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AGNES MALINOWSKA

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Every important development in science contributes to the popular consciousness, and indeed to philosophy, some new conception which serves for a time as a most valuable category of classification and explanation.

John Dewey, from “The New Psychology,” 1884

The fleeting systems lapse like foam.

George Sterling, from “The Testimony of the Suns,” 1901

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ABSTRACT

This dissertation resituates key social and political debates of American modernity within the discourses of the nonhuman that dominated turn-of-the-century intellectual life—evolution and the technologies of industrial capital. I argue that prominent writers like Jack London, Charlotte Perkins Gilman, Mark Twain, and Frank Norris sought to investigate and discursively shape the newly modern nation by first settling the proper human relationship to our nonhuman others, both organic and technological. The result is an *experimental* naturalism that uses a wide range of evolutionary hypotheses as starting premises for fiction that intervenes in the period's contentious debates surrounding gender and sex, race and ethnicity, class and labor, empire and global corporate capital. While helping launch American modernity, its 'experiments' also issue in national and global futures that run counter to the period's dominant narratives and the ones that seem, from our vantage point today, inevitable.

Experimental naturalism, as I develop it here, also brings to light a crisis in human exceptionalism in America around 1900 that emerged in response to the particular confluence of evolution and industrial capitalism. My authors struggle to locate the 'exceptional' human in a technoscientific modernity that newly blurred the taxonomical distinctions between humans, organisms, and machines. In so doing, they generate a biopolitical discourse concerned with industrial capital's administration of all life as a site of value and utility. Experimental naturalism alternately develops, shores up, and challenges the biopolitical techniques of modern technoscientific capitalism—techniques like Taylorism, eugenics, scientific agriculture, domestic and sanitary science, and the efficiency movement. I argue, then, that experimental naturalism builds towards an American politics of life that implicates human and nonhuman alike. The

modern organism, as it emerges from out of this literature, vacillates between the poles of resource and wilderness, technoscientific production and the unregulated fecundity of biological reproduction.

Each of the four chapters that make up this dissertation zooms in on one particularly significant and contentious way that American life was reassembled around 1900. The first half of the dissertation follows naturalist interventions into the nation's domestic modernity, focusing on urbanization and "The Woman Question." The second part turns to America's place in the world, and in particular issues of imperialism, immigration, and transnational corporate finance. My argument throughout remains methodologically committed to a view of nature and culture as mutually constitutive realms: Each chapter considers how the nonhuman effect on culture rebounds back on organic life, thus helping to 'modernize' American nature.

My first chapter tracks Jack London's attempt to envision American modernity outside of the industrial city's biopolitical imperatives, which threaten to unravel the anthropocentric evolutionary order. I argue that London, in his late Sonoma fiction, works out a socialist theory of modernity centered on the suburbs. In this regard, he builds on the work of early urban sociologists, who saw, in America's suburban trend, a resolution to the social woes that plagued the machine age. Ultimately, I find that London's pastoral reorientation of modern American space only affirms the totalizing grip of machine processes, wherever they are located. London's dystopian fiction, in turn, renders industrial capital itself a minor term in a larger evolutionary story governed by the microbe, a creature immune to biopower. I argue throughout this chapter that London's vision of city and country issues in part from his lifelong commitment to Ernst

Haeckel's "materialistic monism," which functioned for the author as both an evolutionary and a biopolitical discourse.

In Chapter Two, I turn to Charlotte Perkins Gilman's effort to articulate a modern woman that would properly fulfill nature's mandate for the female organism. I find that Gilman relied on turn-of-the-century efficiency discourse to manage the specter of female-animal fecundity raised by her own evolutionary feminism. Ultimately, the author's resolution of "The Woman Question" would have American women enacting their biological destiny largely through the biopolitical regulation of all unruly organisms. Gilman's writings thus offer a unique vantage point for examining the influence of early feminist theory in shaping a twentieth-century technocratic politics of nature. This chapter stands apart from the rest by proposing a broad disciplinary intervention into nonhuman studies: I argue here that Gilman's depictions of animality as fungal suggest the value of building an 'organism studies' perspective into the nonhuman turn, and animal studies, in particular.

Chapter Three focuses on Mark Twain's famous anti-imperialist politics, which, I argue, find their basis in Twain's evolutionist commitment to biological determinism and his critique of human species exceptionalism. In Part I of this chapter, I read Twain's *Connecticut Yankee in King Arthur's Court* as a prescient critique of America's budding technocratic imperialism. Here, Twain imagines the subjects of American empire as 'trained' into natural bodies, as nature was conceived in the machine age—standing ready to be deployed as resource for American profit. Part II examines Twain's interest in the microbe as an organic model for an American nation that would 'globalize' internally through immigration, rather than externally through imperial adventure. I suggest that *3,000 Years Among the Microbes* poses a naturalist alternative to *The*

Connecticut Yankee's 'exceptionalist' model of imperial selfhood: This is a form of interconnected selfhood firmly embedded in both nature and culture. The ecosystemic world of 'I's' that we find in *3,000 Years* is a democratic one, requiring a plethora of competing perspectives for its existence.

Finally, Chapter Four traces the metaphorical logic of Frank Norris's wheat commodity in *The Octopus* as pointing to an infinitely expansive American frontier-nation centered on the Chinese market. In Norris's 'wheat theory of politics,' the American social organism ends up completely disappearing into a global commercial utopia that soon turns nightmare. Politics is effaced by commerce, signaling, in a sense, the coming of a universal biopolitical order organized not by sovereign territories, but by the flow of capital. This chapter turns to Hannah Arendt's proto-biopolitics of "society" and "the social" to flesh out the contours of such a world. But I also engage Norris's writings in the context of an earlier moment in biopolitical theory: Friedrich Ratzel's *Lebensraum* geopolitics, which Frederick Jackson Turner picked up in formulating his famous Frontier Thesis. In concluding this chapter, I transfer the wheat from the politics of the "Open Door" to that of "Yellow Peril." This last reading of Norris points to not only the death of the American organism, but also the end of 'technocratic evolution' in America.

INTRODUCTION

A New American "Order of Things": Evolution in the Machine Age

Annie Derrick is tired of looking at so much wheat. The wife of a prosperous rancher in the San Joaquin Valley, she bides her time in Frank Norris's *The Octopus* (1901) puzzled and at times terrified by a landscape so thoroughly absorbed by the "direct brutality of ten thousand acres of wheat, nothing but wheat as far as the eye." Annie feels that there is something "inordinate," "unnatural," even "vaguely indecent" in her husband's line of work, and we might be tempted to agree (57). Wheat is not native to North America, let alone California, but a cash crop that has nearly eviscerated the San Joaquin's natural ecosystem. The supremely artificial 'nature' that surrounds Annie is all commodity, alive only because a "principality ruled with iron and steam" wills it into being, its growth cycle a function of market forces (56). If Norris's wheat seems "unnatural" out in nature, this is perhaps because it is, in essence, a global commodity: It is most at home circulating through the free market as a numerical value, a price-per-bushel to be bought and sold on the Chicago Stock Exchange.

Annie, however, is untroubled by the broader historical context that I have described. The wheat's perversity, it turns out, is in its raw exposure of nature's reproductive cycles to the human. Far from artificial, the wheat is nature's "elemental force," its "basic energy." For the modest Annie, nature seems rather to be flaunting its 'sexual' virility in the body of the wheat—"weltering here under the sun in all the unconscious nakedness of a sprawling, primordial Titan" (57). In a terror bordering on the sublime, Annie has accessed a natural world that is far more 'real' than the one she knew in the "cosey, comfortable, home-like" farms of her eastern Ohio

girlhood.

If, as Annie tells us, the San Joaquin ranch represents a "new order of things," then what is at stake here is not only a shift in agricultural production, but also a new ordering of the relationship between humans and nature. Her uncanny sense of having stripped away nature's garments and accessed its "elemental force" points to a shared experience for Americans around 1900, as is her struggle to locate the human in this "new order" (56). Annie is part of a generation of Americans for whom evolution was the main intellectually formative event. The vast and contradictory outcrop of evolutionary ideas, along with the essential flux of an evolutionary universe itself, rendered 'nature' an especially unstable category at this pivotal moment in American history.

The fact that Annie discovers the *truth* of nature in the San Joaquin wheat industry—what is essentially an amalgamation of organic, technological, and market forces—suggests another disorienting circumstance of turn-of-the-century America. The period's material and social conditions were driven by a lighting quick process of industrialization that found the nation entering the twentieth century as the world's powerhouse. The dizzying pace of America's Industrial Revolution destabilized a category within the nonhuman itself—specifically, that between life and technology. Modern industrial capitalism found humans, organisms, and machines increasingly thrown together into the domain of commodity or resource geared towards the production of surplus value.

My dissertation is centrally concerned with tracking this "new order of things" in America around 1900. Specifically, I resituate key social and political debates of American modernity within the period's widespread conversations surrounding evolution and industrial

capital.[1] I find that prominent turn-of-the-century American writers and intellectuals sought to investigate and discursively shape the newly modern nation by first settling the proper human relations to our nonhuman others, both organic and technological. The result is an *experimental* naturalism that uses a wide range of evolutionary hypotheses as starting premises for fiction that intervenes in the period's contentious debates surrounding gender and sex, race and ethnicity, class and labor, empire and global corporate capital. While helping launch American modernity, its 'experiments' also issue in national and global futures that run counter to the period's dominant narratives and the ones that seem, from our vantage point today, inevitable.

Experimental naturalism, as I develop it here, also brings to light a crisis in human exceptionalism in America around 1900 that emerged in response to the particular confluence of evolution and industrial capitalism. My authors struggle to locate the 'exceptional' human in a technoscientific modernity that newly blurred the taxonomical distinctions between humans, organisms, and machines. In so doing, they generate a biopolitical discourse concerned with industrial capital's administration of all life as a site of value and utility. Experimental naturalism alternately develops, shores up, and challenges the biopolitical techniques of modern technoscientific capitalism—techniques like Taylorism, eugenics, scientific agriculture, domestic and sanitary science, and the efficiency movement. I argue, then, that experimental naturalism builds towards an American politics of life that implicates human and nonhuman alike. The modern organism, as it emerges from out of this literature, vacillates between the poles of

[1] For classic studies of the tremendous impact that evolutionary theory had on American intellectual life at the turn of the century, see Bannister, Hofstadter, and Russett. See Banta, Marx, Seltzer, and Tichi for studies that treat American literature in the context of industrial culture.

resource and wilderness, technoscientific production and the unregulated fecundity of biological reproduction.[2]

The Genre of Experimental Naturalism

The central authors in this dissertation—Jack London, Charlotte Perkins Gilman, Mark Twain, and Frank Norris—have, to varying degrees, been linked to the generic traditions of literary naturalism and science fiction. In classifying their writings as an 'experimental' literary naturalism, I recuperate, to some extent, Emile Zola's sense of the genre as invested in scientific inquiry.[3] I depart, however, from Zola's more specific claim that the naturalist novel should be structured as a causally-rigid scientific experiment. The naturalist experiment that I follow here is guided by an ethos of genuine discovery: It turns to evolutionary theory for a launching pad into an indeterminate American modernity, one that allows for several possibilities.

As a literature of futurity, experimental naturalism aligns itself closely with the broad tradition of speculative fiction; my central authors draw often on established speculative genres like utopia and dystopia, supernatural and scientific fiction, and alternate history. This naturalist discourse, however, also engages the literary elements of sensationalist journalism, the grotesque, epic, melodrama, and the sentimental novel—all genres that tend aesthetically

[2] In general, this dissertation follows the many influential philosophers of modernity who have characterized modern culture's relationship to nature as an essentially instrumental one. See, for example, Heidegger, Horkheimer and Adorno, Marcuse, and Weber (*Protestant Ethic*).

[3] Of recent studies that include naturalist authors, Brown and Thraikill likewise treat the genre in an investigative mode vis-à-vis American modernity.

towards stylistic hyperbole.[4] I regard such generic extravagance as issuing, in part, from the efforts of my central authors to represent the cultural significance of evolutionary theory, as it developed alongside industrial capitalism. In grappling with the place of nonhuman force in modern life, experimental naturalism, then, also produces experiments in literary form.

* * *

My dissertation, finds, at the origins of American modernity, a bewildering sense that organisms and machine have quite suddenly begun to take on an all-too-human agency within the social. In tracking literary investigations into the 'modern' nonhuman, I follow one of Jennifer Fleissner's re-workings of naturalism in *Women, Compulsion, and Modernity* (2004). "Naturalism," for Fleissner, names the "intellectually powerful tendency" to take nature as a "category to be reconceived as part of social life" (5-6). American literary naturalism, in particular, can largely be defined by its approach to nature as a "subject for an unprecedented theoretical reflection and reimagination, based on its post-Darwinian location *within* historical time" (8). Fleissner, however, understands 'nature' primarily in terms of the cycle's that characterize human embodiment— "birth, death, illness, sex" (275). My salient category of analysis throughout this dissertation remains the nonhuman, more generally—the animal, the organism, and, to a lesser extent, the machine. In this regard, I join Americanist critics like Colleen Boggs, Michael Lundblad, Jennifer Mason, and Dana Seitler who have worked to unearth the striking multiplicity of meaning and function that animals, animality, and organic life more generally assume within particular historical configurations.[5]

[4] See Link, Newlin, and Sundquist for analyses of naturalism's stylistic excesses.

[5] See Boggs, Lundblad, Mason, and Seitler.

As nonhumans take center stage in this dissertation, human agency loses its privileged status as the driving concern of naturalist fiction. Early critics routinely noted the genre's engagement with evolution and industrial culture, primarily by attending to its ethos of pessimistic determinism. However, these scholars almost universally cast naturalism as a human drama. In such readings, references to organic life are interpreted primarily as metaphors for degenerate human traits that might resurface, under unfavorable social circumstances, to limit agency.[6] In new historicist and cultural studies readings, nonhuman forces often morph into ideological stand-ins for prevailing concerns around modernity's upheavals, especially as these pertain to race and ethnicity, gender and sexuality, and market capitalism.[7] Both types of criticism sacrifice naturalism's obvious fascination with organisms and machines by anchoring the genre too firmly within the traditional scope of the humanities. Both, that is, are overly strict

[6] Parrington's early assessment of American literary naturalism as "a pessimistic realism, with a philosophy that sets man in a mechanical world and conceives of him as victimized by that world" has, broadly speaking, held up for critics seeking to classify the genre in terms of its intellectual engagements—albeit with much debate over naturalism's relationship to realism (325). More recent works testify to the persistence of the 'agency' theme in naturalist scholarship. See, for example, Conder and Mitchell. Fleissner's *Women, Compulsion, and Modernity* finds that the naturalist project centers on a *compulsive* human actor, rather than a determined one. Fleissner thus reinforces the centrality of human agency to naturalism's primary philosophical or thematic concerns.

[7] Michaels (*Gold Standard*) orients naturalism's investment in nature around questions of personhood that emerge in market capitalism. Seltzer analyzes the genre as a cultural mode of managing anxieties around the relationship between technological production and organic reproduction in American industrial culture. In Seltzer's reading, Jack London's wolf-dogs, for instance, are "men in furs"—symptoms of cultural anxiety around masculine embodiment in machine culture (170). Howard approaches naturalist texts as reflecting bourgeois worries around mass immigration and a brutalized work force. The naturalist animal, in Howard's analysis, is a "brute"—a figure for the urban proletariat who threatens, but also delineates, the boundaries of middle-class proprietary. Rossetti (*Imagining the Primitive*) reads naturalism's nonhumans as figures of threatening alterity in American culture—racial minorities, immigrants, artists, and so on.

in focusing naturalist texts around human culture and society, when this is defined in opposition to the mechanistic realm of the nonhuman.

Recovering the "Victorian Cult of Spencer"

By resisting the critical impulse to read naturalism's organisms symbolically, my dissertation also follows Matthew Taylor's critical method in *Universes Without Us*. With Taylor, I take a "superficial or immanent" stance towards my objects of study, one that works to "reactive the philosophical potentiality of literature" (13).[8] To put it simply, I approach naturalist texts as having something worthwhile to say about the nonhuman world that is largely their explicit interest. At the same time, I regard my authors as serious readers of nineteenth-century philosophy and science, and in particular evolutionary theory. For this dissertation, reading naturalism 'superficially' also involves attempting to recover some of the complexity of the evolutionary field at the turn of the century. Literary and cultural studies of evolution in America tend to focus on "survival of the fittest" logic, biological determinism, and concerns about degeneration or atavism. While not wholly inaccurate, this history is incomplete, as it tends to overlook or minimize American evolution's leading man: The largely forgotten, but once wildly popular, Herbert Spencer.[9]

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[8] In this respect my approach shares something in common with the recent trend towards "surface reading." While I am not invested in empirical or social science approaches to literature, I do see my project as looking for what is "evident, perceptible, apprehensible in texts," as Stephen Best and Sharon Marcus put it in their introduction to "The Way We Read Now," an influential 2009 special issue of *Representations* on the topic of surface reading.

[9] In his introduction to Spencer, Michael W. Taylor notes that "no single individual had a greater impact on American intellectual life in the decades between the end of the Civil War and the outbreak of the First World War than Spencer" (2). Even more impressive than Spencer's influence in intellectual circles was the size of his overall readership: He sold over a million

Over the years, evolutionary theory has become nearly synonymous with 'Darwinism.'[10] Criticism that deals with the cultural impact of science in America picks up this cue by routinely miscasting Darwin as the nineteenth century's dominant evolutionist voice.[11] Spencer typically receives only passing reference in a list of prominent intellectuals who picked up evolution in one way or an other. But it was Spencer's theory of universal evolution that propelled America's evolutionary mania, inspiring a host of theoretical spin-offs and winning countless laymen followers. Certainly, not all of the evolutionists I treat in this dissertation were strict devotees of Spencer. But most—if not all—intellectuals who turned to evolution for a 'narrative' about the future of American institutions wrote in response to him. If, for instance, Charlotte Perkins

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copies of his work during his own lifetime—possibly a unique feat in the history of philosophy. In the United States alone, Spencer's authorized publisher sold 368,755 copies between 1860 and Spencer's death in 1903, a figure that does not account for pirated copies (4).

[10] It is likely that most turn-of-the-century American intellectuals would be surprised to learn this. As the evolutionist lecturer and historian, John Fiske, wrote in 1894: "'Evolutionism' and 'Spencerism' are synonymous terms; 'evolutionism' and 'Darwinism' are not" (*Edward Livingston Youmans* 54). Ten years later, John Dewey framed his remarks on Spencer's legacy as an inquiry into why it is that American culture has come to identify "the very idea of 'evolution,' with the name of Spencer" ("Herbert Spencer" 172).

[11] An important exception is Martin's *American Literature and The Universe of Force* (1981), which centers entirely on Spencer and his influence. Martin focuses on the key role that the first law of thermodynamics—the conservation of force—played in Spencer's evolutionary theory, and especially on its American reception. Literary critics writing after Martin have not made much of his suggestion that Spencer played a significant role in the development of American evolutionism. See, for instance, the 2014 edited volume, *America's Darwin: Darwinian Theory and U.S Literary Cultur*e. Taken together, the essays in this volume are meant to offer a broad account of the influence of evolutionary thought ("Darwinian theory") on central features of American culture into the present—"aesthetic, spiritual, and intellectual currents; social reform movements; and conceptions of the animal and the limits of species" (Gianquitto and Fisher 5). Despite this claim to comprehensiveness, none of the essays make more than passing reference to Spencer. See also Lundblad. Lundblad frames turn-of-the-century evolution around the joint influence of Darwin and Freud. In his reading, the Darwinist-Freudian paradigm oriented American culture around reproductive heterosexuality and violence in the name of survival.

Gilman's primary engagement was with Lester Ward and Grant Allen, both thinkers were themselves either developing or responding to Spencer's theory. The same goes for most of the broadly evolutionist thinkers that weave in and out of this dissertation—prominent intellectuals like Brooks and Henry Adams, John Fiske, T.H. Huxley, William James, Joseph Le Conte, Friedrich Ratzel, and Thorstein Veblen. At times, their writings implicitly rely on Spencerian principles, without announcing themselves as evolutionist analyses of culture. Indeed, without knowing Spencer's basic model or his tremendous impact, it is easy to miss that some of the writers and intellectuals I treat in this dissertation are engaging with natural science at all in their reflections about American modernity.

Part of the blame for Spencer's forgotten legacy, at least initially, would seem to fall on historians of science, rather than on literary or cultural critics. In *Darwin and the Emergence of Evolutionary Theories of Mind and Behavior* (1987), Robert J. Richards takes pains to emphasize the field's utter neglect or sidelining of Spencer at the expense of Darwin. He notes that this historiographic practice "makes it perfectly unintelligible why so many major evolutionary thinkers placed great value on [Spencer's] work, and why even those who reacted hostilely nonetheless felt compelled to confront his theories" (11). Richards goes so far as to cite the case of Spencer as sufficient warning against the "historiographic sin" of presentism that he finds inflecting early writings in the history of science (18).

If Richards insists on taking Spencer "as seriously as his contemporaries did," subsequent scholars seem not to have taken the hint (11). Michael W. Taylor, in his 2007 introduction to Spencer's philosophy, identifies the same critical negligence that troubled Richards twenty years earlier. After inducting his readers into the "Victorian cult of Spencer"

(1), Taylor notes the unlikelihood that so "towering" a presence in late nineteenth-century intellectual life could "merely have been the laissez-faire ideologue that has been presented to later generations" (5). Taylor's summary of the scholarly consensus around Spencer largely holds true for American literary and cultural studies. For most scholars, Spencer is merely a rather unfortunate side note of the period, a capitalist apologist who shored up the brutal labor conditions of America's "Gilded Age" by arguing for the "survival of the fittest."[12]

Critics are not mistaken in suggesting that Spencer wrote in opposition to state-imposed restrictions on economic competition. But he wrote *a lot*, and the laissez-faire bit is only a small part of his massively ambitious effort to base a comprehensive philosophical system in evolutionary science. As the classic pragmatist philosopher, William James, once put it, Spencer's "aimed for nothing short of the unification of all knowledge" in his theory of universal evolution ("Herbert Spencer's Autobiography" 124). Some of the most insightful analyses of Spencer's legacy come from the pragmatists, who staged their own work largely as a rejection of

[12] See, again, Lundblad for a recent example. According to Lundblad, Spencer's "theories of 'survival of the fittest' had an incalculable influence on economic thinking in the United States" (87). For critics like Lundblad, Spencer's evolutionism rests primarily in its usefulness for America's new millionaire capitalists—Andrew Carnegie and John D. Rockefeller—who now had scientific justification for their unbridled pursuit of wealth (88-91). The wide and enduring influence of Richard Hofstadter's *Social Darwinism in American Thought* (1944) seems largely to account for the mistaken assumption that evolutionary theory, especially as it was developed by Spencer, was primarily the ideological property of the wealthy. Hofstadter attributes Spencer's popularity in 'gilded' America to the compatibility of his social philosophy with the unbridled laissez-faire capitalism and rampant individualism that characterized the turn of the century. He argues throughout that, if Spencer was so successful, it was because "American society saw its own image in the tooth-and-claw version of natural selection, and that its dominant groups were thus able to dramatize this vision of competition as a thing good in itself." As Michael W. Taylor points out, readings like that of Hofstadter and Lundblad make little sense of the fact that Spencer's wide appeal "crossed national and class boundaries" (5). See Russett and Wyllie for persuasive arguments that evolution was not much taken up by American business at all. Both historians argue against Hofstadter's influential framing of Spencer.

his theories, and thus took him quite seriously as an interlocutor. John Dewey's essay on Spencer is useful in framing his significance for my own project. The appeal of Spencer's system, according to Dewey, is in its successful "fusion of scientific notions and philosophical considerations." In particular, Spencer has rescued social philosophy from the charge of "romantic" or "Utopian" speculation by endowing it with the robust predictive capacity that characterizes scientific law ("Philosophical Work of Herbert Spencer" 172-3). Dewey, in essence, credits Spencer with having 'invented' *sociology*.

A proper assessment of Spencer's legacy would indeed begin with the unique role he played in setting the discipline of sociology in motion. His *Study of Sociology* (1874)—the first to use the word in its title—was widely used as a textbook in America's inaugural sociology courses.[13] The 'sociological' bent of Spencer's philosophy makes it particularly valuable for studies, like this one, which focus on cultural and political uses of evolutionary theory. Spencer's evolution, unlike that of Darwin, was a teleological principle that governed the development of *every* structure, from the simplest organism to the most complex human civilization. It made a strong claim on the future and presented itself as an analytic for the study of systems—like human society. By centering American evolution around Spencer, my dissertation brings into view the power of late nineteenth-century evolution as a science of futurity that targets humans as organized collectives. Such predictive cultural analysis is at the heart of what I call 'experimental naturalism.'

[13] The discipline's two 'fathers'—William Graham Sumner and Lester Ward—were both heavily influenced by Spencer. Another foundational figure, Charles H. Cooley, notes that "nearly all of us who took up sociology between 1870 say, and 1890 did so at the instigation of Spencer" ("Reflections" 129).

* * *

A renewed attention to Spencerian evolution also helps clarify the relationship between nature and technology in the modern American imaginary, as it emerges in the writings of prominent cultural producers. In the naturalist discourse that I examine, key features of evolutionary theory—as developed by Spencer and his American interlocutors—both collaborate and compete with industrial discourses. In general, I find turn-of-the-century representations of nature to be deeply inflected by industrial processes, so that organism and machine help constitute each other in the period's imaginary.

Literary and cultural studies have tended to overlook this discursive entanglement, primarily by treating 'nature' and 'technology' as distinct or opposing realms. The growth of ecocriticism over the last few decades has seen an increasing proliferation of studies that trace the literary history of nature in America. Until recently, such studies have regarded 'nature' as a discrete category unpolluted by prevailing technological conditions and modes of production. When industrial technologies and discourses enter the picture, it is primarily to threaten (or at least worry) the natural order. Overall, critics have largely assigned American literature and other cultural forms the task of registering a certain tension, anxiety, or conflict in the nation's relationship to nature and technology.

The first phase of American studies—the so-called "myth and symbol" school—in fact posed the nature-technology conflict as an essential feature of American identity.[14] This theme receives its clearest and most compelling treatment in Leo Marx's foundational study, *The*

[14] We need only list the titles of its most famous contributions to see this. Myth-and-symbol critics made Americans acquainted with not only "nature's nation," but also the "American Adam," the "virgin land," and the "machine in the garden." See Lewis, Marx, and Nash.

Machine in the Garden (1964). For Marx, the recurring image of machine technologies intruding on pastoral idylls in American literature suggests the enduring hold of the pastoral ideal on the national imaginary well into our technoscientific modernity. The nature-technology conflict makes its way into the New Historicism of the 1980s and '90s through *Bodies and Machines* (1992), Mark Seltzer's important treatment of America's "body-machine complex." According to Seltzer, American literature is "fascinated" by the "intimate coupling of bodies and machines" occasioned by industrial capitalism (13). But the primarily role of literary texts in *Bodies and Machines* is to police or otherwise manage the worrisome "miscegenation of the natural and the cultural" during this period (21).[15] In the final analysis, Seltzer's priority, like that of Marx, is on "anxiety," "crisis," and "panic."

Their considerable differences notwithstanding, Marx and Seltzer end up converging in their treatment of nature and technology as an oppositional binary. Later studies have tended to follow the lead of these influential critics, and this dissertation is heavily indebted to both of them. However, I also find that the 'oppositional' model of the nature-technology relationship becomes problematic when we arrive at the last few decades of the nineteenth century. After around 1870, all spheres of American culture were heavily influenced by Herbert Spencer's 'proto-cybernetic' evolution, which nearly dissolves the ontological boundary between natural and technological systems. Spencer's metaphysics, in fact, does not simply conceive of

[15] The central project of naturalist fiction, according to Seltzer, is in its artful construction of a "counter-model of generation" that performs this task of 'crisis management' (44, 25). It becomes hard to imagine a piece of fiction that would satisfy *Bodies and Machines* of its composure in the face of the "body-machine complex." So, if the naturalist novel finds a way to align "production and reproduction, technological and biological," it does so only to manage its own "insistent anxiety about production and generation" (4, 25).

organisms and machines as deeply in sync; it also raises industrial modes of production to a universal attribute of nature.

For Spencer, the evolution of *everything* in the universe proceeds by way of a change from an "indefinite, incoherent homogeneity" to a "definite, coherent heterogeneity" through "continuous differentiations and integrations" (*First Principles*).[16] Evolution, so conceived, is both necessary and beneficent. In first developing his metaphysics, Spencer turned to the Industrial Revolution then underway in his native England to unravel the mysteries of the evolving universe. Richards notes that Spencer was struck, in particular, by the significance of the principle of the division of labor to the factory system: The division of labor seemed to him to be the distinguishing feature of both an advanced society and a superior organism (*Darwin* 261). Spencer's description of the 'division of labor,' as we find it in a developing organism, brings into view this transposition from industrial production to evolutionary system: In an organism, as in the labor process, we find that "by greater individuality of parts, by greater distinctness in the nature and functions of these, are all creatures possessing high vitality distinguished from inferior ones" (*Social Statistics* 438). In other words, a highly evolved organism, like a modern industrial economy, is simply a "definite, coherent heterogeneity."

If Spencer's universe was a vast system of industrial production, it was also a thermodynamic machine. Spencerian evolution is so reliable, so universal, because the fabric of reality is at bottom composed of a basic element called "force." Here, Spencer leaned heavily on a contemporaneous scientific discovery that was *itself* emblematic of European industrial

[16] Spencer elaborated this basic definition of universal evolution in later editions of *First Principles*: He produced no less than six. Spencer's original formulation is sufficient for my purposes here.

culture—Herman von Helmholtz's law of the conservation of energy (*Kraft*, for Helmholtz).[17] In *The Human Motor*, the historian Anson Rabinbach demonstrates that Helmholtz drew on industrial technologies, and in particular the steam engine, to develop the laws of thermodynamics. In elaborating his theory, Helmholtz positioned the human body, and indeed the whole universe, as not "simply analogous to, but essentially identical with a thermodynamic machine" (61).[18] Human society, in such a paradigm, morphs into a "vast and protean reservoir of labor power awaiting its conversion to work" (3). According to Rabinbach, thermodynamics propelled a "new vision of social modernity" in Europe and later America (1): It gave rise to the modern productivist ethos that continues to guide economic policy today.

If Helmholtz seduced modern Europe, Spencerian evolution offered industrial America an alluring picture of its own increasingly productive future—in part by adopting Helmholtz's productivist model of *Kraft*, while also framing the evolution of *Kraft* in terms of the division of labor. Adam Smith opens *The Wealth of Nations* (1776) by arguing that the division of labor results in a "proportionable increase of the productive powers of labor" in every industry that it is introduced (9). Smith's account of economic growth may also fairly characterize the central mechanism of evolutionary progress *chez* Spencer. Spencer's technocratic universe, like Smith's

[17] The first law of thermodynamics states that the total quantity of energy ("force" or *Kraft*) in an isolated system remains constant. Energy cannot be created or destroyed, but it can be transformed from one form to another.

[18] Rabinbach offers a useful quote from Helmholtz's "Über die Wechselwirkung der Naturkräfte und die darauf bezüglichen neuesten Ermittelungen der Physik" (1876) to demonstrate this equivalence between human and thermodynamic machine: "The animal body therefore does not differ from the steam engine as regards the manner in which it obtains heat and force, but does differ from it in the purpose for, and manner in which the force gained is employed" (qtd. in Rabinbach 61).

pin factory, develops its productive capacities according to an increasingly efficient distribution of labor power—of *Kraft*. In this regard, it provided Americans with a normative conceptual framework that celebrated and perhaps also augmented industrial values, habits of thought, and ways of life.

Capitalist Biopower in the Age of Evolution

In prioritizing Spencerian evolutionism, this dissertation brings into view the significant discursive relays and overlaps between evolution and industrial capital at the turn of the century. The technoscientific optimism we find in Spencer's model suggests a therapeutic role for evolutionary theory in this period: It offered compelling scientific 'proof' that the nation's leap into modernity was an exciting new phase in the progressive development of American *Kraft*. My central authors register the appeal of Spencer's technocratic evolution, but also worry about the conflation of humans, organisms, and machines that it suggests. As they seek out a place for human being within this industrialized nature, their writings produce new forms of relation, continuity, and conflict across the landscape of human and nonhuman bodies.

If evolution flattened metaphysical distinctions, it also stressed the possibility and indeed urgency of human control over nature's narrative, especially given the immense technoscientific capacities of what Jack London and others called the "machine age." The period's widespread assent to Lamarckian inheritance gave additional impetus to the idea that the evolutionary future, the future of all life, truly was a matter of human will.[19] In this regard, turn-of-the-century

[19] The first few decades of the twentieth century found natural selection fused with genetics to issue in the so-called "Modern Synthesis," thus deflating nineteenth-century fantasies of assuming full control over the evolutionary process. But in the age of American evolutionary

American evolutionism shared an explicit agenda with industrial capitalism—its methods, practices, science. Both evolution and industrial capital 'wanted' to know, control, and produce organic life. In other words, both performed a *biopolitical* role at the turn of the century. I argue throughout this dissertation that experimental naturalism, in analyzing modernity from within the evolutionary-industrial paradigm, shares in this function. The naturalist discourse that I examine here inevitably, if often unwittingly, generates claims about what organic life *is*, both in and out of the human. As such, it helps shape the ways that American culture—in the twentieth century and beyond—would come to regard nature, both in and out of the human.

My use of the term "biopolitics" roughly follows Michel Foucault's original formulation, especially as Foucault develops it in *The History of Sexuality: Volume I* (1976). Biopower, for Foucault, signals a particularly modern form of non-sovereign power concerned with the administration of life *qua* species-being. It tasks itself with managing—indeed promoting—the life, health, and productivity of humans at the level of the population. For Foucault, "power," in general, encompasses a whole host of institutions, practices, sciences, methods, and norms. But biopower, in particular, is the purview of the state, including the legal system. Foucault is primarily concerned with the means by which the state knows the life of its population (through, for instance, demographic analysis) and regulates it (through, for instance, public health initiatives).

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mania, Lamarckism—the idea that acquired traits and habits could be directly transmitted to offspring—was alive and well. While Darwinian evolution relies to some extent on Lamarckism, for Spencer, this idea takes center stage as the central mechanism of creativity in nature. Spencer's American interpreters followed suit. See Bowler for the development and impact of evolution into the present; see especially Chapter 9 for a discussion of the modern evolutionary synthesis.

The implicit 'theory' of biopolitics that emerges in my readings of naturalist texts departs from Foucault in two important respects: First, I target industrial capitalism, rather than the state, as the most salient biopolitical 'regime' in naturalist literature. To the extent that experimental naturalism is a biopolitical discourse, it is primarily concerned with industrial capital's regulation of life as a site of surplus value. My analysis here is most in line with Foucault's observation in *History of Sexuality* that biopower tasks itself with "distributing the living in the domain of value and utility" (144).[20]

My second point of departure from Foucault's analysis bears on the scope of biopolitical governance. With the rise of biopower, Foucault tells us, we see the "entry of life into history" (141). But life, in this analysis, is always the life of the *human* species. Though Foucault would at times suggest otherwise, organic processes for him remain attached to the integral human body. This dissertation, by contrast, reads machine-age biopower as operating through the management of *all* life—human and nonhuman populations alike.[21] This widened conceptual

[20] *The History of Sexuality* loosely ties the emergence of biopolitics to the growth of capitalism beginning in the eighteenth century, but is overall careful to keep these phenomena distinct. My analysis of capitalism as a "regime of biopower" to some extent aligns my project with Hardt and Negri's argument in *Empire* (41). Hardt and Negri argue that the increasing globalization of both political governance (e.g. the United Nations) and capitalism (e.g. the transnational corporation) in the years following the Second World War has rendered the nation-state increasingly irrelevant. Global capital constitutes a "new form of sovereignty," such that economic and political structures are increasingly identical (xi). This biopolitical theory is ultimately not particularly useful for my project, primarily on account of Hardt and Negri's late-capitalist periodization. The relevant mode of industry in Hardt and Negri's postmodern "empire" centers primarily on information and communication technologies—what they call "cognitive capitalism." The technologies, modes of production, and structures of political governance in "cognitive capitalism" are far too different from those available to America's machine age to bear fruitful comparison.

[21] In suggesting that modern biopolitics operates through the management of human and nonhuman populations alike, I follow critics like Shukin and Wolfe (*Before the Law*).

scope is in part a reflection of my investment in tracking how naturalist investigations into American modernity also gave rise to a cultural politics of nature. That is, I approach naturalist literature with an eye to finding out how capitalist biopower—as it intersects with evolution—comes to regulate flora and fauna into the twentieth century, whatever the stakes may be for the human species. In this regard, my project links the administration of human populations under capitalism to environmental concerns that are typically the domain of cultural studies based in political ecology.

This dissertation is equally invested in tracking the biopolitical role of cultural issues that seem to bear little on questions of species. In fact, my central authors marshal evolutionist claims about organic life primarily to influence or simply to imagine the coming social forms and institutions of modern American culture. Their biopolitical interventions are always conditioned by their respective subject positions and the 'hot-button' cultural issues most salient to them. In other words, the way that organic life appears for them is not only a function of evolution or of capital, but also of their investment in, for example, feminist empowerment (Gilman) or American economic globalization (Norris). My project thus challenges nonhuman studies to consider the way that cultural structures, insofar as they come into contact with organic life and naturalist discourses, help shape the meaning of nonhuman nature in a particular era.[22]

Widening Foucault's conceptual scope to include all life strikes me as crucial for understanding the way that naturalist texts conceive even of *human* species life. Because of their evolutionist orientation, my central authors rarely invoke nonhuman organisms or life processes

[22] In this regard, my dissertation joins other recent literary and cultural studies that track the relationship between representations of life processes, American cultural formations, and the development of biopower. See Boggs, Chen, and Schuller.

without this also having some consequence for their conception of the human. This is because of a defining characteristic of evolutionary theory itself—its commitment to species continuity. Evolution fundamentally undermines distinctions between life forms and natural processes at every level. My analysis throughout this dissertation is guided by the basic assumption that we only come to know what naturalism 'thinks' humans are and should be if we consider how it represents the whole spectrum of evolved life.

In framing naturalism as a biopolitical discourse, I do not mean to suggest that my central texts always issue in conceptions of life that further the basic capitalist imperative to maximize profit. While this is sometimes part of their agenda, they just as frequently suggest an escape valve out of capitalist biopower, even while appearing to advance its cause. My core authors often imagine life processes as immune to human manipulation altogether—whether in the mode of anxiety, hope, or somewhere in between. Throughout this dissertation, the microorganism—bacteria, pathogen, fungus—frequently takes center stage as an avatar of life's reproductive fecundity, its anarchic generativity. The microbe presents itself as a figure for life outside of individuality—life as essentially relational and generative, multiplying. While dangerously lawless, it can also be a tantalizing image of social relationality outside of capitalist biopower—outside of a political order that administers life by sacrificing it.

Chapter Summaries: Reassembling American Life Around 1900

Each of the four chapters that make up this dissertation zooms in on one particularly significant and contentious way that American life was reassembled around 1900. Taken together, these new modes of organizing populations, spaces, economies, and power largely

account for how we understand the modern nation up to the present. Each chapter centers on the work of a well-known author who wrote prolifically and influentially on the modern form in question. Each traces an author's explorations into modernity back to the broadly evolutionist claims that most clearly motivated their work. The first half of the dissertation follows naturalist interventions into the nation's domestic modernity, focusing on urbanization and "The Woman Question." The second part turns to America's place in the world, and in particular issues of imperialism, immigration, and transnational corporate finance. My argument throughout remains methodologically committed to a view of nature and culture as mutually constitutive realms: I understand American cultural processes and discourses as developing always in relation to natural ones. Each chapter considers how the nonhuman effect on culture rebounds back on organic life, thus helping to 'modernize' American nature.

My first chapter tracks Jack London's attempt to envision American modernity outside of the industrial city's biopolitical imperatives, which threaten to unravel the anthropocentric evolutionary order. I argue that London, in his late Sonoma fiction, works out a socialist theory of modernity centered on the suburbs. In this regard, he builds on the work of early urban sociologists, who saw, in America's suburban trend, a resolution to the social woes that plagued the machine age. Ultimately, I find that London's pastoral reorientation of modern American space only affirms the totalizing grip of machine processes, wherever they are located. London's dystopian fiction, in turn, renders industrial capital itself a minor term in a larger evolutionary story governed by the microbe, a creature immune to biopower. I argue throughout this chapter that London's vision of city and country issues in part from his lifelong commitment to Ernst

Haeckel's "materialistic monism," which functioned for the author as both an evolutionary and a biopolitical discourse.

In Chapter Two, I turn to Charlotte Perkins Gilman's effort to articulate a modern woman that would properly fulfill nature's mandate for the female organism. I find that Gilman relied on turn-of-the-century efficiency discourse to manage the specter of female-animal fecundity raised by her own evolutionary feminism. Ultimately, the author's resolution of "The Woman Question" would have American women enacting their biological destiny largely through the biopolitical regulation of all unruly organisms. Gilman's writings thus offer a unique vantage point for examining the influence of early feminist theory in shaping a twentieth-century technocratic politics of nature. This chapter stands apart from the rest by proposing a broad disciplinary intervention into nonhuman studies: I argue here that Gilman's depictions of animality as fungal suggest the value of building an 'organism studies' perspective into the nonhuman turn, and animal studies, in particular.

Chapter Three focuses on Mark Twain's famous anti-imperialist politics, which, I argue, find their basis in Twain's evolutionist commitment to biological determinism and his critique of human species exceptionalism. In Part I of this chapter, I read Twain's *The Connecticut Yankee in King Arthur's Court* as a prescient critique of America's budding technocratic imperialism. Here, Twain imagines the subjects of American empire as 'trained' into natural bodies, as nature was conceived in the machine age—standing ready to be deployed as resource for American profit. Part II examines Twain's interest in the microbe as an organic model for an American nation that would 'globalize' internally through immigration, rather than externally through imperial adventure. I suggest that Twain's *3,000 Years Among the Microbes* poses a naturalist

alternative to *The Connecticut Yankee*'s 'exceptionalist' model of imperial selfhood: This is a form of interconnected selfhood firmly embedded in both nature and culture. The ecosystemic world of 'I's' that we find in *3,000 Years* is a democratic one, requiring a plethora of competing perspectives for its existence.

Finally, Chapter Four traces the metaphorical logic of Frank Norris's wheat commodity in *The Octopus* as pointing to an infinitely expansive American frontier-nation centered on the Chinese market. In Norris's 'wheat theory of politics,' the American social organism ends up completely disappearing into a global commercial utopia that soon turns nightmare. Politics is effaced by commerce, signaling, in a sense, the coming of a universal biopolitical order organized not by sovereign territories, but by the flow of capital. This chapter turns to Hannah Arendt's proto-biopolitics of "society" and "the social" to flesh out the contours of such a world. But I also engage Norris's writings in the context of an earlier moment in biopolitical theory: Friedrich Ratzel's *Lebensraum* geopolitics, which Frederick Jackson Turner picked up in formulating his famous Frontier Thesis. In concluding this chapter, I transfer the wheat from the politics of the "Open Door" to that of "Yellow Peril." This last "Asiatic" reading of Norris's political organicism signals not only the death of America, but also that of Herbert Spencer's technocratic universe. We are left, at the end of this dissertation, with no evolutionary story to tell at all. Norris's evolving universe, as I finally read it, is a "phantasm, a nightmare"—an "insanity of force" (H. Adams 288).

CHAPTER ONE

"In the cleansing country air the slum cannot exist":
Jack London's Suburban Annexations

In a 1902 letter to his friend Cloudesley Johns, Jack London reports that he had "at last discovered" what he was— "I am a materialistic monist, and there's dam (sic) little satisfaction in it" (*Letters* 270). London first found himself in Ernst Haeckel's *Die Welträtsel* (1899), which appeared in its English translation in 1901 as *The Riddle of the Universe.* He remained a committed 'Haeckelian' for the remainder of his short life: Writing to Ralph Kasper in 1914, he notes that he has "always inclined toward Haeckel's position," and indeed "'incline' is too weak a word. I am a hopeless materialist" (*Letters* 1339).[1] For London, materialistic monism was the simple idea that "matter and the motion of matter makes up the sum total of existence." Any manifestation of "psychical phenomena," in either humans or animals, is simply a particularly complicated configuration of matter (*Letters* 271).

Robert J. Richards notes that Haeckel's was a "*strict* monism": "All matter had its mental side ... every one-celled protist could thus boast of a 'soul'—after a manner of speaking" ("Ernst Haeckel" 93)[2] Haeckel traced his philosophical inheritance to Spinoza, and contented that nature,

[1] London also sent Haeckel a copy of *Before Adam* in 1907 and received a postcard of thanks in return (*Letters* 709). For criticism that emphasizes the influence of other evolutionary theorists on London's work see Kaye, Lawlor, and Naso. Reesman (pp. 39-54) offers a balanced summary of London's main evolutionary influences.

[2] Richards explains Haeckel's argument in *The Riddle* as follows: "Haeckel argued for a unity of the world, in which homogeneous atoms of matter expressed various properties through the fundamental powers of attraction and repulsion. These atoms propagated their effects through vibrations set up in an ocean of ether. From the inorganic, through the simplest organisms, right up to man, no unbridgeable barriers arose; rather a continuous, law-governed unity ran through the whole. Even what might be called man's soul—his central nervous system—appeared over

so conceived, was simply God. London could not follow Haeckel on this point: If there is "dam little satisfaction" in materialistic monism, this is because existence is *all* matter—no mind, soul, or godliness. As he puts it to Johns, life is all "squirming," all "chemical ferment." It is no "small wonder," then, that "men down the ages have conjured gods," "snug little possessions" that might offer them a more flattering description of their existential situation (*Letters* 270). London's materialist monism emerges in its most cynical form in *The Sea-Wolf* (1904). Wolf Larsen, the novel's compelling, if also repulsive, anti-hero defines life as a "ferment, a yeasty something which devoured life that it might live." Life, whether human or not, is "merely successful piggishness" (68): "The lucky eat the most and move the longest, that is all" (50).

Though Wolf Larsen's 'yeasty' monism circulates throughout London's writings, the author also evokes Haeckelian ideas to suggest that technology releases humans from their material condition, the compulsion to obey natural law. In *The Kempton-Wace Letters* (1903), an epistolary novel that he co-authored with Anna Strunsky, London writes from the position of the young scientist, Herbert Wace—likewise a "materialistic" devotee of Haeckel. Here, London summons Haeckel, that "brave old hero of Jena," to explain the "irresistible passion" that binds lovers in terms of "the same *powerful, unconscious*, attractive force" that unites "two atoms of hydrogen to one atom of oxygen for the formation of a molecule of water" (153-4). But "intellectual man," as he now calls the human, is not quite the squirming "chemical ferment" he appears in the Cloudesley Johns letter of 1902. The "advent" of this man signals the emergence of a life-form that need not obey "blind and irresistible compulsion." Here, Wace marvels at

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the course of ages by slow increments out of antecedents in the lower animals" ("Ernst Haeckel" 92-3).

intellectual man's power to "change the face of life with his inventions and artifices." Man turns the "great natural forces" that once "menaced" him to the task of "[laboring] for his safety and comfort" (153-4).

But Wace envisions an even more impressive role for tool-wielding "intellectual man" in America's "machine age."[3] Having mastered the "natural forces," man turns his new technological prowess to the properly biopolitical task of shaping and even enhancing life: Wace predicts that humans will soon "control and direct the operation of the reproductive force," in general (154). Here, London's materialistic monism finds man traveling so far from the "chemical ferment" that he is now in the position of creating organic forms to suit his needs and aesthetic preferences. Under his direction, "life will not only be perpetuated but developed and made higher and finer" (154). Industrial man, in this line of thought, merges with evolutionary law itself—Haeckelian godliness, but also Foucauldian biopower.

Those of London's works set in primordial time or wilderness space affirm technological man's biopolitical godliness. In particular, the author's idealized wolf-dogs function as a mirror of *Homo Faber'*s transcendental destiny, his power and even right to govern and reassemble life at will. However, as London's fiction moves into the urban centers of industrial capital, we find machine processes taking on a strikingly agential role in directing the reproductive force of human life. I read London's late Sonoma fiction as an effort to rescue American modernity from machine-age biopower, while also reactivating technological man's own biopolitical position within the natural order. *The Little Lady of the Big House* (1916), in particular, works out a

[3] London's term for turn-of-the-century American industrial culture. See *Revolution and Other Essays* 224, 278, and 281, for example.

socialist theory of modernity centered on the *suburb.* Ultimately, London's pastoral reorientation of American space only demonstrates the totalizing grip of the machine process: Whether rooted in the city or the country, technoscientific modernity always renders the human an evolutionary dead-end.[4]

In London's dystopian novel, *The Scarlet Plague* (1912), technological man becomes a minor term in a larger evolutionary story governed by the unruly microbe, a creature immune to machine-age biopower. Here, we find London's materialistic monism, as he describes it in his letter to Cloudesley Johns, returned with a vengeance. *The Scarlet Plague* in fact suggests that the evolutionary history of technological man, wherever it occurs, always issues in collapse. *Homo Faber* may use his technological mastery over matter to become the "lucky" yeast that, for a time, "eats the most and moves the longest." But the overwhelming reproductive fertility of the hungry microbe renders it, in the end, the most successful form of evolutionary "piggishness."

[4] In tying London's "materialistic monism" to a theory of modernity, I depart from previous studies, which have tended to read London's evolutionism in tandem with his much-noted primitivism. Critics have long debated the extent to which London found evolutionarily 'primitive' traits, types, or situations to be somehow preferable to 'civilized' ones or saw the modern world as essentially an outgrowth of some primordial one. Critics attentive to London's primitivism most often cite *The Call of the Wild* (1903) as London's celebration of what Tavernier-Courbin calls "the animal basis of human existence" (261). This body of scholarship reads *The Call of the Wild* as an implicit critique of the tendency of modern civilization to repress the human primitive. Rossetti (2006), for instance, analyzes the novel's primitivism as central to its critique of "urban modern capitalism" (27). See also Gianquitto ("Return to the Primitive"), Hedrick, Hopkins, Lawlor, and Rossetti ("Things Fall Apart"). Crow, Labor, and Horowitz interpret London's career in general as permeated by a celebration of primitivism. Labor, in particular, argues that London's body of work "might well be studied as a lifelong series of attempts to escape the corruptions of civilization and to recapture the simple, maternal security of Nature" (126). See Berliner for a study of London's primitivism in relation to his socialist politics.

Homo Faber, the Fire-Making God

In the early days of America's acquaintance with evolutionary theory, the press was especially captivated by Haeckel's insistence on the "spontaneous evolution of living forms from inorganic matter," as a contributor to *The Nation* put it in 1869 ("A Natural Theory of Creation" 193). For the eponymous dog-hero of London's *White Fang* (1906), it is this power to transform matter—to command mastery over "things not alive"— that renders humans veritable *gods*. To White Fang's "dim comprehension," humans are "overlords of the alive and the not alive—making obey that which moved, imparting movement to that which did not move." In the matter of fire, they are even capable of "making life, sun-coloured and biting life, to grow out of dead moss and wood." In "[communicating] motion to unmoving things," men "change the very face of the world" (123). In short: "They were fire-makers! They were gods" (129).

Like Haeckel's evolution-god, humans effect certain changes in the motion of matter, and can in fact transform "dead" substance into "sun-coloured and biting life" (129). We can of course translate London's Haeckelianism into plain English: Humans seem like gods to White Fang, because they are very good with tools. Donna Haraway's influential "companion species" framework has made it commonplace to read the human-dog relationship as a dynamic, reciprocal interaction that positions the human within a "knot of species" co-shaping one another "all the way down" (*When Species Meet* 42). But in London's work, the wolf-turned-dog in fact signifies *Homo sapiens*'s ability to *transcend* its material condition by way of technology. In choosing a dog's life, White Fang not only submits to man's 'godly' mastery on these grounds, but also willingly enters his toolbox.

The origin story that *White Fang* supplies for the human-dog relationship is an odd mix of biblical covenant, social contract, and employment agreement. In narrating White Fang's path to dogliness, London describes the terms of an "ancient covenant" that comes into being when a mythical "first wolf" abandons "the Wild" to warm itself by the human fire. This wolf trades in its freedom for "food and fire, protection and companionship," as well as contact with "a flesh-and-blood god." In exchange for these amenities, the wolf agrees to "[guard] the god's property, [defend] his body, [work] for him, and [obey] him" (169-70). In other words, the wolf decides to become biotechnology, a bit of commodified nonhuman labor power that Haraway elsewhere calls "lively capital" (46). The deal goes through and a new domestic species is born: the dog. This interspecies elected affinity is especially significant given that wolves feature prominently in London's Klondike fiction as particularly vicious, lethal tormentors of the human. The devout canine, then, gives ideal form to a very anti-Haeckelian vision of man's relationship to the nonhuman realm. White Fang and his ilk tell us that *Homo Faber* really, and quite 'naturally,' is a being apart from living matter, entitled to direct reproductive force as serves his purpose.

In a novel like *White Fang*, we find London positioning technology as a neutral instrument completely separable from the human and thus straightforwardly manipulated by him. But other writings undermine the idea of a simple cause-and-effect relationship between the human tool-maker and his tools. In *Before Adam* (1907), for instance, technology emerges as the driving force of human biological evolution. The novel tracks the fate of a proto-human species that we know as "the Folk," as they are chased out of their territory by the "Fire People." This latter tribe appears to be a distant ancestor of modern man. Like the "flesh-and-blood" gods that

impress White Fang, the Fire People owe their authority over the primordial world to their unique ability to make fire, along with their command over archery.

In *Before Adam*, however, technology no longer functions to pull human being out of its material embodiment. Rather, we now find London embedding our tools deep into the emergent species body.[5] We see this primarily in the novel's rendering of Fire Man as a kind of caveman cyborg: Their skill in archery endows the Fire People with "claws and fangs a hundred feet long" (197). Or, in another description, bow and arrow function as "enormous extensions" of Fire Man's "leaping and striking muscles" (196). Such images of body-machine entanglement are especially significant considering that we are meant here to be witnessing our early species history. London's primeval environment 'selects' for technological know-how in its proto-humans. In ushering the Folk into nature's dustbin, the victorious Fire People live on to pass their techno-savvy on to future generations of emergent humans. The suggestion here is that humans have co-evolved with their tools: While technology is certainly a human product, over the course of evolutionary time, it also helps to produce the modern human.

Trained Gorillas in the Jute Mill

In *Before Adam*, we find technological production entering the reproductive life of the human body. If technology is now 'embodied,' its main evolutionary function seems to be that of a prosthetic enhancement of human well-being. In other words, the machine does not seem to infiltrate human character in any meaningful way. The qualities that London attributes to the Fire

[5] On this point, *Before Adam* recalls Haraway's "Manifesto for Cyborgs." Haraway argues in this essay that the boundaries between human and technology, human and nature, are much more porous than Enlightenment humanism has trained us to believe.

People suggest a progressive evolutionary trajectory that finds its telos in modern man, as conceived by the liberal tradition. Evolution's losers, the Folk, are nature's children: They are "sociable" and "gregarious," but also "inconsequential" and even "stupid" (170-1, 89). The Fire People, by contrast, are "very wise": They have speech, which allows them "more effectively to reason," and they "understand cooperation" (185). Fire Man, so conceived, seems well on his way to becoming a rational agent capable of reconciling the claims of individuality with those of social life—a proper liberal subject. London gives us no reason to believe that such a respectable, proto-bourgeois creature will ever fail in its technological mastery over matter.

As London's fiction moves into the urban centers of the machine age, we find the new form of factory labor characteristic of industrial production taking on a strikingly agential role in human life. Writing on "Americanism and Fordism" in the early 1930s, Antonio Gramsci analyzed the emergence of a "new type of man" in America, one well-suited for industrial processes and modes of labor (279). London gives us a rather harrowing picture of the type of man that might best be suited for the machine-age factory in his 1906 story, "The Apostate." Johnny, our sixteen-year-old protagonist, is in fact a "perfect worker" at his jute mill (*When God Laughs* 35). Gramsci is particularly interested in the central role of Taylorist and Fordist techniques in the creation of a new man for the "new industrialism" (291). In Johnny, we find Taylor's dream of perfect efficiency in labor productivity realized. The young man spends his days tying "glass stoppers into small bottles" with "machine-like perfection." He has succeeded in eliminating all "waste movements" from the performance of this task (49).

Johnny has spent most of his young life in factory labor: "There had never been a time when he had not been in intimate relationship with machines" (36). In this regard, he resembles

the Fire People. If those proto-human ancestors co-evolved with their tools, machinery has "almost been bred" into Johnny (36). But the resemblance stops here. In mastering archery, the Fire People discover in themselves a vastly more powerful, expansive physical body: The bow and arrow function in accordance with Fire Man's will and in support of his interests. In Johnny's case, the causal story is reversed. If he is a perfect worker, it is because the jute mill has "moulded" him into the "perfect machine" (56). Or better, Johnny is a "part of the mechanism," an extension of the machine's body, as also is the overseer who commands Johnny (48). Both serve "the will of the machine," its smooth operation (37).

Crippled by a lifetime of grueling labor, Johnny is a "travesty of the human"—a "twisted and stunted and nameless piece of life." If Johnny resembles nothing more than a "sickly ape," this is the form stamped on him by the machine. The hunched-over posture required of work at the mill has rendered the young man "stoop-shouldered" and "narrow-chested" (67). This apish physique certainly evokes evolutionist concerns over atavism and degeneration—the idea that Johnny's labor has caused him to regress into a more primitive organic form. London probably did mean to suggest atavism here; but Johnny's twisted body also points to F.W. Taylor's note, in *Principles of Scientific Management* (1911), that he could train "an intelligent gorilla" to "become a more efficient pig-iron handler than any man could be" (40). And indeed, Johnny's body has forged such a strong alliance with machine processes, has been so perfectly 'Taylorized,' that he seems rather too modern to be an evolutionary throw-back. In fact, Gramsci finds that Taylor's "phrase about the 'trained gorilla'" expresses the "purpose of American society," as it habituates men to the new forms of civilization and production that emerge in the machine age. The "trained gorilla" is precisely the "new type of man" that American industrial

culture is working—with "unprecedented speed"—to create. The 'mind' of this laboring gorilla is governed, to "the highest degree," by "automatic and mechanical attitudes." His body participates in only the "mechanical, physical aspect" of industrial production (290).

If Johnny is a "nameless piece of life," we ought to think of him as an *emergent*—not yet classified—species of industrial modernity. His case suggests that machine processes have begun to take on the dual evolutionary and biopolitical that Herbert Wace carved out for technological man in *The Kempton-Wace Letters*. The factory machine certainly harnesses the "natural force" of Johnny's body. More so, if America's industrial workforce is truly on its way to becoming a new species of life, then the machine also has a sizable influence over the modern human's "reproductive force." To this extent, it helps drive evolutionary history under the conditions of industrial capitalism.

From our present vantage point, it is hard to believe that London could be suggesting that factory labor conditions might generate a new species of machine-men. But around 1900, most evolutionary frameworks still incorporated Lamarckian inheritance to some degree. In such a schema, Johnny really could pass on his atavistic body and machine habits to future offspring. More so, London's particular brand of evolutionism—his materialistic monism—is especially permissive as to the transmutation of species. Charmian London's biography of her husband quotes Jack as remarking, apropos his materialism: "I have always been impressed with the awful plasticity of life and I feel that I can never lay enough stress upon the marvelous power and influence of environment" (2: 50). Indeed, if, as Haeckel suggests, there is no unbridgeable barrier between organic and inorganic matter, body and mind, then it becomes perfectly plausible for human being to evolve in the direction of machine technology. In the 1902 letter to

Cloudesley Johns, London closes his declaration of materialist faith by observing that "we move along the line of least resistance": "Whatever we do, we do because it is easier to than not to" (*Letters* 271). If this too is an evolutionary principle, then it is hard to see how Johnny, and the millions of American workers like him, could *help* being "moulded by the mills" into mechanical gorillas (*When God Laughs* 56).

Capitalism Mismanages Itself

But America's "new industrialism," at least in 1906, has not yet achieved the biopolitical production of a new *species* of "perfect worker"—a mechanical gorilla who can reproduce himself. By the end of London's story, Johnny is a broken machine. It appears that the factory system, while adept at maximizing the efficiency of labor, has not yet learned to scientifically manage its own mode of production. Every good capitalist enterprise grasps the importance of reproducing both the means of production—raw materials and machines—and the productive forces—labor power. Capital needs to keep *all* of its labor power going, whether human or machine. Gramsci analyzes American industry's "puritanical" efforts to regulate alcohol consumption and sexual relations among workers as geared towards maintaining the "continuity of the physical and muscular-nervous efficiency" of labor power (290-1). Such initiatives are at bottom concerned not with moral value, but with surplus value: Industrial capital needs "stable, skilled labour force, a permanently well-adjusted complex, because the human complex (the collective worker) of an enterprise is also a machine which cannot, without considerable loss, be taken to pieces too often and renewed with single new parts" (291).

Sufficient time for rest and adequate wages serve the same purpose of maintaining labor's "muscular-nervous efficiency." It is worth emphasizing here that, in Gramsci's analysis, industrial capital is concerned with staving off exhaustion in both the laboring body and, roughly speaking, its mind. Johnny's jute mill fails on both these points. One day, the young man takes ill—a "severe attack of *la grippe*"—and requires two weeks of convalescence before returning to work (59). This, in itself, is no problem: The overseer is happy to make this allowance for "the best weaver in the room" (60). But Johnny gets to "doin' a lot of figurin'" during his week of rest, and in fact performs a kind of Taylorist time-and-motion study of his entire life (64). Johnny calculates the number of discrete motions he has made over a lifetime of tying glass stoppers into bottles and running cloth through looms; he figures that he now makes twenty-five million moves a year. Johnny is tired from all of this moving and refuses to move any longer. He informs his mother that, in falling ill, he has found happiness for the first time—in "jes' settin' there, hours an' hours, an' doin' nothing'" (65). In short, Johnny "ain't never goin' to work again'" (63).

London has earlier told us that Johnny is a "machine consciousness"; he primarily means that Johnny's mind is a "blank" (57). But it turns out that industrial labor really has disciplined not only Johnny's body but also his habits of thought. In finding time for self-reflection, Johnny evaluates his life from the perspective of scientific management, and in particular the motion studies developed by Frank and Lilith Gilbreth. If factory labor has involved him in *too* many motions to keep working past sixteen years of age, then the industrial system, as a whole, turns out to be woefully inefficient. The Taylorist factory may have purged waste motion from Johnny's laboring body in the short term. But it has also drastically cut short the amount of

productive motion it may have gained from this most efficient of workers by laying waste to him.

In turning its best trained gorillas into "sickly apes," the capitalist class is "prodigiously wasteful"—it has "failed in its management and its management is to be taken away from it" ("Revolution" 27, 38). Or so London concludes in his 1905 essay, "Revolution." The capitalist class, in wrenching control from the "old feudal aristocracy," gave rise to a modern society characterized by vastly expanded scientific and technological capacities (14). London acknowledges capital's effectiveness in "mastering matter" and "organizing the machinery of life" (14). But he also charges the capitalist regime with mismanaging so badly that it has produced ten million Johnny's—a class of industrial laborers who lack the basic material necessities required to sustain an "ordinary measure of strength" (16). In the age of industrial machinery, man's "natural efficiency"—his facility in securing basic material needs—has increased "a thousand fold" from that of the caveman (26). But modern man reaps no benefits from this increase. A large swath of the industrial population lives under conditions of far greater material precarity than the caveman ever knew. In slowly killing their own labor force, the capitalists cannot maintain the "mere standard of working efficiency" and thus diminish their own profits—their compulsive greed has blinded them to their own interests and those of society (16). Capitalism may have mastered matter, but it has failed to produce the "rational organization of production and distribution" that would have enabled it to master the machine (27).

London's essay appeared in March 1905, at the height of the Russian Revolution, and is essentially a call for American labor to take its place in the international revolutionary movement and force "management" out of the hands of its capitalist overlords. If capitalist rule has secured

mastery over matter, socialism is ready to master the machine: A rational socialist management would direct the tremendous labor power of industrial machinery into the realm of human biological necessity. In other words, the industrial machine, when it is freed from the profit motive, will relieve the human from the task of reproducing its species body. Socialist management emerges here as yet another biopolitical readjustment of the relations between organisms, humans, and machines. In "The Apostate," Taylorist efficiency techniques helped mold Johnny into a new species of 'lively capital' attuned to the evolutionary rhythms of the the machine process. In the "Revolution" essay, capitalist mismanagement creates conditions of such material precarity that the "incentive of the stomach" underwrites all human action. Under the new socialist management, this motive disappears altogether as industrial machinery essentially frees the human from biological necessity. The "empty stomach" is now replaced by "finer and nobler" incentives, those of "spiritual, intellectual, and artistic uplift" (28). If Herbert Wace of *The Kempton-Wace Papers* envisioned humans as biopolitical techno-gods, London suggests that technological mastery will send them sailing into the spiritual ether, the realm of platonic ideals.

Despite London's faith that socialist management could resolve the most troubling features of the machine age, the "Revolution" essay already hints at the author's sense that American modernity would have to move itself out of the industrial city to truly re-humanize its citizens. We see this in his obvious admiration for the life of the caveman, as opposed that of the urban worker. The caveman "lived a healthy, open-air life, loafed and rested himself, and found plenty of time in which to exercise his imagination" (15). His robust fertility is apparent in the fact that he managed to "[multiply] and spread over the earth and [send] his progeny down"—to "become even you and me" (15). By contrast, machine-age workers dwell in "slum ghettos"

where they "[fester] with rottenness and disease," until their "misery becomes beastliness" (16-7). This despite the fact that America itself is a "broad, prosperous, enlightened land" (16). While London is surely being a bit ironic here, his reference to America's spaciousness suggests that something of the caveman's "open-air life" ought to be recovered, even in the twentieth century.

"The Apostate," written only a year after the "Revolution" essay, is clearer on the point that America's "sickly apes" need to get out of the city quick if they are to recover their human form. This, in fact, is the first item on Johnny's agenda, upon announcing his retirement. At the close of London's story, we follow Johnny's exodus out of the slum ghetto, the factories slowly giving way to "open spaces" as he moves towards the country (67). The young man resembles nothing more than Plato's newly freed cave-dweller, first catching sight of the sun, the real, the good. We find Johnny looking "wistfully" up at the sky, only to be "dazzled and blinded" by the sun (67). Presumably, his eyes will adjust: Johnny soon hops a freight train that we expect to send him far away from the factory-cave, deeper into the open air. But Johnny's version of the good will surely incorporate features of the caveman's life. We leave him loafing and resting, just like our primeval friend in the "Revolution" essay: "Sometimes he dozed, with muscles that twitched in his sleep. When awake, he lay without movement, watching the birds or looking up at the sky through the branches of the tree above him" (68).

London was fond of writing himself into his fiction, and Johnny is no exception: Jack's birth name was "John," and the author also worked a short stint at a jute mill in Oakland,

California as a teenager.[6] In leaving for the country, we might imagine Johnny morphing into the Jack London who eventually came to own a 1,400-acre ranch in Sonoma County—the bulk of which he bought in 1905. As London educated himself in modern scientific agriculture and traditional sustainable farming, the idea of an American 'return to the soil' became increasingly important him. We find this passion reflected in the author's late Sonoma fiction—*Burning Daylight* (1910), *The Valley of the Moon* (1913), and *The Little Lady of the Big House* (1916). Critics have often read these pastoral idylls, and London's agrarianism, in general, as a retreat from both socialist politics and America's troubled modernity. It is true that, in May 1916, some six months before his death, London resigned from the Socialist Labor Party. But he never disavowed his allegiance to the socialist cause. In his letter of resignation, London accuses the SLP of a complacency bordering on collusion with the capitalist class. He attributes his resignation to the party's "lack of fire and fight" and "loss of emphasis on the class struggle." The working class, he reasons, can only "emancipate itself" by "fighting, by never fusing, by never making terms with the enemy" (*Letters* 1537).

I suggest we read London's pastoral vision as not quite an evasion of modern industrial capitalism, and not even a true retreat from socialist politics, but primarily an attempt to imagine American modernity outside of the industrial city.[7] Writings from every point of London's short,

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[6] See Auerbach for more on London's tendency towards self-portraiture. Auerbach argues that "London's importance lies less in abstracted ideas or formal precision than in his masterful striving to keep readers interested by offering himself as the ever present, energetic subject of his writing" (3).

[7] It is worth noting, however, that a May 28, 1905 letter from London to his socialist friend Frederick Bamford suggests that at the time he was preparing to buy the first portion of "Beauty Ranch," at least, the author saw a return to the soil rather as a holiday from the problems of his time and indeed from socialist politics. Advising Bamford to get out to the country more often, London wrote, "The thing is, to cease being intellectual altogether. To take delight in little

but unusually prolific career, suggest the urban scene as a site of evolutionary atavism and degeneration: Works like *People of the Abyss* (1903), *The Iron Heel* (1908), and *The Valley of the Moon* (1913) render the working-class urbanite as both animal and machine. If London's urban portraits center largely on the working class, turn-of-the-century American culture was also generally preoccupied with the evolutionary toll that the modern city was taking on even its 'finest' specimen. Max Nordau, in his widely read *Degeneration* (1895), argued that the "vertigo and whirl" of the urban landscape put such a strain on the sensory capacities that it had occasioned a general fatigue tending towards social degeneration (42). Nordau's toxic city churned out morbid evolutionary deviations from the "healthy, normal type of the species"—degenerates (16).[8] Even White Fang—truly a model of civilized virtue by novel's end—behaves like a neurasthenic city-dweller during his brief sojourn in San Francisco. Our poor canine friend is "bewildered by the tremendous and endless rush" of the city, assailed by the "thunder of the streets, "made dizzy" by the "swarming" human bodies (*White Fang* 280).

The industrial city, as London saw it, would surely have been a far less brutalizing place if it were not so mismanaged by the capitalist ruling class. I argue, however, that the author, in

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things, the bugs and crawling things, the birds, the leaves, etc., etc. The thing is to get so keenly interested in decently cooking a pot of rice, that you will forget that there ever was a socialist revolution …You see what I'm driving at" (*Letters* 485). In her account of the author's agrarian phase, Johnston argues that London envisioned himself as a committed socialist even while he was in fact becoming a member of the landed gentry; she claims that London's inability to see this contradiction testifies to the psychological importance that socialism had for him (149). See Chapter 5 of Johnston ("Rift and Resignation") for a critique of London's practical, if not avowed, rejection of socialism in his turn to "utopian agrarianism" (163).

[8] London would have surely absorbed Nordau's ideas early in his self-education and in 1916 wrote a preface to Osias L. Schwarz's *General Types of Superior Man* (1916), in which he chides Schwarz for not being a "faithful and precise" enough disciple of Nordau (6). Nordau contributed an introductory letter to to the same volume.

his late Sonoma fiction, attempts to relocate the best features of city life into the agrarian spaces that increasingly dominated his attention. *The Little Lady of the Big House*, in particular, imagines the machine age cleansed of its "slum ghettos" through the suburban reorganization of American space. [9] In pursuing the suburb, London followed a line of thought that had been paved by America's first sociologists in the late nineteenth century. For these thinkers, suburbia posed an obvious solution to the glaring problems of the American city, especially as they pertained to health and morality. It was clear that an industrial economy could not function efficiently without densely-populated commercial and manufacturing hubs. But American industrial capitalism grew up in tandem with the vast expansion of its transportation systems—waterways, roads, rail, and so on. These played a central role in what Alan Trachtenberg famously called the "incorporation" of America. If transportation helped produce the city, it would also allow the large population of Americans employed in cities to make their homes outside of them.

The sociologist Charles H. Cooley adds a note to this effect in *The Theory of Transportation* (1894). The aim of transportation, according to Cooley, is to "set men free in respect to place relations, to make these relations more plastic to social needs" (75-6). Transportation first made possible the "concentration of men and other industrial forces" required for the "efficient organization of industry" (74). But if it gave rise to the city,

[9] Here, I follow up on Den Tandt's idea that the "pastoral dream" entertained by *The Valley of the Moon* ends up looking more like "a blueprint for the home-centered lifestyle of suburbia" (97). For Den Tandt, this resemblance already suggests the failure of London's pastoral vision. I argue here that London was drawing on a well-established sociological discourse that understood the suburban movement in city planning as a promising remedy for the social problems occasioned by America's industrialization. In *Imagined Frontiers*, the urban historian Carl Abbott briefly refers to London's engagement with the suburban movement in setting up his analysis of twentieth-century suburban development as a kind of urban frontier.

transportation "now turns around" to mitigate the "evils" of concentration (76). That is, it allows workers to make their homes in suburban areas connected to industrial hubs by rapid transit.

Cooley has harsh words for the big city's influence on its populations. Its effect on the "health, intelligence, and morals" of its residents is no less than "deplorable." There is in fact a "permanent conflict" between industry, which demands that men "aggregate," and humanity, which demands "sunlight, fresh air, the sight of grass and trees." Here, Cooley seems primarily concerned with the truly deplorable conditions of the urban slum. He notes that children cannot possible have a "fair chance" in life when "condemned to grow up in the dirt and confinement, the dreariness, ugliness and vice of the poorer quarters of a great city" (76).

Adna F. Weber cites Cooley's remark on this conflict between humanity and industry in his pioneering work of urban sociology, *The Growth of Cities in the Nineteenth Century: A Study in Statistics* (1899). Weber is sensitive to the cultural significance of the urban phenomenon throughout world history and optimistic about the power of social initiatives and legislation to reform the undeniable problems facing American cities.[10] But he also follows Cooley in posing the "suburban town" as a perfect solution to the "problem of concentration of population" (458, 470). Weber's suburb is something like the "middle landscape" that Leo Marx writes about in *The Machine in the Garden* (1964): It fuses the benefits of urban life with those of the country, while mitigating the disadvantages of each. In particular, the suburb combines the "open air and

[10] *The Growth of Cities* takes seriously the social issues plaguing cities—urban poverty, crime, corruption and so on. But Weber also argues that the same trends in rural areas have largely been ignored, and insists that cities are in fact leading the way to social progress. His study in fact marshals a dazzling array of statistical evidence from Europe and America to dismantle the idea that there exists some stark contrast between the virtuous country and evil city. Contemporary American urban historians and sociologists credit Weber's work as of critical importance for establishing an economic and demographic basis for their field.

spaciousness of the country" with the "sanitary improvements, comforts and associated life of the city" (459). But Weber gives a much more enthusiastic appraisal of suburbia in an 1898 article on "Suburban Annexation" published by *The North American Review*. Here, "the rise of the suburbs" is no less than the "most cheering movement of modern times." This is especially so for the "Anglo-Saxon race." The nation's true-blue Americans must have their "fresh air and clear sunlight, the green foliage and God's blue sky." The Anglo-Saxon cannot hope to reconcile himself to the "hot, dusty, smoky, germ producing city tenements and streets." The suburb is once again the middle landscape, a perfect union of the country's "natural surroundings" with the city' "social surroundings" (616).

Weber's vision for Anglo-Saxon modernity reads a lot like *The Valley of the Moon*, London's 1913 novel about a young working-class couple who find city life toxic to their Anglo-Saxon racial inheritance and set out looking for their pastoral idyll in Sonoma County.[11] But London's debt to both Cooley and Weber is more obviously apparent in a 1900 essay on "The Shrinkage of the Planet." Here, London focuses on key industrial technologies—like steam-power and electric telegraphy—that have, over the last century, drawn the world increasingly "closer together" (*Revolution* 154). Along the way, he treats the rise of "great cities," which he understands as part of a general trend in the nineteenth century towards "concentration, classification, order" (154). This language, along with a remark on urban growth as suggesting a

[11] Throughout his career, London employed evolutionary rhetoric to support his conviction in Anglo-Saxon racial superiority. This is especially evident in his letters to Cloudesley Johns. For example, in an 1899 letter to Johns, London notes that as "an evolutionist, believing in Natural Selection" he could not "but hail as unavoidable, the Black and the Brown going down before the White" (*Letters* 61). London's Anglo-Saxon chauvinism has been well documented by scholars. See Reesman for a recent book-length treatment on London and race.

"reduction of friction between the parts of the social organism" comes straight out of Weber's *The Growth of Cities* (154-5).[12]

London also borrows from Cooley when he turns his attention to the suburban movement. Cooley argues in *The Theory of Transportation* that railways and other forms of rapid transit enable a kind of spatialized "division of labor" between the various parts of a city. The separation between a city and its suburb in fact amounts to an internal division in the city itself between the "portions assigned to residence and [those assigned to] business" (80). London follows Cooley here when he notes that "every great city has become but the nucleus of a greater city which surrounds it; the one the seat of business, the other the seat of domestic happiness" (*Revolution* 50). This latter, of course, is the suburb. Transportation facilitates this happy division of labor: London notes that "rapid transit at once attacked the evils" of city life by facilitating suburban development. That is, it allowed workers to escape the "terrible congestion" and "stifling and impure air" of urban areas. If the poor still dwell in "tenement evil," the suburb will soon come to the rescue: "In the cleansing country air the slum cannot exist" (155).

[12] In accounting for his methodology in *The Growth of Cities*, Weber acknowledges his own debt to Herbert Spencer's *Study of Sociology*. He argues that industrial society can be most productively analyzed as a "great organism composed of heterogeneous parts" (159)—what Spencer called a "social organism." Here, Weber notes the dual importation of *differentiation* and *integration* in Spencer's evolutionism: "With differentiation, specialization, or division of labor, as we choose to call it, there must always go integration or combination." But, in order to "effect this distribution or specialization of functions," the organism must first develop a "system of complete and intimate communication between the parts" (159). Weber is optimistic that the rapid economic growth of the late nineteenth century can only result in a more integrated, interdependent American social organism. The process of distributing the nation's "vastly greater wealth" requires a "greater percentage of all workers for its efficient action"—an "intimate communication" between the various specialized functions of the social organism (159).

* * *

By recovering London's early engagement with the suburban sociologists, we can begin to reevaluate the significance of his Sonoma novels. I focus here on *The Little Lady of the Big House*, as I think it best captures the author's vision of a suburbanized American modernity. In particular, *The Little Lady* poses the suburbs as a modern biopolitical order modeled on London's dogs, as we encounter them in *White Fang*. But this, too, is an American modernity that has dispensed of its capitalist (mis)management. In recalling London's passion for scientific farming, Charmian London notes that Jack saw, in a "return to the soil," the "solution to the great economic problems of the present age" (2: 266). The implication here is that we ought to read London's agrarianism together with his socialism. And indeed, both "The Shrinkage of the Planet" and "The Apostate" suggest that the "cleansing country air" of the suburbs had long played an role in London's socialist politics.[13] Charmian, in explaining Jack's ambitions for Beauty Ranch, remarks that he once told her, "I see my farm in terms of the world, and the world in terms of my farm" (2: 266). In *The Little Lady*, London's ranch really does become the world: The novel offers a blueprint for a distinctly socialist suburban America.

Dick Forrest, our hero in *The Little Lady*, is an agricultural mastermind of the machine age, wielding modern technology and agricultural science to shape the natural world into a highly lucrative quarter-million-acre Sonoma ranch. It is easy to see here that Dick has transferred all the comforts of urban industrial modernity into something of an Edenic pastoral setting, a nature remarkably generous in its "fecundity," the "flowering and fruiting of life"

[13] It would be hard to argue that London was not an engaged socialist in 1900, the year he wrote the "Shrinkage" essay. In 1901, he ran a high profile, but unsuccessful campaign as the socialist candidate for mayor of Oakland, California.

(*Little Lady* 233). At the same time, everything on the ranch is "large-scale but modern to the last tick of the clock" (39). As Dick rides from the "Big House"—his own residence and center of business—through his vast holdings, it becomes apparent that he has set the place up as a kind of idyllic suburb, a center of "domestic happiness." We find the realm of nature perfectly attuned to the social as in Weber's vision of "suburban annexation." Dick first passes through a strictly residential area —"almost a village, save that there was neither shops nor hotels" (16). Comfortable bungalows are set amidst gardens, children laugh and play among the flowers, while their mothers prepare what are sure to be nutritious breakfasts. Further past this scene of domestic bliss, London presents us with a row of shops harmoniously blended into the natural landscape—blacksmiths, carpenters, auto mechanics, plumbers, and so on.

But Dick, here, is also busy devising a "splendid experiment, a heroic experiment" in both scientific farming and socialist government (128). It appears to have started in a bet with his acquaintance, Mr. Wombold, a "hereditary large land-owner" in the Sonoma Valley (118). Wombold, clearly, is a representative of the capitalist class, a defender of laissez-faire economic principles, and a stereotypical 'social Darwinist.' He contends that any farmer without property of his own proves—"by his lack of it"—that he is in fact an "inefficient farmer" (127). Wombold would likewise bring in "two hundred thousand Japanese coolies" to compete with Californian labor, so as to silence the demands of agricultural workers for an eight-hour workday (118).

Wombold seems to hold the 'individualist' theory of society, as it is described by another of London's scientific socialist heroes, the technocrat mastermind of the utopian short story, "Goliah" (1900). The 'individualist' theory posits society as a collection of atomized individuals. Social conditions rise and fall with the merit of these individuals, taken in sum: "In so far as the

individuals become wiser and better, by that much will their government become wiser and better" (*Revolution* 74). Here, Goliah, and likewise Wombold, evoke Herbert Spencer's picture of social evolution. Spencer believed that the "survival of the fittest" in a market economy would give rise, over the course of evolutionary time, to individuals so well-adapted to their social environment as to constitute an ideal social order.

Dick, on the other hand, follows Goliah's own (socialistic) theory, which finds that the masses "do not make government, but that government makes them" (*Revolution* 75). In order to refute Wombold's individualist vision, he will divide "five thousand acres of prime valley land" into twenty-acre lots and parse them out to two-hundred-and-fifty farmers without land of their own —Wombold's "failures." Dick will provide amply for each farmer and his family— "twelve hundred and fifty souls" in total—but they must cultivate their land according to the "scientific methods" that Dick has developed alongside a team of agricultural experts (128).

Dick's plan proceeds according to the idea that social 'management'—in this case, Dick himself—makes the man and not the other way around. He thus embodies London's socialist politics, as we met them in the "Revolution" essay. But, here, socialism's "rational organization of production and distribution" takes on a new dimension—the agrarian restructuring of American society. Dick then also shares in London's vision of economic modernity, as Charmian describes it: He believes that "the West and the world must come to intensive farming" (*Little Lady* 128). Dick's "splendid experiment" will help "blaze the way" by demonstrating that small parcels of land, when cultivated scientifically, can sustain and yield profits for the average man and his family. "Efficiency," in the golden age of technoscientific modernity, need no longer imply "the possession of capital" (128).

* * *

The social organism, as modeled in the world of Dick's ranch, already resembles the suburbs, as they were imagined by early American sociologists. A harmonious sociality fuses here with "fresh air and clear sunlight, the green foliage and God's blue sky," as Weber put it in his paean to the suburbs ("Suburban Annexation" 616). The citizens of this fair land lose none of the material comforts or amenities they could expect in the city: Dick has transposed the whole of technoscientific modernity onto a verdant nature without cost. Modern scientific farming preserves and even improves on nature, while also increasing agricultural output. Dick and his team of specialists extract maximum resources from a soil so wisely conserved that it might serve humans perpetually. In devising his "splendid experiment," Dick begins the work of spreading his socioeconomic vision across the West. Certainly, this is not suburban America as we know it today. But Dick's world does seem to universalize the suburbs, as they were imagined in the late nineteenth century. Modern agricultural science brings industry to nature, thus disposing of the urban problem altogether. We get all the healthy, domestic bliss and dispose of the 'necessary evil' of human aggregation in over-crowded industrial centers.

But London's suburban modernity also rearranges the relationship between humans, machines, and organism. In other words, it performs a biopolitical redistribution of life in the realm of value and utility. In the figure of Dick, technological man becomes evolutionary law, organic reproduction now fused with human production. Dick, then, embodies the material unity of Haeckel's monistic universe, as it reveals itself under the conditions of the machine age.[14]

[14] See Harpham for another account of the relationship between London's evolutionism and his socialist politics. In Harpham's reading, London's "superman socialism" relies on a "survival of the fittest" mentality (26).

Throughout the novel, London depicts his technoscientific god in the terms of primitive fecundity, a kind of originary generative force. His ranch a land of generous fertility, Dick himself assumes "fecundity" as a kind of motto, singing the word in greeting as he meets Graham—Dick's best friend and competitor for his wife, Paula's affection—on a ride with Mountain Lad, the prize stallion who sires the colts bred on Dick's ranch (228). The horse, who Dick also calls "Eros" in apparent reference to its fertility, serves as a sort of totem for Dick: As Dick rides Mountain Lad through the valley, he assumes the stallion's voice in a chant that begins, "Hear me! I am Eros" (228). In another variation of the fertility image, Dick takes on the persona of "Red Cloud," a "primitive" Native American alter ego preoccupied with planting acorns that "come down from heaven," motivated by no other reason than the "savage joy of planting" (86). In these guises, Dick—either as beast or "savage"—merges with organic force, life's will to reproduce itself.

The key to Dick's fertility is in his technocratic genius, his facility in scientific management. Having no real specialty of his own, he is a master of specialization itself; his expertise lies in "buying brains" and fitting them to the tasks most appropriate for increasing the productive output of the ranch (76). In this regard, he is the principle of the division of labor itself, coordinating labor power like Spencer's thermodynamic evolution. Dick's biopolitical facility in maximizing the productive output of labor becomes a truly reproductive force when applied to the flora and fauna on his farm. Dick is an expert animal breeder current in the latest genetic theory, and his ranch is populated by animals of his own design—cattle, horses, goats, and sheep all bred "according to the rigorous selection he commanded" (14). As Graham puts it, Dick is a "life-maker"— "thumbing the stuff into new forms of utility and beauty" (232). The

ranch, an Edenic paradise, is thus first of all "the fair land of his devising" (358). Dick, then, is the fecund scientist-god of machine-age biopower: He puts to work agricultural science to form animals at will, his Eden of creation at the same time a factory producing organic wares tailored towards the demands of the market.

If Dick is Johnny, all grown up, he is also an idealized Jack London, who never managed to turn a profit on his own Beauty Ranch. Jack did, however, share not only Dick's passion for agricultural science and husbandry, but also his biopolitical hubris. In a 1913 letter, London drew on his own practice as a "life-maker" in refuting the anti-evolutionist arguments of a disgruntled reader: "I breed too many horses, cows, pigs, sheep and goats, on my ranch here, to accept for a moment your baseless assertion that evolution is wrong" (*Letters* 1203). London relies here on a basic strategy of the evolutionist's playbook; Darwin himself drew on plant breeding and animal husbandry in *On the Origin of Species* (1859) for evidence in support of natural selection. But, in London's treatment, this line of argument takes a narcissistic turn. The author finds in his own endeavor to shape life on Beauty Ranch a most compelling example of evolutionary law in action. In other words, he believes in evolutionary law, because he *is* evolutionary law.

But Dick, in all his technocratic godliness, has another, more surprising form of kinship with the "twisted and stunted" machine-ape Johnny: He, too, has a "machine consciousness" (*When God Laughs* 67, 57). Dick's genius, according to his wife, is in being "so balanced and normal that he hasn't the slightest particle of genius in him." He thinks in "statistics and percentages, averages and exceptions" and "never does anything without knowing precisely, to the last microscopic detail, what it is he is doing" (292, 234). Dick's exceptionality resides, then, in perfectly smooth and efficient functioning: He enjoys not only a superhuman precision in

acting, but also a computer cognition that makes thoughts as mathematical formulas. The life of technocratic management has rendered Dick's mind a mechanistic reflection of industrialization, breathing its spirit into the fair land of his devising. In this regard, Dick joins Johnny as a new species of automaton-gorilla. He too is a reproductive product of machine culture, even as he wields industrial technologies to become a reproductive force himself. [15]

Even Dick's famous organic "fecundity" turns out to be a sham. The novel's most obvious irony is in the reproductive sterility of its central marriage. Paula cannot bear children and, in any case, kills herself at novel's end to 'solve' the triangle that has emerged out of her love for both Graham and her husband (372). The life-making technocrat has made a reproductively unviable match, one constituting an evolutionary dead-end. He is thus only a stallion by being a machine, carrying his powers of fecundity in his technological know-how, the transformation of natural forms into new machine life. What is really being reproduced on this machine age ranch, then, is the machine age itself: The life of the skilled worker, whether technocratic Dick or laboring Johnny, is managed and molded into the relevant kind of part in the biopolitical regime of industrial capital. The machine age, it turns out, does not just make degenerate organisms out of those born into its worst conditions, but shapes all of life—human and animal, laborer and master of capital—into the new forms requisite for industrial production.

[15] Cain suggests that London, *qua* best-selling author, himself shared in this "machine consciousness." Cain argues that "the more London triumphed in the literary marketplace, the more he routinized and rushed his work, like an assembly line operative forced to function at ever-higher speeds. His extremely uneven output demonstrates the mechanization of labor and technique, and the attendant mechanization of consciousness and loss of concern for quality, that Thomas Carlyle, John Ruskin, Charles Dickens, Henry Thoreau, Herman Melville, and, of course, Karl Marx and Friedrich Engels, described in their powerful indictments of the accelerating capitalist system in the nineteenth century" (612).

By the end of *Little Lady*, London's remark in "The Apostate" about the temporality of factory labor sounds also like a lament about human evolution in the machine age: "Time did not march. It stood always still. It was only the whirling machines that moved, and they moved nowhere—in spite of the fact that they moved faster" (55). In the machine age of London's fiction, humans no longer get anywhere evolutionarily, we might say. They are instead stuck in the time of machines, the reproduction of technological means without apparent end.

* * *

London's sense that industrial habits of thought in themselves produced the human as evolutionarily sterile worked against his era's faith in the figure of the technocrat and engineer, whose scientific efficiency and productivity were taken to be central to American progress.[16] Such faith received an evolutionist framing in the writings of social theorists like Lester Ward and Thorstein Veblen, as well as in Edward Bellamy's popular 1888 utopia, *Looking Backward: 2000-1887.* Far less optimistic than Spencer that a perfect human society would emerge as a matter of evolutionary course, these writers though it could be won through the thorough industrialization of American minds and socioeconomic policies. Ward envisioned the golden evolutionary future of American democracy as essentially a technocratic one, an educated populace choosing for its representatives "scientific legislators" who would write national policy based on the findings of "true scientific sociologists and sociological inventors" (*Applied Sociology* 339). Government would thus be elevated to an "applied science, or the simple application of the scientific principles of social phenomena" (*Dynamic Sociology* 2: 249).

[16] See Chapter 3 ("The Engineer") of Tichi.

For his part, Veblen, writing in *The Theory of the Leisure Class*, saw late nineteenth-century "pecuniary culture" as a redirection of the archaic evolutionary energies of the predatory, warlike barbarian into modern civilization.[17] Such "archaic traits" impeded social evolution by keeping truly modern men from assuming the leadership role proper to them, insofar as "the material welfare of all the advanced industrial people rests in [their] hands" (*Engineers and the Price System* 136). These were the engineers, technicians, scientists, and industrial workers whose habits of mind were those of the machine process, and indeed of evolution itself (*Theory of Business Enterprise* 308, 370). They thought and comported themselves in terms of quantifiable precision, physical causation, efficiency, economy, and service.

In *Looking Backward*, Bellamy combines a Spencerian vision of turn-of-the-century American industrialism as naturally on the evolutionary track to utopia with Ward and Veblen's conviction that a more perfect society would take on the worldview of industrialism for its ethos. Like Veblen, Bellamy was concerned with the growing dominance in America of a suspect capitalist elite, but his utopian novel envisions the nation's budding plutocracy of industrial magnates as one step towards the national consolidation of all industry in socialism. The citizens of Bellamy's socialist America of the year 2000 are organized into an industrial army of workers and governed by a technocratic government almost exclusively concerned with the management of industry. The achievement of this truly socialist state—all production nationally owned, all goods distributed equally to citizens—is supposed to have emerged in a peaceful and orderly fashion, the great industrial conglomerates of the late nineteenth century having been recognized

[17] Veblen notes, for instance that the "institution of a leisure class acts to conserve, and even to rehabilitate, that archaic type of human nature and those elements of the archaic culture which the industrial evolution of society in its later stages acts to eliminate" (*Leisure Class* 331).

as only a necessary link, "a transition phase, in the evolution of the true industrial system" (79). The emergence of the nationalized industrial order is described in all the terms of evolutionary inevitability— "the result of a process of industrial evolution which could not have terminated otherwise," so that all "society had to do was to recognize and cooperate with that evolution, when its tendency had become unmistakable" (67).

A work like *Looking Backwards* makes a clear division between the technocratic industrial means and worldview by which utopia is achieved and the kinds of humans that such a social formation produces: While Bellamy's America is unified primarily by an ethos of efficient industrial productivity, we are meant to believe that the age has also achieved unprecedented heights of artistic and intellectual production, as well as moral worthiness. The evolutionary fulfillment of the industrial process is accompanied by an incredible surge in human development: Humanity has "entered on a new phase of spiritual development, an evolution of higher faculties, the very existence of which in human nature our ancestors scarcely suspected" (410). The nation, geared as it is towards economic efficiency, nevertheless privileges the worlds of truth, good, and beauty that, at least in principle, find their value outside of the cycles of production and consumption.

Or so Dr. Leete, our guide to America 2000 tells us. As critics have pointed out, what in fact Bellamy *shows* us is a world marked by its technological novelties, and most obviously its ingenuity in producing and consuming; its most marked features are innovations in shopping (notably, the credit card) and eating (communal dining houses of the highest quality).[18] Despite

[18] See, for instance, Peyser (*Utopia and Cosmopolis*).

the lip service paid to truth and beauty, Bellamy's world is populated by humans whose interests and values, like those of Dick Forrest in *Little Lady*, are shaped by the technocratic industrial order that structures their society. However, London's work asks much more consciously than *Looking Backward* after the extent to which the technological mastery that seemed to many evolutionists as the key to human evolutionary progress—and indeed, evolutionary utopia—in the modern age could be trusted not to transform human nature itself in unanticipated and unwelcome ways. While Dick is a highly productive mechanistic reflection of the machine age, an agricultural engineer after Veblen or Ward's own heart, his human sterility suggests that our evolutionary dominance in shaping the natural world may in fact work on our nature in such a way that it is after all not 'we' anymore, who are in control.

Materialistic Monism, at Last

There is, of course, a much simpler explanation for why the "whirling machines" in Johnny's jute mill "move nowhere," one that has no real bearing on human evolution. In short, they are machines—inert matter. London's materialistic monism, as he described it to Cloudesley Johns, suggests that *no* matter goes anywhere: It is all "chemical ferment," all the way down. In this regard, there seems to be very little evolving at work in London's version of Haeckel's evolutionism. Even the techno-optimistic Dick Forrest seems at moments to affirm a vision of living matter as stuck in the eternal 'yeastiness' that Wolf Larsen of *The Sea-Wolf* attributed to it. In an offhand remark on sex instinct, Dick notes that "industrial systems come, and industrial systems go, while biology runs on forever" (21). Though London's fiction is replete with comments about man's "mastery over matter," his materialistic monism is itself a

kind of anarchic force that runs through his narratives: Like biology itself, it stands ready to dismantle human systems, or at least outlive them.

This, in fact, is what happens in London's dystopian novel, *The Scarlet Plague.* Set in a post-apocalyptic San Francisco of 2073, *The Scarlet Plague* is told from the perspective of an elderly man who lived through the near annihilation of the human species by mass epidemic sixty years prior. At the onset of the epidemic, the rapid proliferation of deadly microorganisms results first of all in widespread human mortality. Once the colonizing microorganisms kill off nearly the whole human population, the world reverts to a chaotic wildness of teeming life, proliferating without direction or principle, no scientific management in sight. The few survivors of the catastrophe and their spawn now make a living as primitive hunter-gatherers. What had been railroad tracks—perhaps ones that led to the suburbs—have been swallowed by encroaching forest, becoming "no more than a wild-animal runway" (11). London's unnamed narrator looks back at the time when humans were technological masters of matter, lamenting, "we, who mastered the planet—its earth, and sea, and sky—and who were as very gods, now live in primitive savagery" (171). Not only their reduced existence, but especially the garbled, monosyllabic speech of the survivors marks their shift from techno-gods to animals: London notes that post-apocalyptic talk is "more a gibberish than a language" (40).

With the collapse of the Anthropocene, we also see a reversal of the dog to the wolf, suggesting that the canine vision of human technological godliness, as we found it in *White Fang*, had always been a precarious one. The wolf recurs throughout London's fiction as a testament to the fragility of the human-nature contract, and indeed the fragility of even the most basic of human systems—the integral body. In the opening vignette of *White Fang*, a group of

embattled adventurers in the Yukon find themselves hunted by a pack of hungry wolves. Aware of his proximity to death, our narrator discovers "an appreciation of his own body which he had never felt before." He marvels at his "moving muscles" and the "cunning mechanism of his fingers," suddenly appreciative of his own impressive biological system. But it takes a single glance at "the wolf-circle drawn expectantly about him" for our narrator to be struck "like a blow" with the realization that "this wonderful body of his" was in fact "no more than so much meat" (37). In the post-apocalyptic moment of *The Scarlet Plague*, all domestic animals rapidly begin "going wild and preying on one another," but our narrator particularly notes the quick species reversion of dogs to wolfish pack formations that stalk the post-apocalyptic environment (135). Indeed, the wolf appears as a key evolutionary beneficiary in the newly primordial world: The narrator laments that his "savage progeny" now wield "prehistoric weapons" to defend themselves against "fanged despoilers," the wolves that have taken command of San Francisco (34).

If wolves come on the post-apocalyptic scene to mark the reduced status of humans as fleshy life, the real evolutionary winner is bacteria—the microorganic regime that took down the machine age and is certain to kill off future ones. In an echo of Dick's offhand remark in *Little Lady*, the narrator of *Scarlet Plague* makes repeated allusion throughout the novel to a line of poetry by George Sterling, a close friend of London himself—"the fleeting systems lapse like foam" (33).[19] All "man's toil" has been like so much foam, easily rolled back by the "armies of germs" that multiplied far too quickly for humans to invent a proper defense (65). London

[19] Specifically, the reference is to a line from Sterling's 1903 poem, "The Testimony of the Suns."

describes these microorganic armies as "abysmally fecund" insofar as "it might be there that life originated" (66). Bacteria thus emerges as the root generative power of the natural world in London's science fiction, a bottomless and awful force that is both the ground of all life, but also the seed of its destruction. In its quick defeat of technoscientific modernity, it puts to shame the controlled fecundity of machine-age biopower. This resistance to industrial systems, in fact, is its evolutionary strength. In his 1916 essay, "The Human Drift," London described the germ as joining human tribes as a potent evolutionary competitor for resources, a "hunger-quest for food." Inconceivably vast in number, microorganisms cannot be captured by any census. Miniscule in size, "our powerful microscopes and ultramicroscopes, enlarging diameters twenty thousand times" detect only "the slightest glimpses of that profundity of infinitesimal life" (*Human Drift* 21). Likewise, the narrator of *The Scarlet Plague* reports that, despite some scientific progress by bacteriologists, the microorganic world, as a whole, remained "a mystery to the end," a potent evolutionary killer invisible to technological man, in all his mastery over matter (65).

What's more, this story is bound to repeat itself *ad infinitum*: Our narrator sees the human world as now in a process of repopulation and primitive cultural growth. The slow coming of a "new civilization, in some remote day" is in fact an inevitability (78). But social evolution necessarily involves population density and concentration—the consolidation of the social organism, the development of the "great cities and civilizations" that industry requires (62). Human progress, then, also generates favorable conditions for the proliferation of deadly microorganisms and the easy transmission of infections. If London's materialistic monism posits and evolutionary trajectory for human being, it is ultimately a circular one, a kind of eternal

recurrence of man, the "yeasty something" (*Sea-Wolf* 68). Fire-man will always emerge from the primeval slime, build up his industrial systems, and once again be pushed back into the chemical ferment by the mighty microorganism.

CHAPTER TWO

Charlotte Perkins Gilman's Fungal Female Animal: Evolution, Efficiency, and The Reproductive Body

The conclusion of Charlotte Perkins Gilman's *Herland* (1915) finds our narrator, Vandyck Jennings, perfectly content, if it were not for one nagging frustration. He cannot persuade his new Herlander wife to have sex with him. Ellador strikes down Van's plea on the grounds that sex without "parentage" seems contrary to nature: "None of the creatures we know do that. Do other animals—in your country?" (138). This utopian woman's conviction that humans should fall in line with other animals is rather puzzling. Herland, after all, is a remarkably cerebral nation, especially when it comes to motherhood. Its women reproduce asexually, and conception for them is essentially a mental trick. What possible standard of animality could they be interested in maintaining? The novel, as a whole, may leave us wondering: Are Gilman's Herlanders perfect animals or have they perfectly transcended the life of the body? Does utopia entail a return to nature or nature's obliteration?

Such questions about the status of animality and organic life in Gilman's work are not peculiar to *Herland*. Rather, they echo across the author's lifelong effort to delineate the modern woman for an America that was itself just emerging as a modern nation-state. And just as in *Herland,* the striking relays of idealizing and repulsing the organic that mark Gilman's vast corpus gravitate towards woman's reproductive function. Making sense of Gilman's ambivalence about nature, I argue, begins with unpacking the specifically modern way that her feminism was also a *naturalism*. Gilman's vision of female nature was largely grounded in two

key discourses of America's scientific and technological modernity: evolutionary theory and the efficiency movement that supplied the rapidly industrializing nation with its technocratic ethos. By merging these discourses, Gilman draws on and in fact expands the idea of animality to encompass a wide range of living matter. Taken as a whole, her body of work might inspire animal studies scholars invested in tracking the 'animal to rethink their central object of study as the 'organism.'

A committed evolutionist, Gilman insisted that modern woman reclaim the full meaning of her oldest, supposedly most distinct biological capacity—her role in sexual reproduction.[1] But reproduction also threatened to mire women in their own helpless fecundity, a 'fungal' femininity that I find crucially at issue in Gilman's most celebrated piece of fiction, her 1892 story, "The Yellow Wall-paper." In my reading of this well-known story, the fungus in the wallpaper sheds light on Gilman's evolutionist concerns about female-animal embodiment. I thus demonstrate how a shift to 'organism studies' might reveal patterns in Gilman's work that are missed by both a humanist and an animal studies perspective. Gilman's later utopian fiction relies on efficiency discourse—best remembered today as "Taylorism"—to manage the specter of life's fecundity raised by her own evolutionary feminism and made manifest in the wallpaper.[2]

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[1] Gilman's confidence in the importance of evolutionary theory for feminism persisted throughout her long career. In her 1935 autobiography, she notes that "the development of the Theory of Evolution alone was enough to give glory to this age; practically the entire range of the Woman's Movement was within it" (*The Living of Charlotte Perkins Gilman* 234).

[2] "Taylorism" generally refers to F.W. Taylor's plan for industrial efficiency, most famously articulated in his *The Principles of Scientific Management*. For a history of the efficiency movement in the Progressive Era, see Haber. See Banta for an analysis of the important role that Taylor's efficiency theories played in shaping modern American intellectual life and narrative strategies. See pp. 75-96 of Tichi for an overview of efficiency discourse in various spheres of nineteenth- and twentieth-century American culture.

The utopian nations that Gilman envisions in *Herland* and *Moving the Mountain* (1911) are themselves 'fungal' in their sweeping collectivity, but these social organisms are also fully *rationalized* ones. The future women that govern them subdue nature's unruly power through a meticulous application of efficiency principles. Gilman's women regulate, to an unprecedented degree, the production of human bodies and the shape of the natural world in a never-ending quest to maximize efficiency.[3]

Gilman's utopian fictions betray the author's unease over female embodiment in their quietly violent strategies of controlling nonhuman animals and organic life more generally. If Gilman's goal was in part to secure a fully *human* status for (white) American women,[4] she required a kind of nonhuman sacrifice to do it—evolutionary framework notwithstanding. Her work thus corroborates—but also complicates—the model of Western humanism that Cary Wolfe and other posthumanist critics have articulated so powerfully in recent years. In brief, Wolfe argues that delineating the human has always required a strident disavowal of nonhuman

[3] Gilman's vision of utopia in both *Herland* and *Moving the Mountain* draws on her well-known eugenics views. My discussion of these utopias incorporates their eugenics features, but, as a whole, I treat Gilman's eugenics politics rather indirectly. This is a matter of emphasis: I approach eugenics in Gilman's utopian fiction as one part of a larger strategy of regulating and more generally disavowing organic life, both in and out of the human body. In consequence, eugenics does not function as a guiding framework here, though I certainly acknowledge its overall significance for Gilman's feminism. It is also worth nothing that the eugenics movement relied ideologically on two contemporary discourses that are central to my argument: evolution and, to a lesser extent, efficiency. For readings that link Gilman's eugenics politics to her evolutionist commitments, see Davis ("His and Herland"), Ganobcsik-William, and Hausman. For a recent analysis that links Gilman's eugenics politics to the efficiency movement, see Chapter 4 of Fusco. For more on the centrality of eugenics (and racism) to Gilman's feminism, see Seitler and Weinbaum.

[4] Susan Lanser's much-cited 1989 article, "Feminist Criticism, 'The Yellow Wallpaper,' and the Politics of Color in America" was instrumental in bringing critical attention to the racist politics at work.

life—at least in a Western tradition governed by the central "anthropological dogma" of humanism. This dogma entails that "the human" is achieved "by escaping or repressing not just its animal origins in nature, the biological, and the evolutionary, but more generally by transcending the bonds of materiality and embodiment altogether" (*What is Posthumanism?* xiv-v).

If, as Wolfe claims, the "human" is a "fantasy figure" constructed in the long age of humanism through a collective denial of animal embodiment, then Gilman's work points to the parallel construction, in the age of evolution, of the highly politicized fantasy figures of both the 'animal' and 'organism.'[5] Gilman builds her own *feminist* animal abstraction from the many instances of gender parity that she locates in the natural world; but the author's theoretical animal is equally grounded in her notion of the original organism, a mythical life form at the beginning of evolutionary history. In Gilman's conceptual universe, abstract avowal of the 'animal' replaces the straightforward humanist disavowal of animality theorized by Wolfe. However, in reading Gilman against fellow interpreters of evolution, I also locate a distinctly naturalist mode of producing the "fantasies of disembodiment and autonomy" and repressions of "the 'animal' and the animalistic" that, according to Wolfe, have long been central to Western self-definition (*Animal Rites* 43). Drawing on the work of philosopher Cora Diamond, in particular, I analyze the period's disavowals of organic life as to some extent reflecting general

[5] In general, this dissertation focuses exclusively on representations and theories of animals, human animality, and organic life. See Mason for a powerful demonstration of the cultural and political importance that actual animals and human-animal encounters had in shaping modern American culture.

human(ist) anxieties about our embodied species condition—the finite, vulnerable form of life that humans share with nonhuman organisms.

Its attention to vulnerable embodiment makes critical animal studies a useful frame for examining why the work of an evolutionist author committed to analyzing the human as animal would consistently repulse organic life. But Gilman's feminist naturalism also challenges critics like Wolfe to probe the conceptual ambiguities and historical nuances embedded in their key terms –'animal' and 'human.' A variety of organic life forms weave into Gilman's theory of modern woman, contribution to a vision of the 'animal' and human animality that exceeds the meanings we typically associate with these terms. An organism studies approach allows us to recognize the author's feminist writings as producing a theory of living matter that destabilizes the very notion of distinct boundaries between life forms.[6]

Gilman's case likewise pushes studies of the nonhuman towards a more historically rigorous understanding of the other term in the traditional human-animal binary—the 'human.' In the highly abstract picture of Western humanism sketched by Wolfe and others, this remains a largely unmarked category. But Gilman was no straightforward representative of Western humanism or even a straightforward human. She was, much more specifically, an early American feminist absorbed in modern culture's technophilic scientism—what T.J. Jackson Lears has called its "cult of science and technical rationality" (*No Place of Grace* 4). Most directly, this chapter takes up Lundblad's suggestion that considering female and non-white writers may yield conceptions of animality outside of the Darwinist-Freudian "jungle discourse" that he identifies as emerging during the Progressive Era. Indeed, Gilman's evolutionist

[6] For more on Gilman and vitalism, see Chapter 3 of Liebermann.

feminism relies on a technocratic discourse of organic life that would have nothing to do with jungles—would in fact transform all of nature's jungles into the gardens of Herland.[7]

Like Lundblad, I follow Seitler's insistence in *Atavistic Tendencies* that "emergent theories of human being" importantly shaped modern political and social life at the American turn of the century (5). This chapter considers efficiency, feminism, and evolution as an interweaving constellation of such theories and one that crucially informed key features of American modernity.[8] A wildly prolific author of theory and fiction, Gilman is generally recognized as the leading feminist writer of her turn-of-the-century American moment. Her work thus suggests that uncertainty about the meaning of female embodiment permeates the discursive origins of the modern woman in America. But Gilman's writings also offer a unique vantage point for examining the impact of early feminist theory on American culture's relationship to nonhuman nature in the twentieth century and beyond. The discursive relays between efficiency, evolution, and feminism in Gilman's writings line up in a shared biopolitical function—here, the political regulation of not only human, but also animal and plant life. In particular, the author's naturalist feminism works towards a technocratic politics that encounters the nonhuman first and foremost as *resource*. Gilman's writing thus suggest that technoscientific modernity not only helped shape the coming American woman. Modern woman, as she was imagined by feminist

[7] In fact, Lundblad highlights *Herland* as a key text of the period that does not engage his jungle framework, with its emphasis on reproductive heterosexuality and violence in the name of survival. Both of these features of animality are absent from Gilman's utopia.

[8] By including efficiency here, I follow scholars like Banta, Seltzer, and Tichi, who have all made persuasive arguments for Taylor's importance to the development of modern American culture.

writers like Gilman, also participated in the technoscientific modernization of nature's nonhuman bodies.[9]

Fungal Femininity in "The Yellow Wall-paper"

As a writer of feminist theory, Gilman would eventually come to argue that woman's reproductive capacity constitutes a major evolutionary ground for female empowerment. But reproduction first appeared in her fiction as the taint that would mire women in an irrational and overwhelming bodily life. I read "The Yellow Wall-paper" as a literary treatment of one available theory of woman's proper evolutionary role that Gilman found particularly loathsome. This was the idea—articulated most memorably for Gilman by fellow evolutionist Grant Allen—that women were not in fact proper members of the human race, but rather "a sub-species told off for purposes of reproduction" (*Man-Made World* 200).[10]

Many of the earliest and best known interpretations of "The Yellow Wall-paper" center on discourse: Gilman's story, in these readings, hinges on the development of feminist knowledge or a language adequate to women's experience.[11] Among those critics who share my

[9] In considering how specifically feminist concerns shaped American modernity's relationship to the nonhuman world, I share Rita Felski's interest in reinterpreting the modern "through the lens of feminist theory." In *The Gender of Modernity,* Felski argues that male experience is typically taken as "paradigmatic" in studies of modernity and challenges us to consider what difference it would make if "feminine phenomena, often seen as having a secondary or marginal status, were [instead] given a central importance in the analysis of the culture of modernity" (10).

[10] Allen first made this claim in an 1889 *Forum* article, "Women's Place in Nature." In *Women and Economics*, Gilman suggests that Allen's remark represents "the general view" on the subject of women (172).

[11] For well-known examples of the discursive approach, see Golden ("The Writing"), Fetterley, Gilbert and Gubar (*Madwoman in the Attic*), Hedges, Kennard, Kolodny, and Treichler. Psychoanalytic readings have taken the lead in analyzing the story in terms of female

own focus on female *embodiment*, very few have understood "The Yellow Wall-paper" as directly engaging the contemporary evolutionary views of woman's nature that so preoccupied Gilman.[12] And yet, a striking detail of the maddening wallpaper suggests that the story is quite centrally concerned with female reproduction: It looks to our narrator like endlessly reproducing fungus. [13] The "florid arabesque" of the wallpaper's outside pattern," reminiscent of "waddling fungus growths," is like "a toadstool in joints, an interminable string of toadstools, budding and sprouting in endless convolutions" (647-656, 653-5). This fungal imagery is central to Gilman's most famous work, and it can best be understood from an organism studies perspective—one that considers a broad range of life forms in detailing a text's engagement with human animality.

Given that "The Yellow Wall-paper" centers on the nervous breakdown of a new mother, it is significant indeed that fungus's mode of being, as suggested by its constant multiplication in the wallpaper, consists of nothing but biological reproduction, the essential process of sheer life.

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reproductive embodiment. See Berman, DeKoven, Jacobus, and Veeder. Gilbert and Gubar ("'Fecundate! Discriminate!'") also approach the story in terms of motherhood, without the psychoanalytic framework.

[12] Fleissner and especially Seitler do analyze the story in terms of the post-Darwinist theory of atavism. Drawing on Gilman's 1903 polemic, *The Home*, Fleissner reads the eponymous wallpaper as standing in for the "fundamentally unmasterable" domestic realm, which represents "all that Gilman finds atavistic in modern life" (75, 81). Seitler approaches Gilman's story as a tale of degeneration in which "an individual, burdened with the traumas of patriarchal modernity … reverts back to some earlier, lower form of humanity" (184). Such atavistic degeneration is the fate of contemporary women bound by oppressive family structures. My own analysis is particularly indebted to Seitler, though I want to specify that the story's representation of "trauma" relates to woman's reduction, in patriarchal modernity, to a sheer reproductive body. I also depart from Seitler's reading insofar as I take Gilman to generally advocate for a *return* to female animality, while rejecting contemporary versions of what female animality might look like.

[13] Berman, DeKoven, and Veeder all briefly touch on the story's fungal imagery.

Such life is repugnant to the human: Fungus, despite its crucial role in maintaining healthy ecosystems, is most commonly demonized as parasite or pathogen, a toxic organism that attacks the human body.[14] Indeed, at the time that Gilman wrote the story, enthusiasts of the new home economics movement were urging women to take down their wallpaper, which they considered to be a breeding ground for the deadly microbes—like fungus—that had recently been described by the germ theory of disease. Species of fungi, and in particular mold and yeast, were among the sinister forms of invisible life that turn-of-the-century women were increasingly encouraged to battle.[15] Gilman's protagonist recognizes the fungal wallpaper's noxious quality when she notes that its color is reminiscent of "old foul, bad yellow things" (654).[16] Her phrasing here evokes images of putrid, rotting life—life overwhelmed by fungus.

If the "outer pattern" of the wallpaper is fungal, then this must change our reading of what it means for there to be a woman stuck behind it, constituting a "dim sub-pattern" in the narrator's perception of the enigmatic design (653). Sometimes the narrator imagines a "great many women" behind it, and "sometimes only one," thus marking the wallpaper-women as

[14] Both Lunden and Sutten-Ramspeck read the wallpaper as quite literally toxic, focusing in particular on the use of arsenical dye in wallpaper of the period.

[15] Gilman would have been very much aware of fungus's toxic qualities, having come of age in a nation that had recently become "extraordinarily germ conscious," as Nancy Tomes put it in *The Gospel of Germs* (13). Between 1880 and 1920, Americans were subject to an "aggressive public health campaign" that educated them about the invisible toxicity of their everyday environments (6). See especially Chapter 6 of Tomes for the development of home economics during this time in conjunction with efforts to educate women about protecting their homes from bacteria and fungus (i.e. mold and yeast). See Conn for what, according to Tomes, was a "standard text used in early home economics courses" (142).

[16] Lanser uses the wallpaper's "old foul, bad" yellow color as the basis for her persuasive argument that "anxieties about race, class, and ethnicity" constitute the story's "political unconscious" (428).

simultaneously individual and generic (654). This, then, is a world of women trapped by uncontrollable—"interminable"—toxic reproduction (653). As Seitler points out in her reading of the story, the wall-paper women, so trapped, seem to be evolving into nonhuman life: They are seen "stooping down and creeping about behind that pattern," as if relinquishing a vertical human posture in favor of an animal form (652). Not quite human, they are indeed some kind of "sub-species told off for purposes of reproduction."

By the end of the "The Yellow Wall-paper," the narrator has fully identified with the creeping, animal-like women, herself crawling along the floor, wondering if they, like her, have all come out of the wallpaper. She is no longer "Jane," the narrator's presumed name, as she now claims to have gotten out *in spite of* Jane and Jane's physician husband (656). But if she is not the 'good wife' passively accepting an infantilizing "rest cure," [17] this does not mean that she has somehow managed to escape her constricting fate as reproductive body. Our narrator is fully reduced to her female animality in the moment she is made fungal, as I am understanding fungus here. She is now an anonymous, wriggling, female body that multiplies into countless bodies—sheer reproductive life. The narrator's ultimate identification with the fungal paper-women indicates that she has succumbed to her entrapment in biological reproduction, rather than evaded it. Tearing off most of the wallpaper, as she does by the end of the tale, becomes insignificant as the liberating or even simply rebellious act we might take it to be. The wallpaper's symbolic force, its fungal quality, has merely been transferred to her body.

[17] Silas Weir Mitchell's now infamous rest cure mandated extended bed rest for nervous women. In "Why I Wrote The Yellow Wallpaper?" Gilman suggests that she wrote the story partially to show Mitchell the error of his method. For analyses of Gilman's story that focus on the cure, see Herndl and Poirier.

The Modern Woman as "Original" Animal

As in "The Yellow Wall-paper," Gilman's theoretical writings suggest the author's concern with a 'fungal' picture of woman's biological destiny. Indeed, Gilman seems to have found some truth in the vision of women as "sub-human reproducers" that she generally attributed to Grant Allen. That is, she took Allen to be largely right about the state of womanhood at the turn of the century, while adamantly resisting his analysis that this condition constituted the natural order of things. Indeed, the portrait of late nineteenth-century women that emerges in Gilman's best-known theoretical work, *Women and Economics* (1898), bears an important resemblance to the fungal wallpaper-woman of "The Yellow-Wallpaper." Women, having been denied the "education of the will which only comes by freedom and power," are driven by "rudimentary forces of instinct" that run mainly along maternal lines (195). America's animalistic women bring only "the intense accumulated force of a brute instinct, the blind devoted passion of the mother for the child" to bear on their maternal duties (196). Collectively, they form an "endless succession of untrained mothers" (195). Like the women pouring out of the yellow wallpaper, Gilman's contemporaries merge in ceaseless repetition to reproduce blindly, uncontrollably—like fungus.

Gilman's focus on "brute instinct" as the principle guiding nineteenth-century women would suggest that she found them too animalistic, not quite 'human' enough. It turns out, however, that in an important sense they are insufficiently 'animal.' In *Women and Economics*, Gilman argues that every female animal is both sex-type—performing the reproductive and mothering tasks appropriate to her kind—and species-type—performing, with the male, the nutritive and defensive tasks that they share in common. In all species, "male and female alike

graze and browse, hunt and climb, swim, dig, run, and fly for their livings" (18). It is a highly unnatural state of affairs that reduces the human female to her reproductive sex function and denies her the use of her species function—every human task beyond that of mothering.[18] Consequently, "man is the human creature," according to Gilman; woman is "checked, starved, aborted, in human growth" and thus fails to realize her species identity (75). She becomes a "sub-species told off for purposes of reproduction," as Allen would have it, though this constitutes a rather monstrous distortion of nature and not its fulfillment.[19]

For Gilman, the solution to the problem of women followed quite logically: If woman is unnatural, she must turn to nature to determine what role follows from the sex she shares with other female life forms. To ascertain this role, Gilman looked beyond the nonhuman animals that were her main point of comparison in *Women and Economics*. In taking an organism studies perspective on Gilman's evolutionist feminism, we see that her human 'animal' in fact draws its full polemic force from a broad constellation of life forms. Over the course of her writings, Gilman would come to locate woman's biological destiny in the thread of motherhood that runs through *all* "female" life, whether mammal or plant. It turns out, in fact, that the human animal

[18] Here, I am essentially in agreement with Golden, who notes that Gilman's "favorite trope of comparing gender dynamics between humans and animals" is intended to lend "universal validity" to her feminist arguments, suggesting "their conformity with 'nature'" ("'Written to Drive Nails With'" 246). This chapter, however, is primarily interested in Gilman's specific ideas about human animality, rather than her rhetorical use of animals in the service of feminist advocacy.

[19] Gilman made a similar point in her early poem, "A Brood Mare," included in the collection *In this Our World.* The poem's speaker recounts with chagrin a man who would sell him or her a weak, overweight, and lame mare—one reserved for the sole purpose of reproduction. Who would want to buy such a horse or trust its capacity to spawn healthy colts? See also "Female" for a poem in the same collection illustrating Gilman's point that woman, like every other animal, ought to function both as sex-type and race-type.

is, at bottom, a microorganism. As Gilman herself often noted, this unusual approach to feminist advocacy was inspired by the prominent sociologist Lester Ward's "Gynaecocentric Theory of Life."[20] Essentially, Ward maintained that the female sex is the original form of life, once capable of asexual reproduction, while the male sex is a later addition, introduced as an assistant to the original organism for purposes of fertilization. Molding Ward's ideas to fit a feminist political agenda, Gilman argued in *The Man-Made World or Our Androcentric Culture* (1914), that woman is "the race-type, and the man is the sex-type" of every species (and not vice-versa). As race-type, the female "best performs the race processes"—generally, the management of government and industry. Truly satisfying the dictates of nature would mean restructuring domestic and presumably global politics as a kind of modern matriarchy. In so doing, as Gilman notes in a 1910 *Forerunner* piece, "all our dark and tangled problems of unhappiness, sin and disease, as between men and women, are cleared at once" ("Comment and Review" 26-7, 26).[21]

Biopolitics in *Herland*

Though her theoretical writings refer occasionally to specific animals, Gilman does not analyze actual behavioral patterns or social organizations across species to support her claim for

[20] Ward first published his theory in an 1888 *Forum* piece, "Our Better Halves." Grant Allen's "Women's Place in Nature" was a direct response to Ward. For more on Gilman's relationship with and attitudes towards Ward, see Allen ("'The Overthrow'") and Davis ("His and Herland").

[21] See Blackwell and Gamble for other attempts by turn-of-the-century American women to base an argument for women's equality (Blackwell) or superiority (Gamble) on evolutionary science. See Reed for a late-twentieth-century effort. See Deutscher for more on Blackwell and Gamble's evolutionary feminism and a brief comparison with Gilman.

an underlying gynaecocentric essence to life.[22] She appeals instead to an indefinite and rather specious original life form, a kind of microorganic proto-female that marks all subsequent females as nature's chosen species leaders. Gilman's ur-organism seems to partake more in the spirit of myth than that of science. At the same time, the basic premises of evolutionary theory to some extent encourage such origin stories. The evolution of one species or class of life into another undermines the idea of strict ruptures between life forms and suggests a line of descent connecting the earliest 'animals' to the most recent. Such continuity may well read as an invitation to find a norm for all life in the behavior of nature's first organisms.

Issues of scientific mandate aside, Ward's original organism enabled Gilman to erect a theory of living matter that would satisfy her own drive to find feminism in the evolutionary order. By recuperating the female sex-function for matriarchy, such a theory seems to correct the menacing vision of reproduction that we saw in "The Yellow Wall-paper." The author's subsequent fiction, however, testifies to an ongoing unease about the 'fungal' possibilities implicit in the female body. In particular, *Herland*'s gynaecocentric vision of the perfect women mandated by evolutionarily law conjures up surprising repressions of organic life, inside and out of the human. While the novel enacts Gilman's feminist evolutionary order, it aggressively disavows the female-animal body that ought to be its basis. The resulting message is quite paradoxical: It is only by rationally managing and even eradicating their own bodily life at the

[22] Gilman does regularly cite the anthill and beehive to suggest the advantages of matriarchal social systems. See, for example, *The Man-Made World or Our Androcentric Culture*, pp. 189-90. Because these creatures have so little in common with humans, it is hard to see how they might function to help humans understand their underlying animal nature. I know of no instance in which Gilman turns to our closest evolutionary brethren, the nonhuman primates, for evidence in support of a gynaecocentric order.

site of biological reproduction that Gilman's perfect women assume their proper and "original" evolutionary roles as species leaders and executives.

Herland is an isolated all-female civilization hidden in the South American wild until it is discovered by three male explorers, one of whom is our sympathetic informant and narrator, Vandyck "Van" Jennings. The nation's history began with the complete decimation of its male inhabitants over the course of warfare and the necessary introduction of all-female rule. Now centuries have passed in which Herland's women have been left free to exercise the executive and industrial skills inherent to all female organisms. Naturally, they build the perfect gynaecocentric society that evolution intended and Gilman anticipated. But Herland achieves utopia largely through a systematic containment of organic life**,** beginning first of all with the bodies of its citizens and fully realized in its exacting biopolitical regulation of all nature. To start, Herlander reproduction is entirely asexual—a capacity achieved by one miraculous citizen and then transmitted genetically to the whole population.[23] Initially, however, conception follows spontaneously from the onset of an uncontrollable, even orgasmic desire for a child, and to this extent remains tied to the body, to fungal femininity. Herland only succeeds in rationalizing the reproductive process when its citizens attain full mental control over the desire that overwhelms them, thus learning to produce children totally at will.

[23] By depicting her utopian women as asexual reproducers, Gilman annexes them to Ward's original (female) organism. She further highlights Herlander asexuality by emphasizing their androgynous appearance. While asexuality and androgyny in *Herland* coincides with cultural superiority, other turn-of-the-century thinkers associated androgyny with the cultural inferiority of 'primitive' societies. See, for example, Ellis. See Chapter 2 of Shaheen for more on Gilman's representations of androgyny.

By learning how *not* to conceive, Gilman's utopian women transform themselves from passive parthenogenic receptacles to "Conscious *Makers* of People" and begin molding their society into a eugenic fantasy (68): Reproduction now becomes an act of social *production* governed by experts. The novel's eugenic features function to 'humanize' the animal. In this world, construction—distinctly human 'making'—has replaced reproduction, which any cell can do, or fungus. The women limit population by selecting only the most socially-valued citizens to reproduce, thereby consciously breeding out unwanted characteristics, including anti-sociality and lack of productivity. On this basis, Katherine Fusco has persuasively argued that *Herland* is a Taylorist utopia premised on the "systematic production of persons"—the idea that "bodies can be made and that they might be made more efficiently, too" (20, 152). According to Fusco, Gilman follows F.W. Taylor in "dissolv[ing] the distinction between biological and mechanical reproduction through her insistence that the proper way to understand a person is as both product and part of a system" (169).

Fusco is certainly right to suggest that Herland's reproductive bodies function as factory machines calibrated to produce good citizens. However, in analyzing Gilman's women as true gynaecocentric organisms, I find that biological reproduction does not merge with mechanical production quite as neatly as Fusco's reading would suggest. Rather, fungal femininity persists in *Herland* as a lingering menace—one that requires ongoing disavowal. This specter shows itself, for example, in Van's reflections on the difference between Herlander and American mothers. Van echoes Gilman's own assessment of her compatriots in *Women and Economics* by noting that, unlike contemporary Americans, Herlanders do not mother in the form of sheer instinctual reproduction—what he calls "helpless involuntary fecundity"—like fungus. They also do not

love their children like animals—as a "brute passion, a mere instinct" (68). Here, Gilman takes pains to insist that the Herlanders are both deeply invested in the reproductive functions essential to "original" female life *and* fully severed from the unsavory connotations of female animality. Even in Herland, "helpless, involuntary fecundity" retains a grip on Gilman's imagination as one frightening possibility for the meaning of the female organism.

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Gilman grounded her feminist theory in the basic premise of human continuity with nonhuman life, but at the same time advocated an increasing distance between humans and the life of the (animal) body. The author's depiction, in *Herland*, of the evolutionarily-advanced future as populated by such remarkably post-organic women connects her work to a prominent trend in turn-of-the-century American evolutionary thought, which I call the 'transcendence' strain. Advanced by well-known American evolutionists like John Fiske and Joseph Le Conte, 'transcendence' thinking regarded biological life as a factor of diminishing importance for the evolutionary process, in general. Evolutionary development would now center on the psychic or spiritual growth of modern humans on their way to transcending the material realm and achieving a kind of divine ideality. Le Conte articulated this fantasy when he wrote that "the end term" of human evolution was "the *divine plane* from which all evolution sprang," the goal of the human being "the ideal man, i.e., the divine man" ("Theory of Evolution" 489). A year later Fiske predicted in a lecture to the Nineteenth Century Club that future evolution would find humans realizing, through a period of intense "spiritual and psychical growth," their evolutionary destiny as pure soul. According to Fiske, whose remarks were covered by *The New York Times*,

such a development constitutes the very "purpose in nature, the dramatic tendency of the universe, the purpose of creation" ("Future under Evolution").

Given the anthropocentrism of 'transcendence' evolutionary theory, it is only fitting that thinkers like Fiske and Le Conte also saw in the natural world a space of total colonization by the human. In an 1887 *Popular Science Monthly* piece, Le Conte notes, for instance, that human evolution towards the divine necessitated that the "huge and dangerous" animals "were destroyed and are still being destroyed" and that the "useful animals and plants" were "preserved and made subservient to [human] wants" ("What is Evolution?" 728). Readers of Gilman will find it easy to imagine the future world that Le Conte's 'transcendence' narrative evokes: It looks a lot like Herland. Not unlike Le Conte, Gilman's sense in *Herland* that the human body can be controlled and if possible fully transcended spills over into a general drive to eliminate wild, 'useless' life outside of the human.

Most dramatically, though this is largely ignored by critics, the Herlanders have almost completely purged their country of its nonhuman animals.[24] This animal annihilation is performed for the sake of an environmental efficiency evaluated strictly in terms of human well-being. So, all competitors for resources and potential threats to human safety are out. The only beasts left are cats and birds, both of which have been modified through breeding to meet human convenience and taste. The "most prolonged and careful selection of exclusion" has stripped

[24] The general tendency among Gilman scholars is to defend or minimize the author's uncomfortable environmental stances. See, for example, Van Wienen. Van Wienen notes Gilman's eerily anthropocentric environment as it suggests itself in *Moving the Mountain.* Here, too, "nuisance species" are eliminated. Though conceding that Gilman's "utopian environmentalism" seems at times "almost calculated to offend," he defends it on socialist grounds. According to Van Wienen, Gilman's work, in its readiness to efface "nonproductive wilderness," simply faces "the real costs in the socialist conversion" (189-90).

Herland's cats of those qualities aesthetically irksome to humans—the cat's screech—and of behaviors antagonistic to the Herlanders's fondness for birds, which they seem to value primarily for their beauty and musical ability. Herland's attitude towards its cats suggests that animals exist for these women only as destructive or instrumental to human advantage—never as independent co-inhabitants of a common ecosystem. The pathetic image they make suggests total submission, almost defeat by the human race. They are "poor dumb brutes," incapable of expression, their "squeak" a pitiful reminder of powerless subservience (49).

The novel's rendering of nonhuman nature into resource is most striking in the case of its missing animal life. Here truly we see what happens to life forms that resist complete subordination to human good: They are eliminated. But in fact nothing in Herland exists without reference to human utility. Though the country's agricultural ingenuity is certainly laudable, its flawless efficiency—all food scraps, plant waste, and sewage put to use—suggests the reduction of organic life to use-object. These ingenious women have "worked out a system of intensive agriculture" such that "the very forests [are] all reset with fruit- or nut-bearing trees" (68). Marveling at the perfect utility of Herlander nature, Terry, one of Van's male companions, hits the mark when he exclaims, "Call this a forest? It's a truck farm!" (14).[25]

[25] Critics have tended to overlook the troubling instrumentality of Herland's relationship to its land, instead praising the nation for its advanced sustainability practices. See, for example, Bryson, Graham, and Shishin. Shishin refers to *Herland* as an early "green Utopian novel," arguing that it embraces what would later be called the Conservation ethic. Graham makes a case for *Herland*'s place as a precursor of ecofeminism, and notes only in passing that "the Herlander outlook remains largely anthropocentric" (122). Bryson is troubled by "the intensive technological management of nature" in *Herland*, but is on balance more impressed by what he takes to be its dramatization of the "unique and forward-looking relationship humans can forge with the environment" (58, 71). For a notable exception, see Peyser (*Utopia and Cosmopolis*). Peyser finds the natural world of *Herland* relegated to "a stockpile of raw materials" and reads an impressive will to master nature in Gilman's neatly cultivated garden-utopia (63). See Egan

By transforming all flora and fauna into resource, the nation's program of scientific agriculture erodes the boundaries between vastly different forms of life. Given Herland's far-reaching eugenics vision, the human body too crosses over into the domain of use-object. But in regulating all forms of biological life, Gilman's idealized humans also announce their distinction from it. Indeed, given their remarkable unity of purpose, the Herlanders even transcend temporal finitude. In completely reshaping their environment over the course of centuries, the Herlanders manage the evolutionary histories of nonhuman and human life alike.[26] In the years surrounding *Herland*'s publication, Gilman's fellow evolutionists and eugenicists likewise found ways to celebrate human control over nature's vast processes, even as evolutionary theory stressed human subordination to natural law. In the words of one writer, the human, "master of his fate," exerted an "influence upon the evolutionary series of a permanent and essential character" (Hibben 123-4). According to another, man was in fact now "being offered the trusteeship of evolution"—presumably by nature itself (Huxley 539). Gilman's novel shares in these turn-of-the-century dreams of human exceptionalism: It imagines a world of supremely masterful humans with unprecedented control over evolutionary processes, where the very distinction between the laws of nature and human laws collapses.

Seen in this light, Herland's most idyllic features become moments of instrumentality, harmony achieved only through the erasure of a natural world without human center. Such harmony is largely conveyed through Gilman's constant depiction of Herland as home and

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for a reading that is critical of *Herland*'s environmental politics, though primarily because they function in support of Gilman's racist, eugenicist politics.

[26] Sutton-Ramspeck also points out this connection between Herland's selective breeding of nonhuman life and its eugenics project.

garden, an image meant to affirm the nation's careful and loving stewardship of their environment. The adventurous male trio's first flight over the country shows them "a land in a state of perfect cultivation, where even the forests looked as if they were cared for; a land that looked like an enormous park, only it was even more evidently an enormous garden" (11). According to Van, Herland is all "beauty, order, perfect cleanness, and the pleasantest sense of home over it all" (19). He notes, for instance, that the country's perfect roads are "as dustless as a swept floor" (43).[27] The home, of course, is a space largely devoted to protecting humans from the encroachments of nature, and Herland's immaculate environment is as free from unwanted organic intrusions as the most immaculate suburban domicile. Swept clean of the germ-ridden dust that plagued the era's domestic scientists, this 'home' reverses the *other* fungal residence that I have been considering: the home of "The Yellow Wall-paper," home overrun by unruly fecundity. Gilman's garden image suggests too that Herlander nature is in fact a human production of naturalness, a shadowy reflection of nature stripped of wildness and constructed solely for human pleasure and utility. A protected space of home and garden, Gilman's feminist utopia enacts the ultimate humanist fantasy—a picture of wild nature submitting readily to a humanized world that is immune to the encroachments of materiality.

[27] Sutton-Ramspeck makes sense of passages like these by arguing that Gilman's work participated in a turn-of-the-century literary moment that elevated domestic work to national importance, thus making a case for the extension of maternal power. Fleissner reads Herland's resemblance to a "perfectly tidy, wonderfully inviting home" as in part a solution to the fundamentally "unmasterable" domestic arrangements that Gilman saw as characterizing the Victorian home (90).

Efficient Evolution, Wasteful Animals

Despite its ostensible basis in Gilman's gynaecocentric theory of life, *Herland* ultimately supports an all-too-familiar humanist picture of the truly human: The manipulation of life as pure resource functions as a disavowal of that life, bringing Gilman's perfect women into being as spiritually-transcendent "humanized humans," to borrow Elmer and Wolfe's term" (147).[28] But such humanist disavowal of the organic does not happen in a historical vacuum. The transcendent 'human' is constantly reborn in relation to prevailing cultural discourses and priorities that may initially seem tangential to questions of species. The peculiar way in which Gilman sought to humanize woman by first returning her to the nonhuman organism or animal was itself only possible in light of America's extraordinary faith in evolutionary theory at the turn of the nineteenth century. The techniques of humanist disavowal that followed were likewise particularly salient to Americans caught up in their nation's rapid initiation into technoscientific modernity.

Drawing on Zygmunt Bauman's critique of modernity, Thomas Peyser has pointed out the eerie resonance between Gilman's "garden" utopia and a distinctly modern ethos. Herland resembles Western modernity's "grimmest totalitarian enterprises" insofar as these rely on the rational design of a future world perfectly ordered to optimize human conditions (*Utopia and Cosmopolis* 88). But modern culture in general, and not just its atrocities, defines itself according

[28] In their discussion of Jonathan Demme's film, *The Silence of the Lambs*, Elmer and Wolfe note that "the law of culture arranges its species significations on a kind of grid." There are "animalized animals"—nonhumans always available for sacrifice; "humanized animals"—primarily pets "exempt from the sacrificial regime"; "animalized humans"—humans treated like (animalized) animals; and finally, "humanized humans"— "the wishful category … sovereign and untroubled" (146-7).

to this telos of rationalization and is thus what Bauman calls a "garden culture." Modernity, according to Bauman, aims for "the design for an ideal life" and tirelessly defends itself against "the unrelenting danger of what is, obviously, a disorder"— against "what is useless, what is irrelevant, what is harmful" (92). *Herland* subsumes all other ends to the ethos of the well-planned garden; in this sense its technoscientific enforcement of human dominion draws on and builds towards a rationalized modern culture in America.

In this picture of modernity, the natural world emerges as a big stash of tools and resources, to be efficiently deployed for the fulfillment of a perfectly ordered world. As I have argued, *Herland*'s (humanist) disavowal of materiality and embodiment operates by way of such instrumentalization. However, it is Gilman's earlier utopia, *Moving the Mountain,* that most fully welcomes the arrival of a 'rationalized' nature in America, in particular. Here nature is made resource according to the discursive terms of the nation's efficiency movement —its widespread preoccupation with managing waste and maximizing productivity or control in all spheres of human life. So, as American print media was touting the wonders of efficiency in a vast range of social contexts, Gilman wrote a utopia in which efficiency turns out to be the governing principle of evolution itself. *Moving the Mountain* goes so far in the way of humanist disavowal as to insist that technoscientific dominance over organic life is a fulfillment of nature's own telos. Taking its mandate from natural law, Gilman's novel advises the nation as to the proper place of nature in an emergent American modernity: Modern Americans, in their drive to minimize waste, ought also to task themselves with eliminating useless life, whether human, animal, or plant.

Moving the Mountain tells the story of John Robertson, who, having been lost in Tibet for thirty years, returns in 1940 to a vastly improved American nation—Gilman's idealized vision of modernity. Nellie, the sister who retrieves him, informs John that America now is a utopia compared to the one he left in 1910. There is no "such thing in the civilized world as poverty"—"no labor problem—no color problem—no sex problem—almost no disease—very little accident." The national output continues to grow in "quantity and quality," and "no one needs to work over two hours a day" (54). Since progress first of all originated in the "awakening" of women to their species responsibility as nature's managers, *Moving the Mountain* reads to some extent as a gynaecocentric precursor to *Herland* (37). But this American utopia is governed by a single value that displaces even nature's command as the final justification for gender equality: efficiency. Dr. Harkness, a sociologist in John's camp of educators, explains that the liberation of women from housework and into any work "they are fitted for and enjoy" is considered "one of our great additions to the world's wealth — the freeing of "so much productive energy" (97). Gilman's debt to the efficiency movement in crafting America 1940 becomes especially apparent in a telling reference to Taylor's system of scientific management. Harkness informs John that America's first move towards utopia was the establishment of a "Commission on Human Efficiency," which found that the nation's "low standard of efficiency" could be ameliorated by "raising the human standard" with proper child-rearing techniques. He notes that this new science of "humaniculture" began as the application of scientific management to all human life (84-5).

In such a meticulously planned society, individual interests must necessarily be subordinated to those of the nation. It is fortunate then that the will of the individual in America

1940 neatly aligns with that of society. Utopia was born in the dawning of a truly "social consciousness," the idea that "human life is social … collective, common, or it isn't human life at all," as Nellie explains to John (133). On this point, it closely resembles Herland: Van reports that the Herlanders are guided by a "wide unity in service." They think as a "unit, a conscious group" (80). By virtue of this collective ethos, both of Gilman's feminist nations suggest themselves as essentially *fungal* structures. Of course, they bear little resemblance to any society that might emerge from the fungal femininity that we saw in the yellow wallpaper. They nevertheless take on a 'moldy' quality when we consider what fungus *is*, as opposed to how it appears to humans. A mushroom, for example, appears to be a fleshy, sometimes edible body—an atomized fungus. However, most of its body lives underground in a mass of tiny threads, an invisible structure that connects it to fellow mushrooms. Gilman's utopian citizens are metaphorically 'fungal' in that each individual is at bottom a component part in a larger social organism, the nation. If, as Nellie explains to John, the world came "alive" when people stopped imagining their lives as "personal affairs," we might imagine it coming alive in the form of fungus (53).

Herland's fungal quality becomes a bit *less* metaphorical when we remember that its eugenics program centers on the cultivation of pro-social behavior. The perfect sociality of these women is not only a "mental outlook," as Van puts it, but also a biological trait (98). However, the nation's control over all reproduction within its borders also makes for an important departure from this dominant fungal metaphor. Fungus, of course, breeds witlessly. Herland, like fungus, is a collective organism; but this is a collectivity that humans have intentionally constructed by regulating nature's fecundity, starting with their own bodies. Herland's precursor,

America 1940, likewise achieves fungal utopia through rationalized control over life. As in *Herland,* the biologically unfit bodies of *Moving the Mountain*—its "waste"—are necessarily discarded: In Nellie's words, the "great mass of [human] wreckage left over from the foolishness and ignorance of the years behind us" has been "promptly and mercifully removed"—in the most extreme cases, killed (98). If useless human bodies are "mercifully" disposed of, then the same principle applies all the more to useless animals, which turns out to be most of them. The cities of America 1940 are all but cleansed of animal life and, most strikingly, a surprised John discovers that this "new humanitarianism has exterminated whole species" of wild animals in its effort to make the world "safe and habitable" (92-3).

By appealing to America's widespread faith in efficiency, *Moving the Mountain* offers the nation a naturalist guideline for legislating all life under its jurisdiction. But efficiency here exceeds the scale of the nation; it can facilitate social progress at all because it is the fundamental principle of the universe, evolutionary law. If, as Owen tells John, utopia followed readily from the nation's "wholesale acceptance and application of the idea of evolution," we find that the evolutionary process itself is an increasingly efficient transmission of energy (100). In clarifying this worldview, Frank Borderson, a professor of ethics in the new society, explains that the "business of the universe about us consists in the Transmission of Energy." "Human animals," he continues, are "specially adapted for high efficiency in storing and transmitting this energy." In light of self-consciousness, the "human engine" can reflect on its own power and thus use it more "fully and wisely"—which is to say, it enters into "social relations." The evolution of the universe, then, is one long efficiency movement, realized most fully in society, "the best expression of the Energy that we know" (130).

In positing such a universe, *Moving the Mountain* participates in an important trend that the historian Neil Harris has identified in the roughly one hundred utopias published in the United States in the years before the First World War: They are typically marked by an obsession with social order and technological control over newly risk-free environments. According to Harris, these perfectly managed fictional worlds functioned to some degree as a coping mechanism for the new anxieties around "aggression, accident, old age, and death" that emerged in America along with the massive social instabilities of its bourgeoning modernity (236). Indeed, the compelling new theory of evolution ranks as one of modernity's most troubling new sources of instability. Jennifer Fleissner, for one, interprets the "malaise that swept Western intellectuals" at the dawn of the twentieth century as in large part a recoil against "a post-Darwinian, thermodynamic universe of meaningless flux" (1).

By insisting on the constant mutability of species and natural orders, evolutionary theory suggested to many uneasy observers that human achievement—along with all other action in the universe—was always susceptible to collapse.[29] As one witness to the rise of evolution lamented in an 1894 *McClure's*: "Change, adventure, temptation, vicissitude, even to the verge of calamity, these are the life of the world" (Gladden 240-1). T.H. Huxley, among the most influential of evolution's interpreters, understood the human condition—given such a calamity-prone universe—as a never-ending and necessary combat against the essential transience of nature, the "antagonistic influences of the general cosmic process." Anticipating Gilman's vision in *Herland*, Huxley likens the role of the human in such a universe to that of a gardener. Without

[29] See pp. 41-55 of Tichi on this point of evolutionary instability. Tichi argues that American writers between 1890 and 1920 were preoccupied with "calculating instability," partially in response to evolutionary theory (42).

our "watchful supervision," the "walls and gates" of human culture would soon disintegrate and intruding beasts would "devour and tread down the useful and beautiful plants." If this did not sound enough like Gilman's nightmare—Herland lost—Huxley even sets fungus loose on his world without humans: His picture of wild nature's revenge includes "birds, insects, blight, and *mildew*," now ominously free to "work their will" ("Evolution and Ethics" 10).[30]

Harris suggests that turn-of-the-century utopian fiction alleviated modern anxieties by creating perfect worlds fueled by promising new cultural resources—the awesome power of electricity, for example, or mind-cure religions like Christian Science, which prophesied victory over corporeal vulnerability. In *Moving the Mountain*, the efficiency movement seems to perform a similar function with regard to the instability heralded by evolution. By identifying efficiency with the general tendency of the universe, Gilman denies, against Huxley or Gladden, that chaos is essential to the fabric of a Darwinian universe in the first place. It is instead a kind of disappearing origin. Far from being pulled along by nature's chaos, humans have the unique capacity to reflect on how most efficiently to put its energy to use, thus aiding in evolution's great mission to eliminate waste.

Gilman's vision of the universe as an efficiency movement began to emerge well before she published *Moving the Mountain* in 1911. In *Women and Economics*, the author characterizes social evolution as tending towards an "increasing specialization in structure and function, and to an increasing interdependence of component parts" (52). In this description, we might also recognize the perfect social harmony of Gilman's utopias, which seamlessly fold individuality

[30] For more contemporary reflections on the meaning of evolutionary flux, see Baker, Burroughs, and East.

into collective function. If these, in a sense, are like fungus, they are also like machines. At its roots, Gilman's naturalism was therefore bound up in America's "industrial-age passion for component-part design"—its fascination with building systematic and efficient machines (Tichi 3). More specifically, the author is clearly indebted to Herbert Spencer's universe of thermodynamic *Kraft*. As in Gilman's articulation, every structure in Spencer's cosmos proceeds by way of the increasing specialization and greater integration of differentiated parts. If Spencer found inspiration in industrial modes of production, his natural order also resembles the gear-and-girder technologies characteristic of the machine age. Writing against nature's chaos, Spencer's productivist evolutionism joins Gilman's efficiency model in promising the coming of a cohesive, organized universe, one that humans could count on.[31]

Charlotte Perkins Gilman's Female-Animal Studies

If efficiency discourse helped Gilman resolve post-Darwinian distress over human instability, then its drive to contain life was a key feature of such evolutionary-era 'therapy.' Gilman's efficient evolution in *Moving the Mountain* tasks humans with managing the organic, thus positioning them outside of life and its inherent fragility. Animal studies theory gives credence to such an analysis by emphasizing anxiety over human embodiment as a key factor in our disavowal of other life forms.[32] Insofar as we, like nonhuman animals, are bodies—bodies

[31] Seitler notes that Gilman referred glowingly to Spencer as being the man who taught her "wisdom and how to apply it" (191). For a more general analysis of Gilman's thought in relation to that of Spencer, see Magner.

[32] Wolfe, in particular, notes the "remarkable fact" that an unusually wide and diverse range of theorists—from Peter Singer to Jacques Derrida—emphasize shared vulnerability in their analyses of the human-animal relationship (*What is Posthumanism?* 62).

that live and die—we share with them what Cora Diamond, writing in "The Difficulty of Reality and the Difficulty of Philosophy," calls "sheer animal vulnerability" (22). Diamond argues that certain kinds of theoretical models may function to deflect our species fragility. In particular, she worries that moral philosophy's highly abstract analyses of nonhuman animals enact "a distancing of ourselves from our sense of our own bodily life and our capacity to respond to and to imagine the bodily life of others" (9). As we have seen, Gilman's theory of living matter connects the human body to animals and even to microorganisms. But her efficiency-maximizing utopias seem all the same to generate the kind of distancing that worries Diamond: Their reduction of "bodily life" to resource assures humans that they do not share in that life, but only command it.

However powerful a motivation in Gilman's work, humanist disavowal cannot fully account for the author's ambivalent naturalism. Gilman, after all, was not just a human, but, among other things, a *woman*, and indeed, a woman committed to unraveling the meaning of female nature. It is no accident that her deflection of vulnerability was largely a rejection of sexual reproduction understood as a biological process, the work of the body and not mind, of fungus and not spirit. Woman's reproductive body, as ecofeminist critics have often noted, has long been the mark of her special connection to organic life and thus to the uncomfortable fact of human finitude.[33] In *The Second Sex* (1949), Simone de Beauvoir testifies to this association when she notes that man "cherishes and detests" in all women "the fixed image of his animal destiny," the hold that "murderous Nature" has on him. Her reproductive body points him to his

[33] See Gaard for a good overview of ecofeminism's disciplinary history, its roots in 1980s activism, and its development over the last thirty years.

own mortality, insofar as it generates the "slimy embryo," which "begins the cycle that is completed in the putrefaction of death" (146).

Given this connection, it is not surprising to find echoes of Gilman's protest against female reproduction in the writings of prominent feminists throughout the twentieth century. In her influential *Women and Labor* (1911), Olive Schreiner describes woman, fully reduced to her reproductive body, in the terms of abject life: Modern woman is a "sex parasite," doomed "like the field-bug, to the passive exercise of her sex functions alone" (157, 77). The inactive upper-class lady, in particular, is "the most deadly microbe which can make its appearance on the surface of any social organism" (81). Here Schreiner echoes Gilman's own claims in *Human Work* (1904) and "Parasitism and Civilized Vice" (1931) that, among nature's parasites, the female "dependent upon the economic activities of the male" enacts a unique form of "sex parasitism" (114). Later in the century, Beauvoir imagined not woman but fetus as "parasite" (495)—an "invading species" that feeds on the maternal body, thus rendering it the "plaything of obscure forces" (30, 495). The pregnant woman, according to Beauvoir, experiences herself as "ensnared by nature," becoming both "plant and animal, a stock-pile of colloids, an incubator, an egg" (495). For Beauvoir and Schreiner, as for Gilman, female reproduction signaled the uncanny eruption of the nonhuman—whether fungus or field-bug—into the human domain.

Gilman was likewise not the only feminist to imagine technoscientific means of deflecting woman's troubling organic passivity in reproduction. Substituting cybernetics for eugenics, the radical 1970s feminist Shulamith Firestone theorized a "cybernetic socialism" that would free women from the "tyranny of their reproductive biology" (206). In Firestone's American utopia, the production of children would take place completely in vitro, given the

development of sufficient reproductive technology. During Gilman's own time, Margaret Sanger argued in *The Pivot of Civilization* that an unregulated reproductive life rendered woman the "passive victim of blind instinct," an animalistic condition that could be ameliorated through effective and widespread birth control (51-2). Like Gilman, Sanger blurred the line between advocating control over female nature and dominion over the organic realm, more generally. Her work ultimately conceives of reproductive technology as another facet in the overall human project of harnessing the "forces of Nature." Humans might "control, civilize, and sublimate the great primordial natural forces of sex" and thus channel these "blind and undirected energies" to their own purposes (225).

Some turn-of-the-century feminists, instead of taking for granted the deplorable fact of female reproductive animality, protested the traditionally oppressive link between women and organic life. These authors joined the Gilman of *Herland* in working to tether woman to the "spirit" pole of the spirit-matter ontological dichotomy. For instance, Eliza Burt Gamble's efforts to establish female superiority on an evolutionary basis relied partially on an argument for the more advanced development of woman's "mental and spiritual faculties." Led by women, humanity might finally "come into its own," the "animal in man" having finally been superseded (401). Alison Piepmeier likewise credits the famous Christian Science founder, Mary Baker Eddy, with working to incorporate woman into the spiritual realm traditionally reserved for men. Though Eddy is not universally regarded as a feminist, Piepmeier argues that the insistence of *Science and Health* (1875) on pure mind as the sole reality—the body merely an illusion—functioned importantly to grant women access to male power by elevating their status from

animal body to human mind.[34] Christian Science thus challenged widespread nineteenth-century medical estimations of women as biologically determined—by the uterus, in particular—and generally undermined long-standing associations between female and body.[35]

In brief, modern feminist theory in Gilman's time and beyond consistently attests to an uncomfortable association between women and embodiment that is first of all grounded in the fact of biological reproduction. The crucially gendered articulation of both 'human' and 'body' in Gilman's work, in particular, suggests an ongoing need to complicate philosophical claims about humanism's disavowal of nonhuman life—first of all by attending to historical subject position. Wolfe points out that once "we" humans have marked our distinction from "it"—the animal—the charge of animality can be wielded against those we would exclude from the bonds of human sociality, denying them full political and ethical consideration (*Animal Rites* 6). But the number of those who have found themselves securely on the human side of the boundary throughout Western history has been limited to a relatively small group of (generally white, male, upper-class) subjects. This leaves a vast number of 'others' who navigate the human relationship to animality and indeed material embodiment from an ambivalent subject position which, if not strictly 'animal,' is also not unambiguously and transcendentally 'human.'[36]

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[34] See Chapter 2 of Piepmeier.

[35] For a discussion of the nineteenth-century American context, see Smith-Rosenberg and Rosenberg.

[36] This is not to suggest that Wolfe avoids analyzing species in conjunction with gender, sexuality, race, class, and so on in his own work. See Elmer and Wolfe's "Subject to Sacrifice" and Chapter 4 of *Animal Rites*, in particular. However, Wolfe typically understands species as underlying, resolving, or otherwise driving these other terms, while remaining distinct from them. I differ from him here in insisting on the co-imbrication of species with crucial categories of human difference. So, in Gilman's case, species cannot be said to underlie or solve gender

Gilman's case thus directs us to the shifting and complex meanings that we find embedded in the 'animal,' once we consider that the true 'human' has never been a majority figure.

Gilman's work also suggests historical mutability in how the human-nonhuman boundary is drawn. While embracing the evolutionary animal-in-theory, Gilman turned to the 'efficiency tools' of America's technological modernity to detach woman from her own fungal fecundity. To avoid being overwhelmed by nature, Gilman's modern woman would set out to rationalize it—determining, in the name of evolutionary progress, the production of human bodies and the shape of the natural world. It is this technocratic perspective that Gilman asks her female audience to assume as she inducts them into a natural womanhood in line with evolutionary law. The author's call for women to reclaim their embodiment ends up looking more like an invitation to identify with Gilman herself, the evolutionist social scientist best equipped to discern the channels of human progress. America's modern woman emerges in this natural order as scientific subject governing organic object—closer in spirit to Jane's physician husband in "The Yellow Wall-paper" than to a liberated Jane that we might imagine meeting somewhere beyond the wallpaper.

Thinking Towards an Organism Studies

Critical animal studies offers a rich theoretical framework for making sense of Gilman's evolutionist feminism, because it attends so carefully to vulnerable embodiment—the fleshy materiality that we share most obviously with the animals that live and die among us. This

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issues, because species itself is always articulated in gendered terms. The two discourses cannot be productively separated.

feature of our finitude was especially salient for the generation of Americans who, like Gilman, came of age with evolutionary theory, a cultural moment that was newly preoccupied with the question of human animality. But if Gilman helps us infuse animal studies with historical nuance, she also asks us to rethink our theory. The author points animal studies scholars to the importance of thinking broadly about received categories of study, and in particular, the 'animal.' Gilman's feminist theory of living matter considers modern woman as an evolved *animal*. At the same time, it introduces a fundamental instability in the very category by assuming an unbroken connection between life at every level—from human being all the way back to the "original organism." This emphasis on continuity makes way for a surprisingly capacious notion of the female-animal body and of animality, more generally—one that draws its meanings from a broad swath of organisms far removed from the human. Making sense of Gilman's female animal means reading her work 'organismically': It involves tracking not only the fungus in the wallpaper, but also the nut-bearing trees and silent cats of Herland.

Gilman, then, encourages animal studies to enlist the 'organism' as a key organizing image alongside and intersecting with the 'animal.' Such a move offers significant benefits to scholars invested in the nonhuman turn. First, by bringing an 'organism studies' perspective to animal studies, we become less inclined to endow the animal with the same status that the (rational, autonomous, universal) 'human' subject took on for humanists. That is, we avoid unwittingly reifying certain attributes or behaviors as essentially animal, thus placing undue weight on certain species to the neglect of a broad panorama of life. By virtue of its inclusivity, the category of the 'organism' also prompts us to approach animals, and indeed all of life, as fundamentally relational. Such a perspectival shift from the individual creature to the ecosystem

resonates with and is informed by the work of scholars like Donna Haraway who remind us that *living* necessarily involves living-in-relation—living as embedded in a network of multispecies relationships.[37] In looking through an organism studies lens, the fungus that so terrorized Gilman's wallpaper shows itself in a newly benign guise. Fungus returns here as a fitting figure for all of life, both human and animal, thought 'organismically.' Like lonely mushrooms, our organism-selves may seem individual, autonomous, isolated—but we are emphatically not so. Rather, we extend ourselves outward in nets and skeins, binding root and soil, alive only as part of a much larger, invisible organism.

[37] See, in particular, *When Species Meet.*

CHAPTER THREE

Of Microbes and Man-Factories:
Mark Twain's Naturalist Vision for a Global America

It is no great shock that Mark Twain's late engagement with evolutionary theory largely took the form of satire. In a series of mostly unpublished writings, the nation's best-known humorist routinely mocked the tendency among American naturalists to regard man as the pinnacle of evolution, separated from other animals by an impenetrable frontier of intelligence and morality. In an 1896 essay, "Man's Place in the Animal World," Twain announced, for example, that in "scientifically studying the traits and dispositions of the 'lower animals' (so-called), and contrasting them with the traits and dispositions of man," he was obliged to renounce his allegiance to the "Darwinian theory of the Ascent of Man from the Lower Animals." Darwin's theory ought rightfully to be replaced with the "new and truer one to be named the *De*scent of Man from the Higher Animals" (117).

Twain reports, as evidence for his claim, the results of certain "experiments" testing the difference between an anaconda and an earl. As part of this inquiry, he once caused "seven young calves to be turned into the anaconda's cage" of the London Zoological Garden. The anaconda eats one, is satiated, and shows no further interest in the remaining seven. Twain sets the snake's behavior against an incident that he has come across in his readings—a buffalo hunt in America's Great Plains organized for the entertainment of an English earl. In contrast to the modest anaconda, the Earl's party kills seventy-two buffalos, eats part of one, and leaves the remaining seventy-one to rot. The difference between the anaconda and the earl, then, is that "the

earl is cruel and the anaconda isn't; and that the earl wantonly destroys what he has no use for, but the anaconda doesn't." The earl has descended from the anaconda and "lost a good deal in the transition" (118).[1]

Twain identifies man's evolutionary inferiority in his cruel, wasteful slaughter, as against the animal's economic and indeed necessary act of consumption. In "The Victims," an odd, unpublished story that he wrote sometime between 1900 and 1905, the same human tendency signals not only the "descent of man," but also his political propensity towards imperialism. As such, it marks the conjunction of Twain's late interest in "man's place in the animal world" and his anti-imperialist politics, sparked in particular by the U.S. acquisition of the Philippines in 1899. Twain's story puts forward a multi-species procession of children, from microbes to humans, all on their way to an ill-fated picnic: The result of each excursion is death. As little Johnny Microbe goes off to the picnic, his mamma Microbe kills Willie Molecule, who is also on his way, for Johnny's supper. Little Peter Anthrax goes to the picnic, and mamma Anthrax grabs Johnny Microbe for Peter's supper. And so on.

While the story's animals—up to the tiger and elephant— kill each other only for nourishment, something changes when we get to the human. When Little Jimmy Gem-of-the-Creation-Man goes to the picnic, Papa Gem-of-the-Creation-Man does not hunt for the particular kind of animal that his son likes to eat, but for "anything that might contain life and be helpless." In fact, he does not kill to eat at all, but shoots an elephant and trades his tusks "to an Arab land-

[1] For more instances of Twain's scorn at human delusions of species grandeur, see "Letters from a Dog to Another Dog Explaining and Accounting for Man," "Was the World Made for Man?," "Man and the Other Animals," and "Letters from the Earth." Twain wrote these pieces in a loosely evolutionist register.

pirate for a cargo of captive black women and children." He then sells this human cargo to "a good Christian planter who [promises] to give them religious instruction and considerable to do." Once the deal has gone through, Papa Gem-of-the-Creation-Man shakes hands with the planter, exclaiming, "By cracky this is the way to extend our noble civilization," and loads up again for more game (143-4).

One sense we get from the predictable, storybook cadence of the murderous procession in "The Victims" is that a chain of animal necessity has been activated, the essential rhythm of killing to eat. The emergence of the human onto the scene signals an end to the deterministic evolutionary cycle: Papa Gem-of-the-Creation-Man kills not to sustain life, but for some bleak combination of cruelty, greed, and unwarranted moral righteousness. The human's much-lauded break from animal necessity is here the origin of the imperial worldview—as if the 'habit' of empire constituted man's essential trait. Presumably, Papa is a European colonial in Africa, engaging in the "private raid for cash" that Twain, in his famous anti-imperialist essay, "To the Person Sitting in Darkness" (1901), identified as the real mission of those Western ventures claiming to extend "the Blessings of Civilization to our Brother who Sits in Darkness" (461-2).

In "The Victims," Twain aims at human species exceptionalism with the same bullet that he directs at the hypocrisy of empire. The story suggests that the author's broad range of fiction and essays on the human place in nature—what I call his 'naturalist' writings—may provide fresh insight into his ardent and much better known anti-imperialist politics.[2] But, as I will argue here, his naturalist anti-imperialism also brings to light an important alternate trajectory in the

[2] See Zwick ("Mark Twain's Anti-Imperialist Writings") for a useful historical summary of Twain's anti-imperialist writings, their suppression during his lifetime and after his death, and their eventual release to the public in the 1960s.

cultural history of nineteenth-century science in America, as it intersected with international politics. As Amy Kaplan notes in *The Anarchy of Empire*, Twain became America's best-known anti-imperialist during a "pivotal juncture" in the history of U.S. Imperialism. This was the period when America "shifted from continental expansion to overseas empire, from absorbing new territories into the domestic space of the nation to acquiring foreign colonies and protectorates abroad" (2).[3] Twain's anti-imperialist naturalism becomes particularly significant when we consider its reversals of the pro-expansionist politics of life.

In Chapter 4 of this dissertation, I give a detailed analysis of the organicist political theory that underpinned much of pro-expansionist rhetoric around 1900. It is sufficient for my purposes here to note that evolutionist imperialism relied on an ever-expanding, ever-'colonizing' model of organic life: The assumption here is that a nation, like an organism, simply follows the laws of its nature when it goes hunting for other 'life.' The poet Joaquin Miller's argument for Hawaiian annexation in an 1895 edition of *Overland Monthly* is typical of this line of reasoning. Miller finds that, in wrestling Hawaii away from the Hawaiians, American business interests and politicians are no more blameworthy than "the persistent roots of the proud and glittering eucalyptus tree" that "[takes] possession of your well, your sewer, your garden patch, and every other place in reach" (qtd. in Lears, *Rebirth of a Nation* 213). Miller's picture of

[3] Zwick notes that Americans in favor of expansion themselves advocated the idea that America's "rise to world power" was simply a "smooth and logical transition from the westward expansion across the continent that preceded it." This idea was promoted by proponents of America's annexation of Spain's colonies—in particular the Philippines—after the Spanish-American war. Zwick cites H. Addington Bruce's *The Romance of American Expansion* (1909) as having popularized this idea of empire as an extension of the American frontier. According to Zwick, "Bruce portrayed a continuous 'romance' of expansion from Daniel Boone scouting the western frontier to William McKinley's annexation of Puerto Rico, Hawaii, Guam, and the Philippines" ("Mark Twain and Imperialism" 228).

natural law vacillates between physical determinism and moral precept: Like the eucalyptus, Americans cannot *help* but take possession of Hawaii, but they also *ought* to do it.

"The Victims" suggests that Twain's political thought, to the degree that it was influenced by his naturalism, is premised on a different picture of the organism. Here, animals are economic, conservative: They kill only to sustain life. It is the human that breaks from nature to want always *more*; imperialism is then encoded not in the animal, but in the 'exceptional' human, as distinct from other life forms. But if "The Victims" can be read as something of a metaphysical statement on human nature, its fabulist quality suggests that it is perhaps more so a moral lesson for the would-be imperialist, an education in the virtues of abiding by animal necessity. Fables, after all, always include a moral.

In keeping with the idea that Twain's naturalism works to reprimand and to warn, I argue in Part I of this chapter that *A Connecticut Yankee in King Arthur's Court* (1889) grounds the worldview of empire in the human species exceptionalism that Twain laments in his animal stories. The novel's Yankee imperialist, Hank Morgan, conceives of himself as a true 'I' outside of nature—the determined order of cause-and-effect—while encountering all other selves as fully embedded in it, products of "mere animal training." The Yankee's habit of 'exclusionary individuality' extends the logic of species exceptionalism to the human, now conceived as animal. In Morgan's Camelot, imperial subjects join animals and machines in the realm of the merely determined, the governed.

More so, Twain's critique here is of a distinctly *American* form of technocratic imperialism. Morgan is both imperialist and industrialist. He quite obviously sets out to transform Camelot into his own machine-age moment. In this regard, *Connecticut Yankee*

historicizes species exceptionalism: It follows the "Gem of the Creation" into technoscientific modernity. Morgan's imperial priorities are guided by a machine-age American mode of encountering nature—a whole world of human and nonhuman life standing ready to be deployed as resource for American profit. "The Boss" and his elite managerial avant-garde—the only true humans in Camelot—hover above this causal order as those authorized to govern it. Twain's warning to a globalizing America seems prescient indeed given that the nation's imperial ethos in the twentieth century was one of *using* and not *having*—motivated less by territory than by access to resources and markets. Nations subject to American hegemony would in fact be conceived as resource, and not, first of all, possession.

In the years after *Connecticut Yankee*, Twain wrote, and eventually published, an anonymous statement of his commitment to biological determinism—the late Socratic dialogue, *What is Man?* (1906). More than simply espousing determinism, the dialogue's "Old Man"—an apparent avatar for Twain—claims to have completely abolished the human-animal frontier altogether. If this may seem to correct the Yankee's exceptionalist techno-politics, it in fact ends up naturalizing them. The machine-age determinism that we find in *What is Man?* renders the human, along with all of nature, as industrial machine. Twain's productivist metaphysics, I argue, open onto a disturbing political ethos: that human labor power should be channeled as efficiently as possible, to confer the most 'benefits.'

In Part II, I move from Twain's famous Yankee traveler through time to his lesser-known traveler through space: The author's late, unfinished science fiction novel, *3,000 Years Among the Microbes* (1905), narrates the life of a scientist who has been transformed into a microbe in the body of a germ-ridden Hungarian "tramp." Here, Twain suggests a naturalist model of

subjectivity that might in fact counter the Yankee's exclusionary individuality. The novel's 'I' is an interconnected self, one firmly embedded in both nature and culture. *3,000 Years* also finds Twain elaborating a global Americanism centered on the "New Immigrant" as against the Yankee imperialist. The novel's vision of an ecosystemic world of conflicted 'I's' is a democratic one, requiring a plethora of competing perspectives for its existence. This is a mode of conceiving one's self in the world that is appropriate to an America 'globalizing' from the inside: an essentially immigrant nation.

PART I: AMERICA'S NEW EMPIRE

The Exceptional 'I' in King Arthur's Court

In lamenting his inability to convince the wicked queen, Morgan Le Fay, that her execution of a blundering page constitutes a "crime," Hank Morgan, the time-travelling hero of Mark Twain's *A Connecticut Yankee in King Arthur's Court*, breaks from the narration of his tale to give an impassioned soliloquy on the power of training. Morgan complains that there is no use in wasting "sense" on the queen, because "training—training is everything; training is all there is *to* a person."

> We speak of nature; it is folly; there is no such thing as nature; what we call by that misleading name is merely heredity and training. We have no thoughts of our own, no opinions of our own; they are transmitted to us, trained into us. All that is original in us, and therefore fairly creditable or discreditable to us, can be covered up and hidden by the point of a cambric needle, all the rest being atoms contributed by, and inherited from, a

> procession of ancestors that stretches back a billion years to the Adam-clam or grasshopper or monkey from whom our race has been so tediously and ostentatiously and unprofitably developed. And as for me, all that I think about in this plodding sad pilgrimage, this pathetic drift between the eternities, is to look out and humbly live a pure and high and blameless life, and save that one microscopic atom in me that is truly *me*: the rest may land in Sheol and welcome for all I care (126).

Critics have either tacitly assumed or explicitly argued that, throughout *Connecticut Yankee*, Twain primarily intends "training" to signify what happens to humans in culture. "Training," for these readers, stands in for the cultural inheritance that renders Arthur's subjects mere animals in Morgan's eyes. Alternately, it suggests the disciplinary space of Morgan's own "man-factories," which he intends as a much quicker form of acculturation, an intense training in new habits akin in aspiration to the reform school or penitentiary. Walter Benn Michaels makes this point specifically in relation to the Yankee's soliloquy. Michaels understands Morgan's "extraordinary speech" as affirming "the absolute determination of the individual by society."[4] His reading of the novel as a whole rests on the contradiction he identifies in the speech: Morgan insists both on "absolute" social determinism and at the same time "[asserts] the absolute autonomy of the 'one microscopic atom' of a person that is 'original,' that is, in other words, not a function of training" ("An American Tragedy" 74).

If we consider the novel as a whole, Michaels is more or less right to focus on human society. *Connecticut Yankee* is, on the face of it, primarily concerned with the ways that humans

[4] See also Chapter 2 of Salazar for an extensive reading of social training in *Connecticut Yankee*, especially with regard to the Yankee's "character-building" mission in Camelot, as analyzed in the context of turn-of-the-century ideologies of character and habit.

are ‘trained’ by their historical moments and with the feasibility of ‘re-training’ them to adopt new cultural possibilities. However, what he seems to miss is that, in this crucial textual moment, the Yankee is much more interested in the power of *biological* training than in the social. Rather than the sum of historical or social determinants, the ‘human’ of Morgan’s speech is a composite of inherited, ancestral atoms—biological data. Humans here are evolutionary bodies constituted by genetic material that extends beyond any human kin and back to nonhuman animal contributors—monkeys and even simpler non-mammalian ancestors, the “Adam-clam” progenitors of our species. In this aside, Morgan is talking about the training embedded in the long history of the human body, a training that even predates the human.

By attributing the speech fully to Morgan, Michaels likewise overlooks its strange relationship to “The Character of Man” (1885), a short, unpublished polemic essay that Twain wrote while first beginning work on *Connecticut Yankee*. Morgan nearly replicates Twain’s own thoughts in that essay, but with a crucial difference in emphasis. In “The Character of Man,” Twain descries as a “branch-lie” the thought that “I am I, and you are you; that we are units, individuals, and have natures of our own.” Using language that closely resembles Morgan’s speech, Twain dismisses the individual human as nothing more than the “tail-end of a tape-worm eternity of ancestors.” Our “so-called individuality” is then a “decayed and rancid mush of inherited instincts and teachings derived, atom by atom … from the entire line of that sorry column.” In fact, there is “not so much new and original matter in [our so-called individuality] as you could balance on a needle point and examine under a microscope” (61-2). This thought, of course, nearly mirrors Hank’s point about the “cambric needle” being sufficient to cover “all that is original in us.”

In "The Character of Man," Twain judges as "well nigh fantastic" the suggestion that "there can be such a thing as a personal, original and responsible nature in man," something "findable in such a quantity as to enable the observer to say, This is man, not a procession" (62). Here, Morgan and his author part ways in their analysis. Twain's version emphasizes the inconsequential quantity of any needle-point individuality that humans may possess. At the close of his own diatribe, Morgan rebels against Twain's summary disposal of human uniqueness. He finishes off his remarks by celebrating, rather than scorning, the "one microscopic atom in me that is truly *me*," a "me-ness" outside of the causal pre-personal chain of inheritance. This atom of individuality is for him the ultimate value, the one thing really worth saving.[5]

Morgan's shift in tone is abrupt: What begins as a no-nonsense dismissal of human individuality ends up a rather sanctimonious proclamation of faith in his own personal "me." When talking about humans in general—the "we"—Morgan follows Twain's account of the self's temporal dispersal across countless nonhuman determinants. But he changes his tune when it comes to *me*. Now the Yankee's pessimistic determinism morphs into an impassioned individualism, a one-man mission to preserve his own crumb of individuality. Morgan ends by affirming a space for himself in particular outside of evolutionary determinism and identifies living a good life with preserving this space of "me."

I read the Yankee's "extraordinary speech" as the metaphysical lynchpin of his political agenda in King Arthur's Court. Morgan immediately perceives, upon 'arriving' in Camelot, that

[5] Critics often attribute Morgan's speech to Twain, citing it as evidence of the author's increasingly deterministic outlook. See Chapter 5 of Quirk, for example. To my knowledge, no critic has noted the resemblance—and crucial difference—between this speech and the contemporaneous "Character of Man."

he is the only 'I' in a determined order; the whole of feudal society appears to be a "decayed and rancid mush of inherited instincts and teachings" (21).[6] Dutifully living out their cultural roles, Arthur's subjects are products of "mere animal training," "nothing but rabbits" in their loyalty to "their king and Church and nobility" (21, 53). Throughout the novel, Morgan conceives of feudal "training" as at once a cultural and a biological process. In other words, "training"—whether it is evolutionary, hereditary, or cultural—functions as an umbrella term for what happens to humans insofar as they are subject to a causal order, the world of the animal. As previously discussed in this dissertation, such a conflation of physical and cultural 'inheritance' was typical of evolutionary theory prior to the modern genetic synthesis. Twain affirms his own Lamarckism when he demotes our "so-called individuality" to a "rancid mush of inherited instincts and teachings" in "The Character of Man." Likewise, in *What is Man?*, he analyzes instinct as an "unthinking and mechanical exercise of inherited habit" (100). Every man's thought is in part determined by the "streams of thought and feeling which have flowed down into [his] heart and brain out of the hearts and brains of centuries of ancestors" (8).

In *What is Man?*, "habit" generally steps in to do the same philosophical work as Morgan's "training." This shift in terminology connects Twain' notion of nature-culture training to broader trends in late nineteenth-century American evolutionism. Most famously, William James's 1887 article on "The Laws of Habit" likewise subsumes both biological inheritance and

[6] Michaelsen's discussion of Twain's anti-imperialist polemic, "King Leopold's Soliloquy" makes for an interesting complement to my reading of Morgan's imperial 'I.' According to Michaelsen, Twain saw that it was essential to the structure of the sovereign state that it take on the "agential identity" of the Cartesian self—also an 'exclusionary' model of personhood ("'The State it is I'" 115). Michaelsen argues that Twain staged the King Leopold piece as a soliloquy in order to make this point. His analysis could also apply to Morgan's speech on the "truly *me*," which I take to be a kind of soliloquy in itself.

education under that same capacious term. James begins his piece in the *Popular Science Monthly*—eventually a chapter of *Principles of Psychology* (1890)—by observing that the first thing that strikes us about "living creatures" is that they are "bundles of habits." Like Twain, James includes both instinct and education in his notion of habit—the first being habits for which there is an "innate tendency," the second those that would "by most persons be called acts of reason" (433). To be a human shaped by culture, then, really comes down to being a trained animal, in the evolutionary sense. As Bill Brown notes in *A Sense of Things*, influential evolutionist philosophers of the period—Joseph Le Conte, Charles Peirce, and Josiah Royce—even described the laws of nature themselves as "habits," products of a kind of training (59). According to Royce, "nature's observable Laws might even be interpreted, from an evolutionary point of view, as nature's gradually acquired Habits, originating in a primal condition of a relatively capricious irregularity" (qtd. in Brown 59). Similarly, in his essay on habit, James declared the "laws of Nature" to be "nothing but the immutable habits which the different elementary sorts of matter follow in their actions and reactions upon each other" (433).[7]

American Exceptionalism and the Taylorist Empire

In attending to the language of biology—of evolution and heredity—that propels Morgan's exclusionary individuality, we begin to see the relationship between two of Twain's biggest preoccupations in the last twenty years of his life: America's emergence as an imperial

[7] Though his analysis of *Connecticut Yankee* deals only with *social* training, Salazar likewise notes that "habit," in the late nineteenth century, came to denote not only "the common forms of virtue and vice," but also "a wide range of natural and cultural phenomena that included, for example, the mechanisms of the economy, the patterns of growth in animals and plants, [and] the dynamics of childhood development" (86-7).

nation and the question of "man's place in the animal world." The Yankee's speech suggests itself as an analogue to Twain's eventual critique of human species exceptionalism—the idea that there is some great divide that separates humans from the "lower animals," elevating them far above the nonhuman world. Morgan's species exceptionalism is certainly peculiar, insofar as it subsumes even other *humans* under the category of the "animal." The Yankee, then, is a species of one. The novel then gives us a picture of empire founded on a human-exceptionalist mode of encountering nature—both the 'nature' of flora and fauna and that of the 'savage,' the animalized subject of empire.

As critics have long noted, Twain's explicit critique of imperialism did not emerge full-blown until the late 1890s. In fact, it was only America's colonization of the Philippines that led him to see his *own* nation as complicit in the game of empire.[8] Twain's outrage at this imperial foray led him to become vice-president of the American Anti-Imperialist League, an organization for which he also wrote many political pamphlets. Despite the early publication date of *Connecticut Yankee,* it is difficult *not* to read Morgan as an imperialist interloper in Camelot.

[8] Zwick, however, traces Twain's opposition to imperialism, and specifically American imperialist activity, to an 1866 lecture tour in Hawaii. He cites, as an example, the author's March 1867 lecture in St. Louis, Missouri on "The Sandwich Island." Reporting on the lecture, the St. Louis Daily Missouri Democrat quotes Twain as disparaging American influence on the native Hawaiians: "The white men came, brought civilization and several other diseases, and now the race is fast dying out, and will be extinct in about fifty years hence" ("Mark Twain and Imperialism" 230-1). Zwick also refers to a 1973 letter on Hawaii to the New York Tribune that anticipates some of the themes of Twain's criticism of Western civilization in "To the Person Sitting in Darkness"— particularly its hypocritical greed. Here, Twain satirically remarks, "We must annex those people. We can afflict them with our wise and beneficent government. We can introduce the novelty of thieves, all the way up from street-car pickpockets to municipal robbers and Government defaulters, and show them how amusing it is to arrest them and try them and then turn them loose—some for cash and some for 'political influence'" (qtd. in "Mark Twain and Imperialism" 232).

Beginning in the 1990s, New Americanist critics like John Carlos Rowe and Amy Kaplan began to situate the novel in relation to previously neglected imperial themes.[9] Critics today tend largely to agree with David Sewell's remark that "Mark Twain's 'fable of progress' displaces onto a temporal opposition the historical confrontation between Europe and the noncivilized world" (61). *The Connecticut Yankee*, after all, is about a modern man that travels (through time) to a pastoral, technologically primitive country and deftly maneuvers to assume a despotic governance there. He wins power in Camelot by using scientific knowledge of solar eclipses to perform what looks like sorcery, thus convincing the people of this 'backwards' nation of his superhuman abilities. In so doing, he explicitly models himself on the agents of empire, "Columbus, or Cortez, or one of those people" (*Connecticut Yankee* 35). The Yankee follows in the long tradition of empire by conceiving of his would-be subjects as childish and sub-human: He refers to the people of Camelot as "savages," "animals," and "white Indians" (88, 35, 21). He thinks of himself as a "giant among pigmies, a man among children, a master intelligence among intellectual moles" (58-9).

A vision of empire, *Connecticut Yankee* is also a vision of distinctly American, distinctly machine-age empire, the kind of empire that might blossom out of Twain's own historical time and place. The Yankee positions himself as an exemplar of Americanism—a "Yankee of the Yankees."[10] What's more, he is a standard bearer of American technological modernity, and in

[9] See, for example, Rowe ("How the Boss Played the Game"), Kaplan (*Anarchy of Empire*), and Sewell.

[10] Morgan's more complete description of himself is as a "Yankee of the Yankees—and practical; yes, and nearly barren of sentiment, I suppose—or poetry, in other words." This claim has prompted some critics to read him as seeking to implement a realist aesthetic in Camelot. Bell, for example, reads the Yankee as a "fictional embodiment of the 'realist,' a 'real' man of practical attainments, who disdains literary falsehood and who therefore, to recall Howells'

particular its emerging managerial caste—a new generation of technocratic elites sharply divided from workers by class, power, and information lines. Reared in the machine age, he out-moderns the technologically modern: "If there wasn't any quick new fangled-way to make a thing," the Yankee "could invent one." Back in Hartford, Connecticut, Morgan was head superintendent of a "great arms factory" that produced "guns, revolvers, cannon, boilers, engines, all sorts of labor-saving machinery" and could boast a "couple of thousand men under him" (10). His casual reference to "labor-saving machinery" immediately casts him as 'scientific management' of the Taylorist variety. His implicit equation of weapons with "labor-saving" devices so early in the novel foreshadows the brutal massacre of his rebelling laborers—the King's knights—at the end of his tale. Twain points to the growing distance—and tension—between increasingly scientific managers like Morgan and labor at the turn of the century by framing Morgan's arrival in Camelot as the result of a labor dispute: A worker hits Morgan over the head with a crowbar during a "misunderstanding," thus rendering him unconscious (10).

If he imagines himself as an imperial agent in the old days of Columbus or Cortez, Morgan tackles empire as he would a grand business venture in his own 'gilded' America. Soon after arriving in Camelot, he finds that he has landed a fantastic opportunity for career advancement, for becoming more than the foreman of a factory—his upper aspirational limit back in turn-of-the-century America. Morgan marvels at the magnificent "opportunities" in King Arthur's England "for a man of knowledge, brains, pluck, and enterprise to sail in and grow up

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terms, champions 'democracy in literature' in its struggle against the 'aristocratic spirit' embedded in 'pride of taste'" (69). See also Salazar and Hebard. Hebard reads Morgan not as straightforward realist, but as "[blurring] the line between romantic and realist modes" (50). He argues that the novel is fundamentally concerned with tracking a "poetics of territory," the aesthetic conventions that guide imperial expansion (20).

with the country" (52). In keeping with his vision of Camelot as a business—an arms factory even greater than the one back in Hartford—Morgan negotiates his position as the nation's "perpetual minister and executive" with King Arthur as an employment contract. Though he is now effective despot of Camelot, he does not ask for territory or treasure for his services, but a paycheck: He will receive "one per cent of such actual increase of revenue over and above [the kingdom's] present amount as [he] may succeed in creating for the state" (43). Eventually, the people of Camelot bestow upon Morgan the supremely fitting title of "Boss": No longer simply head superintendent, he has become manager of a whole nation, the manager of all possible managers.

This great business venture is at the same time a high moral task: a project of "civilizing and uplifting" the nation, preparing it to "blossom into civilization." The fortuitous coincidence of a wide open field—"no competitors in sight"—for both business and civilizing "uplift" aligns Morgan's position in Camelot with that of the Western nations in Africa and Asia, as Twain depicts them in "To the Person Sitting in Darkness." The author's response to America's acquisition of the Philippines derides the West's so-called civilizing mission abroad as a convenient alibi for its real target—the financial benefits that accrue from such benevolence. Twain's essay satirically refers to the Western governments, now including the United States, as a "Blessings-of-Civilization Trust." Here, he is clearly mimicking the language of imperialism itself: William McKinley's successful Republican platform in 1900, which called for a war in the Philippines, referred to America's duty there as that of "[conferring] the blessings of liberty and civilization upon all the rescued peoples." The "Blessings-of-Civilization Trust," in Twain's satire of such high talk, is a "world-girdling accumulation of trained morals, high principles, and

justice" that "cannot do an unright thing, an unfair thing, an ungenerous thing, an unclean thing" (471). Such sparkling morality is not a Trust for nothing—It pays big. Ultimately, all its talk of "civilization" serves primarily as a crucial ideological crutch for a great business venture, what amounts to a "private raid for cash" (462).

In brief, *Connecticut Yankee* anticipates Twain's critique of a U.S. imperial policy that he did not have fully in view in 1889 by implicating America in the West's sense of its own moral exceptionalism.[11] But critical debate has often circled around the question of whether Twain, even while deriding U.S. imperialism, ends up taking an exceptionalist stance himself by casting America as a morally 'pure' nation that has only temporarily lapsed. Twain's anti-imperial writings might then take on the feel of an absolution of true guilt, a slap on the wrist that in fact authorizes further "blessings-of-civilization" interventions—as long as they don't appear *too* cynically motivated. So, critics have often taken the author to task for his insistence on the novelty of American conduct in the Philippines: In "To the Person Sitting in Darkness," Twain suggests that the "usual and regular *American* game" involves championing freedom and self-government around the world (465).[12] The nation's acquisition of the Philippines is thus a slip into the "European game" of empire. As Lears puts it, Twain's contrast here is "a little too neat": The United States certainly "had their own history of suppressing indigenous populations

[11] Sewell considers *Connecticut Yankee* to be Twain's "most powerful indictment of imperialism" and attributes its power largely to the fact that the author "had not yet consciously rejected the prevailing ideology and can therefore, in the person of Hank, participate in it much more freely than he ever could again" (32).

[12] Kaplan suggests that this may have been a rhetorical strategy on Twain's part. She notes that the author's "powerful condemnation of imperialism works here in part by disavowing its centrality to U.S. identity, by representing imperialism as a foreign activity, an aberration from the national commitment to freeing the captive" (*Anarchy of Empire* 92).

(*Rebirth* 218). Spanos has recently analyzed *Connecticut Yankee* in the tradition of the American jeremiad—the "fundamental purpose" [of which] was and continues to be to rejuvenate (by violence) the backsliding covenantal people" (51).[13] The idea then, is that the novel, like Twain's later essay on the Philippines, takes for granted America's standing as a "city upon a hill," even while chastising it for its failures.[14] Read as a jeremiad, *Connecticut Yankee* is simply the "ritual of [an exceptionalist] culture on an errand." Its function, in such an instance, is to "release the restless 'progressivist' [and rejuvenating] energies required for the success of the venture," as Spanos writes, quoting Sacvan Bercovitch's classic *The American Jeremiad* (qtd. in Spanos 94).

John Carlos Rowe emphasizes Twain's foresight, in *Connecticut Yankee*, in tracing a line between capitalist expansion and "Euro-American imperialism" ("How the Boss Played the Game" 181).[15] While this seems right to me, I also want to suggest that *Connecticut Yankee* posits a different and less flattering American exceptionalism than the one criticized by Spanos.

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[13] Spanos understands American exceptionalism as grounded in both the Puritan's errand into the wilderness and the nineteenth-century politics of "Manifest Destiny." Some critics have read *Connecticut Yankee* as in fact an indictment of the nation's treatment of American native populations, thus implicitly taking it to be an anti-exceptionalist text. Takaki, for example, finds *Connecticut Yankee* to be a "frightening fable" that exposes nineteenth-century misuses of American technological prowess, including the decimation of native populations. Davis reads the novel not as an imperial allegory, but as a straightforward allegory for America's treatment of Native Americans, figured in the novel by the feudal British ("Cowboys and Indians").

[14] See Chapter 3 of Spanos for a thorough discussion of *Connecticut Yankee*'s extensive critical reception vis-à-vis the politics of American exceptionalism. Spanos finds that even New Americanist criticism of the novel—which largely defines itself *against* the American exceptionalism of previous American studies scholarship—remains mired in exceptionalist politics.

[15] See also Chapter 6 of Rowe (*Literary Culture and U.S. Imperialism*) for a convincing discussion of the role that communication technologies played in twentieth-century Euro-American imperialism, and *Connecticut Yankee's* treatment of such technologies.

In fact, *Connecticut Yankee* goes beyond Twain's famous anti-imperialist essay in its vision of a distinctly *American* form of global power, even while it precedes America's actions in the Philippines. As Rowe and others have noted, the novel imagines the American imperialist as a great technoscientific modernizer, a "Boss" who introduces such wonders as electricity, the telephone, and the steamboat to Camelot. But more importantly, Morgan's machine-age innovations come with a machine-age ideology: Twain's vision for the future of American empire centers on Morgan's Taylorist approach to (scientifically) managing his new "civilization."[16]

Twain's prescience, then, is in imaging the emerging American empire as driven by Taylorism, when this is understood as a naturalist ethos specific to America's late nineteenth-century industrial revolution. Historians and literary scholars generally agree that, from its origins, America's imperial aspirations were set less on territory than on business opportunity—on resource. Lears notes, for example, that the goals of American hegemony were "free access to foreign markets, raw materials, and investment opportunities" (*Rebirth* 201). These boons, of course, also greatly interested the European powers. However, America's relative disinclination towards the "formal acquisition of foreign colonies" enabled its advocates of empire to "wrap themselves in exceptionalist rhetoric and claim moral superiority to their European counterparts"

[16] F.W. Taylor was still working out the principles of scientific management when Twain published *Connecticut Yankee* in 1889. Taylor did not publish his famous treatise on the subject until 1911. By evoking Taylorism and Taylorist ideology here, I refer in part to the general American preoccupation with eliminating waste and maximizing efficiency in all spheres of life—and especially the workplace—around the turn of the century. I also mean to suggest the turn to strict enforcement of managerial hierarchy at this time. Taylor was nevertheless the most influential figure in this broader cultural trend: As Rabinbach puts it, a large part of Taylor's importance lay in "his ability to synthesize and promote in a coherent framework the broad changes that were already taking place piecemeal in various industries" (240).

(*Rebirth* 201). Kaplan argues that American empire in fact "defined itself ideologically against the territorially based colonialism of the old European empires" (96).[17] By largely rejecting territorial possession, the U.S. would conceive of the nations that it *de facto* governed in the transient mode of instrument. Twain, then, anticipates the underlying ethos of American imperialism—the large-scale application of Taylorist principles that level the whole human and nonhuman world to resource.

* * *

In *Connecticut Yankee*, scientific management functions as a political program that actualizes the Yankee's exclusionary individuality in a distinctly modern American register**.** Certainly, Morgan's *explicit* project in Camelot is that of molding the Arthurians into true individuals fit for self-rule, autonomous both in person and as a polity. This is one of the missions of the "man-factories" that Morgan sets up in Camelot (94). Though left mostly unexplained in the novel, these seem largely intended as training centers for the formation of a republican, technocratic avant-garde: In his man-factories, Morgan works to turn "groping and grubbing automatons into *men*" (123). Critics like James Salazar have been puzzled over how such an institution—a "man-factory"—is supposed to transform "the machine-like, animal instincts of the Arthurians into the self-governing character of the modern liberal subject" (85).

[17] U.S. global hegemony thus operated through financial entanglements (namely, the extension of loans), the spread of American industry, and new forms of military and communications technology. Rowe cites John Gallagher and Ronald Robinson's influential 1953 article, "The Imperialism of Free Trade," as inaugurating the widespread analysis of turn-of-the-century American imperialism as a general policy in which informal empire, based on the principles of free trade, predominated over formalized imperial control. The paradigmatic case here is America's "Dollar Diplomacy" in Latin America and East Asia—associated, in particular, with William Howard Taft's 1909-1913 presidential term. See Chapter 6 of Rowe (*Literary Culture and U.S. Imperialism*).

The factory is not only a space dominated by machinery—automatons—but also a site for the production of identical, manufactured goods. But to pose Salazar's question of the man-factory is to take the Yankee too much at his word. Morgan's real commitment is not to instilling "independence and individuality of character" in his subjects, but to transposing America's machine culture onto fifth-century England. The main output of the factories seems then not to be men, but good employees—scientific managers and engineers loyal to "The Boss."[18] Morgan's man-factories in fact center on the formation of an industrial labor force, a new body of automatons more useful for his purposes than the original ones. The Yankee's report of having gathered in his factories "the brightest young minds" he could find in order to train "a crowd of ignorant folk into experts … in every sort of handiwork and scientific calling" seems like the most accurate self-appraisal of what he is up to (68).

Morgan's innovation in Camelot thus has little to do with the formation of individuals in the modern liberal sense: It is rather that of initiating his subjects into a form of individuality that is perfectly equivalent to their function as industrial resource. The self-determining individualism of the so-called "modern liberal subject"—analogue of the "truly me" of Morgan's speech—is clearly denied to the subject of such an empire, Morgan's republican aspirations notwithstanding. I borrow one of Mark Seltzer's guiding terms in *Bodies and Machine*s—"disciplinary individualism"—to describe the kind of men that Morgan would "make," first of all in his man-factories, and then in Camelot as a whole. Seltzer aligns disciplinary individualism with machine

[18] As Rowe puts it, "There is little evidence that the boys and teachers 'trained' under the new educational regime have learned anything beyond the mere manufacture and operation of the new technologies; they are still profoundly dependent on the ruler, who has simply exchanged his crown or miter for the scientist's laboratory coat" ("How the Boss Played the Game" 186).

culture and positions it as a distinct form of understanding "the individuality of the individual" in turn-of-the-century America (49). The idea, for Seltzer, is that in machine culture we get the "replacement of the individual and organic body by the collective body of the organization" (155). So, the worker of the scientifically-managed, Taylorist factory is something of a statistical person. To be a worker, he must align his habits, aptitudes, and preferences—the sum of his personhood—in and out of the factory with the standards, measurements, and schedules befitting his position; even leisure time here is a necessary extension of work, its restorative complement.

In his brief comments on *Connecticut Yankee*, Seltzer himself links Morgan's mission in Camelot to the idea of disciplinary individualism by way of a comparison between the Yankee's man factories and the turn-of-the-century emergence of the scouting organization for boys. Remarkably, Boy Scouts of America co-founder Robert Baden-Powell even referred to his group as a "character factory." According to Seltzer, both Morgan's man-factories and Baden-Powell's "character factories" devised to "turn groups of boys into brigades of workers," thus "[coupling] the natural body and the disciplines of machine culture" (153). But Seltzer also insists that *Connecticut Yankee* in fact evinces a tension between two *opposing* conceptions of individuality, which he sees as guiding industrial capitalism, in general: The artificial, "disciplinary" character of machine culture is for him set against a "natural" model of character grounded in the ethos of the free market. Adapting C.B. MacPherson's influential concept, Seltzer calls this latter mode "possessive individualism." Seltzer's possessive individual is essentially the consumer of laissez-faire market culture, whose particularity as an individual is crucial to his subject status within that culture. In applying this model to *Connecticut Yankee*, Seltzer notes that Twain sets the "Taylorite disciplinary scenario" of the man-factory against Morgan's "possessive" notion of

individuality. This latter mostly comes into play in the Yankee's reflections that "'a man is a man at bottom' or, most basically, that 'there is no accounting for human beings'" (qtd. in Seltzer 95).[19]

Against Seltzer, I want to insist on the completeness of Morgan's vision of Camelot as a 'disciplined' world. In my reading, the Yankee encounters his feudal subjects as "trained" all the way down from the "vocational training" of the workplace to cultural, hereditary, and evolutionary inheritance. In Morgan's Camelot, there is no real "bottom" of unaccountable manhood, no irreducible identity of the "I am I."

Twain's clearest and most comic illustration of the Yankee's facility in putting the individuality of the individual to good use is in his easy transformation of a celebrated hermit, St. Stylite, into a highly profitable sewing machine. On one level, the case of Stylite is simply a good example of Morgan's practical coupling of person and industrial function in Camelot—more or less the ethos of disciplinary individualism, according to Seltzer. The hermit's non-stop devotions consist of "bowing his body ceaselessly and rapidly almost to his feet." His whole life is wrapped up in this form of prayer. To Morgan, it seems a pity that all of this power—"one of the most useful motions in mechanics, the pedal movement"—should go to "waste." So he puts Stylite's devotions to work by applying a "system of elastic cords" to his body and running a sewing machine with it. The hermit's saintliness can now be commodified along with his mechanical energy: While praying, he produces "first-rate tow-linen shirts" that sell for the

[19] Similarly, Michaels reads these moments of *Connecticut Yankee* as reflecting a "conception of individuality that systematically denies any power at all to training, influence, and education" (279). Like Seltzer, he sees the novel as engaging a tension between the man "at bottom" and the power of training in forming persons.

"price of fifty cows or a blooded race horse in Arthurdom" to pilgrims who regard it as a "perfect protection against sin." Twain makes rather explicit the Taylorist scaffolding of Morgan's ingenious plan: In working out the mechanics of his saintly clothing line, Morgan times Stylite with a stop watch, noting that he makes "1,244 revolutions in 24 minutes and 46 seconds" (166). Of course, unlike the Taylorized worker, Stylite does not need to be trained to assume a certain kind of standardized individuality. However, in Morgan's seamless calibration of Stylite's natural body with a fully-operating industrial machine, the saint nevertheless functions as a model for the full transformation of the human into industrial resource.

If Morgan can conceive of his feudal subjects as usable through and through, this is in part because, throughout the nineteenth century, Western culture had been revising its picture of what it means to be an organism in response to its various industrial revolutions. Anson Rabinbach writes in *The Human Motor* that, in the industrial age of the nineteenth century, René Descartes' conception of the animal as machine was "dramatically transformed by the advent of a modern motor, capable of transforming energy into various forms." Now, European physicists and physiologists saw all of nature—human, animal, and plant—as exhibiting "the same protean qualities as the machine" (2). In my introduction to this dissertation, I suggested that Herbert Spencer's evolutionism transported this vision of nature as a thermodynamic machine to America. The salient point here is that, like an industrial machine, the human body—St. Stylite's body—is essentially a "human motor" that "converts energy into mechanical work" (2). The human body, conceived as industrial machine, and not Cartesian animal-machine, is most saliently a laboring body, just as the natural world in this picture is a producing one. Both are

essentially resources for the fulfillment of economic ends set under the conditions of industrial capitalism.[20]

Rabinbach's analysis primarily relates to machine-age conceptions of the human *body*. But the case of Stylite suggests that the ethos of instrumentality in Camelot grasps the individual in his utmost singularity, letting nothing go to waste. Insofar as Morgan's industrial revolution extends its reach even to human character, labor power seems also to permeate the 'soul,' and not just body. It is first of all significant that, in Stylite, we have a remarkably singular character, a celebrity so unique as to be worthy of pilgrimage. He is thus already a special case that might function as a figure for 'individuality' itself. Morgan's scheme merges not only the saint's body, but also his singular character with the machine: Stylite need not change anything about himself or his way of life in order to become a highly profitable industrial machine. Insofar as the core of Stylite's personhood—his form of devotion—remains intact in the transformation, his status as machine in fact has the appearance of ongoing individuality. Moreover, it is this very personhood—Stylite's identity as a saint—that makes this machine an especially useful one, one that churns out a profitable commodity. My idea here is that, from the Yankee's perspective, Stylite is not first of all a man who is put to work upon the nation's industrialization and thus transformed into a 'disciplined' individual. In Morgan's Camelot, Stylite's function as a machine tool is co-extensive with his personhood. He is disciplined through and through.

[20] See also Tichi for a discussion of the way that gear-and-girder technology "fostered a conception of the human being as a machine for the consumption and production of energy" from the 1890s through the 1920s. The "gear-and-girder" era understood nature similarly—"as a congeries of machines and structures comprised of interworking component parts." The human role in such a world, like Morgan's role vis-à-vis St. Stylite, was to "engineer the structures and machines to be able to function with maximal efficiency and minimal waste" (xii).

In the exemplary case of Stylite, we see Morgan grasping his subjects as human motors at the root of individuality. Similarly, Taylor's self-proclaimed priority for industrial management, as summed up in *The Principles of Scientific Management*, was to "study each workman as an individual" (69-70). Taylor's system would "[individualize] each workman" by mandating that managers give the underperforming worker the "time and the help required to make him proficient at his present job." Otherwise, he is "shifted to another class of work for which he is either mentally or physically better suited" (70). According to Taylor, each man thereby "preserves his own individuality and is supreme in his particular function," and yet is "controlled by and must work harmoniously with many other men" (140-1). In thus seeking to calibrate individuality with the goals of the organization, Taylor's system expresses the ethos of disciplinary individualism per Seltzer. But there is also a sense here that the worker need not align his personhood with factory standards after all, need not go through the man-factory, to assume his disciplinary individuality. To be 'disciplined' in Taylor's factory is instead to be grasped by management in one's very uniqueness. Character, rather than being produced, is put to use for the first time, geared towards the maximization of profit.

A profitable individuality is an individuality made resource, personhood rendered natural according to the terms set by the machine age—as labor power. And Taylor in fact opens *Principles* by 'naturalizing' the human in this way. He does so by way of a nod to Theodore Roosevelt's admonition that the "conservation of our national resources is only preliminary to the larger question of national efficiency." If America's wasteful expenditure of its forests and water sources is to be deplored, so are the even "larger wastes of human effort" that are as yet

only “vaguely appreciated” by the public (5). Roosevelt’s comparison—and Taylor’s use of it—levels the entire material world, human and nonhuman alike, into use-instrument.

Morgan’s program of disciplining individuals has at its ideological root such a leveling. At the end of the day, making men for Morgan amounts to making good tools: “Preserving” the individual, as Taylor puts it, is like “conserving” a forest, insofar as both are bastions of potentially wasted energy. We see this best in Morgan’s famous showdown with King Arthur’s knights. At the height of his power, the Yankee takes great pleasure in engaging the knights as employees. Primarily, he transforms them into walking billboards and salesmen: They go “sandwiched between bulletin-boards bearing one device or another” or persuading the king’s subjects to “try a sewing-machine on the installment plan, or a melodeon, or a barbed-wire fence, or a prohibition journal.” They have become that crucial ‘engine’ of the machine age – the salesman. To some extent, Morgan grasps the knights in their individuality, as we have seen in the case of Stylite. He “preserves” character while likewise rendering it useful. That is, Morgan does not actually transform, but simply repurposes the errant knight’s distinct form of life for his industrializing project: He tells us that it is “their penchant for wandering, and their experience in it” that renders the knights the “most effective spreaders of civilization we had.” (315).

Ultimately, the knights are like trees, coal, or iron. They serve an important industrial function, but are so much dead matter when no longer productive. So, when the knights quit their travelling salesman jobs to march against Morgan per the Church’s command, he famously electrocutes 25,000 of them, thus transforming them into a single, undifferentiated mass of life. The corpses that now pile up around Morgan’s citadel cannot be counted “because they did not exist as individuals.” They are merely “homogeneous protoplasm, with alloys of iron and

buttons" (343). The image here is of (human) nature as industrial material, all matter conceived, in its essence, as machine. In their industrialized homogeneity, the knights are most properly what they always were in the Yankee's schema—a resource to be put to good use.[21]

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The breakdown of Morgan's one-man industrial empire at the end of *Connecticut Yankee* lays bare, as breakdowns sometimes do, the essential components that once made it run. Here, we get a clear vision of Morgan's self-positioning outside of the mechanized natural order, as against the men he would 'make,' who are fully embedded in it. The division between ruler and ruled manifests itself as a metaphysical one, as it did in his "extraordinary speech." It is a division between body and soul, the causal order and the order of free will. Morgan's boast that he is transforming Camelot's "groping and grubbing automatons into men"—and thus molding them into liberal subjects capable of self-government—is here newly complicated by the fact that Morgan, himself, apparently does not think of himself as a man. By the end of the novel, the Yankee positions himself and his faithful boys *outside* of manhood and in fact tethers being a man to being a mere animal. In a message of warning to the knights charging his citadel, he

[21] Spanos argues that the significance of this moment—and the larger "Battle of the Sand Belt"—is what has been "hermeneutically at stake" for all phases of *Connecticut Yankee*'s critical reception (45). Franklin notes that the novel has long been cited as an "eerie forecast of the trench warfare of WW I," but finds in it an "even more uncanny projection of the ultimate war, in which the victors end up as victims of the universal death they have sown" (167). Rowe and Kasson read it in the imperial context: Rowe understands Morgan to be enacting, in the sixth century, the "special horrors of modern, mechanized warfare as they were revealed in the unequal battles between European imperial powers and preindustrial peoples" ("How the Boss Played the Game" 187). Kasson reads *Connecticut Yankee* as demonstrating how "a powerful, supposedly humanitarian republican leader may betray his own ideals as he seeks to extend control over a weaker, underdeveloped nation through essentially aggressive use of his technology." He notes that, with the Battle of the Sand Belt, this tendency "explodes into genocidal violence" (215).

warns his enemies that, despite their number, they fight with "mere animal might" alone, the strength of the body. This is no match for his own band of fifty-four, who are "not *men*, but *minds*." The Yankee's cerebral avant-garde is a "force against which mere animal might may no more hope to prevail than may the idle waves of the sea hope to prevail against the granite barriers of England" (345; my italics).

It should be clear by now that Morgan and his band are "minds," because they are technocrats: Their rule is grounded in technological infrastructure and the expertise to operate it. In *Iron Cages*, Ronald Takaki argues that machine-age Americans, marveling at their quickly industrializing country, tended themselves to identify technological know-how with mind, the machine an inevitable replacement for the human body. Takaki reads *Connecticut Yankee* as reflecting an "American fantasy" that emerges out of this new articulation of the mind-body division: "Mind acting through the useful arts, is the vital principle of modern civilized society. The mechanician, not the magician, is now the master of life" (166). In America, such "mastery" was predictably distributed along class lines that became strikingly more pronounced in a Taylorized workplace. Rabinbach writes in *The Human Motor* that Taylor's most important effect on industrial work lay in "the creation of the first-management oriented industrial ideology" (240). This entailed a significant reorganization of power: "Taylor's system shifted effective control from the shop floor to management," the labor process itself having been redesigned largely according to the scientific expertise of engineers totally outside the workplace (239). The political distribution of mind and body is then an obvious one. Takaki notes that, in truth, "only the elite—factory owners and managers—became mind, while the masses of

laborers, enclosed inside factories that resembled 'prisons,' were reduced to body workers" (154).[22]

In *Principles of Scientific Management,* Taylor tries to intercept this criticism of the 'metaphysics' implicit in his system. He objects to a version of Takaki's critique—the idea that his method tends to make of the worker a "mere automaton, a wooden man." He insists, rather, that the same objection can be raised "against all other modern subdivision of labor." The surgeon, who also performs his tasks in conformity to a system, is as much automaton as worker (125). Despite these protests, *Principles* recommends a division of labor between manager and worker that maps quite well onto the mind-body division: The manager ought to assume the function of thought and instruct the industrial worker, as if moving his own body. Taylor explains this allocation of duties as if it were an ordinary fact, as intuitive as the mind-body division itself. He counsels the reader that the sciences underlying industrial labor are so difficult that the worker—"either through lack of education or through insufficient mental capacity"—cannot possibly be capable of understanding them" (25-6). Here, thinking and doing, mental and physical capacity, naturally gravitate towards disparate actors. To have the body for doing the work also entails that one lacks the mind for understanding the science underlying its execution.

[22] Similarly, Lears remarks with regard to Taylorism that "after 1900, managers developed new theoretical rationales for deskilling work and reinforcing hierarchy. The manager's brains would no longer be under the worker's cap, but distributed throughout the planning department to men with white collars and academic credentials. Workers themselves would lose all control over the pace and process of their work" (*Rebirth of a Nation* 258). Salazar also notes the Taylorist hierarchy imposed by Morgan, though without making reference to the implied mind-body division. He writes that "rather than leveling the class hierarchies of aristocratic culture … Morgan recasts them in Taylorist terms by manufacturing 'trained men' for the despotic use of an elite technocratic class of 'brilliant experts'—namely 'the boss' and his 'boys'" (99).

In Morgan's Camelot, the technocratic metaphysics of Taylor's factory are writ large as 'republican' government: The Yankee sends his warning about the inefficacy of "mere animal might" to the rebellious knights soon after announcing his new government in a "Proclamation" circulated among the people. He declares that, King Arthur having died without an heir, "*a Republic is hereby proclaimed*, as being the natural estate of a nation when other authority has ceased." Now "all men are become exactly equal; they are upon one common level" (337). Of course, Morgan means here to suggest the abstract equality that grounds republican government. But by the end of the novel, a 'man' just *is* an animal body, its proper place one of subordination to the 'minds' of Morgan and his avant-garde. The 'animalized' fate of the knights is thus the fate of all England—because this is now a republic, after all. Morgan ends by grounding his republic in the same metaphysical and political divisions he has been building into Camelot all along: ruler and ruled, technocrat and machine, man and animal, and ultimately, body and mind. His affirmation of "one common level" for all men does not then denote the equality of republican citizenship, but that of a standardized animal life. This is the equality of organism rendered resource, made equal by its translation into labor power.

Metaphysics in Twain's Machine Age

"The Character of Man"— an apparent forerunner to Morgan's "extraordinary speech"—suggests that Twain too believed in the equalizing force of "animal training." Indeed, critics have long pointed out, and just as often lamented, that during the last years of his life, Twain espoused a pessimistic determinism—an increasing skepticism about the individual as an

originating, un-caused 'I.'[23] If this was in fact his view, the problem with Morgan's speech would seem to be the insertion of a "me," however microscopic, that pulls the Yankee alone out of the iron grip of physical causation. When translated into a political project, such an 'exceptionalist' metaphysics blurs into a dangerous technocratic imperialism. It is thus puzzling that Twain, in his Socratic dialogue, *What is Man?* pitches his most complete philosophical avowal of determinism in the metaphorical register of the machine age.[24] If we follow my reading of *Connecticut Yankee* through to *What is Man?*, this should strike us as problematic: Morgan's rendering of the individual into human motor, as in the case of Stylite, is part-and-parcel of his apparent ease in electrocuting 25,000 people with the touch of a button.

What is Man? suggests that Twain was himself to some extent captivated by the metaphysics of the human motor that, according to Rabinbach, enthralled the nineteenth century, as it did Hank Morgan. The idea that Twain could be at once critical of his era's productivist ethos and also subscribe to it is not altogether surprising. This, after all, was the man who wrote

[23] See, for instance, Cummings, Hawkins, Tuckey, Quirk, and Waggoner.

[24] Critics have long assumed that the philosophical views of the "Old Man" in the dialogue represent those of Twain. I see no reason to dispute this view, which Twain all but confirms in his preface to the work, which was published anonymously in 1906 and received very little notice. The author advises his readers, in a note dated February 1905: "The studies for these papers were begun twenty-five or twenty-seven years ago. The papers were written seven years ago. I have examined them once or twice per year since and found them satisfactory. I have examined them again, and am still satisfied that they speak the truth. Every thought in them has been thought (and accepted as unassailable truth) by millions upon millions of men—and concealed, kept private. Why did they not speak out? Because they dreaded (*and could not bear*) the disapproval of the people around them. Why have not I published? The same reason has restrained me, I think. I can find no other." *The Monist*, published an article in 1913 on "Mark Twain's Philosophy" that argued for the legitimacy of Twain's determinism in *What is Man?* See Gurley for a reading that does not take for granted the author's assent to the Old Man's views: Gurley argues that Twain's satirical use of Socratic dialogue undercuts his philosophical determinism.

biting satires of what he called the "Gilded Age"— but who was also an ardent capitalist, famously investing much of his wealth in the failed Paige compositor. John F. Kasson writes in *Civilizing the Machine* that, over the course of his career, Twain helped finance "as many as a hundred inventions and manufacturing schemes, almost all of them unsuccessful." Kasson finds that the author "beheld technology with his culture's most uncritical fascination and yet uttered some of his era's gravest forebodings over the course it was taking" (204). The Paige compositor, in particular, most clearly signals the author's 'machine-age metaphysics,' insofar as it was a machine modeled on a person.[25] If Twain was worried about a world divided between Morgans and Stylites, he was at the same time compelled by the idea that humans were simply one machine among many, another kind of motor. An 1889 letter to William Dean Howells in fact finds the author boasting that the Paige was in construction "as elaborate and complex as that machine which it ranks next to, by every right—Man—and in performance it is as simple and sure" (qtd. in Kasson 204).

At its core, the Old Man's philosophy is that "a man is never anything but what his outside influences have made him" (*What is Man?* 60). The preferences, beliefs, choices, and actions that make up an individual life are formed exclusively by the "training" of his human environment, along with some quantity of "born-temperament" that the Old Man leaves essentially undefined (126). His emphasis throughout is on something like the social, historical, and cultural determinants that here fully constitute a person, rather than, for instance, biological

[25] Michaels locates the "real significance" of the typesetter in its having marked a" nineteenth-century high point in the attempt to represent human actions in metal." The failed compositor was to have performed "all the acts of a human typesetter—setting, justifying, and distributing individual types" ("An American Tragedy" 75).

determinism. Nevertheless, the picture he paints is of a machine that is also an animal: There is, for him, no intellectual or moral divide that separates the human from the nonhuman, since both are mechanism. The Old Man notes, for instance, that "Man's thought-*machine* works just like the other animals's, but it is a better one and more Edisonian" (101). Mechanization in *What is Man?*, as in *Connecticut Yankee*, envelopes both body and soul—the full human being. Even the mind, the traditional site of human spontaneity, is "purely a machine, a thoroughly independent machine, an automatic machine" (88).[26]

Here, the Old Man operates in the worldview that Rabinbach attributes to nineteenth-century Western intellectual culture: He curiously renders his metaphysics in the metaphorical register of not only the machine, but specifically the thermodynamic machine. The Old Man most clearly industrializes his basic metaphor when elaborating on the difference between a "savage" and a "civilized man." The former is a mere stone engine, while the latter is a steel one, capable of running a steam engine. Drawing on the terms of Morgan's own determinism, the Old Man explains that it is first of all "training, education" that makes a steel engine out of a stone one (6). The former becomes "civilized" by virtue of going through certain processes—"influences" that act on him like the Bessemer process acts on iron to refine it into steel. In the case of man, it is the educational system and other forms of culture that "refine" him into civilization (7).

[26] Wonham makes the interesting case that the *Mysterious Stranger* manuscripts—which Twain worked on intermittently between 1897 and 1908—try to articulate the idea of a "structure of identity unlimited by consciousness, training, or bias" (270). This suggests that Twain was still trying to locate human being outside of "training" even as he became increasingly convinced by the idea of a fully determined universe.

Twain's vision of the human motor slips in its own agency outside of "training," as does Morgan in his "extraordinary speech." The "Young Man," a naïvely idealistic foil for the Old Man's hard determinism, asks his elder how he would "condense into an admonition [his] plan for the general betterment of the race's condition." The Old Man offers the following piece of advice: "Diligently train your ideals upward and still upward toward a summit where you will find your chiefest pleasure in conduct which, while contenting you, will be sure to confer benefits upon your neighbor and the community" (71). Here, it turns out, there is a genuinely agential 'you' to train yourself one way or another, rather than simply being trained. This is a curious practical lesson to take away from a philosophy that is meant to dispel us of our faith in free will. It presupposes that there is in fact some originating part of the self that can operate the machine – a "truly me" outside of it. More than simply inconsistent, Twain's determinism mirrors the logic of Morgan's speech and likewise that of his republic, split between technocratic 'mind' and animal 'body.' This is the logic of the exception. The determined "we" of Morgan's speech made room for just one "microscopic atom" of "truly me." This atom turns out to be a philosophical correlative for the political despot: Morgan's republic is similarly premised on the idea that all men are determined bodies, *except* for a small cadre of ruling minds.

In comparing Twain to the Yankee, I do not mean to suggest that determinism as a philosophical position is inherently politically dangerous. However, such metaphysical slippage as we see in *What is Man?* does suggest the political danger of conceiving the human as a laboring mechanism, an industrial machine. Like Morgan, the Old Man conceptualizes individual character—traditionally, the 'soul' and not the body—as industrial engine, fully motorized human being. He does not explicitly follow this image to the conclusions about nature's essential

productivity that Rabinbach suggests are characteristic of his time. But his metaphorical register yields implications of its own. In this philosophical picture, soul joins body as a source of labor power, a tool ultimately geared towards the production of value. The individual human is not only automatic, and thus fully determined, but also essentially useful. And this vision inevitably suggests another one: That human labor power should be channeled as efficiently as possible, to confer the most "benefits." This is where the technocrat, who is also imperialist, and likewise 'mind' comes in – to be the single exception from the sphere of the human motor tasked with the job of training it "upward and still upward" (*What is Man?* 71). As we saw in *Connecticut Yankee*, a whole nation of human motors finds its proper managers in a technocratic elite, rightful masters over the realm of mere animal training.

PART II: THE NEW AMERICAN IMMIGRANT

Social Personhood and Ecosystemic Politics in *3,000 Years Among the Microbes*

Thus far, Twain's explorations of "man's place in the animal world," especially as these touch on the meaning of global America, have been rather bleak. But they also do not stop with *Connecticut Yankee* and *What is Man?* I argue that the author's late unfinished science fiction novel, *3,000 Years Among the Microbes* poses a naturalist model of the self that functions as a distinct alternative to the Yankee's exclusionary individuality. While Twain did not start writing *3,000 Years* in earnest until 1905, he had been mulling over the story's premise since before beginning work on *Connecticut Yankee*. In an 1884 notebook entry, the author muses: "I think we are only the microscopic trichina … concealed in the blood of some vast creature's veins, &

that it is that vast creature whom God concerns himself about, & not us" (qtd. in Ketterer xxv). In *3,000 Years*, Twain looks inside such a "vast creature"—actually a Hungarian immigrant named Blitzowski—to find a world populated by microbes that act a lot like humans. Huck, our narrator and the novel's ostensible author, was himself once human. But 3,000 microbe years ago—or the better part of a human day—a magician's experiment gone awry transformed him into a cholera germ inside Blitzowski. I find here that Huck's account of life as a microbe yields an essentially social model of the "I," one that does not require its exemption from the causal order of nature and culture. Here, then, is a vision of the human animal that avoids the metaphysical despair so often attributed to Twain's late naturalist phase. This model of personhood, when considered in relation to the novel's human host—the contagious immigrant—offers a vision of global America premised on both symbiosis and conflict, a democratic ideal that finds its natural correlative in the ecosystem.

Twain wrote *3,000 Years* during America's greatest wave of immigration, the period between 1880 and 1924 when 23.5 million emigrants departed their native countries for U.S. shores (Kraut 52). These were the so-called "New Immigrants," new insofar as they came from ethnic and religious group outside of the networks that had traditionally supplied the nation its settlers until the late nineteenth century. America's earlier arrivals had come predominantly from Protestant, Northern European countries. Those entering the U.S. now were comprised primarily of Central, Eastern, and Southern Europeans, along with Asian immigrants. Compared with earlier populations, the New Immigrants were mostly poor and uneducated; this, along with their suspiciously foreign cultural and linguistic backgrounds, made them easy targets for the hostility of those Americans who could boast an older pedigree.

In *3,000 Years*, Twain energetically weaves satire of timely political and social issues together with reflections about the meaning of nature. Given that he wrote the novel around the peak of the New Immigrant surge, it is appropriate that both microbe-man and microbe-world are themselves immigrants—a detail routinely noted by the few critics who have offered sustained readings of *3,000 Years*. A Hungarian national, Blitzowski is indubitably a New Immigrant, and Twain depicts Huck as himself an immigrant to Blitzowski. From the perspective of a microbe, the Hungarian's body is a whole world that, like our Earth, is partitioned into nation-states. But, at times, the novel encourages us to identify Blitzowski simply with America. Twain suggests that, like America, Blitzowski is essentially an immigrant nation: His body "contains *swarming nations* of all the different kinds of germ-vermin that have been invented for the contentment of man" (235; my italics). Huck, in turn, is an exemplary new citizen: At the start of his narrative, he lets us know that, upon "arriving" in Blitzowski, he became "instantly naturalized"—"a real cholera germ, not an imitation one." Twain, here, plays with the doubled political and biological significance of "naturalize": Huck is a "naturalized" citizen, but he has also been made natural, been fully assimilated in the biological sense, as a microbe. And of course, his insistence on being a *real* cholera germ sounds like the plea of an American immigrant or his anti-nativist advocate: Our newcomer is really, authentically American, no trace of suspicious "foreignness" here. Huck works ardently to convince readers of his cholera-germ authenticity. He lets us know that his transformation into a microbe has found him "intensely, passionately, cholera-germanic." Indeed, upon arrival, he quickly "out-natived the natives themselves" with a "patriotism" that was "hotter than their own, more aggressive, more uncompromising" (234).[27]

[27] "Germanic" is itself a pun on German nationals, one of the largest immigrant groups in

Unlike Huck, the exemplary immigrant, Blitzowski is the stuff of turn-of-the-century nativist nightmares—not only a Hungarian "New Immigrant," but also a "hoary and mouldering old bald-headed tramp." Blitzowski is a drunk and a drain on city resources: "He tramps in the summer and sleeps in the fields; in the winter he passes the hat in cities, and sleeps in the jails when the gutter is too cold; he was sober once, but does not remember when it was." He is filthy and vice-ridden: "He never shaves, never washes, never combs his tangled fringe of hair; he is wonderfully ragged, incredibly dirty; he is malicious, malignant, vengeful, treacherous, he was born a thief, and will die one." And most significantly, Blitzowski is dangerously brimming with disease: "His body is a sewer, a reek of decay, a charnel house, and contains swarming nations of all the different kinds of germ-vermin that have been invented for the contentment of man." Blitzowski, in short, is an all-around undesirable, having been "shipped to America by Hungary because Hungary was tired of him" (235).

If we are to read Blitzowski and Hank Morgan as counter-images of global Americanness, the immigrant does not fare well against the imperialist. Our tramp is a poor specimen when compared to the marvelous Yankee and, aside from Huck's unflattering description, we know him only as host to the novel's "swarming nations" of microbes. Of course, this microbial abundance certainly makes Blitzowski the right frame for a story about a flourishing germ world. But Twain is obviously also drawing out and playing to nativist

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nineteenth-century America. Peyser reads Huck's "passion" for his new "choleric-germanic" identity as mocking the turn-of-the-century nativist insistence that immigrants prove their loyalty to the U.S. He notes that "this passage would have been instantly recognized as a travesty of one of the fixtures in the national conversation concerning immigration, namely the new immigrants' profession of loyalty to their new home" ("Mark Twain, Immigration" 1015). Gillman also understands Twain to be "parodying a variety of anti-immigrant sentiments" in this moment of *3,000 Years* ("Mark Twain's Travels" 538).

anxieties in highlighting his contagion. As a cholera germ, Huck and his kind were responsible for a number of significant global epidemics in the nineteenth century. In fact, most of the microbes in Blitzowski's body are disease germs. Among Huck's scientist friends we encounter Yellow-fever, Pneumonia, Typhoid, Consumption, Diphtheria, "Recurrent Fever," and even "African Sleeping Sickness" germs (249). Blitzowski's status as so very diseased points to a major American concern about the New Immigrants in a nation that had, by the end of the nineteenth century, become "extraordinarily germ conscious," as Nancy Tomes put it in *The Gospel of Germs*, her history of the first "germ panic" in America (13).[28]

Tomes explains that, as of 1880, American physicians were still highly skeptical of the germ theory of disease. However, in a relatively quick turnaround of medical knowledge, by the 1890s, "medical students were being educated to revere the germ theory as scientific orthodoxy" (28). In the meantime, aggressive public health campaigns—waged by the new domestic scientists, Progressivist social workers, and business interests eager to capitalize on the 'invention' of germs—rallied American families to fight their very own sanitary crusade. But this campaign was waged unevenly and functioned to aggravate social divisions. Tomes notes that, "by the eve of World War I, the awareness of germ dangers and the practice of antiseptic cleanliness had come sharply to differentiate rich from poor, literate from illiterate, native from foreign-born, and urbanite from rural-dweller" (183). Fear of contagion propelled rising nativist

[28] The "blitz" in Blitzowski may be a reference to dynamite or other kinds of explosives. Twain could be alluding to the stereotype of European immigrants as violent political radicals, a perception spurred by such incidents as the Chicago Haymarket affair of 1886. Peyser also notes the "longstanding association of immigrants, dynamite, and disease." He cites, for instance, a 1903 issue of *The Baptist Home Mission Monthly* that warns its readers that the "volatile dregs of Europe have been pumped into our veins until side by side with every pure atom of Americanism is a foul or explosive atom of something else" ("Mark, Twain, Immigration" 1015).

sentiments targeted against New Immigrants like Blitzowski. In his history of disease and American immigration, Kraut suggests that by 1900 nativists regularly summoned medical data to argue for the increased rate of certain diseases among immigrants as compared to native-born Americans. Scientific medicine had thus become a "weapon that Anglo-Saxon Protestant civilization could use to defend itself against the intrusion of those it regarded as of inferior breed" (5).[29] Moreover, in her study of the famous case of "Typhoid Mary," Priscilla Wald notes that the great challenges faced by public health workers tasked with mitigating disease in urban ghettos drove home the essential foreignness of the new arrivals, the impossibility of true assimilation. Anti-immigrant discourse capitalized on the image of the foreign ghetto as a "national disaster" waiting to happen, a site of impending epidemic. But it also figured the ghetto's occupants in the terms of toxic waste—the refuse of American industrialization, which "produced insufficiently absorbed waste as it produced insufficiently absorbed foreigners (migrants and immigrants)" ("Cultures and Carriers" 192-3). As against Huck's exemplary performance of microbe citizenship, Blitzowski epitomizes the thoroughly unassimilable immigrant.

The turn of the century's drive to kill the germ worked to reinforce borders between 'us' and 'them,' the American 'I' and the foreigners who threatened to pollute it. We might then say, with Laura Otis, that germ theory helped breed a "concept of identity" that was "based on exclusion," on enforcing borders—what Otis calls the "membrane model" (3). Writing about the metaphorical impact of biological cell theory on nineteenth-century notions of personal and

[29] See Kraut for a thorough history of the long association between disease and immigrants in America; how this association functions in nativist discourse; and how it influences key civil institutions, like the workplace and the school system.

national borders, Otis contends that the germ encouraged Western nations to think increasingly in terms of 'inside' and 'outside.' She suggests that "if one believes that invisible germs, spread by human contact, can make one sick, one becomes more and more anxious about penetration and about any connection with other people—the same anxieties inspired by imperialism" (4-5). Otis is primarily concerned with the reluctance of Western nations to meaningfully assimilate the foreign peoples that they were happy to colonize. In the American context, the same worries about foreign penetration were of course inspired by the New Immigrants.

So far, if anything, the novel's Blitzowski framing points to an anxious model of selfhood in which sociality, and indeed simply being in the world, appears primarily as an encroachment or danger. But *3,000 Years* also takes pains to recuperate the germ from its association with contagion: If the microbe *qua* disease is deadly, it is also necessary for sustaining human life. It is only fitting that, back on Earth, Huck was "the expert of experts" when it comes to bacteriology: He "knew more about it in a week than Pasteur knew about it in a year" (294). In conversation with Blitzowski's own preeminent bacteriologist, a Duke who is also an African Sleeping Sickness germ, Huck learns that the "infinitely microscopic microbes that infest *microbes*" function the same way that they do on Earth (294). In Blitzowski, they are called "swinks." The Duke explains the essential role of the "swink" in sustaining all of life by way of a bacteriology lesson that Twain apparently gleaned from H.W. Conn's *The Story of Germ Life* (1897); in fact, Huck reports to having been a student of Conn back in "the World" (302).[30] The Duke explains that, in the normal course of things, "the swink attacks the carcasses [of dead animals] and their previous excretions, feeds upon them, decomposes them, and sets free a lot

[30] Lindborg offers a useful discussion of Twain's sources in *3,000 Years*.

[of] oxygen, nitrogen and other things necessary to the plant-table." (297). In this way, "the country is saved"—"The plants get their foods back again, and thrive." Without the swink, then, the world would suffer a "catastrophe of catastrophes," all of life—from the soil, to the plants, to the animals, and forests—withering away and perishing (296). Huck takes in the Duke's report with great enthusiasm. In the world, he "knew all these facts." But he is gratified to hear that "our little old familiar microbes were *themselves* loaded up with microbes that fed *them*, enriched them, and persistently and faithfully preserved them and their poor old tramp-planet from destruction" (302).

In emphasizing the essential world-preserving function of the microbe, Twain reverses, to some extent, the figure of the contagious immigrant. "Good" germs themselves begin at moments of the narrative to resemble immigrants: Huck's defense of the swink ends up sounding like a plea for the immigrant. He explains that "Swinks of various breeds help in a multitude of Our commercial industries. The Yeast-swink helps in every kitchen and every bakery on the planet. You get no good bread without him. He conducts Our wine-business, strong-liquor business, beer-business, vinegar business, and so on, for Us, and does it on a mighty scale" (300). Disease swinks—like the ones we meet in *3,000 Years*—are unfortunately the only kind that one ever hears about. But this is just a small part of the story: "Meantime the laborer-swink is supporting all the nations, prospering all the nations—and getting neither thanks nor mention" (300). Here, Huck draws on arguments typical of anti-nativist rhetoric to convince the reader that its effect on that territory is a positive one. The idea that these foreigners are industrious, that they bring unique skills with them, and that they are, in general, hard workers, is an argumentative move that readily translates into a defense of the immigrant 'invading' America's

'body.' The immigrant-as-microbe suggests that not just America, but human being itself, is essentially permeated by foreignness, and that this should be considered a good thing, despite the dangers of toxicity, the deadly intruder.

The germ-laden foreigner thus becomes, in *3,000 Years*, a paradoxical figure for both the dangers and benefits of social contact, a figure also for our essential human embeddedness in a natural world that saves our lives by invading us. Critics like Tomes and Wald, while tracking the germ's xenophobic impact, have also analyzed the discovery of contagion as newly stressing the deep sociality and indeed dependence entailed in human culture. Wald points out the contradictory lesson of the microbe in her introduction to *Contagious.* She notes that "disease emergence dramatizes the dilemma that inspires the most basic of human narratives: the necessity and danger of human contact" (2). Tomes's history of the germ in America reveals how the threat of contagion clued American into the artificiality of the social boundaries that structure their worlds. Progressivist activists fought for sanitary and health reform by making the case that cleaning up urban ghettos benefitted all Americans; germs do not, after all, respect the boundaries between humans, let alone ethnic groups or economic castes. The spread of the market economy in the late nineteenth century offered Americans a vivid illustration of this fact: Many industries of the period used tenement house shops and the homes of workers for some phase of production, thus linking consumer and producer in a community of the germ. For concerned reformers, the specter of contagious clothing became "a concrete example of how the 'chain of disease' and the 'socialism of the microbe' worked to tie together the fates of affluent and poor" (Tomes 205).

If the discovery of the germ compelled Americans to conceive of themselves as part of a national whole, both Tomes and Wald suggest that it also helped shift the meaning of modern citizenship towards an emphasis on social responsibility. Working to keep oneself clear of disease germs was now a basic component of good citizenship, a duty owed to fellow Americans. Correspondingly, Tomes notes that the essentials of a sanitary life—"pure air, clean water, and nourishing food"—became, in the twentieth century, an obligation of government towards the body politic (233). Wald unpacks the case of "Typhoid Mary" to demonstrate how debates around the healthy carrier of disease compelled American notions of personhood towards the social. [31] Though herself symptom-free, Mary Mallon infected several wealthy families while working as a cook in the first decade of the twentieth century. She was eventually quarantined for the remainder of her life. Wald finds that the healthy (and thus undetectable) carrier, like Tomes's contagious clothing, points to the "permeable borders between social units—among classes, neighborhoods, municipalities, and even nations" ("Cultures and Carriers" 185). Mary's case and her eventual fate suggest to Wald that a medicalized notion of citizenship grounded in social responsibility had begun to infringe on the rights-based individuality that predominated in America.

The widespread impact of bacteriology at the turn of the century also made Americans newly sensible to inhabiting a kind of interspecies social. Tomes notes that in the early days of germ theory, its adherents, like born-again Christians, "saw the world with new eyes, as a place where air, water, and soil teemed with invisible life and their own skin and secretions swarmed with microbes" (27). In this regard, the microbe presented Americans with a thickening of

[31] Chapter 4 of Kraut also includes an account of the "Typhoid Mary" case.

worldliness, a sense of human life as infinitely permeated by tiny realms of living organisms—a vision that Twain personified in *3,000 Years.* The emergence of the laboratory as a viable arena for producing knowledge about the human body in conjunction with germ theory intensified this sense of nature-culture interpenetration. According to Tomes, those scientists critical of germ theory were also suspicious of the scientific experimentalism on which it was premised: "To their way of thinking, the behavior of test tube cultures or experimental animals bore no useful analogy to human disease" (34). In order to accept laboratory proofs, scientists had to be willing to accept that biological processes involving nonhuman life could serve as a "model for what happened in a disease epidemic" (39)—that, in the words of microscopist Lionel Beale, "the higher life is everywhere interpenetrated by the lower life" (qtd. in Tomes 27-8). To help the general public see their own involvement in a world of microbes, early proselytizers turned to the household. Tomes reports that public health advocates "explained the new lessons of the laboratory using everyday experiences of baking and brewing, spoiled food, and dust motes dancing in a sunbeam" in lectures reprinted for wide distribution in magazines like *Popular Science Monthly* (38). The point here is that accepting the laboratory meant seeing a variety of basic human activities and interactions as in some way reducible to the interactions available to organic matter—however foreign to human life the life of the petri dish appeared to be. The exchanges between humans in a community were at the same time microbial exchanges, the laws of nature everywhere invisibly structuring the space of culture.[32]

[32] On this point of essential nature-culture sociality, I am indebted to Nichols's reading of *3,000 Years*. Nichols links the novel's lessons of contagion to a critique of imperialism; she argues that its "ethics of interconnection" defy the individual and social boundaries required by an imperialist political vision (225). Michaelsen similarly understands the text as offering a

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In sum, Twain's interest in *3,000 Years* in the microbial immigrant opens onto a vision of American personhood in a world of blurred boundaries between self and other, both human and nonhuman. The novel also leads us back to his interrogation, in "The Character of Man," of what individuality—an 'I' that is really mine—could mean if we take for granted the compositional nature of the human, his status as a product of training. Like the Yankee, Huck offers an "extraordinary speech" on individuality in *3,000 Years*, which I read in opposition to the Yankee's imperial 'I.' Against Morgan's understanding of the "truly *me*" as a "microscopic atom" outside of training, Huck affirms an essentially compositional self in an ecological world. Such an 'I' accommodates and indeed requires other perspectives, other selves for its existence.

At first glance, Huck's vision of the self appears, in a sense, to align strangely with that of Morgan. *3,000 Years* opens up the body of a human like Morgan to find that he has in fact underestimated the quantity of true individuality in nature: Not one, but *all* of Blitzowski's "microscopic atoms" are in fact true "me's." This is not only because the germs we encounter inside of Blitzowski think and act just like humans do—as if they were individuals. We are led to this conclusion by Huck himself, who joins the Yankee in supplying his own "extraordinary" remarks on the question of individual character. As a microbe, Huck sees a rich and complicated world that humans know only in theory and can only glimpse at its most superficial level with a microscope. Everything in the "spacious landscape" of Blitzowski's insides is *alive* to Huck's "exquisite organ of vision," because it is all individualized. He can see the "individual molecules

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"radically exteriorized account of persons," which he posits as opening onto "non-capitalist possibilities" ("Tom Sawyer's Capitalisms" 134).

that compose it, and even the atoms which compose the molecules" (242). The smallest speck of dust available to the human eye contains billions of atoms. With his "microbe-eye," Huck can see *every individual* of the whirling billions of *atoms* that *compose* the speck." Here, the man-turned-microbe is first of all keen to correct our mistaken human tendency to understand nature's "whirling billions of atoms" as a kind of abstraction, a theoretical entity. Huck's injunction that each atom is an "individual" demands that we consider it as we would a human acquaintance—particular and unique.

As if writing in dialogue with the Yankee, Huck affirms the true "me"-individuality of not only every human, but also every microbe, every particle that composes the microbe, and so on, *ad infinitum*. In "seeing with [his] naked eyes minutenesses which no man-made microscope can detect," he "[registers] as facts many things which exist for [the human scientist] as theories only." The most important of these is that "there is no life but *animal* life, and that all animals are *individual animals*, each endowed with a certain degree of consciousness, great or small, each with likes and dislikes, predilections and aversions—that, in a word, each has a *character*, a character of its own" (244).[33] By insisting that "there are no vegetables," that "*all things are*

[33] By implicitly identifying microbes with animals, Twain may be referring here to the germ theory's origins in an ancient tradition of medicine known as the "animalcular hypothesis." In the late 1600s, the pioneer of microscopy, Antoni van Leeuwenhoek first concluded that "some sort of an actual basis for such theories was furnished by the microscopical demonstration of very minute living organisms, invisible to the naked eye" (qtd. in Tomes 29). His eighteenth-century inheritors actually depicted these "living organisms" as animals, producing "detailed drawings of creatures with 'crooked bills and pointed claw,'" which some writers proposed "shooting out of the sky with cannons" (29). Tomes notes that the nineteenth-century development of better and cheaper microscopes made the "microscopic world" newly available to scientists and laymen alike; this in turn "helped set the stage for the rebirth of the old animalcular hypothesis as the new germ theory of disease" (29-30). Nichols argues that the development of microbiology inaugurated a "transformation in the discourse about the human-animal." The modern microscope revealed a new "world of animals," one that was "minute,

Animal," Huck seems to mean that even atoms have not only consciousness, but also individual personhood. From Huck's perspective, there is no life *en masse*, no mere species-being. Each creature has its own form of uniqueness—a "character *of its own*." On the face of it, this is truly a world in which Hank Morgan's "one microscopic atom in me that is truly *me*" ends up being all that there is.

But a view of life that emphasizes individuality all the way down quickly morphs into the opposing picture of composition all the way down. Huck develops his pan-individualist, animist philosophy in conversation with a "renowned specialist," a Yellow-fever germ, whose unpronounceable name, "Bblbgxw," sounds more or less like "Benjamin Franklin." It is certainly appropriate that Huck's insights into character are sparked by a microbe who happens to share a name with that great American arch-individualist. But the ambiguities of such a theory already begin to emerge in Benjamin Franklin's original lesson to Huck. According to Franklin, the unique character of a tree—its "feelings, sympathies and so on, *as* a tree"—is "imparted by the combined feelings and sympathies that exist separately in the molecules that compose the tree. They are the tree's soul." Each molecule is likewise individual, in this sense, and presumably so are all the particles that in turn make it up. In such a model, "two individuals combined constitute a third individual—and yet each *continues* to be an individual" (248).

Though Huck is talking about single-celled organisms here, his model of the self is meant to encompass any kind of life form, including the human. In fact, it cannot *help* but implicate a

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active, and living with human and other animal bodies" (184). Indeed, germ theory's earliest advocates—often also evolutionists—tended to use the language of the "survival of the fittest" to describe microbe life (see Tomes pp. 41-5). This corroborates Nichols's idea that, in a sense, the microbe world really did emerge in the nineteenth century as a new setting for animal life.

human 'I' composed of—and constantly invaded by—so many individual atoms, germs, and so on. This form of microbial individuality does not much resemble the Yankee's "truly me" after all. Morgan's "microscopic atom" of "truly me" was squarely *outside* any relation to a world of nature and culture. By contrast, in *3,000 Years*, the individual self is inseparable from its status as a "mere" product of of countless other individuals. To have a "character of [one's] own," is at the same time to see that no microscopic atom of "me" is ever actually *mine*; it is instead composed of countless other bits of "me." The image of individuality that emerges here is one of composition, inconceivable in terms of identity, the idea that Twain so scornfully dismissed in "The Character of Man"—that "I am I, and you are you; that we are units, individuals, and have natures of our own" (61).

In drawing out the philosophical implications of Huck's remarks on the self-in-nature, we get a naturalist theory of individuality that works in opposition to the one posed by Morgan and even, to some extent, by Twain himself in "The Character of Man." Both of those models suggest that to be an individual 'I' at all, one must be fully 'untrained,' fully outside the procession of natural and cultural ancestors that only serve to impinge on individuality. In *3,000 Years*—as in "The Character of Man" or in Morgan's speech—the human is a composite of "atoms contributed by, and inherited from, a procession of ancestors that stretches back a billion years." The difference, of course, is that no "truly *me"*-atom is necessary for individuality to enter the picture, because the individual self just is this compendium of atoms. The material world of necessity and process in fact composes the human world of apparent freedom and singularity.

Here, I am taking seriously a theory that, taken literally, is patently false. That is, I do not mean to imply that microbes *really* have "characters of their own," are truly individual, in the sense that humans are. My point, rather is that Huck's speech in *3,000 Years* yields a persuasive naturalist model of the 'I' as a composition of discrete, 'individual' forces. The novel then acts as a corrective supplement to "The Character of Man": It offers up a 'processional' model of the self in which the individual 'I' is a temporary resting point for all the (evolutionary, hereditary, and cultural) forces that came before. What's more, this processional self necessarily also functions as an 'atom' in the formation of other 'I's.' The atoms that make me eventually move on to other life forms—in my direct offspring or in the organisms that claim them upon my death. We can also translate this thought to the scale of culture: If the human is trained by his culture, he in turn participates in the training of future generations. The microbial self of *3,000 Years* is an essentially interconnected one, thoroughly social, where sociality encompasses nature and culture alike.

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Twain's dizzying vision of each life-form, from microbe to man, as a composite of countless individuals suggests a whole *world* so constituted. The world, as a unified whole, emerges out of the unwitting cooperation of disparate elements at every level of being, on every scale. There is a sense of harmony here, of symbiosis. As we have seen, the Duke's report of the world-saving glories of the microbe also emphasized a natural world united by symbiotic action. This is a unity of both space and time, a harmony without exception: "So, the eternal round goes on: the foods fat-up the plants; they go from the plants to the animals and fat *them* up; the swink recovers them and sends them back to the plants' larder; the plants eat them again, and again

forward them to the animals" (297). If we again read the novel as political allegory, this worldly composition suggests an America unified through the diverse contributions of its immigrant nations, *E Pluribus Unum.* But nature's metaphoric register in *3,000 Years* certainly does not end at harmony, just as the contagious immigrant is by no means an uncomplicated democratic ideal. Nature, as described by the Duke, must also be a space of conflict, of competing perspective; the many individuals that contribute to its unity do, after all, feed on each other. As Huck has told us, if every bit of life has "a character of its own," each also has "likes and dislikes, predilections and aversions." That is to say, each bit of life has a perspective—and perspective essentially implies worldly fragmentation, especially as "predilections and aversions" are bound to come into conflict with one another.

"The Victims"—Twain's story with which I began this chapter—points clearly to the tension implied in a world infinitely teeming with the "predilections and aversions" of perspective. The preferences of a Johnny Microbe, for instance, are rather tragically in conflict with those of a Peter Anthrax, who likes to eat microbes for supper. In *3,000 Years*, perspectival conflict is most readily apparent in the relationship that Huck and his disease-germ friends have to Blitzowski, their human world. The problem here is obvious: The novel's "nations" of "germ-vermin" thrive only insofar as they unwittingly destroy the human body that is their beloved world. Huck tells us that no microbe has any idea that he is "engaged in gnawing, torturing, defiling, rotting, and murdering a fellow-creature—he and all the swarming billions of his race." This observation moves him to consider the "possibility, and substantially the certainty" that the human being is "himself a microbe," presumably likewise "murdering" the world. This being so,

"the procession of known and listed devourers and persecutors is not complete," but necessarily includes the human, too (249).[34]

Setting aside the elements of fancy in Huck's musings, we get a description of human life that is, from one perspective, quite accurate: Even at our most 'ecofriendly,' humans consume, destroy, the flora and fauna that make up our world. We require a relationship of destruction with the very planet we could not live without. Human being, then, is squarely part of the parasitical nature that we get in "The Victims" simply by virtue of living in a relation of "predilection and aversion" with regard to the rest of nature. Likewise, from another perspective, humans really are very suitable environments for a host of microbial life that thrives precisely insofar as it consumes its human world. Certainly, real microbes lack consciousness, and with it the robust individuality of human perspective. But germs nevertheless do have interests, in a sense—conditions under which they flourish and those to which they are averse. In so far as it is 'interested,' the germ has a perspective; it is the subject of a life. And the perspective of a cholera germ like Huck, for instance, is crucially at odds with that of a human host like Blitzowski.[35]

This vision of all-pervasive conflict throughout the natural and human world may seem rather depressing, on the face of things. Twain's fantastical "microbe" view of the human-in-

[34] Critics routinely point to passages like this to emphasize Twain's interest in deflating human pretensions to grandeur. See, for instance, Quirk.

[35] Walsh also points to Twain's attention to perspective in *3,000 Years*, along with another of his microscope tales, "The Great Dark." She finds these late manuscripts to be "strikingly modern experiments in fiction which explore the aesthetic possibilities of a dawning sense of relativism" (19). Chapter 5 of Gillman (*Dark Twins*) analyzes the novel's relativism in relation to Twain's interest in late nineteenth-century experimental psychology.

nature might then itself look like a symptom of his famous pessimism late in life, one of his characteristic swipes at human hubris: Despite man's illusions of grandeur, he is only a parasite on Earth and likewise an environment for the upkeep of parasites. However, a world defined by perspectival conflict—that nevertheless adds up to a symbiotic unity—also suggests a natural ground for a political ideal, or at least a political model that works against the worldview of empire. If the human and microbe are in a relationship of "persecution," they are also members of an ecosystem. They are embedded in a community of living organisms linked together through nutrient cycles and energy flows, by feeding off of each other and likewise by providing food for one another—as the microbe feeds on dead animals and releases food for plants that will then be eaten by other animals. Something like a natural correlative of democracy, and even more so an immigrant nation, an ecosystemic world requires a plethora of competing and cooperating perspectives for its existence.[36]

Such a world is also marked by a certain balance of perspective, insofar as it does not discriminate between the interests of cholera germs and men. "The Victims" captures this feature of Huck's philosophy of life in fable form: Here, we see each "mamma" in the procession of slaughter hunt for the kind of food her child particularly likes to eat. Of course, every animal on its way to that ill-advised picnic gets eaten. But the tale's predictable, storybook sequence gives equal weight to every creature's perspective in turn, with no creature's "predilections and aversions" mattering more than any other. The democratic ecosystem finds its unity in perspectival conflict, as opposed to the will of an imperial 'I.' The politics of nature in *3,000*

[36] Quirk cites Twain's very attention to the tiny microbe as indicative of his "fundamentally democratic imagination" (264).

Years thus run counter to those posited in *Connecticut Yankee*: Hank Morgan's Camelot, of course, only made room for one person's "predilections and aversions"—those of Morgan himself, ruler in his own "despotism of heaven."

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I have been arguing that *3,000 Years* uncovers in the natural world a social model of the self that opens onto a democratic political ideal jointly defined by cooperation and conflict. The "foreigner"—the immigrant-as-microbe—is the key figure for such an ideal. Twain's strange microbe novel thus finds the author turning from the imperialist to the New Immigrant as a focal point for imagining America's future as a global nation. Again, there is no denying that Twain chose a terribly unappealing immigrant to orient this model of global Americanness—Blitzowski, a diseased, useless tramp, desired by no nation. It is important, then, to catch the weary ambivalence—but certainly not hopeless pessimism—of Twain's late naturalist thought, as it informed his views on American culture and politics.[37] We might well find it nicer to be the imperial human of "The Victims"—happily outside the procession of ravenous animals—than it is to be Johnny Microbe or even Sissy Bengal Tiger. It is also much nicer to be the invader than the invaded: The American self we get in *3,000 years* implies the nation's foreignness to itself, it's 'colonization' by mysterious others.

This worry over America's self-estrangement makes its way into Huck's discourse on microbe personhood. This "extraordinary speech" turns somber as he elaborates the commonly held microbial view of death as illusion: What looks like death is in fact only the movement of

[37] Lindborg, for example, reads *3,000 Years* as an instance of the metaphysical despair that critics often attribute to Twain's late scientific writings.

life, the molecules that make up a life, across various organisms. Given that *everything* is alive, the most one can ever say is that life has "departed." In such a case, the molecules that once gave a "dead" organism "motion and feeling—that is to say, *life*," have "wandered away and joined themselves to new plasmic forms." They are thus "continuing their careers in the bodies of plants, birds, fishes, flies, and other creatures." This idea, when considered in relation to *real* end-of-it-all death, offers a kind of naturalist's consolation—"Nothing will be lost, nothing will perish" in such a scheme. But Huck knows that a conceptual revision of death as "departure" can offer no real solace when considered first-personally. As he contemplates the possible catastrophe of Blitzowski's death, he wonders about his own fate in such an event. His molecules would of course "scatter all around and take up new quarters in hundreds of plants and animals." Each would continue to "carry its special feelings along with it, each would be content in its new estate." But this is no answer to the question, "where should *I* be?" If Blitzowski were to die, Huck would no longer "have a rag of feeling left." There would be "nothing to think with, nothing to grieve or rejoice with, nothing to hope or despair with. There would be no more *me* … I should still be alive, intensely alive, but so scattered that I would not know it" (252).

Here, Huck frames his own dissolution in terms of the dissolution of his world: As the dying Blitzowski's molecules scattered into other life forms, Huck too would find himself dissolving into non-identity. The form of his worry resonates with an anxiety that turn-of-the-century Americans had about their nation facing an onslaught of New Immigrants. Let Blitzowski, again, stand in for America: Huck's concern then translates into the question of what happens to the individual American—to a coherent American *identity*—given the nation's dissolution into a fragmented body of disparate ethnic groups. Wald explains the form that

anxiety over the immigrant typically took in America: She writes that, "on the one hand, unintegrated immigrant neighborhoods represented the threat of balkanization, which would compromise the integrity of the nation; on the other hand, absorption of these foreigners, many argued, would make 'America' unrecognizable to itself" ("Communicable Americanism" 665). The fear of balkanization mirrors Huck's worry about microbial death; a balkanized nation is one so fragmented as to have no real identity, no coherent American 'I' at all. The second possibility of absorbing the foreigners essentially gives rise to the same concern over national demise. It suggests an America so reconfigured by the New Immigrants that it would continue on in some form, but not as itself. Huck's question of where *he* would be given Blitzowski's disintegration might then translate into a concern about the individual American facing an onslaught of immigrants: Who is he, after all, if America is to dissolve into the the non-identity of a "foreign" hodgepodge?[38]

* * *

A microbial self composed of countless disparate individuals thus finds its political correlative in an American 'globalized' from the inside by a never-ending flux of newcomers; this is a national body that risks dissolution into non-identity. Huck's anxiety over the dissolution of his world suggests that Blitzowski does not function simply as a caricature of nativist anxieties or a conveniently diseased narrative frame. It indicates rather that Twain was himself sensitive to the difficulties inherent in *E Pluribus Unum*, the attempt to make one out of such a

[38] Peyser ("Mark Twain, Immigration") analyzes Twain's use of the figure of the foreigner in *3,000 Years*, along with Twain's *Mysterious Stranger* manuscripts, as a meditation on the contingency of historical forms of social life—their tendency to dissolve. He reads these texts as rejecting the turn-of-the-century nativist vision of America as a stable, unified entity governed by some pre-determined narrative.

diverse many. I have argued here that Blitzowski's very contagion renders him a figure of redemptive possibilities for America's relationship to the entangled social realms of nature and culture. Nevertheless, an American nation that would assimilate the "hoary and mouldering old bald-headed tramp" into its body is one that itself risks mouldering away. By contrast, Morgan's global America—the imperial one—suggests the expansion of a governing American 'self' into a world passively waiting to be formed by it. The starting point here is of an already unified America—the whole nation a "Yankee of the Yankees"—and the direction of influence is unilateral. Otis notes that nineteenth-century European nations wanted to continuously expand their boundaries, while at the same time remaining immune to the unpredictable influence of the newly colonized. The "imperialist fantasy," then, is to "penetrate without being penetrated, to influence without being influenced" (168-9).

Though Twain never completed *3,000 Years*, we might read the end of the novel as reflecting the temptations of empire for the emerging American self: Here, we find our microbial narrator plotting a suspiciously imperial expedition to Major Molar, a resource-rich territory thousands of miles away. This is Blitzowski's molar tooth, which Huck suspects may harbor the gold of a filled cavity, because the tramp seems, in better days, to have "had the dentist-habit" (320). Huck initially proposes the expedition to a trusted group of companions without quite believing in its reality. But the "spectacle of this incredible wealth" that he has conjured soon renders him "drunk with delight, with exultation." The hypothesized wealth becomes a definite fact, and soon greed convinces Huck that he has a duty to exclude his young friends from reaping the expected profits: "Would not the poisonous spirit of speculation enter insidiously into them? Would it not undermine their morals?" The boon of keeping *all* the gold becomes an incidental

result of his true reward—the knowledge that he has "saved them pure" (323-4). And Huck, by now, has become an expert of the moral sense: By the end of the novel, he has set up a highly profitable "Institute of Applied Morals" in Blitzowski, with himself as sole instructor. Here too, as in Twain's anti-imperialist writings, a monopoly on morality pays big: Like America in the Philippines, Huck's own "accumulation of trained morals, high principles, and justice" means that he "cannot do an unright thing, an unfair thing, an ungenerous thing, an unclean thing" ("To the Person" 471).[39] An immigrant-turned-imperialist, he set outs to find his fortune.

[39] Nichols likewise makes this point, noting that "initially a microbial immigrant," Huck "begins to see himself as an imperial conqueror, bringing enlightenment and needed leadership to the naïve microbes." Nichols also makes reference to Huck's dreamy aspirations of finding fortune in Blitzowski's filling at the end of the novel (182). Gillman reads the novel's microbial conceit, in general, as largely a vehicle for exposing the "cultural unconscious of the late nineteenth-century world of empire" ("Mark Twain's Travels" 208).

CHAPTER FOUR

Frank Norris's Wheat Theory of Politics: The Anglo-American "Commercial Company" on the Asian Frontier

At the end of the nineteenth century, the world had run out of room. By 1900, the dominant world powers had finished carving up the vast 'open' spaces of Africa and Asia after a long century of New Imperialism. Americans, too, found the continent's wilderness spaces fully 'civilized': In 1893, Frederick Jackson Turner famously announced the closing of the American frontier to an audience of historians at the Chicago World's Fair. As Stephen Kern notes in *The Culture of Time and Space,* western historians like Turner turned to considering the importance of "empty space" for the ongoing growth, and thus health, of their nations just as the world's frontiers seemed all but exhausted (164). In general, the period's heightened preoccupation with expansion as a constitutive feature of the nation relied largely on a nineteenth-century form of *biopolitics*—here, an organicist mode of political thought that conceived of the state as a living organism. The nation, like a plant, must grow in order to stay living. But, in order to grow, it needed *lebensraum*, a concept first developed at century's end by the German geographer Friedrich Ratzel and then infamously taken up in Nazi foreign policy a few decades later.[1]

The basic components of political organicism are well encompassed in a popular slogan of nineteenth-century German agrarian romanticism, likewise taken up by the Nazis in later years: "*Blut und Boden*." Ratzel and his inheritors emphasized the indissoluble, indeed spiritual union between a racially-defined national body (*Blut*) and a certain settlement area (*Boden*). The

[1] See Chapter 1 ("Life as the Basis of Politics") of Lemke for more on this early moment in the history of biopolitics. See Abrahamsson on a genealogy of the concept of *Lebensraum* from Ratzel and Kjellén through Nazism.

Swedish political theorist, Rudolf Kjellén, who first coined the term "biopolitics," reasoned that the state, like "the plant world, like a forest," is "bound to a certain soil, from which it gathers sustenance" (qtd. in Abrahamsson 41). For his own part, Ratzel argued that the connection of a "living people" and the "solid earth" becomes, in the course of history, so consolidated through "reciprocal influence" that they in fact "become one and the same." Rooted in the soil like a plant, the nation cannot be disengaged from its area of settlement "without destroying the life" (qtd. in Abrahamsson 41).

Turner, in his essay on "The Significance of the Frontier in American History," likewise analyzes national identity as a function of physical territory, while departing from the German insistence on both racial unity (*Blut*) and geographic particularity (*Boden*). Though Turner largely took himself to be giving a materialist account of American institutions, his Frontier Thesis nevertheless evokes the political organicist's quasi-mystical insistence on a spiritual relationship between a territory and its people. The best place to see this is in the essay's own "germ theory of politics," which modifies the German model for distinctly American conditions (2).[2] According to Turner, the nation's "early history" is that of "European germs developing in an American environment" (3). But these "germs, of course, do not stay European for long. Turner describes the process of settler colonialism as a purification ritual, each new movement along the frontier constituting a spiritual rebirth of the nation: America's "perennial rebirth" through settler colonialism marks, for Turner, the peculiarity of its organic development (2). Now, of course, there is no empty space left in America—no space left anywhere in the world.

[2] See Chapter 2 of Guettel for an interesting account of how Ratzel's impressions and experiences of American westward expansion crucially informed his geopolitical theory and in particular his concept of *Lebensraum*. Ratzel visited the United States as a journalist in 1874-5.

This phenomenon strikes Turner with the gravity of a rupture in American time: As the frontier comes to a close, so too does "the first period of American history" (38). [3]

* * *

Writing a decade after Turner, Frank Norris seems to find such eulogizing about the frontier a touch overwrought. In his 1902 essay, "The Frontier Gone at Last," the popular American writer is rather patronizing in his treatment of those, like Turner, who now "lament" its passing. Their sense of loss is like that of a petulant child watching the circus leave town: What they miss is a certain "idiosyncrasy" of our experience, "the one peculiar picturesqueness of our life" (72). Norris's own "Frontier" essay handily disposes of the problem of national growth by framing expansion itself as a constitutive feature of American *Blut*. The "energies of expansion" that, for Turner, are born of America's frontier conditions, become, in Norris's schema, race instinct—the Anglo-Saxon's characteristic "overplus of energy" (73). Norris's American, then, is born well before even the European discovery of the Americas: He is the same Anglo-Saxon that "began from that little historic reach of ground in the midst of the Friesland swamps" and set out west, eventually coming to wrestle Great Britain away from the flailing Roman Empire (69-70).

[3] Turner's emphasis on America's "perennial rebirth" via the frontier suggests that we might read his essay as one manifestation of the "widespread yearning for regeneration" that, according to T.J. Jackson Lears, swept American culture at the turn of the century (*Rebirth* of *a Nation* 4). See Noble for an analysis of Turner's Frontier Thesis as a jeremiad warning Americans that their Jeffersonian "covenant with nature" (likewise a covenant with God) had been broken with the coming of industrialization. According to Noble, nineteenth-century historical writing, in general, can be characterized as a series of laments for the breaking of this covenant, which ensured Americans freedom from the "burdens of European history" as long as they avoided European cultural complexity (3).

If Norris's America is not really American, but Anglo-Saxon, then neither is his frontier: The "Frontier" essay rather curiously locates the closing of the frontier in China, thus framing it as a global phenomenon, while retaining the (Anglo-)American in the starring role of frontiersman. The frontier "dwindles down and vanishes" in 1901 when the first "contingent of American marines [takes] ground on the Asian shore"—an apparent reference to U.S involvement in the suppression of the Boxer Rebellion, the great Chinese national protest against Western political and economic influence. As the good Anglo-American marine descends on China, he meets not wilderness, but civilization: The frontier closes in Asia, because it is here that the "Anglo-Saxon in his course of empire [circles]the globe and [brings] the new civilization to the old civilization" (72). This, now, is the global scene that Kern describes: A fully civilized world run out of "empty space."[4]

At this point, the "Frontier" essay risks bumping up against the problem of land scarcity: Frontier or no frontier, the modern Anglo-American *must* do something with his overplus of energy. Norris is again unfazed: In a post-frontier world, the Anglo-Saxon works off his constitutional excess through commerce. The "hosts of the Anglo Saxon commercial crusaders," he reports, are now "knocking at the gates" of the world's economic centers, just as they once landed on Jerusalem to conquer the Holy City (74). Trade, in the modern age, simply is war—a new symptom of the same race-characteristic. Norris is now ready to re-open Anglo-Saxon's

[4] See Slotkin's *Gunfighter Nation* for an analysis of the frontier in relation to the nineteenth-century cult of the Anglo-Saxon. Slotkin links this racialist articulation of the Frontier Myth to Theodore Roosevelt's *Winning of the West* and argues for its importance in twentieth-century American foreign policy, including the "Open Door" context that I explore in this chapter.

global frontier on the free market—a new border zone that spans the whole of the civilized world (75).

* * *

The "Frontier" essay does not tell us much about the characteristic traits and institutions of the American people, as distinct from any other Anglo-Saxon tribe. There is certainly no indication that what we have here is a "political species" of a nation—as Turner understood American democracy in "The Problem of the West" (206). However, in binding America's future so closely to global commerce, while relegating military conquest to the Anglo-Saxon past, Norris does suggest that the United States may be in essence a commercial organism. As such, his essay finds a ready correlative in what was certainly America's most influential organicist model of the state—Herbert Spencer's "social organism." In the case of the social organism, evolutionary development entails the gradual emergence of a peaceful, industrialized commercial society from out of an initial warlike or militant stage.[5] This was good news indeed for the America social organism; evolution's apparent darling was fast on its way to becoming the world's most advanced commercial society.[6]

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[5] See Spencer's *Principles of Sociology*.

[6] The popular historian and lecturer, John Fiske, for instance, makes use of Spencer's evolutionary logic to this effect in his widely circulated 1885 *Harper's* essay on America's "Manifest Destiny." Here, Fiske deflects the Scottish essayist Thomas Carlyle's criticism that "Americans are nothing but dollar-hunters" by embracing this appraisal of the national character. He follows Spencer in arguing that, to be commercial people, is to be a "pre-eminently industrious, peaceful, orderly, and free-thinking" one (584-5). For Fiske, as for Spencer, civilization proceeds through a "gradual substitution of a state of peace for a state of war" (578). If power was to fall "into the hands of the dollar-hunters, if you please" it was at least now "out of the hands of the scalp-hunters" (584-5). Framed in this way, the commercial organism's rise to world power at century's end could only be an auspicious sign of evolutionary progress.

* * *

Unlike Fiske, Norris, in his "Frontier" essay does not even require that America let go of the military life in order to become a commercial organism; both war and trade can satisfy the Anglo-Saxon's "desire for conquest" (74). In this way, he neatly reconciles the tension that many cultural elites saw between a commercialist society newly luxuriating in its own prosperity and the martial ideals that seemed crucial to national vitality—honor, duty, courage, and so on.[7] But the story picks up if we read the "Frontier" essay against the much more ambitious literary project that Norris completed a year earlier, his 1901 novel, *The Octopus*. In the "Frontier" essay, Norris neatly tucks America's future into a long-settled Anglo-Saxon past. *The Octopus*, by contrast, poses America's national futurity in a post-frontier world as an open question that allows for several different resolutions, which the novel explores through a series of interrelated 'wheat theories of politics.' The basic task of this chapter, then, is to mine the wheat's homological potential as the missing organism that would complete—and at the same time unravel—the model of post-frontier expansionism that Norris outlines in his "Frontier" essay.

In Part I, the wheat maps an aspirational developmental path for a post-continental America, a new "Manifest Destiny" projected onto the global scene. In "The Problem of the West," Turner raises, if only to repudiate, the French political theorist Émile Boutmy's objection that America is "not so much a democracy as a huge commercial company for the discovery, cultivation, and capitalization of its enormous territory" (211). *The Octopus* poses the closing of the commodity-frontier as a historical turning-point that requires a rearticulating of the national

[7] In *No Place of Grace*, T.J. Jackson Lears analyzes this "warrior critique" as a potent strain of turn-of-the-century American antimodernism.

project altogether: America must find a new business model, or risk going broke. I argue that the post-frontier "commercial company," as Norris imagines it in *The Octopus,* resembles nothing so much as a Trust: By becoming one with the eponymous "octopus," America transforms itself into the ideal political form suggested by Turner's own germ theory: The nation need never be bounded, would remain forever expanding, and would thus be "perennially reborn." Here, he wheat operates in an aspirational symbolic mode: It generates a modern Anglo-America turned triumphant, world-wide commercial order.

Part II elaborates the kind of global citizenry we might except from a new world order grounded in commerce. Neither Anglo-Saxon nor American, this global citizen is none other than *Homo Sapiens,* the human in its sheer, un-individuated species being. If nineteenth-century political organicism was the original biopolitics, here, it provides a basis for the more familiar biopolitics that Foucault famously theorized as central to modern life. In other words, we find, in *The Octopus,* a truly organicist politics that not only conceives of the global population as an organic life-form, but also targets the human in its biological being, as organism and not legal subject. In fleshing out the contours of Norris's worldwide federation of human species life, I turn to Hannah Arendt's proto-biopolitics in *The Human Condition*—Arendt's concept of "society" and "the social." Norris's commercial order, I suggest, is Arendt's "society" turned universal culture. Here politics dissolves fully into the realm of biological and material necessity, the "sole purpose" of government absorbed into the "entertaining of the life process" (*Human Condition* 89). Sheer life, in such a world, becomes the "supreme standard to which everything else is referred," humanity's highest, and indeed only, real good (*Human Condition* 311-2).

I begin Part III with the observation that Norris's global commercial organism, especially as we find it in the concluding section of the "Frontier" essay, is strangely lacking in vitality. This stagnant quality evokes "Yellow Peril," the specter of Asian racial and cultural dominance that troubled Norris's America, and in particular his California. In the novel's final wheat theory of politics, Norris's global organism points to a future that is not Anglo-American, and not simply human, but in fact Chinese. For the America of "Yellow Peril," China suggests not only cultural stagnation, but also a dangerous biological generativity: The Chinese migrants that helped build Norris's California could both survive and reproduce themselves in remarkably meager material conditions. As such, they emerge in the novel as perhaps the most suitable candidates for the role of 'economic man' at the center of a global commercial order geared towards the reproduction of life.

In concluding this chapter, I reverse the movement from scientific hypothesis to political conclusion that characterizes my overall argument. I find that, if Norris's evolutionism produces a set of hypotheses about America's political future, it also gives rise to a racial politics of nature. If the global citizenry at the end of Norris's wheat theory of politics in fact turns out to be 'perilously' Chinese, then this too changes the 'optimistic' shape of what Ronald E. Martin has called Norris's "universe of force." I develop the pessimistic version of Norris's force-universe that emerges from the wheat, now considered in terms of "Yellow Peril," by reading *The Octopus* against Brooks Adams's naturalist philosophy of history in *The Law of Civilization and Decay* (1895). While Spencer found solace in the first law of thermodynamics, Adams prioritized the second. His universe of force is cyclical: Civilization surely develops over time, but progress inevitably turns to entropy. If Norris's force-universe follows Adams's pattern, even

the U.S. marine's triumphant arrival in Peking begins to look ominous. Landing in China, he reaches "the starting point of history, the place where the migrations began" (72). The closing of the global frontier, then, also signals a beginning—and it begins again in China. But what next? Civilization, if we are to believe Adams, now puts its conquering days behind it and embarks on a slow descent into decay.

PART I: GLOBAL AMERICA

Over-Civilizing the West in *The Octopus*

Norris's decision to cast the U.S. Marine as the Anglo-Saxon who closes the global frontier in the "Frontier" essay is a little misleading. The marine is certainly well-positioned to occupy the starting position in the historical turning point that the author tracks throughout—the transference of Anglo-Saxon race-instinct from war to trade. But Norris's American has rarely been the straightforward 'warrior' suggested by the military example. To some extent, he has *always* been a businessman. American "conquest," for Norris, has primarily taken form in a 'war' on nature. Americans have had no Romans to conquer—and Norris, like Turner, tacitly folds Native American tribes into the blank matter of wilderness. War, then, has has primarily been a matter of production, of creating wealth out of blank physical matter. In fact, the accolade of Anglo-Saxon exemplar goes to the last frontiersmen of the American continent. Norris marvels in "A Neglected Epic" that "once across the Mississippi, the West — our Far West — was conquered in about forty years." This achievement constitutes the Anglo-Saxon's "most signal victory … the wilderness subdued at a single stroke" (60).

If the western man who subdued America's wilderness signals Anglo-Saxon blood at its finest, we we meet him in the person of Magnus Derrick, great elder rancher of *The Octopus*. Magnus is nothing if not a classic American entrepreneur, an intrepid capitalist. Together with his son, Harran, he presides over ten thousand acres of wheat at "Los Muertos," the San Joaquin Valley's largest ranch. Having arrived in California just in time to miss its gold rush, Magnus is the novel's "Forty-niner," and Norris's archetypical western type (14) He has made his fortune not in gold, but in an even more lucrative 'discovery'—the San Joaquin's agricultural fertility. The "spirit of the Adventurer"—the "true California spirit"—persists in Magnus, and this spirit, essentially, is the spirit of capital. He and the myriad Californian ranchers like him grow wheat like gold miners. Concerned only with extracting as much value out of their land as possible, they work it to the brink of extinction: "To get all there was out of the land, to squeeze it dry, to exhaust it seemed to be their policy" (14).

Magnus's dedication to extracting value from his land makes for a nice bridge between Anglo-Saxon destiny, as Norris understood it, and America's sense of its own "manifest destiny" during the nineteenth century. In *America as Second Creation,* David E. Nye suggests that nineteenth-century Americans increasingly understood their movement west as a progress narrative premised on the production of ever more wealth—and not ever more democracy. [8] Industrial production generated its own geographical imaginary: Americans visualized the

[8] Along these lines, Slotkin argues in *The Fatal Environment* that Americans held onto the Frontier Myth even after the exhaustion of its "virgin land" by turning to its underlying principle, the "resource Frontier." Slotkin defines this as "the economic doctrine which holds that the Frontier is the discovery and conquest of new lodes of valuable resources—precious metals, industrial ores, supplies of cheap labor, 'virgin' markets among the masses of Asia or Europe" (531).

continent not in terms of its "natural boundaries," but rather imposed "a new geography that made it into an abstraction, a commodity, an item of speculation" (26). Even Turner seems to have felt the pull of the commodity-frontier. In "The Problem of the West," he cites approvingly the remark of an unnamed tourist: "America is like a vast workshop, over the door of which is printed in blazing characters, 'No admittance here, except on business'" (211).[9]

The Octopus, however, is quite clear on the point that manifest destiny, for its Anglo-Saxon "adventurers," has just about run out. In other words, there is no more continental frontier, no more "empty space" left in America. Norris's West is *all* wealth— a fact nowhere more apparent than in the pervasive, all-encompassing presence of wheat on the landscape. Throughout the novel, the wheat is meant to signal the "elemental force" of organic life, of biological reproduction (*Octopus* 56). But this "sprawling, primordial Titan" is in fact a quite modern, quite artificial creation of industrial agricultural—not nature, but cash crop, what William Cronon and others have called "second nature."[10] The novel's wheat makes its living not out in the 'wild,' but in the ranch that "bullies" it into "a yield of three hundred and fifty thousand bushels" (56). As critics have often noted, the wheat also suggests currency, the

[9] Of course, "manifest destiny"—the popular belief that America's expansion across the continent was both justified and inevitable—found it most common expression as a call for the spread of American democracy. John O'Sullivan, the columnist and editor who first coined the influential catchphrase, grounded America's claim to "overspread and to possess the whole of the continent" in its God-given task of "[developing] the great experiment of liberty and federated self-government entrusted to it." Manifest Destiny, so conceived, finds its ideological ally in Turner's Frontier Thesis, which likewise framed expansion as the development of American democracy.

[10] See Cronon's classic *Nature's Metropolis* for a history of nineteenth-century ecological and economic transformations that gave rise to the modern American landscape. See Chapter 3 ("Pricing the Future: Grain") for the development of the wheat industry.

continent's total commodification. Colleen Lye notes, for instance, that Norris's wheat, in its immensity, evokes "capital's totalizing reach and blanketing homogenization" (*America's Asia* 84).

If Nye's nineteenth-century America took up the shared etymology of *cultivation and culture* for its manifest destiny, *The Octopus* prods us to wonder if, by century's end, the national mission of wrangling productivity out of American land hadn't begun to take on a rather self-destructive aspect. At Los Muertos—appropriately, "the dead"—the Derrick men quite knowingly, and rather nihilistically, extract value from nature in such a way to destroy the possibility of any value at all. If this already sounds compulsive, Magnus's reputation as a gambling man builds on the suggestion that wheat ranching in the San Joaquin has become a kind of nervous disorder. Norris insists that this most distinguished gentleman rancher—the novel's "Governor"— remains the same "great gambler" he was in the Forty-Niner days (35). Once the most "redoubtable porker player" in gold country, Magnus still operates according to the ethos that "who took the greatest chances was most apt to be the greatest winner" (61).

Despite the novel's obvious admiration for its commercial crusader, readers of Norris's fiction are well-primed to be suspicious of Magnus's zeal for speculation. The author regularly punishes his gamblers first with crippling addiction and ultimately with mental and financial ruin. When Curtis Jadwin, the great real estate tycoon and gambler of *The Pit* (1903), attempts to corner the wheat market, Norris treats him to a near fatal nervous breakdown and, of course, bankruptcy. In this way he mirrors the author's most pitiful character, Van of *Vandover and the Brute*, whose total degeneration is likewise precipitated by compulsive gambling. But Norris's penny-pinching gamblers fare no better than his spendthrifts. *McTeague*'s prudent and

industrious Trina plays the lottery once, gets luck, and invests her modest new fortune wisely. She nevertheless falls prey to a fatal money-lust, meeting her death in miserliness, just as Van meets his in profligacy.

Whatever their personal failings, Norris's gamblers always turn compulsive, always suggest a core of unreason in the very rational pursuit of wealth. They invite us to consider whether this pursuit itself isn't a bottomless pit, a means without end. If, as I have suggested, Magnus, qua rancher, falls victim to this species of pathology, he hardly strikes one as mad. This may be because his illness is diffused across the San Juaquin region, and in fact across all of America's wheat ranches. Cedarquist, the novel's savvy capitalist, issues the right diagnosis in a speech to Magnus and company. Production in Turner's "workshop" of a nation has turned worrisomely to "*over*-production." The nation's ranchers, according to Cedarquist, have grown their wheat at a "tremendous rate," while population in Europe—its traditional wheat market—has not kept pace with the "rapidity of our production" (21). Basic market law, supply and demand, dictates the result: Wheat prices dip ever lower. In *The Octopus*, then, Norris's greater theme of fiscal compulsion plays out in agricultural policy. The process of extracting value from nature has now turned against its ostensible telos in profit. The ranchers are like gamblers who cannot help but return to the same poker game, though it has long ceased to be a paying proposition.

Cedarquist's reference to "over-production," along with his counsel to the ranchers, allows us to historically situate the novel's polemic stance quite precisely. The wise capitalist urges the ranchers to stop flooding the "played out" European market and to find "new markets, greater markets" oversees (21). In short, he is an economic expansionist. Though Cedarquist

speaks around 1880, he aligns himself here with an America economic and foreign policy agenda that emerged most forcefully in the 1890s, partially in response to the multiple financial panics and economic depressions suffered by the nation during its Gilded Age. Indeed, "over-production" was a buzzword for proponents of oversees economic expansion—a movement headlined by Theodore Roosevelt and Henry Cabot Lodge, but that also included the influential naval strategist Alfred Thayer Mahan, and popular intellectuals like Brooks Adams and Josiah Strong. This expansionist contingent was motivated by a multi-faceted policy agenda, but it generally assented to what came to be called the "glut thesis" of overproduction. This was the idea that the financial panics of 1873 and 1893 were occasioned by an excess of American supply over and beyond market demand: The nation must secure access to new overseas markets in order to stave off market "glut."[11]

Fundamental to the expansionist economic and foreign policy agenda was the idea, most often associated with Theodore Roosevelt, that oversees adventure, both of the financial and the military variety, could defend against the cultural stagnation that seemed endemic to industrial society. In fully settling the West, the frontiersman had also permanently closed off one channel for the kind of masculine regeneration that Roosevelt wished for the nation.[12] Over-production thus evokes to the kind of *over-civilization* that worried Roosevelt and his fellow pro-expansionists. In general, this terms designates the period's concern that the new stressors of

[11] See Eperjesi for a good historical overview of the economic motivations for American imperialism during this period, with particular reference to the pro-expansionist contingent and their "Open Door" ambitions in Asia.

[12] See Bederman for more on the turn-of-the-century reconfiguration of American masculinity in terms of (racialized) violence and adventure.

modern life were giving rise to a whole generation of sickly, nervous weaklings—men whose impotence suggested America's overall loss of vitality, its degeneration. We find this worrisome type in the obviously 'neurasthenic' Presley, our primary narrative perspective and a would-be epic poet of the West. Presley arrives in the San Joaquin for his health, for the physical and spiritual regeneration that brought so many real-life Americans there, but departs the San Joaquin at novel's end worse off then when he arrived: The doctor's verdict is "over-cerebration," "over-excitement," a "general collapse along the line," as Presley puts it (271).

Over-produced, and thus over-civilized, the West is no longer fit to heal America's neurasthenic city-dwellers, to revitalize the East. Norris presents this image of a stagnant American nation, one "squeezed dry" of its vitality, in an official railway map of the State of California, the novel's only pictorial representation of the U.S. This map is also Norris's only true elaboration of our titular octopus, his metaphor for the PSSW.[13] In the terms of Spencerian evolutionism, the Trust really is a social organism; here, it is a "gigantic parasite fattening upon the life-blood of an entire commonwealth." Norris's octopus-map seems primarily to function as a very graphic depiction of the State of California "sucked white and colorless"—that is, stagnant, dead or dying, no longer operative as a political, economic, or cultural unit (5).[14] In the

[13] The octopus was a frequent symbol for the Trust at century's end, and here it evokes the undue social and economic power of an organism that reigns over the San Joaquin Valley as a "despot" (*The Octopus* 20). In Norris's reuptake of the metaphor, the PSSW's rail lines as the tentacles of an octopus, which suck the "commonwealth" dry of its (common) wealth, all profits of regional industry gone to the Trust.

[14] Norris's monstrous sea creature, as it is represented in the map, seems to yield little payoff for the reader in search of some greater significance than we get from knowing this basic corporate metaphor. Any such critical attempt is troubled by the total incoherence of this description, its failure to represent any single organism; it is a system of "ruddy arteries," or alternately, "myriad branching coils," and at the same time an outpouring of "diminutive little blood suckers" (5). In brief, Norris's octopus is not *really* an octopus. Other critics have tried to unpack the

novel's logic, as well as historically, wheat ranchers and railroad work in tandem to produce this effect, even as their bitter conflict drives the novel's plot. The PSSW's tangled lines have emerged both in response to and in order to spur the extraction of wealth from the region's vast natural resources. And this, of course, is also the rancher's mission. Though Norris directs our readerly sympathies to his tragic ranchers, his description of their squeeze-it-dry ethos of wheat cultivation suggests that the PSSW is not the only "parasite" in the State of California. Both ranchers and railroad operate according to a policy of total depletion, both aim to exhaust the San Joaquin of its economic "life-blood." Both suggest a civilizing process so complete that it has turned upon itself, profitability turned starvation, the future exhaustion of the land by its ranchers anticipated in the "white and colorless" corpse of a state.

If California's industry is gluttonous, it feeds on California itself, and thus also risks starvation. At the same time, if we accept Cedarquist's counsel, the State must purge itself in order to keep growing, to keep from being 'devoured' by the insatiable Trust. The complicated metaphorical logic of hunger and overeating, depletion and excess, which underpins the novel's treatment of over-production, again evokes the concerns and rhetoric of the period's pro-expansionist contingent. Writing in an 1899 edition of *McClure's Magazine*, Brooks Adams announced, for instance, that "the time has now come when that surplus must be sold abroad, or

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significance of the octopus, in general, as a metaphor for the corporation. See Woods for an analysis of various organic forms that might aptly represent the strange kind of agency exercised by the business corporation—the "economies of scale, distributed agency, and forms of immunity that make it such a powerful and problematic structure" (88). See Clare for an analysis of Norris's octopus in relation to other fictional attempts to 'embody' the corporation, like that of Thomas Pynchon in *The Crying of Lot 49* (1966). Lundblad argues that *The Octopus* is centrally concerned with determining what kind of "beast" might best encapsulate the "monstrous animality" of the new corporate person (80).

a glut must be risked" ("The New Struggle for Life Among Nations" 563). Those nations that did not recognize this essential commercial fact and failed to expand, he declared, were "devoured by the gangrene which attacks every stagnant society and from which no patient recovers" (563). The gluttonous nation, the one that eats too much, must purge, or else risk being eaten itself.

To dispose of its surplus, America must of course first seek out scarcity. In other words, glut must find hunger. In *The Octopus*, Cedarquist's proposed solution to the problem of over-production stays within this figurative regime; he locates hunger in Asia, and most importantly China, that might absorb California's surplus food. If the European market has been overfed, "the whole East trembles on the verge of starvation" (22). The answer to both over-production and insatiable corporate greed, then, is Asian hunger: By sending their wheat west, towards Asia, and not to Europe, the ranchers bypass the need for rail transportation. More so, in handling and shipping it themselves, they slip past not only the railway trust, but in fact dispose of *all* corporate "middlemen"—the "wheat pits and elevator rings and mixing house"—that "squeeze" them "bone dry," as Harran puts it at another point in the novel (22, 105).[15]

The Anglo-American "Commercial Company" Born Again on the Asian Market

Scholars writing after Walter Benn Michaels's influential reading in *The Gold Standard* have generally conceded that *The Octopus* offers at best only a lukewarm critique of the Trust, despite its obvious sympathy for the beleaguered ranchers. If, as I argue, Cedarquist's perspective largely guides the novel's vision of a post-frontier America, it functions much more

[15] Eperjesi has similarly argued that Norris reconciles the social tensions occasioned by "over-production" within the U.S. by turning to the myth of the infinite Chinese market.

consistently as a pro-expansionist polemic for America's "Open Door" policy in the East. At the same time, it suggests an answer to the question of America's manifest destiny as a social organism—the kind that must keep growing, if it is to stay alive—upon the closing of the commodity-frontier.

With Cedarquist's entry onto the scene, Norris begins to associate America's commercial infiltration of Asian markets with a second founding of the nation. Cedarquist's suggestion that the ranchers find "new markets, greater markets" in Asia is clearly meant to evoke the European discovery of the "new world" of America (22). We see this particularly in Magnus's reception of the younger man's vision. Magnus imagines the nation's wheat producers organized into their *own* Trust—geared towards the Asian market and steered, of course, by him. Happily oblivious to the irony of his corporate fantasy, Magnus imagines his "revolution in the Wheat" as rivaling the "discovery of America" in importance. The San Joaquin's ranchers would be the "pioneers" of this "new movement," sending their wheat to China in a ship that is "American built, the nation's flag at its peak." Its launch would be like the "sailing of the caravels from Palos"—an apparent reference to Palos de la Frontera, the point of departure for Christopher Columbus's first voyage to America (35). Of course, Columbus first set out West looking for a new trade route to Asia, thus mirroring Cedarquist's proposal to the wheat ranchers.

In toggling between American patriotism and business, Magnus's fantasy partakes in the spirit of imperial enterprise that Columbus neatly embodies: It locates America somewhere between nation and commercial company. More so, the great rancher's identification with a fifteenth-century Italian doing business with the Spanish suggests that America lives in a particular kind of activity—geographical expansion for the sake of commerce—rather than in

territorial or political identification. If territorial expansion can no longer occasion the "perennial rebirth" that Turner found crucial to national vitality, America now finds itself reborn oversees, in trade. But, in keeping with Norris's conception of Anglo-Saxon America—a nation that fulfills its race destiny through commerce and not war—it is reborn as a new commercial company, a Trust.

Indeed, *The Octopus* makes perfectly clear that we should understand the Asian market in terms of Anglo-Saxon race destiny, as Norris had laid it out in his "Frontier" essay. As part of his corporate fantasy, Magnus imagines "the whole East" as "opening, disintegrating before the Anglo-Saxon" (34). At novel's end, Cedarquist too explains his conviction that America is certain to capture the Asian wheat market in these terms. He informs Presley that "the Anglo-Saxon started from there at the beginning of everything and it's manifest destiny that he must circle the globe and fetch up where he began his march" (356). Here, Cedarquist essentially reiterates the central premise of Norris's essay, the argumentative move that sets his "Frontier Thesis" apart from Turner's much more influential one: The Anglo-Saxon's frontier closes in China, and not in the American West. However, the moment of global unification that Cedarquist envisions aligns more readily with a second form of global unification at work in Norris's essay, one that comes after the U.S. marine's initial fusion of East and West.

Recall that the Anglo-Saxon's global frontier opens once again after this initial moment of global completion. In positing a new *commercial* frontier, Norris seems also to rescind on the "Frontier" essay's earlier suggestion that the U.S. marine has achieved a kind of global unity in descending upon "Legation Street in Peking" (72). He now predicts that a second form of global unification—and thus, presumably, a second closing of the (market) frontier—will issue from

America's commercial "invasion" of the old world. Norris's enthusiasm for American business leads him to speculate that the present "American conquest of England" may be "but an incident of the Greater Invasion, an affair of outposts preparatory to the real maneuver that shall embrace Europe, Asia, the whole of the Old World" (77). The implication here is that, in shifting gears from war to trade, the Anglo-Saxon American begins the process of unifying the world now under the sign of his own economic dominion. Ultimately, Anglo-Saxon success on the global market inaugurates a new world order based in American economic hegemony—the world a single marketplace ruled by American business.

Given that, for Cedarquist, Anglo-Saxon globalization begins, rather than ends, with Asian trade, it seems reasonable to tether his vision of America's manifest destiny to this latter moment of global "circling" in Norris's "Frontier" essay. Magnus and Cedarquist, the novel's great Anglo-Saxon entrepreneurs, seem to express competing visions of the significance of America's emergence as a global economic power—conquest and unity. In Magnus's vision, Asia emerges as a new arena for Anglo-Saxon conquest, war become trade. It is an economic zone that he might "squeeze dry" of all possible value until it is totally depleted. In the end, it is Magnus himself who disintegrates. Norris's great western "adventurer" embodies an older moment of Anglo-Saxon glory, one that has seen its day. By novel's close, he is a total wreck: Norris even condemns a senile Magnus to the humiliation of accepting a job offer from Behrman, the PSSW's most loathsome official. He joins the San Joaquin's "Spanish-Mexicans," who present themselves in the novel as decrepit holdovers from the days of Spanish colonial rule—"decayed, picturesque, vicious, and romantic" (18). Like them, he is destined to linger on in the San Joaquin as a "relic of a departed regime" (204).

Magnus remains attached to the old manifest destiny that we might trace back to Columbus's voyage, an imperial route geared towards the economic conquest of the Americas. But in a world run out of physical frontiers, the quest for territory is a non-starter. Cedarquist, by contrast, is the novel's geopolitical prophet; speaking in 1880, he peers into America's future as a hegemonic global power, a ruler of global markets. If Magnus foresees the world "disintegrating before the Anglo-Saxon," Cedarquist orients his own manifest destiny in "circling." In prioritizing the Anglo-Saxon's power to effect global unity, he presents an America that remains itself at the same time that it supersedes itself. In unifying the globe under its economic hegemony, the nation disposes of territorial boundaries altogether to become a global world order. If America has always been, in essence, a commercial company, it now resembles nothing so much as a corporation.

At novel's close, it is Cedarquist, and not Magnus, who commences the task of exploring Asia's new markets. The wise capitalist has organized a "line of clipper wheat ships for Pacific and Oriental trade," now on their way to feed the "hungry Hindoo" in India. Appropriately, Cedarquist christens the "mother" of his new fleet "Swanhilda," a variant on the old "Anglo-Saxon" name, Swanhild. We also find our neurasthenic protagonist, Presley, on board the Swanhilda; he too is on his way to India, as if in endless pursuit of spiritual healing further out west. Though Norris fails to explain his motivation here, Presley's exodus also suggests the regeneration of American masculinity, in general, through imperial expansion.[16] Cedarquist applauds his friend for being "up with the procession, going to India this way in a wheat ship that

[16] Lawlor reads Norris's aesthetics of literary representation as fundamentally preoccupied with regeneration. See Chapter 5 of Lawlor.

flies American colors" (356-7). But Presley was really only ever a spectator in the American West, and, in keeping with this role, he joins the "procession" not as an Anglo-Saxon economic crusader, but as witness. In its westward expansion past the continental border, it is Norris's wheat, in its life as a commodity, that operates rather more like an American frontiersman. Like the settler who grafts civilization onto the American continent—or, better, the U.S. marine that unites East and West— the wheat now prepares to flood the empty Asian market in a "golden torrent" (36).[17]

Norris has been preparing us throughout the novel for this transference of power by consistently depicting his "golden" wheat in the symbolic register of the (typically blond) Anglo-Saxon. As the novel's prime exemplar of force, the wheat enjoys the Anglo-Saxon's constitutional overplus of energy. It is on account of this excess that the fragile Annie Derrick regards the wheat with an "undefinable terror": The wheat is a "basic energy" indifferent to human intervention, coming up "even when the land was resting, unploughed, unharrowed, and unsown" (56-7). In the novel's crude, if satisfying, foray into poetic justice, the wheat cargo that travels on to India first suffocates Behrman, who has fallen into a grain elevator. "Impelled with a force of its own, a resistless, huge force," the vengeful wheat is "eager, vivid, impatient for the sea" as it buries the railroad agent alive, like a restless Anglo-Saxon conqueror in search of the next frontier (350).

I suggest that Norris's wheat, in its dual role as "life-force" and commodity, maps a developmental path for the Anglo-American social organism, a new manifest destiny that never

[17] See Dolan for a recent study that reaches a very different conclusion about the metaphorical logic of the wheat in *The Octopus*. Dolan argues that Norris's wheat functions as part of his *critique* of American imperial expansion around 1900.

runs out, that holds out the possibility of perpetual growth. Like Anglo-America, Norris's wheat is always on the move and thus "perennially reborn," even as it remains itself. If it is in the nature of a living organism to grow, to reproduce itself, the commodity exists in circulation, in the perpetual motion of market exchange. Moreover, the commodity moves through a space that is essentially incomplete: The world may run out of "free land," but the global market never runs out of the demand for commodities.[18]

In *The Octopus*, Norris summons insatiable Asian hunger to signal the market's perpetual emptiness. In first selling Magnus on the idea of the Asian market, Cedarquist informs him that "rice in Asia is losing its nutritive quality. The Asiatic, though, must be fed; if not on rice, then on wheat" (22). If Cedarquist's cargo of wheat now satiates the "hungry Hindoo," it cannot do so permanently. Hunger always returns, and, in fact, by filling it, the capitalist creates new kinds of 'hungers' over and above those of the body. Cedarquist suggests that wheat is only the beginning of America's commercial incursion into the East: In sending Presley off, Cedarquist jokingly bids his friend to "tell the men of the East to look out for the men of the West." The "irrepressible Yank" will soon "want to sell 'em carpet-sweepers for their harems and electric light plants for their temple shrines" (357). Unlike America's territorial frontier, a ready market, once discovered, never disappears, but tends rather to expand, as one satiated demand breeds ever new ones.

The global, post-territorial nation that I see in Norris's wheat is not easy to imagine: This is an America that somehow 'lives' in the global market, one that manages to unite the whole

[18] Henderson reads *The Octopus* as affirming a bourgeois sublime in which capital circulation is an end in itself, though he does not link commodity exchange to American national politics, as I do.

world in commerce. But, the novel's titular organism, the corporate octopus, gives us a hint of what it might look like. Both Magnus and Cedarquist assume, as a matter of course, that the business corporation, in spite of the villainous face that it wears in the San Joaquin, is best equipped to carry America's Anglo-Saxon mission abroad. If global commerce constitutes a 'rebirth' of the nation, it seems fitting that, in 1901, and even more so in 1880, the corporation was itself a new form of life. The Trust had only recently emerged in its modern form, as a legal person—a single entity that could hold property, sue and be sued, enter into contracts, and so on.

Proponents and detractors alike immediately recognized the Trust as a very unusual kind of person. Hemmed in by neither the lifetime, nor membership, of its participants, this newborn found itself instantly eternal, afloat in its own space of perpetuity. Untethered to physical body, it could expand indefinitely. This last feature, in particular, makes the corporation a kind of aspirational social organism for a post-frontier America burdened by its own apparent physical limits. If, in Turner's "political species" of a nation, Americans are first of all citizens, in Norris's corporate nation, they morph into shareholders: They are a group of individuals fused into a single entity by no other means than a shared profit motive, a pool of capital unified for the purposes of producing more of itself. The American organism that we see in Norris's map of California risks being eaten alive by the parasitical trust. But the only way out of this mess, after all, might be for America to itself take on the corporate form, to become one with the octopus.[19]

[19] See Michaels's *The Gold Standard* for the most influential treatment of *The Octopus* as invested in the corporate form. Michaels analyzes the novel's corporate logic as ultimately pointing to the "monstrosity of personhood"—the "impossible and irreducible combination of body and soul" (206). See Horowitz for another analysis of literary naturalism as fundamentally preoccupied with questions of economic value ("What is the intrinsic value of nature?") and the body-soul tension inherent to personhood ("transcendent agency") (5, 17). Here, I am not so much interested in the corporation as a model of personhood, but rather as a model for a political

Norris's "Larger View" in "The Frontier Gone at Last"

The post-frontier corporate America that we find in *The Octopus* remains itself, while managing to 'embrace' the rest of the world: It infiltrates global markets to such an extent that individual nation-states come to be essentially "Anglo-Saxon" in government. But Norris's account of Anglo-Saxon history also casts doubt on whether there is in fact any "America" left in the coming American global order. In the "Frontier" essay, the meeting of East and West signals "the equation of the horizon" and with it a solution to the "problem of the centuries for the Anglo-Saxon" (71-2). Here triumph also suggests closure, a mission fulfilled: The Anglo-Saxon, who has driven history with his westward migration, apparently has nothing left to do, no more "problem" to motivate his ongoing existence. While Norris does not explicitly affirm America's dissolution into the global commercial order of its own making, this seems, after all, to be the future that he expects, even celebrates. In the "Frontier" essay, the author pursues American hegemony until it issues in the disappearance of not only the Anglo-Saxon nation, but of the nation-state form, in general.[20]

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restructuring of the post-frontier American nation, one that would extend the nation's original mission as a "commercial company" onto the global scene.

[20] Castronovo argues that Norris, in *The Octopus* and in essays like "The Frontier Gone at Last," reveals economic globalization to be an aesthetic project: Globalization becomes a "thinkable concept" through aesthetic criteria like "wholeness and unified form" (183-4). I agree with Castronovo that the novel is invested in the aesthetic experience of global unity and that it ultimately seeks to produce the global market as a "universal culture" (196). While Castronovo pursues globalization in relation to German romanticist aesthetics, I am interested here in tracing the biopolitical dimensions of global market culture, from the political organicist tradition to Arendt's proto-biopolitics of "society" and the "social." See Hsu for a persuasive reading of *The Octopus* as tethering the regionalist aesthetics of "local color" to the development of a

Norris devotes about three-quarters of that essay to an American success story, projected onto the scale of world history: He leads the reader from the Anglo-Saxon's birth in the "Friesland Swamp" to America's invasion of global markets (*Responsibilities* 70). But the "Frontier" essay also includes a kind of concluding section, separated from the rest of the essay by a paragraph break and standing in a rather marked opposition to it. Here, the author pivots away from a celebration of Anglo-Saxon energy and towards an optimistic cosmopolitanism that shows little interest in war games, whether military or economic. Norris eases into this second mood by explaining that "just now," America cannot help but indulge in "self-laudatory mood," poised as it is for economic conquest. But he also wonders if global commerce may not result in "something a little better than mere battle and conquest, something a little more generous than mere trading and underbidding" (78).

This question prompts the author to start history all over again, now from a global perspective. He suggests that we now take the "larger view"—one that "ignores the Frieslanders, the Anglo-Saxons, the Americans"—and "look at the peoples as people" (78). The essay poses this alternative historical narrative as a germ theory of politics: Norris confers upon his new story the dignity of natural law. However, rather than track the "organic" development of a nation, the essay's universal germ theory pursues something much less tangible—the growth of a feeling, of

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cosmopolitan perspective. See also Peyser for an argument that the "nation is replaced with the globe as the fundamental unit of human association" at the turn of the century (*Utopia and Cosmopolis* x). Peyser reads Bellamy's *Looking Backward* as producing a "postnational or globalized form of selfhood" (51). While Peyser does not discuss Norris's work in any detail, I follow his lead in my analysis of *The Octopus* and the "Frontier" essay." See Zimmerman for another study that explores the aesthetic dimensions of market capitalism in Norris's fiction. Zimmerman attends, in particular, to the idea of "market panic" and the aesthetics of the sublime in Norris's *The Pit*.

patriotism. The sense of collective belonging that Norris elaborates is like an organism, a plant, because it is governed by a principle of growth, of self-transcendence. In consequence, his "patriotism" bears only passing resemblance to its ordinary meaning—something like love of nation. Patriotism in the "Frontier" essay, bears no special relationship to nation and, in fact, only achieves true expression in the disappearance of national distinction altogether.

Norris's organism of choice for his germ theory appears to be a 'family tree': The "seed of the future nation" is planted in love of family—the "first feeling of patriotism." He then proceeds to the clan, a growth of the family, its development "by lateral branches" (79). The clan evolves into the city, the city into the state, and then, at last, "the nation is born." In this most recent stage of patriotism, "the word 'brother' may be applied to men unseen and unknown, and a countryman is one of many millions." It is here that Norris anticipates the demise of the nation: "If all signs are true" and "the tree grow as we see the twig is bent, the progress will not stop here" (80). As international trade prompts a sense of global belonging, nations merge in "patriotic effect," until men finally discover "the whole world is our nation" and "simple humanity our countrymen." This expansive affective economy is the "true patriotism," and its attainment, at "the ultimate end of all," signals the end of history. The advent of a world united in "simple humanity" puts a final close to "this epic of civilization, this destiny of the races" (80-1).

But how, exactly, are we to understand this "simple humanity?" Nineteenth-century German political organicism focused on race and geography as the salient categories for delineating the nation. Turner understood the American organism as, in essence, a "political species." By contrast, Norris's political organicism does not target any specific feature consistent

across "simple humanity" that might give shape to his utopian global body. In other words, his sketch of a germ theory fails to supply a trait or activity that is both characteristically human and robust enough to provide a basis for global political unity. Here again *The Octopus* works in tandem with the "Frontier" essay to fill out the blanks in Norris's conception of world history. In the essay's germ theory, we saw the human population, as it consolidates into a single political unit, grow into a mature tree, complete with twigs and branches. But in the novel, the *wheat* quite naturally steps in to elaborate the meaning of "simple humanity," regarded as a political category, a basis for something like citizenship.

Vanamee's Wheat Theory of Politics: Life-Force and Species Being

In Part I, I argued that Norris's wheat models a manifest destiny for the post-continental American nation. But *The Octopus* also develops a much more robust political organicism, one that probes the wheat's organic structure, in elaborating its vision of a "social organism" composed of simple humanity. This wheat theory of politics starts to come into focus in the novel's closing pages, in Presley's final reflections as he sets sail for India. Still reeling from the loss of his rancher friends, the poet struggles to make sense of all the human tragedy he has witnessed during his time in the San Joaquin. He attempts to shift his perspective to the "larger view," thus recalling Norris's own turn to "simple humanity" in the "Frontier" essay. But Presley identifies the larger view with the capacity to take in the "full round of the circle," of which he can now see only a segment (360). In so doing, he harkens back to his final encounter with Vanamee, the novel's improbable mystic shepherd, who advises Presley to consider the "whole round of life" when grappling with death. Vanamee tells Presley that life "never departs," but is

only hidden "for certain seasons." He illustrates this organicist lesson with reference to the life cycle of the wheat crop: The "grain of wheat," though "hidden for certain seasons in the dark," does not die, but in fact "resumes again"—"not as one grain, but as twenty" (344). On one level, Vanamee is borrowing Jesus's parable of the grain of wheat from the Gospel of John to make a point about the good that might issue from a single death. However, in the context of Norris's moral evolutionism, the wheat plant really does have a spiritual message encrypted in its organic form. Here, as in the novel more generally, *life*—in its most basic association with organic processes—functions as both mythical starting point and normative guide for all spheres of human activity. Vanamee implores Presley to remember that "Evil is short-lived. Never judge of the whole round of life by the mere segment you can see. The whole is, in the end, perfect" (345).

Recalling Vanamee's words at novel's end, Presley finds his moral bearings in the very transpacific voyage he has just began, in the realization that *"the wheat remained."* The wheat—"that mighty world-force, that nourisher of nations"—persists in sustaining human life, despite the death of his friends. Now on its way to Asia, the wheat continues to "[move] onward in its appointed grooves" to "feed thousands of starving scarecrows on the barren plains of India." Presley finds his answer in the thought that "the individual suffers, but the race goes on." His close friend, Annixter, another San Joaquin wheat rancher, may have died, "but in a far distant corner of the world a thousand lives are saved" (360). In short, Presley has uncovered, in the wheat's onward course, a sign of the ultimate beneficence of natural law. At last reconciled to his loss, he is now ready to issue the novel's Panglossian final words: "All things, surely, inevitably, resistlessly work together for good" (361).

In part, Vanamee's parable suggests to Presley the beneficence of organic life in sustaining humans, its persistence in reproducing itself for our nutritional satisfaction: The wheat "remains," even after Annixter's death, to feed all of those hungry Indians. But the wise shepherd's effort to console his grieving friend depends first of all on a reading of human life, itself, on the model of the wheat plant. In Vanamee's parable, at least as Presley picks it up, the life cycle of the wheat stands in for the global population, taken as a single "organism." Presley's interpretation of the shepherd's cryptic vegetal philosophy runs something like the following: The world, understood as a single unit, contains both darkness and light. At any particular moment, one may be looking at a portion of life that, like the dead seed of the wheat, is hidden in darkness—shrouded by evil. But dead seeds sown in the earth produce a harvest, and so, even the moment of "evil," of death, is only a segment of the whole of life, here identical with the good. The death of Presley's friends—the segment of the whole that he sees—is only the dark part of the cycle. The fallen 'seeds' of California ranchers make way for the 'harvest' of Indians saved from starvation by the famine relief. The unified globe is like the wheat—one part, the California ranches, hidden in metaphorical darkness, and the other part, "the barren plains of India," now lit up with life (360).

In imagining of the global population as a single organism—a wheat plant—Presley pitches Vanamee's parable of the wheat into the register of political organicism, thus revamping it into a wheat theory of politics. In the novel's "larger view," as Presley gives it to us here, human being is no longer parsed into "men of the East" and "men of the West," as in Cedarquist's appraisal of the market (357). It is now a generic category—a single organism on the model of the wheat. "Simple humanity," then, is the human as species being, as human race:

The wheat plant, like *Homo Sapiens*, sustains its organic unity over time, even as it is composed of many "individuals," and even as it moves through countless reproductive cycles, every wheat grain born anew in its seed. As humans are reduced to their species being, made generic like plant life, individuality falls away altogether, every human standing in for every other. Insofar as Annixter's death is accompanied by the salvation of "thousands of starving scarecrows," more good—more life—has come from the wheat harvest than bad, despite the ruin of a few Californian wheat ranchers: "The individual suffers, but the race goes on" (360-1).[21]

Shelgrim's Wheat Theory of Politics: Commodity-Force in the Free-Market Universe

Norris's global citizen, as he appears when we read Presley's "larger view" together with that of the "Frontier" essay, is none other than *Homo Sapiens.* But wheat in *The Octopus* is always commodity at the same time that it is organism: As a cash crop, its reproductive life is intimately tied up with market exchange. It is in fact the wheat's life as a commodity, its journey from consumer to producer, that first opens Presley onto the "larger view." He is struck by the lesson of the wheat, the lesson of "simple humanity," as he sails along with it towards hungry India. For Norris, trade breeds social unity: We see this again in the Anglo-American businessman's moral awakening in the "Frontier" essay. In fostering the "larger view," market exchange compels America to merge "in patriotic effect" with "other nations, and others and still others," so that "peacefully, the bitterness of trade competition may be lost." The global order

[21] Kaplan reads the final scene of *The Octopus* as Norris's effort to relocate imperial expansion from a "history of violent conquest" to an aesthetic and ethical project of "global and spiritual nourishment" ("Nation, Region, and Empire" 262). This dissertation, in general, follows Kaplan's suggestion that we consider literary naturalism in the context of America's turn to oversees empire at the end of the nineteenth century.

that emerges at the end of this process likewise sustains its unity through commercial exchange. But this, again, is commerce without the sting: The "business of nations" in a world without nation-states is a "friendly *quid pro quo*, give and take arrangement, guided by a generous reciprocity (80-1).

In the world of the "Frontier" essay, the emergence of this new world order closes the "epic of civilization, this destiny of the races" (81). It is a kind of historical end-state, the last form of community that humans will ever know. Norris's coming global order is a world oriented around a benevolent form of commercial exchange: This is the only way we are given to imagine it. In this respect, it also works on (imperfect) analogy with the wheat, now considered as a commodity. If the wheat *qua* organism provides a model for human being, understood as a totality, its life as a commodity also supplies the principle of identity that unites them socially, concretely. Annixter and the hypothetical Indian, for instance, are of course both "simply humans." But they also face each other as producers and consumers in the abstract space of the market, their interaction mediated by the wheat-commodity. They function in the novel as proto-consumers, future customers of the nation's "carpet-sweepers" and "electric light plants."

In considering Norris's wheat-commodity as to some extent also modeling his global end-state, we remain, strangely enough, in the realm of political organicism. The wheat's status as commodity is no mere historical contingency, reliant on a particular social order, but a matter of ontology. Norris's investment in fully naturalizing the wheat's commodity status is perhaps most apparent in a crucial late scene of *The Octopus*—Presley's interview with Shelgrim, the surprisingly wise president of the PSSW. Presley arrives looking for some explanation for the company's brutal treatment of his friends, but receives a quick lesson in Spencerian force-

philosophy instead. Shelgrim dismisses Presley's critique of corporate greed by informing him that "men have only little to do in the whole business." He notifies Presley that "you are dealing with forces, young, man, when you speak of Wheat and the Railroads, not with men." If the wheat is one force, and the railroad another, their relationship is determined not by human actions, but a "law that governs them—supply and demand" (285). The rail, like the wheat, in fact grows itself, whenever it meets demand—whenever there are people who must be fed, people to whom the wheat must be carried by transportation networks. The law of supply and demand is not only the basic principle of a market economy, its backbone, but in fact a universal law of nature.

At the end of the day, the universal order is a good one, because it is a capitalist one. Though Vanamee and Shelgrim make for a strange philosophical alliance, they teach Presley essentially the same lesson—a lesson about nature's moral arc, as it is given in the wheat. Vanamee tackles the grain in its organic aspect, while Shelgrim is interested in its commodity form. His defense of the Trust involves a note on the ultimate benevolence of the free-market universe. Shelgrim is adamant that "the wheat will be carried to feed the people as inevitably as it will grow" (285). Here he poses the meeting of supply and demand—at the same time the satiating of hunger—as not only a moral imperative, but also a law by which the universe, at least in the long run, surely abides. Returning for a moment to Vanamee's parable of the wheat, we find that a moral order grounded in the certainty of biological reproduction is in fact quite compatible with one grounded in capitalist production. Vanamee's (golden) grain of wheat may be "hidden for certain seasons in the dark," but it "resumes again"—"not as one grain, but as twenty" (344). Life, here, sounds a lot like a good capitalist investment: The prudent investor's

money may remain "hidden" for a time in the commodity, but it comes back to him multiplied, perhaps twenty-fold.

The Politics of "Naught" in a World-Turned-Market

A moment in *The Pit*, the second volume of Norris's wheat trilogy, brings into stark relief the strange intimacy between market laws and natural ones in Norris's universe of force. In trying to corner the wheat market, Jadwin drives up prices so high that farmers across the Midwest start "[planting] the grain as never before." In consequence, wheat plummets, and Jadwin is financially ruined. In explaining this phenomenon, Norris follows Shelgrim in letting his readers know that individual farmers have "little to do in the whole business." In fact, "the Wheat had grown itself; demand and supply, these were the two great laws the Wheat obeyed." The unlucky Jadwin has "tampered with these laws," and "roused a Titan." Now, the "very earth herself" seeks out to crush this "disturber of her appointed courses" through the global commodity market. Nature and the market, if not identical, are at the least faithful allies: The "great mother" is angry with Jadwin because he has interrupted the journey of supply to its destination in demand, and she wreaks her revenge reproductively—by growing so much wheat that he loses everything (374). In creating a situation of artificial scarcity, Jadwin sets in motion real abundance and consequently finds himself on the losing end of a market now skewed towards consumers.

In greedily hoarding the wheat, Jadwin, the "human insect," acts as an individual: This is his real crime against the free-market universe (374). His fate helps us understand why Annixter's death may, in fact, have been a matter of natural law after all. In the novel's free-

market universe, supply *must* (eventually) meet demand. Shelgrim's schema assigns a market position for "wheat" (supply) and "people" (demand). As we saw, the railroad, too, occupies a position within this market-metaphysics—it is likewise a "force" governed by Shelgrim's law of supply and demand. But the rancher, Annixter, is not. He assumes the role of the "individual," who, for better or worse, may end up being "crushed" by the law of supply and demand. Leaving aside Shelgrim's odd disinterest in the economic function of the producer, we see that Annixter, like Jadwin, is a "human insect" who, in his protest against the PSSW, has taken it upon himself to disturb the wheat's "appointed courses" through the global commodity market (*Octopus* 360). Market law, as well as the moral order of the universe, demands that he be crushed.

Shelgrim's free-market metaphysics also help us to understand the commercial order of Norris's global end-state as both a moral and a natural one. In the author's description of the "business of nations," we find a simple, harmonious world blissfully free of wheat-hoarding speculators bent on disturbing the journey of supply towards demand. This, in fact, is a world without "individuals"—Norris's frequent designator for those who "rebel," who "strive to make head against the power of nature," as Annie Derrick puts it at one point (*Octopus* 174). A global end-state without individuals—without any misguided assertions of human agency—is one that calibrates the relationship between nature and the human quite perfectly. Indeed, Norris's metaphysical envoys in *The Octopus* all come bearing the same message for the human insect: to let go of the illusion of individuality, to give in to the universe of force. Presley, for instance, seems to "touch the explanation of existence" when he concludes, in considering the "enigma" of the wheat's unstoppable growth, that "men were naught, death was naught, life was naught; *force* only existed" (343).

But Presley is not the only character that Norris makes privy to this metaphysical truth: The Spencerian force-philosopher, the nature mystic, the corporate executive, all drum to this rhythm. We also see the "naught" of individuality in Vanamee's parable of the wheat and in Presley's therapeutic reworking of it to console himself for the loss of Annixter, his conviction that "the individual suffers, but the race goes on." Evolutionary biology and capitalist economics fuse in *The Octopus*: If Presley tackles the "race" as a generic species category, Shelgrim replaces individuals with producers and consumers, focalized instances of supply and demand. If our global end-state abides by the principle of "naught" in its commerce, this principle may also constitute its foundational political ideal. Indeed, the capacity to negate one's individuality has a lot in common with the "Frontier" essay's idea of "true patriotism," the "secret of the coming centuries." Norris presents this secret patriotism in direct contrast to the "selfish conception" currently entertained by his fellow Americans, mired as they are in the "self-laudatory mood" that comes with success in commerce. The essay's germ theory, intended to let us in on the secret, is marked by self-negation, the individual's affective absorption into the "naught" of the collective.

Though *The Octopus* is adamant about the individual's metaphysical non-existence in a universe of force, it treats us to a vision of the "naught" as a category of social life only once. The novel stages its only real moment of "true patriotism," or some approximation of it, in an early, rather unassuming description of the central office at Los Muertos. Here we are told that "no doubt, the most significant object in the office" is its stock market ticker, which delivers the latest wheat prices from around the world. Norris reports that, during a recent moment of market flux, Magnus and Harran "sat up nearly half of one night watching the strip of white tape jerking

unsteadily from the reel." During such moments of market instability, the men "no longer feel their individuality." The ranch then becomes "merely the part of an enormous whole, a unit in the vast agglomeration of wheat land the whole world round, feeling the effects of causes thousands of miles distant" (51).

This scene of mystical communion with the global commodity market unites in miniature the two moods of Norris's "Frontier" essay: It exposes the essay's Anglo-Saxon Frontier Thesis as having always been, at the same time, its germ theory of patriotism. In other words, Norris dramatizes here the relay between trade and political feeling that he has previously outlined in that essay. He shows us how commercial expansion might also involve an expansion in the community of belonging, a development towards the "true patriotism." Norris introduces the scene by shifting the reader's gaze from the map of Los Muertos on the wall of the office to the stock ticker machine. In so doing, he nudges our attention away from America's territorial frontier—the frontier of production—to its new global frontier, the perennially empty space of the market. Positioned as we are in California, the edge of the West, we nevertheless find, in this turn to the global market, that "perhaps we have not lost the Frontier, after all" (*Responsibilities* 75).

But the new moment in Anglo-American history is at once a new phase of social life, the larger human story of collective belonging. This, of course, is the leap that Magnus and Harran make in relocating their "patriotism," from their own wheat holdings to the "whole world" of wheat, expressed as a number, a price on the ticker tape. As in the last phase of the "Frontier" essay's germ theory of patriotism, their affective capacity is fully untethered from the social and material networks that help constitute the self: They feel "the effects of causes thousands of

miles distant" with greater urgency than their present surroundings. Reborn on the global market, the American, as we find him here, no longer sustains the feeling of self, of identity, through his particular locality. This now, is a de-individuated or impersonal self, a self that finds its coherence just insofar as it is dispersed the "whole world round" (*Octopus* 51).

In losing their individuality, the Derrick men become one with the wheat, in its dual life as commodity and organism: They are at once market abstractions and generic species being. At the same time, they merge into the "true brotherhood," itself both a species unity and commercial one. If Norris's global organism finds its basis in the wheat, here too the laws of the free market fuse with those of species reproduction. A world geared towards maximizing human life is by necessity oriented around the journey of supply to demand: Glut and scarcity are its enemy, the meeting of Annixter's wheat and the Indian's hunger its basic telos. This now is the American commercial organism made universal—but universal only insofar as it joins the Derrick men in dissolving its boundaries, diffusing its Americanness into human species life. To reproduce itself perennially, America—like Annixter, like the wheat plant—must die. But it is reborn as a whole world become commercial society—a global organism of "naught" that perhaps finds its closest likeness in the invisible, dispersed body of the corporation.

The Commercial Organism as Arendtian "Society"

In taking this political turn, the "Frontier" essay finds a way out of selfishness, but doubles down on materialism—now, the material conditions that sustain human existence. Political life, in the essay's global end-state, is in fact a politics *of* life. Norris's vision of post-frontier American futurity is then doubly biopolitical. In the first place, this vision is guided by

the organicist tradition in political thought—the original "biopolitics." However, the global organism that materializes from out of Norris's wheat, and from his germ theory of patriotism, can also profitably be analyzed through the more familiar biopolitical heuristic that Michel Foucault developed beginning in the mid-1970s. In particular, Norris's global commercial order bears a striking resemblance to Hannah Arendt's notion of "society" and "the social" in *The Human Condition*, which has been read widely as a biopolitics *avant la letter*. My intention, in now pursuing this resemblance, is to shed some light on the form and telos of (bio)political life in Norris's strikingly apolitical political utopia.[22]

Norris's global end-state of "simple humanity" is a "brotherhood of man"— one big happy family (*Responsibilities* 81). As such, it presents itself as an Arendtian nightmare, "society" universalized. For Arendt, modernity is the age of "the social," which for her designates the realm of biological and material necessity, of the reproduction of our conditions of existence. She argues in *The Human Condition* that politics, since the early modern period, has become increasingly bound up with the administration of life processes that were previously the domain of the private realm. Given the rise of the social, the political community is reimagined on the model of the family or household: Society is a "collective of families economically organized into the facsimile of one super-human family" (29). Political governance is now a matter of taking care for the "everyday affairs" of the family; the modern nation-state, for Arendt, is best understood as a "gigantic, nation-wide administration of housekeeping" (28). In other words, government, in the age of society, is detached from the "domain of the political"—

[22] I thank Dawn Herrera Helphand for her guidance in helping me work through Arendt's concept of "the social." See Helphand.

of speech, action, and freedom—and becomes primarily invested in promoting the sheer survival of the population. It becomes "the appointed protector not so much of freedom as of the life process, the interests of society and its individuals . . ." ("What is Freedom?" 150).

Arendt notes that a "completely 'socialized mankind'" is one "whose sole purpose would be the entertaining of the life process" (*Human Condition* 89). This, I have argued, is what we see in Norris's global end-state: a political unit bound in species being. For Arendt too, a politics modeled on the family—on what Norris calls the "true brotherhood" of "simple humanity"— is essentially a commercial order. Arendt identifies the rise of the social with the growth of the market economy beginning in eighteenth century and the concomitant expansion of capital and social wealth. As governments become increasingly invested in supporting the health and well-being of populations, they also refocus their aims around securing and maximizing those private liberties and social activities that drive economic growth. In the age of the social, the world is reimagined in the terms of production and consumption, acquisition and exchange; the primary values of a socialized humankind are those of productivity, abundance, and life.

If Norris's global end-state corresponds to Arendt's society universalized, the "naught" that governs there may be the "nobody" that presides over the social. For Arendt, the social designates a form of political life in which the aims and desires of citizens are understood to be totally uniform. The type of government that corresponds to it is bureaucracy, depersonalized rule by the "nobody"—the "assumed one interest of society as a whole" (*Human Condition* 40). The social is, in essence, an echo chamber. In yoking society to family, Arendt means largely to suggest this homogeneity of interest. However, just as the family is primarily interested in the reproduction of human life, the unity of society is at bottom a species unity: Arendt suggests in

The Human Condition that "the monolithic character of every type of society, its conformism which allows for only one interest and one opinion, is ultimately rooted in the one-ness of man-kind (i.e. specimen of the animal species man-kind)" (46).

Biopolitical Values in The Octopus: Utilitarianism and the Community of Hunger

In Part I, I discussed hunger and gluttony in *The Octopus* as a function of the novel's pro-expansionist politics, its advocacy for a new American commodity-frontier in the Asian market. But this metaphorical logic also points us to the novel's rejection of political life altogether, if, with Arendt, we understand politics as the domain of speech and action. Images of eating together and going hungry underpin the novel's biopolitical value system. Here, as in Arendt's "society," the life of the species takes center stage as the highest good.

In claiming that *The Octopus* rejects politics, I mean in large part that Norris is skeptical about the existence of a true public realm in America, some meaningful and effective space of political deliberation and persuasion. We witness the failure of politics, so conceived, at a public assembly, a democratic "indignation meeting" convened in the immediate aftermath of the shout-out between wheat ranchers and U.S. marshals (250). A distraught Presley takes the stage to address "the People"—Norris's frequent metonym for the nation, the average American citizenry. He seeks to rally his fellow Californians to rebel against the despotic PSSW. By this point in the novel, he is a reasonable candidate for the job, having recently published "The Toilers," a much-lauded piece of populist verse that has earned him a certain standing as poet of "the People." But the poet's attempt to communicate with them directly, publically, is a disaster. Presley appeals to his audience as a Turnerian "political species," evoking foundational

American principles, and in particular their shared commitment to freedom. He reminds them that "this is America. We fought Lexington to free ourselves; we fought Gettysburg to free others" (260). He tries to rouse this audience of "ranchers, country people, store-keepers" to their own special relationship to the democratic mission, reminding them that "Liberty is the Man in the Street … She is a child of the People" (262). But the novel stages this earnest bid to forge a common purpose at the site of political value only to squash it, as if to highlight the naivety of the attempt: Presley sees immediately that, though they cheered wildly, he had "not once held the hearts of his audience." This was not "intelligent applause." Sensing that the poet was uttering words that "other men—more educated—would possibly consider eloquent," they applaud "vociferously but perfunctorily," only "in order to appear to understand" (262).

Here, words not only fail to persuade, but also to be intelligible at all. Speech is hopelessly incapable of coordinating action among a plurality of agents—one of its most important political functions, according to Arendt. What's more, Presley's audience seems utterly incapable of grasping his appeal to basic democratic principles, and indeed one as foundational to America's self-understanding as "Liberty." But the novel suggests and even celebrates an alternate basis for political unity. In the world of *The Octopus*, the kind of collective belonging that Norris, in the "Frontier" essay, calls patriotism announces itself most clearly in images of Anglo-Saxon eating. The people experience themselves as a collective first of all in the kind of self-reproduction that can be accomplished *en masse*.

In eating together, Norris's Anglo-Saxon America reconnects with its race history, some common tradition and set of ideals, however vague. After a day of plowing, for instance, Vanamee joins his gang of fellow workers in a "veritable barbecue." In this scene of eating

together, this "gorging of the human animal," Vanamee sees that the men are "in touch with the essential things, back again to the starting point of civilization, course, vital, real, and sane" (127). The people eat again after a jack-rabbit drive that draws the whole community: This "feeding of the People" is "elemental, gross, a great appeasing of appetite," but also replete with "honest Anglo-Saxon mirth and innocence." As against Presley's ill-fated sermon to the assembly, these "Homeric" feasts are silent communions: "Conversation lagged while the People ate, while hunger was appeased" (216).

When the people eat together in these joyous moments of Anglo-Saxon unity, "everybody [gets] their fill": "One ate for the sake of eating, resolved that there should be nothing left, considering it a matter of pride to exhibit a clean plate" (216). By contrast, the novel depicts imbalances in food distribution—juxtaposed images of starvation and over-eating—to suggest a moral and political order that is deeply off-kilter, in danger of toppling over. The starvation theme plays out primarily in a vignette chronicling the fate of the Hooven family—mother, little Hilda, and the "very pretty" Minna, presumably a young adult—after the death of the *pater familias*, a wheat-farming tenant who meets his end during the stand-off (12). Their fate is a grim one. The Hooven women, now penniless and homeless, travel to San Francisco in desperate search of employment; Minna is quickly separated from her family in the chaos of city life. The persistent theme of their stay in the city is hunger: Norris turns up the pathos in recording Hilda's pleas to her mother as they beg their way through the mean streets of San Francisco: "Mammy, I'm hungry," repeated over and over (304). Mrs. Hooven eventually dies while holding her daughter on a park bench, the official cause of death, "exhaustion from starvation" (322). The elder Hooven's demise finds its inverse in Minna's own (moral) death by

hunger. Herself near starvation, Minna too sits down on a park bench, and is approached by a procuress. We meet her again in a chance encounter with Presley. Now a prostitute, she returns her old friend's solicitous inquiries with a "scornful" laugh and the declaration that she has "gone to hell. It was either that or starvation" (298).

The novel sets scenes of Hooven misery against ones describing Presley's attendance at a San Francisco dinner party hosted by Mr. Gerard, a "railway 'Magnate,' a Railroad King." Norris attends to each delicacy sampled by the Gerard dinner party in great detail—Londonerry pheasants, escallops of duck, rissolettes à la pompadour, and so on (313, 316). He likewise treats us to images of the party's exaggerated discrimination in assessing it, really driving home the moral incongruity of such an inequitable distribution in food. A guest of the Gerard's—"Julian Lambert, who posed as an epicure"—claims to be able to "tell to an hour just how long asparagus has been picked." In return, Mrs. Gerard expresses her disgust at the thought of "eating ordinary market asparagus that has been fingered by Heaven knows how many hands" (320). This scene echoes the one immediately prior, in which Hilda's own 'discerning palate' rejects a "decayed, dirty, all but rotting" banana that her mother finds on the street—"the stomach turned from the refuse, nauseated" (316).

In juxtaposing the Hooven-Gerard scenes as he does, Norris presents the gross imbalance in food distribution as a bad utilitarian moral calculus: The Gerards have far too much, while the Hoovens have far too little. What the situation needs is a more equitable distribution of pleasure across the whole cast of players. Though Presley is not made privy, as we are, to the suffering of the Hoovens, he too understands this imbalance in food distribution as a moral incongruity. But he shifts the failed moral order into an Arendtian biopolitical register: In Arendt's critique of

modernity, life—the life of the species—is at bottom society's only real value and the basis of its political unity, its "one-ness." In *The Octopus,* scenes of eating together, of Anglo-Saxon feasting, illustrate how species unity might translate into political unity, on the experiential level. Here, political community is forged through collective self-reproduction, nourishment. In the Gerard dinner scene, Norris summons cannibalism—species unity broken, turned against itself—to suggest the body politic in deep disrepair. The Gerards and their fellow PSSW executives"[fatten] on the blood of the People, on the blood of the men who had been killed at the ditch." Surveying his dinner companions, he imagines "Harran, Annixter, and Hooven . . . devoured there under his eyes." The "dainty women" present are "transfigured in his tortured mind into harpies tearing human flesh" (317).

As we have seen, Presley finds his moral-metaphysical satisfaction on a wheat ship bound for India, in the realization that "the wheat remained." In part, the wheat, as it emerges form Vanamee's parable, suggests the persistence of the human species despite the death of the individual. But its journey across the Pacific also resolves the food imbalance that the novel has posed as both a moral incongruence—a failed utilitarian calculus—and, in the suggestion of cannibalism, a failure of species reproduction. In other words, the transpacific wheat cargo mends the biopolitical moral order that we found in a state of disrepair upon the ruin of the San Joaquin's ranchers. This resolution pivots off the Homeric barbecues that we have witnessed earlier, 'globalizing' them, as it were. The whole world cannot possibly eat together, but moral unity might nevertheless be achieved if, as in those mirthful Anglo-Saxon feasts, "everybody [gets] their fill" (216).

If I have insisted that the novel's moral calculus is a utilitarian one, this is because Presley himself understands the "larger view"—the one that points back to Vanamee's parable—in this way. The road out of nihilism begins for him with the question, "What was the larger view, what contributed the greatest good to the greatest numbers?" (360). Here, he evokes what John Stuart Mill, the great utilitarian thinker, identified as the "greatest happiness principle" of utilitarianism, or the principle of utility. When Presley finally concludes that "all things, surely, inevitably, resistlessly work together for good," he translates the principle of utility into a metaphysical fact. The universe is in essence a utilitarian one: Natural law abides by Mills's "greatest happiness" principle when it 'chooses' to save thousands of Indians over a few California ranchers.

I have argued that Presley's "larger view" helps us to flesh out Norris's vision of global unity in the "Frontier" essay, establishing his "simple humanity" as nothing more than *Homo Sapiens*. Utilitarianism is indeed the right moral system for this global end-state, if we imagine it as an Arendtian "society" turned universal. The principle of utility, in its most basic formulation, identifies "happiness" with pleasure: Jeremy Bentham, in particular, conceived of the human as a sentient animal body, driven by the pursuit of pleasure and avoidance of pain. In *The Human Condition*, Arendt herself claims Bentham's utilitarian ethics and other forms of modern hedonism as marking the rise of the social in modernity. If society's "conformism" is ultimately derived from the "one-ness of man-kind," Bentham makes such conformism the basis for his normative ethics: He assumes that "what all men have in common" is "the sameness of their own nature, which manifests itself in the sameness of calculation and the sameness of being affected by pain and pleasure" (*Human Condition* 309). In so prioritizing human perception, sensation,

utilitarianism makes of life, itself, a kind of fetish. For the utilitarian, what humans want—*qua* individual and *qua* "mankind"—is, at bottom, more life, sheer survival. Life then becomes the "supreme standard to which everything else is referred," as if it were simply, as a "matter of course," the "highest good" (*Human Condition* 311-2).

The Octopus, in fact, sacrifices everything but life, and asks its readers to be happy with this result: More members of the species have survived than have perished, and this apparently cancels out the litany of injustices that we have witnessed in the novel. In particular, we leave the novel untroubled by the fact that the PSSW is now poised to assume quite definite command over not only California's industry, but also its government. As Cedarquist bids goodbye to Presley, he wryly notes that Magnus's remaining son, the corrupt Lyman, is now the Republican nominee for Governor of California—with "our own dear Railroad openly [acknowledging] him as their candidate" (356). Presumably, Lyman—who was meant to serve the interests of the ranchers as railroad commissioner—has been bought off by the Trust. Presley's parting glance at San Francisco, immediately before stepping on board the Swanhilda, is of a campaign sign: "Vote for Lyman Derrick, Regular Republican Nominee for Governor of California" (358). But, as he sets sail for India, any last trace of the novel's investment in politics is effaced in the poet's biopolitical ecstasy: Life has been maximized. In following him to this "larger view," we too rest assured that "all things, surely, inevitably, resistlessly work together for good" (361).

Opening the Door to "Race Suicide: "Yellow Peril" Peril in the Global Organism

If the wheat, in Presley's transpacific epiphany, signals the joyous unity of "simple humanity," it also slyly inserts itself into a new symbolic register that undercuts his celebration of life. This "golden torrent" has previously stood in for a blond Anglo-Saxon on the move (36). Now, it suggests "Yellow Peril," the perceived threat of Asian racial domination that troubled Norris's California. Our "nourisher of nations" takes on an Asian cast as it travels with Presley across the Pacific frontier, "wrapped in Nirvanic calm." It is now apparently infused with Buddhism, an ancient religion of the East, and indeed of India (360). As the wheat travels to nourish the Asian masses in India, it leaves behind a California that has itself turned "Asiatic." The corrupt Lyman is himself suspiciously Eastern in appearance: Unlike his fair brother, Harran, Lyman is a dark man, with "protruding" eyes that give him a "popeyed, foreign expression, quite unusual and unexpected." His hair is black, and he wears a "small, tight, pointed mustache" (2).

The whole world of *The Octopus* is now perilously tinged with yellow. Read in this light, Norris's decision in the "Frontier" essay to inaugurate a fully civilized globe in China itself suggests the peril of Asian—and not Anglo-Saxon—racial dominance. Given the period's anxiety about a rising Asian population, Presley's solace in the thought that thousands of Indians now live, because Annixter has died, is is indeed suspicious. The idea that swarms of hungry Asians might thrive at the expense of the *true* American comes straight out of the "Yellow Peril" playbook. The sacrificial framing of Annixter's death in particular evokes the period's anxiety

over "race suicide." Across the U.S., the specter of Southern European, Slavic, or East Asian 'blood' mixing with and even supplanting the nation's superior Anglo-Saxon varietal compelled the nation's cultural and political elites to wage a propaganda campaign against what was perceived as a declining birthrate among Anglo-Americans. The American, who, for a variety of reasons, does not reproduce himself at the rate of the New Immigrants was, in essence, committing "race suicide."

During his presidency, Theodore Roosevelt took up the campaign against "race suicide" with characteristic vigor. Though Roosevelt and other cultural elites wielded this influential term against all "New Immigrants" and minorities, it first emerged in reference to the Chinese migrant population in California. In 1901, the prominent sociologist E.A. Ross lectured an audience of the Academy of Political and Social Science on "The Causes of Race Superiority." A professor at Stanford during the waning years of the nineteenth century, Ross was an ardent and vocal critic of California's dependence on cheap Chinese migrant labor. Here, he targets the multiplying "Asiatic" as a key enemy of both Anglo-Saxon racial dominance and the American worker. The pressure of cheap Chinese labor forces the white working man to "delay marriage and restrict the size of the family," while the Chinese, accustomed to a significantly lower standard of living, maintains or accelerates his rate of reproduction.[23] This development amounts to Anglo-Saxon "race suicide." The "higher race quietly and unmurmuringly eliminates itself

[23] See Jack London's "The Unparalleled Invasion" for a literary example in which worries over "race suicide" in light of Chinese reproduction come together with those about Chinese civilization overwhelming the West. In London's story, the United States seeks to "destroy" the ten million coolies who have landed on their shores, and China responded that ten million "scarcely equals half of our excess birth rate for a year" (*Science Fiction Stories of Jack London* 110).

rather than endure individually the bitter competition it has failed to ward off from itself by collective action" (88). Two forms of inter-related "competition" are at work here: The struggle over civilization is inextricably bound up with the struggle over jobs, as it was in the dominant strain of America's labor movement in this period. Also in 1901, the nation's most prominent labor leader, Samuel Gompers, employed the same rhetorical strategy in lobbying the U.S. Senate to extend the Chinese Exclusion Act of 1883, in his pamphlet, "Some Reasons for Chinese Exclusion: Meat vs. Rice, American Manhood against Asiatic Coolieism, Which Shall Survive?"

In worrying over the "bitter competition" of Chinese against American labor in California, Ross also points back to Norris's nearly contemporaneous "Frontier" essay. Norris, as we have seen, imagines a global state of affairs in which the "bitterness of trade competition" disappears altogether, along with the very idea of a racial struggle over American civilization. But if there is no "Yellow Peril" in Norris's global end-state, this may in fact be because it has *all* turned yellow—just like the world we see at the close of *The Octopus.* In the period's anti-Asian rhetoric, China signified both reproductive fecundity and cultural stagnation. Ross himself alludes to the latter when he refers to the difficulty of assimilating the Chinese into American culture, because of the "self-complacency" of Chinese civilization. Some fifteen years earlier, John Fiske wondered if Europe may not "fall into the barren and monotonous way of living and thinking which has always distinguished the half-civilized populations of Asia" ("Manifest Destiny" 584).

Fiske predicts that Anglo-Saxon racial dominance, and U.S. leadership, in particular, will save the world from this fate. As if to combat the Asian effect, Anglo-America has found its

calling in the "political *regeneration* of mankind" (584, my italics). As we have seen, Norris, like Fiske, understands the Anglo-Saxon's "overplus of energy" as having fueled world-historical progress since the beginning (*Responsibilities* 73). Perhaps, then, it should be no surprise that his dissolution into "simple humanity" leaves us with a global organism that is strangely lacking in vitality. If, at the end of history, wheat *always* arrives in time to feed the people, we might now wonder if the global organism, itself, hasn't run out of its food supply. Indeed, the "barrenness" and "monotony" that Fiske attributes to Asian civilization may also reasonably characterize the description that Norris gives us of his global end-state. The "*quid pro quo*, give and take" ethos of Norris's global end-state in the "Frontier" essay suggests a kind of meaningless compulsion in the whole business of commodity exchange, an incessant back-and-forth motion (*Responsibilities* 81). We are reminded, once again, of Norris's money-driven degenerates: Like Jadwin of *The Pit*, a world so fixated with the back-and-forth aesthetics of commercial exchange may find its end in a state of comatose enervation—or, Asian stagnation. On a more practical note, one certainly wonders about the profit motive in a world that has disposed of the "bitterness of trade competition." A global market economy governed by "generous reciprocity" would seem at odds with one geared towards the maximization of profit (*Responsibilities* 81). Having apparently lost the taste for "bitter" competition, Norris's global capitalists are no longer interested in expanding their capital. Such an economy seems destined to stagnate.

In *America's Asia*, Colleen Lye tracks the "model minority" stereotype back to the rhetoric of "Yellow Peril" during the Chinese Exclusion era.[24] For Lye, both moments of racial

[24] See Lye, in general, for an excellent treatment of the relationship between literary naturalism, turn-of-the-century American globalization, and the cultural construction of the "Asiatic racial form" (9).

typecasting revolve around the Asian's knack for modern efficiency, his "putatively unusual capacity for economic modernity" (3). In the rhetoric of "Yellow Peril," the Chinese migrant can survive (and reproduce) on far less and work far more than the white American: He is worrisomely efficient and, if he takes 'American' jobs, it is because he can better cope with the labor conditions set by modern industrial capital. Prominent intellectuals like Ross joined California's labor movement in pursuing strict anti-Chinese immigration policies in response to this problem—so-called "Chinese Exclusion." But the concept of "race suicide" also quite naturally leads to the idea that the white working man should in fact become *more* like the Chinese one: If he is not to die out, the American needs to become more economic, more efficient, himself. He needs both to survive *and* reproduce himself—to raise a family—in a capitalist modernity that is here to stay, with or without Chinese labor competition.

To complicate matters, nineteenth-century cultural elites had, over the course of the century, become increasingly worried that a rapidly modernizing America was in fact becoming *too* economic. Spencer and Fiske, as we have seen, understood the commercial organism to fully supplant the militaristic one over the course of evolutionary time. But this is exactly what many of their contemporaries feared. The optimistic evolutionists wrote during a time of significant cultural anxiety that industrialization and the growth of modern market capitalism had transformed the American nation into a commercial pleasure society—And this wasn't a good thing. Like Norris, the period's antimodernist militarists frequently appealed to the nation's Anglo-Saxon race inheritance, the essential force and vigor of Anglo blood, in urging the dangerously "flabby" commercial age to cultivate its latent martial virtues (*No Place of Grace* 114). But Norris, of course, saw nothing flabby in commerce. As T.J. Jackson Lears points out in

No Place of Grace, the author's ease in hitching the Anglo-Saxon warrior to the American businessman in the "Frontier" essay is striking given this cultural context (73-4).[25]

Roosevelt's famous 1899 speech on "The Strenuous Life"—essentially a pro-imperialist polemic urging America to take up its 'duties' in Cuba, Hawaii, Puerto Rico, and the Philippines—well encapsulates the warrior critique's antipathy towards a culture fully absorbed in commercialist values. Here, Roosevelt does pay tribute to the economic man, to the "architects of our material prosperity," without whom "no country can long endure." He admires the commercial virtues that underpin such prosperity—"thrift," "business energy and enterprise," "hard, unsparing effort in the fields of industrial activity" (8). As Lye suggests, these capacities are, in essence, the ones that both "Yellow Peril" and "model minority" rhetoric ascribe to the Asian. Indeed, in his own 1904 essay on "The Yellow Peril," Jack London claimed "the Chinese" as "the perfect type of industry" (*Revolution* 274). Though, for his own part, Roosevelt concedes the value of those who "toil for wealth with brain and hand," he also generally tethers the commercialist ethos to the "doctrine of ignoble ease"—the exact opposite of the "strenuous life" (8, 1). He disparages those "over-civilized" men who have have "lost the great fighting, masterful virtues"—essentially, America's anti-imperialist or isolationist contingent (7). Roosevelt aligns the "cloistered life" preached by these men with "that base spirit of gain and greed which recognizes in commercialism the be-all and end-all of national life" (7-8). These men would "sap" the nation of its "hardy virtues," would see America shrink from pursuing its "loftier duties—duties to the nation and duties to the race" (8).

[25] See also Pippin (2012) for a philosophical reading of late nineteenth-century tensions between the martial virtues in America and those of a budding commercial republic, as these are figured in classic Hollywood Westerns.

In “The Yellow Peril,” London contends that, at present, Chinese culture is stagnant, “originality and enterprise,” having long been suppressed in China. He affirms that, if “the Chinese has been called the type of permanence,” he deserves it—“dozing as he has through the ages” (*Revolution* 276, 282). Roosevelt picks up on this latter sentiment in rallying his audience at Chicago’s Hamilton Club to support an imperialist foreign policy agenda. To be a “really great people,” the nation must “strive in good faith to play a great part in the world” (“Strenuous Life” 6). For Roosevelt this, in essence, means to avoid the course of China, at once also the course of commerce. China, according to Roosevelt, is a nation mired in “scrambling commercialism,” occupied only with the “wants of our bodies for the day.” A nation that pays no heed to the “higher life” is a dead one, a zombie. Like China, it “rots by inches in ignoble ease within [its] border” and is “bound, in the end, to go down” in the struggle of civilizations (6). An isolationist America, one that shuns its “duty among the nations of the earth,” is destined for nothing greater than to become the “China of the western hemisphere” (15-16).

“Yellow Peril” in the Wheat Theory of Politics

While Roosevelt frames oversees expansion as an idealistic pursuit, his description of China as a decaying life-form suggests that what is at stake here is not only America’s moral life, but also its life as an organism. If the global end-state that Norris lays out in his “Frontier” essay is also permeated by a static quality, this too becomes especially problematic given that it is meant to be the full maturation of the American commercial organism. If we consider how Vanamee first came to the lesson of the wheat, we find that the “peril” was there all along. The

stagnant commercial organism that Roosevelt sees in China—and that I see in Norris's global end-state—is already present in the novel's initial formulation of its wheat theory of politics.

Norris's most sustained effort to build the lesson of the wheat into the plot of *The Octopus* comes in its most curious storyline: Vanamee's attempt to summon Angele, his lover now sixteen years dead, from the grave. In keeping with his naturalist-mystic persona, Vanamee has a special connection to life-force that enables him to draw humans and other organisms towards him like a magnet, using only his mind. By focusing his attention night after night on Angele's emergence, Vanamee eventually succeeds in summoning her. His friend, the Catholic priest, Father Sarria, suggests that he has in fact called forth Angele's daughter, who has apparently been living close by all along. For Vanamee, this matters little: The difference between individual humans is just as insignificant as the difference between grains of wheat. He concludes that "Angele or Angele's daughter, it was all one with him. It was She … Life, ever-renewed, alone existed" (106). Angele—the wheat presumed dead—lives on in her reproductive product, the seed maturing again into grain.

Norris describes this unexpected daughter as a perplexing Asian-Anglo racial hybrid: She comes to Vanamee as a sleepwalker, like Roosevelt's zombie-China or, better, Jack London's image of the Chinese "dozing … through the ages" (*Revolution* 282). Her "strange garment of red and gold" gives off "the enervating smell of poppies"—clearly a reference to both traditional Chinese apparel and the Chinese opium dens that were peppered throughout Norris's San Francisco (347, 137). Her eyes are Anglo-Saxon blue, but they are also slanted towards the temples, giving her face a "strange, oriental cast." She wears her long golden hair in "two

straight plaits," just as we would expect of an Anglo-Saxon maiden, but balances her head upon her neck like a "snake at poise"—again, an Orientalist image, and a treacherous one (136-7).

Angele's 'rebirth' as her Anglo-Asian daughter coincides with our first vision of the wheat crop, as it sprouts from out of San Joaquin soil. It is thus possible to read Norris's strange subplot as an allegory for the beneficial influence that American commerce might exert over Asian political development. Alfred Thayer Mahan argued in 1900 that the "Asiatic" was at present mired in a "clogged stationariness of development … an apparent impotency for self-regeneration" (*Problem of Asia* 87). In Mahan's own germ theory of politics, America may summon Asia back to life by by planting, through political stewardship, the "seed" of American institutions. "Partaking of the vitality of its mother-country," these might grow and thrive after the manner of that country (60). This, then, would be something like America's founding as Turner theorized it in his Frontier Theory: Turner's "new political species" is born with the planting of "European germs" in American soil.

But Angele's racial ambiguity leaves open the question of whether the seed planted is Asian or America—the "golden grain" an image of Anglo-Saxon blond or Asian "Yellow Peril." Norris elaborated the second possibility—America made Asian—in his short story, "The Third Circle," published posthumously in 1909. The story begins innocently enough with a couple of properly Anglo-Saxon Americans—Tom Hillegas and Harriet Ten Eyck—popping in for tea in San Francisco's Chinatown. As Tom marvels at the feeling of being transported to China, Harriet declares that "we are in China, Tom—a little bit of China dug out and transplanted here" ("Third Circle" 15). She thus reverses Mahan's germ theory: San Francisco's Chinatown is an Asian seed planted in American soil. The danger of this Chinese re-planting becomes apparent when

Harriet suddenly disappears. She is kidnapped by the Chinese and sold into prostitution, here enacting the period's moral panic over "white slavery."

We meet Harriet once again years later in an opium den; she is now a prostitute and opium addict called "Sadie," a kind of dark mirror image for the beautiful Angele. Our narrator first mistakes Sadie for a Chinese woman, and, against Angele's rather spiritualized beauty, she is a "dreadful-looking beast of a woman, wrinkled like a shriveled apple, her teeth quite black from nicotine, her hands bony and prehensile, like a hawk's claws" ("Third Circle" 24-5). The "enervating smell of poppies" wafting from Angele's gown reemerges here in Sadie's taste for opium, which she calls "yen shee" (24). Thoroughly "enervated" by her addiction, she dwells willingly among the Chinese because they give her "yen shee": "You can't eat yen shee long and care for much else, you know" (26). Here, Sadie's lethargic monotony evokes Mahan's description of Asia's "clogged stationariness" (*Problem of Asia* 87). If Angele finds her political correlative in an Asia revived, an Asia made America in spirit, Sadie is Anglo-Saxon American made Asian.

Conclusion: The Insanity of Force

My intention in pursuing the Angele-Sadie connection is to draw out the ambivalence in Norris's celebratory account of America's overseas commercial expansion: In effacing racial and cultural borders, a world joined in commercial society may "rot by inches in ignoble ease," just as readily as an isolationist America that stays within its own borders ("Strenuous Life" 6). The nation's "Open Door" may, after all, lead to a whole world overrun by "Yellow Peril." In the final analysis, however, Norris's geopolitical ambivalence ultimately boils down to an

ambivalence about the meaning of force, the overall trend of universal evolution. The author's multiple wheat theories of politics thus reveal an unexpected skepticism about whether the cosmos are, at the end of the day, in fact guided by Spencer's benevolent vitalism.

Critics largely agree with Ronald E. Martin's assessment of Norris's force-evolution as a prime example of America's naively optimistic reconciliation of Spencerian evolutionism with a Christian universe, in its benevolent aspect.[26] This universe of force, like the one theorized by Spencer, is guided by the first law of thermodynamics, which states that the energy ("force") of a system cannot be created or destroyed. Evolution, in this picture, proceeds through the mutation of force from one form to another over the course of time—all in a benevolent universe committed to producing increasingly better outcomes for humans. By contrast, Henry Adams, and to a lesser extent his brother, Brooks, are generally credited with a savvier, more 'modernist' evolutionism grounded not in the first, but in the second law of thermodynamics, the law of entropy. While the total quantity of energy in a system does remain constant, energy also deteriorates in quality with each transformation or transference. The tendency of any system, then, is to degenerate into a more disordered state. In so prioritizing fragmentation and chaos, such pessimistic evolutionism looks forward to the modern rejection of those grand, progressive narratives of history that captivated the nineteenth century.[27]

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[26] See Chapter 4 and 5 of Martin. Joseph Le Conte, Norris's teacher at the University of California, wrote the period's best-known reconciliation of religion and Spencerian evolution. See Le Conte's *Evolution and its Relation to Religious Thought* (1888). Critics almost universally agree that Le Conte was Norris's primary evolutionist influence. See Pizer for a thorough analysis of Le Conte's influence on Norris.

[27] See, for instance, Chapter 11 of Nye. Nye argues that Henry Adams, by incorporating the principle of entropy into his theory of history, dramatically undercut the nineteenth-century meta-narrative of progress.

This neat cultural history of American evolution is complicated when we consider that the guiding light in Norris's universe of force may, after all, be Asia, and not Anglo-Saxon America. The globalized "Yellow Peril" that was see at the end of *The Octopus* in fact has a lot in common with Brooks Adams's prediction for the decline of Western civilization in his own grand narrative of history, *The Law of Civilization and Decay* (1895). For Adams, history always follows a loosely Spencerian evolutionary pattern in which civilization, like all energy in nature, proceeds from "a condition of physical dispersion to one of concentration" (viii). Here, "concentration," typically refers to social concentration—as in cities—and the concentration of wealth—as in capitalist enterprise. The important point, for my purposes, is that this evolutionary trend eventually produces "economic man"—the man of industry, trade, and capital (353). As concentration advances, the economic man himself develops along two lines—"the usurer in his most formidable aspect, and the peasant whose nervous system is best adapted to thrive on scanty nutriments" (x). And this is where concentration, the principle guiding all historical progress, gives way.

Adams's evolutionary trajectory is cyclical, rather than strictly progressive, and so it does not stop here. Roosevelt, who reviewed his friend's "decidedly gloomy philosophy of life" in *Forum* magazine offers a useful summary ("Law of Civilization and Decay" 575). If, as Roosevelt puts it, "these two very unattractive types"—the peasant and the usurer—are the "inevitable final products of all civilization," what follows next is a reverse in course back towards dispersion: "There follows either a stationary period, during which the whole body politic gradually ossifies and atrophies, or else a period of utter disintegration" (577). According to Adams, the evolutionary trend we see in Western civilization suggests the latter: As a culture

disintegrates, its "civilized population may perish, and a reversion may take place to a primitive form of organism" (*Law of Civilization and Decay* xi). While *The Law of Civilization and Decay* has little to say about America, Adams does point to the "marked loss of fecundity among the more costly races" both here and in Europe to suggest that Western civilization may now be reaching the "climax of consolidation." He reports that it is "generally believed that the old native American blood is hardly reproducing itself"—an apparent nod to "race suicide" thinking (350-1). In *The Octopus*, the business counsel that Cedarquist offers Magnus and the others suggests the same: We know that "population in Europe is not increasing fast enough" to keep up with American wheat production, and "in some cases, as in France, the population is stationary" (21).

Moreover, the path that Adams traces for "economic man" finds a certain parallel in the novel's final substitution of Annixter for India's starving masses. The ever-industrious Annixter is probably the novel's best "economic man" or, in the language of Norris's "Frontier" essay, the most plausible Anglo-Saxon "commercial crusader" (*Responsibilities* 75). His "ferocious" work ethic is matched only by an "executive ability little short of positive genius" (*Octopus* 22). As we have seen, in dying, Annixter does not reproduce *himself*, but instead leaves behind "thousands of starving scarecrows on the barren plains of India" (360). Adams, in *The Law of Civilization and Decay*, does not assign a racial designation to the peasant type who "thrives on scanty nutriment" (x). But in the Californian context, this certainly evokes the Chinese migrant laborer and, here, the Indian "scarecrow."

In reading *The Octopus* as a wheat theory of "Yellow Peril" politics, we see, in this substitution, the evolution of the peasant type (Asia) from out of the economic man (Anglo-

Saxon America). In this picture, we may also meet Adams's second "unattractive type"—the usurer. Adams's model of history, as applied to Norris's novel, makes good sense of the fact that Shelgrim and Behrman—Norris's primary PSSW executives—both have Jewish surnames. Shelgrim, in fact, wears a "silk skull-cap"—apparently, a Jewish kippah or yarmulke (134). As is well known, the rapacious Jewish money-lender—Adams's usurer—is a stock character of anti-Semitic rhetoric. And, in a sense, the PSSW really is a usurer in the San Joaquin Valley. While it has not lent the ranchers any money, it did initially lease them their land according to a misleading contract that implied its eventual sale at $2.50 an acre. The novel's central drama, the battle between rail and rancher, unfolds as the PSSW gives notice that the land will now sell for upwards of $20—a price that reflects improvements that the ranchers themselves have made over the years. In general, *The Octopus* gives us a world fully at the mercy of the "economic organism," as Adams describes it: In such a world, "capital is autocratic, and energy vents itself through those organisms best fitted to give expression to the power of capital" (*Law of Civilization and Decay* ix, x). The "autocratic" octopus, as we saw it in the railway map of California, has come to monopolize *all* of the State's energy: It is a "gigantic parasite fattening upon the life-blood of an entire commonwealth" (5).

Brooks Adams's primary economic types—the peasant and the usurer—come together in the transpacific voyage that the wicked Behrman himself makes at the end of the novel. Recall that just prior to the Swanhilda's departure for India, Norris treats us to one last scene of lethal overabundance: Behrman— a "large, fat man, with a great stomach"—meet his inglorious end by literally being buried alive in wheat (63). As the wheat begins its transpacific cruise, Behrman's corpse is also on board, entombed in a wheat bin. If it is not too gruesome an image,

we might now imagine his excess corporeal matter fleshing out the bodies of those Indian "scarecrows." This type of global unity, occasioned too by the "life-force" of the wheat, is of course far less appealing than the one of "simple humanity." *The Octopus*, then, is ultimately unsure of the racial code—and thus the moral code—that dictates the meaning of force, the fundamental motor of human existence. Is force, in Norris's wheat theory of politics, ultimately guided by the civilizing power that marks the Anglo-Saxon's "overplus of energy"? Or does it share only in the vitality of China, the meaningless fecundity of reproductive life?

In a strangely "gloomy" passage of the "Frontier" essay, Norris expresses the evolutionary ambivalence that I have been tracking in his fiction quite directly—though, I think, without intending to. He suggests that the "movements of the races" proceed "in a colossal arc measured only by the hemispheres—"First Westward with the great migrations, now Eastward with the course of commerce." Here, Norris is ostensibly addressing America's present commercial "invasion" of the European market, which sets the Anglo-Saxon back on a westward course. But he also assigns this movement to the "natural forces, the elemental energies": Their motion too can be characterized by "alternative action first, then reaction." Just like the races in their movements, the tides "ebb and flow," and the seasons touch "extremes at periodic intervals" (*Responsibilities* 77-8)). We might plausibly read this brief glimpse of Norris's force-universe on Adams's cyclical model. But it also seems less orderly than that, too compulsive in its back-and-forth motion. In this regard, it now suggests Norris's obsessive gamblers, money-crazed fools like Vandover and Jadwin, who inevitably lose their wits.

In this chapter, I have read *The Octopus* as itself rather compulsively working through several wheat theories of politics. If this involuted evolutionary story, this palimpsest, is any

indication, perhaps the novel's force-universe also *means* all of its wheat theories at once. In this case, nature, for Norris, submits neither to Spencer's progressive optimism nor to Adams's cyclical pessimism. Instead, it presents itself something in the chaotic way that it did for Henry Adams, as he remembers his sister's death in the *Education*. Faced, for the first time, with the real meaning of nature, Henry feels the "stage-scenery of the senses collapses." The human mind is now "stripped naked, vibrating in a void of shapeless energies, with resistless mass, colliding, crushing, wasting, and destroying what these same energies had created and labored from eternity to perfect." Norris's nature, so understood, is neither linear, nor cyclical, but a "phantasm, a nightmare, all insanity of force" (288).

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