martin Heidegger’s disapproval of the way technological industrialization leads to the treatment of nature as a “standing reserve.”⁸ Suggestively, one of the only machines whose purpose we see clearly in the film is Joh Frederson’s stock ticker that clicks as it constantly prints out reports on the state of the city for the capitalist perspective—a sort of analog to the subterranean machines that enact the brutal and meaningless state of the city for the proletariat. Thus, with the purpose and function of the subterranean machines’ existence unclear and the stock ticker abstracting production into capital flux, Elsaesser and the rest of us can be forgiven if we see the machines through the ideological projections we place upon them. A critical reading of the film must attend to this discrepancy as well as the question why one might causally misread it by not seeing the machines on the screen right before our eyes.

Let me be clear, though, that this essay is not calling for the disposal of science fiction, allegory, or other narrative forms through which we make sense of the world and our lives as part of it. On the contrary, the point is to recognize how valuable something like a science fiction vision of the future can be when we discipline ourselves to identify and analyze the ideological contradictions that such imagined visions attempt to paper over. Indeed, *Metropolis* itself suggests this interpretive mode through Maria’s radical interpretation of the Biblical story of the Tower of Babel. The traditional reading of this narrative, which might well be categorized as a science fiction allegory from the past, treats it as a cautionary tale against technological effrontery to God—precisely, by

⁸ See Heidegger’s essay that has become fundamental to techno-cultural and techno-historical studies: “The Question Concerning Technology.”

the way, the discourse that one commonly finds in readings of *Frankenstein*.⁹ Maria, by contrast, explains the Tower of Babel story to the exploited workers as a classic example of how extreme class antagonism makes an astonishing place of human architecture and life ultimately unsustainable. In Maria's version of events, it was not a transcendental God and/or Nature that punished human beings for their techno-scientific developments but the immanent ruthless exploitation of one class by another. As such, Maria instructs the workers, and vicariously the spectators too, not to transform the machines into transcendental mystifications but to demystify techno-scientific allegory into the real conditions of existence, including the machines of production. Put differently, Maria provides us with a demonstration from inside the film how to apply ideological critique to it, a move that serves our ecocritical agenda.

Maria's narrative reinterpretation leads us to consider how *Metropolis* represents the dignity of human labor, particularly through its implied view of the indignity of human-machine labor. Concerns over human labor and dignity have proven to be vital components of ecocritical thinking as they determine and reflect our relationships with the biophysical world in which we live and upon which our present and future existences depend. Renowned ecological thinkers like Wendell Berry and Bill McKibben have written sustained contemplations on dignified human labor and its relation to ecological futures. In *Home Economics*, Berry lauds models of self-sustaining households—an ideology that simultaneously endorses the liberal humanist individualism that makes capitalism run and poses a neo-Luddite-like resistance to techno-scientific development.¹⁰ McKibben sings the praises of low-tech human labor in his book *Enough*, which casts science fiction visions in a dystopian light so as to oppose techno-scientific developments that seem poised to change human biology and society as well as the ecosystems of Earth and beyond:

Even if such a scheme [of total human unemployment by transferring labor to machines] worked economically, how would it feel? Work is one of those things that orders our lives. If it is sheer drudgery, it may dull and shorten our lives; if there is too much of it, we may feel as if there are other experiences we're missing. But for the most part, the chance to develop skills and to apply them, to see our sweat manifested not only in a paycheck but in a harvest, a house, a book, a classroom full of growing children—that is among the strongest day-in, day-out meanings of our lives. (93-4)

For both thinkers, the dignity of human labor consists in part of putting people in frequent contact with the ecosystems of which we and they are all parts.

In light of such connections between labor and ecology, the representations of human labor in *Metropolis* require ecocritical attention. As I mentioned before, the machine imagery at the start of the film and during Freder's visit clearly encode the machines as instruments of dehumanization. These machines dehumanize the human

⁹ For example, see Jon Turney's *Frankenstein's Footsteps: Science, Genetics and Popular Culture*. For an uncommon ecocritical reading of Mary Shelley's *Frankenstein* that does not encourage technophobia, see Timothy Morton's *Ecology without Nature* (97 and 187-88).

¹⁰ These notions permeate Berry's essay collection, but one of the most sustained examples is the essay "Getting along with Nature" (6-20).

laborers who tend them as well as Joh Frederson, who has neither sympathy nor empathy for the people who live and work below the city. Significantly, though, the novel portrays Joh Frederson differently in his relations to the machines and to dignified human labor. While the film shows him unrelentingly heartless towards the working masses, the arch-capitalist in Harbou's novel espouses the dignity and enjoyment of labor as the quality that demonstrates human beings' superiority to the machines. In one scene of the novel, Joh Frederson fires his assistant and then must explain to Freder why he did it:

"I cannot tolerate it," he continued, "when a man, working upon Metropolis, at my right hand, in common with me, denies the only great advantage he possesses above the machine."

"And what is that, father?"

"To take delight in work," said the Master over Metropolis. (32)

Joh Frederson sounds as if he might get along well with Wendell Berry and Bill McKibben, yet we know this is not correct. The apparent agreement of these opposites alerts us that we are in the territory of ideological contradiction, and the two versions of Joh Frederson should caution us to interrogate our own fantasies about and desires for ideal forms of labor that escape the horrors we have seen in narratives like *Metropolis*.

Rotwang and the House that Sticks Out

While the Eternal Gardens and the subterranean machines fit neatly into the overall organization and life of Metropolis, there is one anomaly in the city's topography—one spot on the map that is not a smoothly-running component in this urban capitalist machine. This anomaly is Rotwang's strange little house, which sticks out because of its wood rather than concrete, glass, and steel construction and its tiny stature amongst the monolithic skyscrapers of Metropolis. Likewise, Rotwang's house is the site of experimentation and deviation—all necessary components to the orderly and organized activity that characterizes the rest of this urban topography.

Since Rotwang is the cutting-edge mad scientist of the film, and a cinematic template for later science fiction, there is little surprise that his place should stick out as unusual. What does seem surprising, though, is that Rotwang's house, the site of the science fictional future becoming reality, is a thing of the past. In the architecture and design of Rotwang's house, Lang cinematically follows Harbou's novel, in which she describes the house as follows:

Then came a time which pulled down antiquities. Then the words were spoken: The house must die. But the house was stronger than the words, as it was stronger than the centuries. With suddenly falling stones, it slew those who laid hands on its walls . . . The house resisted its destruction with so great a force that word of its malignity went out over the borders of the city, spreading far over the land, that at last there was no honest man to be found who would have ventured to make war against it. . . The little town around the cathedral became a large town and grew into Metropolis, and into the centre of the world. (49)

Rotwang's house is a piece of pre-urban history, a remnant of the world before everyone moved, or was moved, to the mechanized city. The proto- and pseudo-sciences of alchemy and mysticism converge in this place with modern techno-science, indicating a sort of tension, even contradiction, as these forces are often thought of as incommensurable with each other. Yet, in this strange stain on the city's map, the pre-modern synchs up with the bleeding-edge modern, and I use the term "bleeding-edge" here because we see that Rotwang has, in the course of his techno-scientific experimentation, lost and replaced one hand with a mechanical one. As such, Rotwang, one might argue, exceeds the robot version of Maria as a science fiction figure, as he represents a true cyborg image, one that lives by synthesizing organic and machinic hands—the very body part that plays such a central role to the film's system of hand, heart, and head metaphors.

In addition to the techno-scientific tension, Rotwang's house also embodies the tension between the scientist and Joh Frederson. The arch-capitalist depends heavily upon Rotwang's innovations to keep Metropolis running and his capital growing. As such, the house sticks out crucially as the only place in the city where we see Frederson exhibit weakness and anxiety, and it is telling that Frederson attributes the sustainability of the city as he wants it to this house rather than to the subterranean machines—a point made clear by his willingness to let the workers destroy the machines through their revolt.

The ecocritical import of Rotwang's house, especially its necessity to Joh Frederson, resides in its relationship to modernization and machines. Just as the Gardens might have presented an ecological alternative to the machine city, Rotwang's house indicates that alternatives to a totally mechanized and mechanical future are possible, but the alternative on offer is not some sort of return to purity or to Nature. Rotwang shows no commitment to notions of the natural of the human. He pushes his experiments far beyond such notions, developing robot Maria, for example, whilst ostensibly working on a robot labor pool for Joh Frederson. Although Rotwang does not grant us visions of a natural life or life in Nature, he does make visible questions about techno-science under the command of industrial capitalist conditions of life. And this is an important ecological lesson for us from this science fiction vision: arguments about natural limits and definitions actually misdirect our attention from the larger systemic conditions and ideology through which we continue to challenge our future existence as part of Earth's ecology.

The fact that Rotwang created robot Maria instead of Joh Frederson's robot labor pool is a relatively minor part of Lang's film but central to Rintaro's anime version of *Metropolis*. A large part of the horror in Lang's science fiction future is the prospect of total employment—total management of people's time and lives. By contrast, the horror in Rintaro's *Metropolis* is nearly total unemployment for human beings in a future of robot labor—the same science fiction future we have seen Bill McKibben warning us against. The latter vision more closely resembles the crises in sustainability confronting us today—not that machines have dehumanized us and turned us into machines, but

that we have made ourselves obsolete and not yet imagined new forms of sustainable living for human beings. Rintaro shows the urban poor amassing in slums, primed for revolution, but against an economic system rather than against the machines, as if revolution must address systemic scales rather than individual choices, a science fiction vision perhaps more akin to an “Occupy Metropolis” than the labor organization in Lang. Such crucial differences between the human-machine relationships in labor as depicted in Rintaro’s and Lang’s science fictions become visible when we attend to the details of Rotwang’s house: what takes place there and what was meant to take place there but was replaced by other things.

Returning to the Present of Our Futures

To conclude this analytical tour of *Metropolis's* topography, I would like to point to some connections between the individual sites so as to create a city map of ecological ideology critique. I have claimed that the lack of gestures, subtle or otherwise, toward an ideal Nature is of great ecocritical import because, without an alternative to desire, we are left to confront the tangible conditions of life as we have shaped it. Recall that the only references in Lang’s film to a world outside Metropolis are the Eternal Gardens and Rotwang’s house. Both remain fully human-built, and neither of them signal melancholy for lost Nature nor significant attachment to anything other than the human city. Once again, Rintaro’s *Metropolis* puts a fine edge to my point as the science fiction future in this anime film depicts the Earth so completely exhausted by industrial capitalist production that the elite are now taking their techno-science to outer space in order to sustain growth and so-called progress. When Metropolis is destroyed at the end of the film, Rintaro brilliantly accompanies the visual spectacle of nonhuman animals returning to the now-defunct city with Don Gibson’s song “I Can’t Stop Loving You,” a melancholy ballad about choosing to live only in memories. The dissonance between the visual and audio registers in this scene is ecocritically significant. Visually, Rintaro gives the spectator the fantasy of Nature that Lang withheld. But the song connects this fantasy vision to the power of ideology, in particular the power of our desire to love something even if this love must prove self-destructive—and in this case I read the objects of love in Rintaro’s film as both capitalism and the ideal of Nature, neither of which can lead to sustainable ecological futures, though they make for compelling science fiction imagery. In this light, Rintaro’s film can be read as consonant with Lang’s exclusion of Nature, even though they come to this consonance through disparate means.

This lack of Nature, or of any hint that anything exists outside of Metropolis for that matter, supports the implication in Lang that no alternative dreams are possible. In contemporary ecological discourse, we might say that Lang invokes the idea that everyone lives downstream, except that eventually even the capitalist elite discover, as do the film’s spectators, that there is no upstream that remain pristine. To be sure, ecological catastrophes are not distributed evenly in Lang’s future world or our own.

After all, the breakdown of the machines in Metropolis merely inconveniences Joh Frederson and the bourgeoisie while it threatens to kill the workers and their families. Yet the impacts do ultimately threaten the sustainability of those initially only superficially affected. In this way, *Metropolis* gives us a vision of our world without recourse to imagining escape, especially not imagining a return to Nature. Instead, we imagine ourselves inside the machine world that human beings have been building for centuries, and it is within this world that we must work to imagine, design, and build sustainable ecological futures. So, while Lang's film did not accurately prognosticate the transition of industrial capitalism to its current neoliberal form, his film did foresee the time when human survival as part of Earth's ecology would require us to accept the topography of ecological destruction we have wrought as the initial move towards imagining solutions.

Finally, *Metropolis* does not provide solutions to social or ecological problems. While the film disavows prospects of escape, thus foregrounding the dark aspects of interconnectedness, and while it resists recourse to fantasies of ideal Nature, it does end with reinvigorated industrial capitalist production not substantially changed from the form that resulted in worker revolution. Here we should recall Fredric Jameson's astute insight in *Representing Capital*: "The squaring of the circle lies then in the discovery, not only that capital is an infernal machine, but also that it is a machine constantly breaking down, and repairing itself only by the laborious convulsions of expansion" (87). The people of Metropolis may have broken the machines, but in the end the machines shall likely come back on line and with renewed vigor. However, we need not read *Metropolis* or Jameson's remark as signs of hopelessness. *Metropolis* suggests hope through the simple fact that the machines and Joh Frederson are vulnerable. Although the revolution is short-circuited in the film when Freder steps in to mediate as heart between his father as the head of Metropolis and Grot as the representative hand (a foreman rather than an average laborer), change has become possible. Bonnie A. Nardi and Vicki L. O'Day hone in on this same notion in *Information Ecologies* when they claim: "The story line and archetypal characters of *Metropolis* are certainly tidier and less realistic than we are used to in today's films, but Lang's powerful message about the importance of the human heart has always been correct. There is no basis other than human caring and love for deploying technology humanely" (67). It may be true that the science fiction future imagined in *Metropolis* insists upon a revision to our deployment of techno-scientific developments, but Lang's message is not to be found in a straightforward embrace of the film's happy ending; instead, it is implicit in the people's first failed attempt that opens a space of possibility in which they might imagine revolutionary change yet again.

Thus, the ecocritical message that an ideological critique of Fritz Lang's *Metropolis* uncovers, in conversation with the other *Metropolis* texts, is the renewed confidence that seemingly impossible change is possible, even within the most apparently complete and completely unsustainable human systems. Just as we must not be satisfied as spectators with this film's failure to portray radical change when the

contradictions in the machine and in capitalist ideology make change possible, we must not be satisfied with the minor adjustments we see in green-washed capitalism today when ecological crises and catastrophes expose contradictions and make change possible for us. In the topography of *Metropolis*, we find places in which to pursue self-criticism and the imagination of ecological futures without simply spinning the cogwheels of capitalist ideology with which we have designed and created our unsustainable present.

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