MODEL MACHINES

A HISTORY OF THE ASIAN AS AUTOMATON

LONG T. BUI

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Introduction

The Model Machine Myth

In 2018, Albert Einstein's travel diaries to Asia were published to great fanfare. Documenting his personal voyages to far-off places like Japan, Ceylon (modern-day Sri Lanka), and Palestine, these personal items were never meant for public viewing. But upon their release, the private contents revealed a young man with troubling thoughts. Once denouncing racism as a "disease of white people," the most famous scientist of his time held fast to odious thoughts about Chinese people. In Hong Kong, the physicist remarked upon his encounters with "industrious, filthy, obtuse people. Houses very formulaic, balconies like beehive-cells, everything built close together and monotonous." He surmised that "it would be a pity if these Chinese supplant all other races . . . [and] noticed how little difference there is between men and women."[1] These normative claims about the people of Hong Kong found renewed expression in Shanghai and the mainland, where he chanced upon "a peculiar herd-like nation . . . often resembling automatons more than people."[2]

The Jewish American intellectual spun a lengthy yarn about the sorry state of the Chinese as beastly creatures of stupor—too loathsome to be taken seriously—and as dumb machines imperiling humankind. Einstein was not the only one who believed such things throughout history. Given this thick bias, how then do we take stock of these kinds of intrigue about foreign "machine people" and automaton races? In what ways does this casual stereotyping upend the sense of human progress epitomized by great men of science like Einstein? From his theories of (social) relativity, we can

advance some queries of how modeling humanism casts a distorted picture of Asians as model machines.

In the contemporary Western imagination, Asian people are frequently described as automatons, a symbolic union that assumes they are (un)naturally fitted to the exacting demands of modern capitalism, while typifying a primitive form of economic life that is also precapitalist. So wedded are Asian minds and bodies to all things tech, they come to resemble robots, an opinion sketched by college admissions officers that typecast Asian Americans as "quasi-robots programmed by their parents to ace math and science."[3] Attributions of joylessness to work-focused Asians resonate with the model minority thesis of Asian Americans as bookish and smart but not necessarily intellectual or creative, ever so proficient in engineering, mathematics, and technical subjects lacking a "human touch." This popular myth abides by the general techno-Orientalist perception of Asia as a land soaked with superhuman laborers who only know work not play.

This concept of techno-Orientalism originally concerned the economic ascent of Japan in the late twentieth century and its economic threat against the West, while the model minority myth was born of the Cold War to explain away "race problems" in twentieth-century America. Neither framework is sufficient to explain how Asians and Asian Americans were figured as automata well over a century earlier or how this cultural meme spread to encompass multiple regions and time periods. Conflations of people from the East with "living machines" seem to originate from newfound fears of white Europeans being bypassed in the mechanical arts in the age of informatics and computers. But such thinking emerged much earlier at a time when the vocabulary of Asian automata was furnished to "coerce certain figures into nonbeing."[4]

Model Machines: A History of the Asian as Automaton follows the long career of a rather strange concept, one that assumes that Asians act and behave like numbed automata bereft of deep feeling, spontaneous thought, and human consciousness. Numerous scholars have deployed the general term *techno-Orientalism* to analyze the Asian machine trope. The working concept has been taken up by scholars of literary and cultural studies observing that the Asian body is "a form of expendable technology—a view that emerged in the discourse of early U.S. industrialization and continued to evolve in the twentieth century."[5] Despite their acute observations, there is not yet a full historiography that follows that body's idiosyncratic development and evolution over a long arc of time, factoring in such broad themes as colonialism, globalization, war, and labor or such paradigms of thought as race, gender and sexuality.[6]

Model Machines is the first work to offer a historical overview of the overlapping racialization of Asians and Asian Americans through their

conflation with the robot-machine nexus. Such an offering gives ample space to think through what I have called "Asian roboticism" (how Asians are imputed robotic characteristics and vice versa) to signal major sociohistorical changes as well as technocultural shifts.[7] With figurations of Asians as automatons as my conceptual template, or "model," I make the case that this conflation worked to justify the ideological and material workings of U.S. empire. Extending the scholarly work on techno-Orientalism (the imagining of Asia and Asians as technologically advanced), I put forth "the model machine myth" as an analytic to outline, follow, and trace the mutable forms that this social entity—the Asian automaton—has assumed in an expansive U.S. techno-imperial imaginary. In laboring as essential workers for humanity, helping to develop the global economy and U.S. trade, Asians are rendered as superhumans and less-than-human threats, in both a domestic and foreign sense.

The model machine is central and complementary to the Asian American model minority and the unassimilable Asian foreigner. While occupying a unique category, the model machine is not necessarily a distinct variant of perpetual foreigner syndrome (alien outsider), racial formation (race as changing over time), and racial form (economically efficient).[8] It is this through line that braids all those things together. Yet the model machine thesis holds specific queries about personhood, citizenship, and rights in the transnational making of Asian/America.

This introduction explores the germ of this myth and the genesis of the man-machine metaphor in ancient times. It then proceeds to shift toward the colonial and modern eras. This origin story for the model machine myth segues to Chapter 1, on the first wave of Chinese laborers to North America, those "coolies" stamped as animal-like machines during the age of Asian exclusion. After middle chapters on Japan and the Cold War/Vietnam, the book delves into the late twenty-first century, when Asians are reimagined as model minority/machines in the virtual age of late capitalism. The final major chapter ends in the new millennium, where the global resurgence of China presages the "rise of the machines" and all the doomsday scenarios this might spell for humanity at large. Much of the research on the racialization of Asians finds that they were coveted as skilled cheap labor and dehumanized by dint of their perceived cultural foreignness. However, contrary to prevailing wisdom, I reveal that they did not always register as fully human in first place. Rather than assume that racial machinization involves more than a reduction or refusal of Asian humanity, it might be best to consider it as a revamping or refiguring of said humanity.

Under new technocultural logics of difference, where cultural meanings conjugate with technological ones, ancient myths about the Asian automaton took "on a racialized life of their own, and thus complicate modern

anthropocentric discourses like Asian American history and subjectivity."[9] Centered on a moral value system that inferred Asians as the best kind of workers and the worst kind of enemy, the model machine thesis constructed a population, full of foibles, that could bear a life of struggle beyond human comprehension. A disdain or preference for Asian humanities supported the generalized associations of Asianness with degeneration (morality), drudgery (labor), and despotism (civilization). As laborers simply *doing* things with nary a sense of *joie de vivre* (exuberance of life), Asians posed a sizable danger to white human *being* and *making*. This paradox in thinking about Asians—harmful for being too handy—ensured that they would never be completely free agents. Despite being captive objects subjected to the dominant powers that sought to bind them, these branded machines always found ways to resist.

If techno-Orientalism describes modern Asia as an economic and civilizational threat, I indicate the model machine myth as a U.S.-specific (and perhaps older) version of techno-Orientalism with a focus on uncovering the historical contents of this myth. While techno-Orientalism might be an adequate term to entirely frame the Asian automaton, it does not capture the variegated, granular forms of mechanical embodiment. The model machine myth is more precise in its intervention with specific inquiry into the flattening of the Asian foreigner/minority distinction. As I demonstrate, the multiscalar myth served as a mechanism of U.S. imperialism, American corporatism, and white nationalism. My use of the model machine expressly riffs on the myth of Asian Americans as a model minority. In this way, it raises the close relationship between the contemporary post-1965 development of Asians as a hyperproductive model minority and the longer history of Asians as a racially coded model machine. The running power of this myth—Asians as superhuman minority/machine—stretches from the age of Asian exclusion to the present-day pivot toward what many have called the "Asian Century."[10]

Model Machines suggests that the means and methods by which Asians and Asian Americans acquired a mechanical appearance is essential to measuring growth for the United States, both as an emerging industrializing nation and as a maturing global empire. The model machine myth puts limits on who (or what) it can accept into the United States or integrate in its expansive orbit and biopower (political control of humans as a species and as individuals) as well as who it can violently incorporate or destroy under necropower, which refers to how colonized "populations are subjected to conditions of life conferring upon them the status of living dead."[11] As the United States came into more direct contact with Asia through trade and travel, the machine myth kept pace with the opinion of Asian people as shorn of any human qualities. As useful yet threatening robot figures, they

are unable to act in a self-determined fashion and thus exist as mere machines without salvageable parts. Their social construction as such cordoned them off from the "human rights" that Western liberal democracies, such as the United States, supposedly embodied and promulgated.[12]

Moving out from an older colonial tradition of white Europeans siting Asia as a baffling continent of slavish lumbering masses, we find the model machine myth fully materializing out of an Anglo-American tradition in the United States. That tradition evangelized to the rest of the world a doctrine of fraternity among all people, even as it deemed certain races as inherently "unfit" for humane treatment. The controlling image of Asians as controllable cogs marks them as not empowered intellects but encumbered bodies, a nameless sludge that is easily imposed upon. This image factory shored up a mental image of Asians as opportunistic or calculating. Such a liberal/racial orientation fixes in place a professed belief that "all men are created equal" while holding up the tenet that others are somehow not "real" men (emphasis on men as a patriarchal priority). Attentive to dynamics of gender and sexuality, Asian American studies scholar Susan Koshy finds that America's "most cherished axioms of choice, equality, and autonomy . . . engage in 'human' terms the exclusion of the Asian from union."[13]

My study charts the model machine myth as a phenomenon credited foremost to the United States, a world leader and mainspring for casting the modern tenor about global democracy, human rights, and market fundamentalism. I found that this myth crystallized during the late U.S. modernist period, when the boundaries between Asia and America had begun to collide around the same time as the threshold between man and machine began to break down. Never achieving the status of a coherent ideology or full public discourse like "forever foreigner," "Yellow Peril," or even the "model minority," the model machine myth arises more from sporadic ruminations and random musings. It erupted in erratic fashion during times of panic related to major political turmoil and socioeconomic transition. The myth's disjointed global history owes much to the fact that human beings did not always know how to make sense of the technological-human dimensions that arose with the forces of American militarism, racial capitalism, and technoscientific modernity. Few did know what to do with the alien creatures who deviated from the modern "human condition" to stand in for technology par excellence.

Insofar as the Asian (as) automaton trope gave shape to and helped diagnose public anxieties around social issues concerning immigration, capitalism, race mixing, communism, sexuality, and labor, I document the historical record of a public persona that does not technically exist in "real life" but is very much imagined as real. As a fabricated "thing" and symptom of larger forces, the Asianized automaton reflects the surrealism of the modern

technocultural imagination. While many might know of Chinese exclusion as a historic fact, few know that American politicians chose to occlude them on the reasoning that they were "not real people" and rather akin to machines. The spectacular myth of the Asian automaton operates as a primary site for making out modern-day freaks. Monster-machine myths color the attitudes toward those entities suspected to be not autonomous persons but instead automated nonpersons, blindly following their masters and heeding orders like a semisensate idiotic puppet.[14]

Model Machines takes a critical view of the Eurocentric conception of *Homo technologicus*, or "technological man," which says man's superiority is the product of his own physical stores of energy and pure mental reasoning.[15] Man, in his boundless mastery of nature through tools of work and art, opposes his enslavement to nature's mechanical functionality, but we must also come to grips with what happens when man becomes machine. The term *machine* refers to devices or appliances that perform a task, a person who acts deftly like a machine, or a superlative group of people doing repeated tasks like a political party.[16] *A* machine (automaton) is always part of *the* machine (capitalism).

Here, we may consider the various definitions of machine: (1) "an assemblage . . . of parts that transmit forces, motion, and energy one to another in a predetermined manner"; (2) "a living organism or one of its functional systems [that resembles a machine]"; (3) "a literary device or contrivance introduced for dramatic effect" (e.g., deus ex machina).[17] These definitions of machine introduce my critical engagement with the concept of the model machine as an assembly of material objects and technology, the resemblance of human beings and bodies to technology, and the cultural narratives used to dramatize the reality of human design.

The model machine myth thus concerns the making of a model (representation/discourse), machine (economy/system), and myth (ideology/imagination), revealing a glimpse into how things are seen, how they are produced, and how they shape thinking (see fig. I.1).

The machine concept hews closely to the automaton, insofar as the *human automaton* refers to mechanical beings confined to simple tasks, things shaped in the likeness of man. Synonyms for the word *automate* (besides *robotize* and *mechanize*) are *brutalize*, *barbarize*, and *dehumanize*. Automating thus means stripping the organic parts of something until it is bereft of authenticity.[18] Tagging people as alien automatons is thereby a conduit for vitiating their natural worth or authentic humanity with little thought given to that process. As literary theorist Catherine Liu writes, "The automaton is a monadic figure, who represents technological optimism and a demonic double, whose imagined inauthenticity allows for the indefinite deferral of a confrontation with thinking."[19] Sociologist Meltem Ahiska explains the
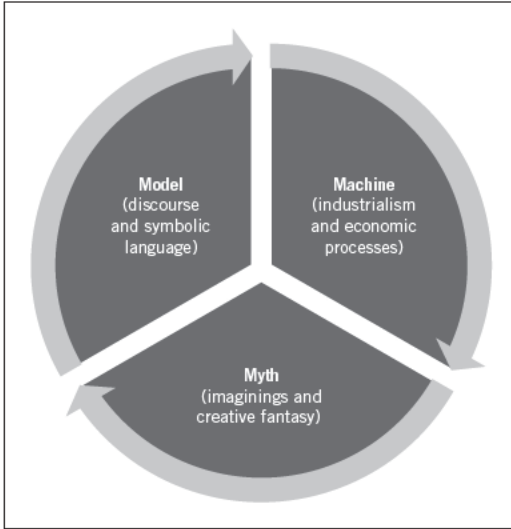
Figure I.1 The model machine myth as conceptual paradigm (Long T. Bui)

historical fantasy of mapping differences between the (Western) model and the (non-Western) copy. Even countries adjacent to Europe proper like Turkey are Orientalized as a facsimile of the "real" thing and always fall short.[20] Asia and America may be two sides of the same coin, but their relationship is asymmetrical. While white workers were sometimes described as automatons or machines, as was often done by labor advocates during the Industrial Revolution, it means something else when Asians are named so.

Likewise, the automaton and the machine are one and the same in that they often refer to one another. Machine means something more general, and automaton, more specific: machine points to a broad characterization of societies and cultures to suggest their operational efficiency, while automaton, and its more contemporary formulation the robot, brings that disciplinary arrangement home onto the corpus and character of the individual. This fusion of race and robot defines the modern Asian as a perfectible working machine, though morally imperfect. If it contains a brain, that working brain is never divorced from the natural calculations of the animal body (unlike the floating theories and traveling minds of white Europeans).[21]

A modern "machine-society" churns out "machine-men," says philosopher Michel Foucault, whether they be incarcerated prisoners, impressed soldiers, indentured workers, or inured prostitutes. In the eighteenth century, a new disciplinary power took root, one that was "no longer simply an art of distributing bodies. . . . but of composing forces in order to obtain an efficient machine."[22] The Asian machine stood apart from the white bodily subject, as colonial technologies spread across the surface of the planet,

populations, and bodies.[23] The model machine stereotype fell into a modern global order of things by latching onto fungible ideas of race and/as technology. What is more, Asians were described as human technology with greater frequency as humanism found greater currency in the world.

Tensions abound in the effort to distinguish between those people who truly live and those "somewhat human" beings who do not really live or fake life. At what point does the mock-up ever become a model? Imagined divides built on mythic foundations are never stable, and tech-savvy copiers are occasionally better than their masters. In this vein, how does the model machine myth represent an unexplored dimension in Asian racialization, delineating new ways of exploring further techno-Orientalism? Do Asians ever truly surpass humanity, or will their Asian automaton-ness always be a failure of humanness? What does the roboticization of the Asian tell us about the history of the human? How do we make sense of the incongruencies between models of being free (man) and unfree (machine)?

We tend to think of being human as timeless and natural, but what does the Asian becoming (model) machine tell us about the history of the human, humanity, and inhumanity? As ethnic studies scholars Sau-Ling Wong and Rachel C. Lee observe, throughout the nineteenth and twentieth centuries, "Asians have been contradictorily imagined as, on the one hand, machine-like workers, accomplishing 'inhuman' feats of 'coolie' manual labor, and on the other, as brainiac competitors whose technological adeptness ranges from inventing gunpowder to being good with engineering and math."[24] Picking and taking apart this oxymoron of the human machine requires a working knowledge of race, technological culture, and economic labor that moves beyond the general techno-Orientalist imaginary of the Asian as foreign Other to delve into specific examples of machinelike Asian labor, whether low-tech or high-tech. If Asians are examples of lifelike robots, how and why did this myth take root in popular thinking?

The model machine and its many permutations twist the classic sense of *Homo automata* (man as machine) by separating out "those who dominate [and are] seen as subjects and those who are dominated objects."[25] As shown throughout these chapters, the Asian automaton body took many somatic forms, maturing alongside technological innovations like the steam engine, telecommunications, and the computer. The figure's evolution alongside the mutation of the model machine myth helps make sense of the "alienating" impact of industrial-technological processes upon human society (from thermodynamics to biotechnology) as it is displaced on to alien beings. This propensity of the machine myth—to freeze subjects in time and ossify them within a temporal narrative—gives us context for framing the diversification and sedimentation of technocultural myths across the horizon of humanity.

In this introduction, I discuss the ancient origins of the human automaton and its connection to the modern Asian automaton. I then probe the Asian automaton as it is figured within colonial mythology, the racial capitalist system, and the field of Asian American science and technology studies. The introduction finishes with an overview of the subsequent chapters, starting from an "American Century" and moving to an "Asian Century." What we find is that the history of the model machine flourishes, and continues to blossom, in conjunction with the ingrained conviction that nonwhite people are not free-thinking subjects but *Automaton asiaticus*. This myth justifies the real exclusion, exploitation, or extermination.

Artificial Men and Asian Automata

Before delving into the reasons Asians came to embody model machines within the U.S. technocultural mindset, it is crucial to first unpack how the man-as-machine schema enmeshes itself in modern history and when Asians first began to be noticed as automatons. The term *automaton* closely relates to *automatism*, meaning someone or something with mechanical involuntary action, especially as a form of unmediated art and practice. Ingenious machines called automata, which can take human form, hew closely to the hyperrealization of masterful men who play God in an artificial world wholly of their own making.[26] In the ancient world, the thinking around automata (from the Greek *automatos* meaning "moves on its own") dates to scientific efforts to build robots that could masquerade as real humans. Early forerunners were kindled in mystical Taoist parables of people with machine bodies hammered out in human likeness. From the Chinese female inventor Huang Yueying came the "artificer" presented to King Mu of Cho, who exclaimed, "Can it be that human skill is on a par with that of the great Author of Nature?"[27] As tributaries to immortal gods, inventors in Egypt hoped to build robotic sentient beings as undying slaves for their godlike rulers. During the golden age of Islamic science, the polymath Al-Jazari designed a servant girl that could endlessly serve drinks or fill water for toilets.[28] Historian Adrienne Mayor documents Greek and Indian legends that professed robots to be perfect soldiers or ideal servants that could never wear down. But once the Roman Empire fell to barbarian invaders and Christian medieval superstition set in, another worldview about robots took hold: "Associated with the exotic and the idea of an 'infidel' East, automata were viewed for some time with awe and suspicion."[29] Automata came to signify the inhumanity or gross human qualities of Asia.

From early scientific obsessions with building actual robots, the *principle* of the automaton as an uncanny double of the human came into full effect during the European Renaissance and the "great divergence" between

a diminishing East and reinvigorated West. One of the main features of the European humanist project has always consisted in understanding what it means to "be human," foundational to unraveling the philosophical divide between self and Other(s).[30] Self-control, rationality, and autonomy have long defined what it meant to be human, as those qualities represented a break from nature (animals), religious tradition (God), and the divine rule of kings. The self-determination of a (European) man differs in kind and degree from the mechanical actions exercised by an automaton, a term derived from the Greek for self (*autos*) and self-willed or operating (*automatos*). Not all human automatons are thought of in the same way since race came to serve as a proxy for the machinic Other.

The seventeenth-century concept of Oriental automata combined the "unknown world" of self-operating things associated with the Orient, affirming medieval Christian theology, European sovereignty, and the view of Muslims as prostrating to a "mechanical world of gears."[31] In France, monks used the term *mechanicum* to describe Muslim sorcery, effectively purging Islam of any moral authority even as it retained the power of exotic mysticism.[32] The term *Mammets*, referring to followers of "Mahomet," or Muhammad, was used as a way to make fun of young women as behaving like mechanical marionettes and to combine the notion of human automata with the religion of technology and population control. As communications scholar Ayhan Aytes writes, "Oriental automata represent a crucial link in this two-handed engine: On one hand the automaton performs the docility for the Western subject in the image of the Oriental. On the other, it casts the Oriental subject outside of the norms of being human by subjecting them to the world of the machines."[33]

The Oriental automaton formed the early nucleus for the man-machine metaphor, lasting and lingering even as people's lives were raised by the Industrial Revolution. Great thinkers of the day bandied about confabulations of "machine-people" to describe the profound planetary changes wrought by such technologies as the Watt steam engine.[34] Scientists in eighteenth-century Europe switched from simple corpuscular analogies of biomechanical physiology to Romantic evaluations of personality by looking at the "automaton-man" as a flawed being who reflects the chaos of being a "living organic force in the universe, the state, and the body of man."[35] Calling someone a machine serves as a slander of character since it means "someone is stiff and monotonous in speech or movement, one who lacks imagination, emotion, spontaneity, or a sense of humor, a fanatical follower of rules or regulations, or a social or political conformist who is easily manipulated due to an inability to think critically and independently."[36]

Media theorist Bernard Dionysius Geoghegan considers this intellectual landscape a thought experiment in disability. In a brilliant historiogra-

phy that connects medieval technology to the age of informatics, he professes the human automaton no longer denotes purely human impairment but rather "the unequal distribution of potentials in the broadest class of animated things."[37] He blames the fading of human, social, class, and labor distinctions within Europe and the United States to the hyper-representation of exotic Others as simulations without proper substance. Given themes of maimed laboring bodies in public debates about machines, he avers that the fundamental transformation in the nineteenth century was transposing the bodily aberrancy of the automaton to the ethnic sexual particularities of "the lower-class bodies that worked—and were worked over by—machines. . . . A new, threatening violence took up residence in the mechanism. The machine was not only exotic: often it was alien."[38]

The change from the classical man-machine trope toward a complex automaton-man came with the Enlightenment and the rise of a sentimental culture that rejected simple machine analogies, given their associations with authoritarianism. As European historian Minsoo Kang expounds, the "living machine" in the industrial age prefigured a whole new modality of life where technology was infused with human essence to seed dynamic life forms that stand contraposed to "natural man." My project contends that while Asians were (and continue to be) treated as artificial humanity, they have pushed against these kinds of transactions, resistant to colonial freedom/being/truth. They also offer other modes of being human obscured by the European overrepresentation of man.[39]

The wild postulation that humans could somehow be likened to machines drew on early theories of mechanistic physiology expounded by such French philosophers as René Descartes, who, in his 1633 "Treatise on Man," outlined a formalized vision of the human mind/body as an effective combination of automatized natural functions. Cartesianism maintained that humans possess divine souls and rational minds as "masters and possessors of nature," elevated over and above nonhuman animals as downgraded copies of "natural automata."[40] The 1739 invention of robotic humanlike servants and a bedazzling mechanical "digesting duck" in France by the same inventor of the mechanical loom set the course for conceiving the entire world picture through the automaton/animal.

Later, the classification of humans and animals into self-multiplying *automata mechanica* would inform Europeans' discernment of the natural world during their colonial expansion around the globe. The "lower races" they encountered were seen as animalistic automata, being so close as they were to nature. The *homme machine* of Descartes could upgrade itself, but other types of machines could not, as when Carolus Linnaeus (the creator of the Western taxonomic system) strangely put white people and orangutans into the *Homo sapiens* category, while placing Chinese, Indians, and

Hottentots from southern Africa in the separate category of *Homo monstrosus*.[41] That certain races could be classified as monsters revealed that racial ordering was based on the personal whim of its arbiters.

The human/animal/machine distinction stood center in Euro-American modernity and the formulation of race, nation, and citizenship.[42] The distinction took another direction under Julien Offray de La Mettrie, who, in his 1748 work *Man a Machine*, pushed against Descartes's basic doctrine of mechanical man. Insofar as all organisms vary in sophistication, humans and animals are complex machines.[43] Descartes looked upon the human "body as a machine made by the hand of God."[44] By contrast, La Mettrie propounded that even though man can be thought of as a machine, there are still unknown pleasures, moral instincts, and emotional intelligence beyond comprehension. This more sensuous, open approach toward the *machine man* did not accord with more determinist thinkers who saw the automaton as a rational model for a new mechanistic social order.

The school of thought called vitalism, which arose in popularity during the nineteenth century, sought to explain biological "living things" as containing a unique vital force separate from nonliving inanimate ones. French mathematician, inventor, and writer Blaise Pascal would argue that we are all automatons due to customs that influence a human mind to remain free and independent.[45] Robert Boyle, the father of modern chemistry, toed the line between mechanism and vitalism, agreeing with Descartes that nature was a great machine and that the human body was endowed with powers and qualities of God. Yet he countered that organic matter's "seminal" impressions and spirits are irreducible to mechanical quantities.[46] As director of the East India Company in India, Boyle believed in getting rid of all forms of deism and paganism to unite the human races under a West European contour of Christianity. Under the motion and energetic wheels of missionary colonial work, all men fell under the "grand and noble machine" of God.[47]

Despite such ecumenical efforts, the cleaving of man from his subservient machine complemented the detachment of Europe from Asia, apart from the contiguous geographic body of Eurasia. As historian of science Simon Kow formulates it, many of the top Western intellectuals could not conceive of the Oriental state in a positive hue due to this geopolitically determined partition of continents. In this light, Johann Gottfried von Herder considered the Chinese as imitative and industrious but not inventive, while Gottfried Wilhelm Leibniz took them as "natural automatons" in their customary rites (despite his view that all people are spiritual automatons with souls). Montesquieu, in his uniquely sarcastic way, found that "the constancy of the Japanese during torture might be due to the fact that physical

suffering is perhaps not so great there, that the bodily machine is not so susceptible to pain there."[48]

The orientation toward Asian slavishness finds its earliest antecedent in Aristotle's formulation of man as a "rational animal" and those humans living in Europe as "full of spirit, but wanting in intelligence and skill . . . [with] no political organization, and are incapable for ruling over others. Whereas the natives of Asia are intelligent and inventive, but they are wanting in spirit, and therefore they are always in a state of subjection and slavery."[49] Aristotle believed, not without some uncertainty, that Asians were "slaves by nature," in spirit "creatures with no moral qualities, no capacity for independent judgement, but with brains enough to interpret their master's orders when required and brawn enough to carry them out."[50]

This classical sense of Asians as quick-witted yet slow-to-act peons—and Europeans as not-so-skilled yet rational civilized people lacking in political organization—would be slightly altered by colonialism. By the time a handful of European nations rose to global power through colonial conquest, it was believed that Asian societies consequently went into relative decline and fell from favor. For Georg Hegel, the civilizations of the Orient came to preside as archaic lands, where undifferentiated herds of humanity groaned under the weight of cruel tyrants without the rule of law.[51] In *The Philosophy of History*, he contends that the Chinese are blindly obedient, dwelling in communal lands where "subjective freedom is absent."[52] With new imperial organization and freedom of colonial travel, Europeans could now preside over this land of skilled yet spiritless serfs. As he put it, "The Chinese have as a general characteristic, a remarkable skill in imitation. . . . They are born only to drag the car of Imperial Power. . . . [This] testifies to no triumphant assertion of the worth of the inner man, but a servile consciousness."[53]

While Egypt, Arabia, Persia, India, Mesopotamia, Assyria, and China formed the cradles of human civilization, they now seemed past their prime. Beyond worshiping brute animal idols, Asian societies dwelled on reproducing rigid social castes and a classical education based on rote memorization, while Western Europe signified the zenith of economic development, state administration, and formal scientific experimentation. It was probable that Asians might catch up to Europeans someday, Hegel posited, given their ability to imitate, but they demonstrated a lack of true spirit of evolutionary change. Even if they would learn to industrialize or improve themselves economically, time's arrow would never redound back to Asia, since "Europe is the absolute end of history."[54] Whereas Africans, Oceanians, and Amerindians occupied an obtuse place in humanity's primordial past, the people of Asia assumed an ancillary, fugacious place in world history, one that could only partly and crudely rival an advanced Europe with its scien-

tifically managed societies. Conversant with the Orientalism of Adam Smith, Max Weber, Karl Marx, and Karl Wittfogel, Hegel brought forward the grandiose schema that the planet's occupants could be parsed out into universal rational human beings and sedate unthinking automatons.[55]

Hegel was preceded by Thomas Hobbes, who wrote of the "Artificial Man" in *Leviathan* (1651) as a marvelous metaphor for the incipient social order under the modern state and its "body politic." This materialist philosophy shaped more modern thinking around the virtues of "civic humanism" and concerns of men becoming "feeling machines" under manufacturing economies—free-market subjects yoked to the mechanical reproduction of commodity culture.[56] Modern humanism, as an intellectual exploration of man's entire plane of existence, intermingled with not only capitalism but scientific findings about how the world works in the physical universe.

The myth of the automaton-man as a living thing was reignited by the theories of thermodynamics, or the science of motion from heat. In the mid-1800s, scientists like Ludwig Boltzmann drew parallels between the kinetic force of the human body and energy-converting machines.[57] The Newtonian order of fixed, stable natural forces and physical elements was reconstituted by a new paradigm trained intellectually on the chemistry between energy and entropy found within the "human motor."[58] Even as there occurred a popular shift toward discussions of technology by the twentieth century (technology is simply the "application of scientific knowledge for practical purposes"), the language of human machinery prevailed as a way of explaining the terror of galvanized monsters in our modern times, similar to the malevolent creation in Mary Shelley's *Frankenstein*.[59]

From these eclectic origins, the chimera of the racial robot and "robot races" was born. Pseudosciences like phrenology—measuring the human skull anatomy for intelligence—set the new anthropometric terms for fixing others in nature by carrying forth historical impressions of Oriental slavery, despotism, and barbarism into the age of human emancipation. Finding great popularity in the antebellum United States, French writer Arthur de Gobineau wrote, in his influential 1852 work *The Inequality of Human Races*, that the Negro was a "human machine, in whom it is so easy to arouse emotion, show, in face of suffering, either a monstrous indifference or a cowardice that seeks a voluntary refuge in death."[60] For this elite man of letters, the Black man possessed basic needs and instincts with no faculty of reason (racist notions corroborated by U.S. president Thomas Jefferson's *Notes on the State of Virginia*), while the "yellow man" displayed a machinic scale of operation that went beyond nature's biological utilitarianism. Gobineau construes that the Asiatic race "is practical, in the narrowest sense of the word. He does not dream or theorize; he invents little but can appreciate and take over what is useful to him."[61] The yellow man craves freedom, yet

he remains a creature of utility, quicksilver inventiveness, and avarice. He is a "knock-off," or false copy, of the white man, ripping off the latter's gifts of courage, feelings for order, and reflective energy. While Gobineau thinks Black people possess "animal character" with a slight intellect (useful to a certain degree), he makes plain that every civilization should have yellow men as no modern capitalist society can be fully operational without them, the consummate copycats of the Westerner's nous. Despite the economic usefulness of Asian workers, Gobineau's final assessment is that the white man's life should never be debased or enervated by intermixing with the "formalism under which the Chinese are glad to vegetate."[62] Notwithstanding the great need for Chinese labor, there needs be excorporation of their dirty bodies lest whites too become subhuman in this unholy communion.

The visualization of Asians as embodied machines did not really take off until the advent of modern nation-states. The concept of the machine travels between individuals, groups, and communities through the various pathways in which nations are constructed, entangled, and imagined. These fictive ties bind people across swathes of space and time, and nations "are to be distinguished, not by their falsity/genuineness, but by the style in which they are imagined."[63] Insofar as the United States imagines itself as a nation that does not practice colonialism or imperialism (or even racism), we see this "nation among nations" marking out special territory from the world, as the "first" modern liberal constitutional democracy. To elaborate on this relationship between a "God-given" nation and its internal mechanisms, we must ask how the concept of the machine travels between nations in ways that are mutually reinforcing, as it circulates between the United States and other nations. The machine describes the modern political state and its citizens, as articulated by Hobbes. The democratic myth of the self-generating "American machine" contains the Hobbesian idea that man is an *artificer* and not a mere machine, capable of designing and making products for his own purposes, the mechanic who contrives machines through his artistry.[64]

The threat of the Asian automata and its array of stock characters (e.g., Chinese coolies, Korean pop singers, Vietnamese prostitutes, Japanese salarymen, Filipina maids) interfered with the "inalienable" rights promised by the new republic. The social contract forged by an upstart democracy would be tested by encounters with migrant populations that did not fit snugly within the founders' vision. These encounters with alien machines would force a revision of the unbreakable bond between (citizen) man and (state) machine to include those marked populations precluded from the general status of humanity. The possibility of equal inclusion for the Asian automaton has remained hampered by a mandate to demure and cater to a white master. This robotic call to serve a higher power withholds security from the

colonized subject in terms of cultural legitimacy, political protection, and economic autonomy.[65] Fashioning powerful myths out of pure conjecture, the leap from thinking of Asians as simple human automata to complex model machines, is never straightforward, which is why a history of colonialism is sorely needed.

Colonial Myths and Modern Technoculture

In the shift from robot mythology in the ancient world to colonial settings, machine myths are generated through the modern culture of science and technology. Whereas science refers more to cultivation of the mind through exploration of the physical world, technology refers to material objects crafted and wielded by humans to shape nature. Modern technology is edified as perennially moving human culture forward, propelling it toward the future to leave behind old prejudices and outdated thinking.[66] Technology concerns how knowledge is aggregated through aesthetic dimensions rather than purely denoting its practical aspect, as the word is originally derived from the Greek word *techne*, meaning "art" and "skill," even though today it bears connotations with "mechanical-logical" aspects.[67] We could argue that human culture is always technological, given the import of both tools and art in shaping human perspectives and behavioral norms. When cultural discourses and contexts take on a tech-based appearance, it is apt to call it technoculture.

Modern technoculture is rooted in colonialism and its white mythologies. As the "barbarians" of Europe finally gained the upper hand over Asians in terms of war and industry during the eighteenth to nineteenth centuries, the human machine analogy turned up to describe the conditions of the colonized subject found under British rule. At a general meeting of Britain's Royal United Service Institute, scholars and other influential elites reflected on a hundred years of British rule in Ceylon (Sri Lanka). Tea planter and foreign market expert J. L. Shand took note of the human master-automaton slave dialectic operating in that colonial territory: "There is no country in the world where the relations between master and servant work so satisfactorily as in Ceylon. We have in the Tamil coolie a perfect machine for the cultivation of our tea, coffee, or other tropical produce."[68] Under the white man's rule, Asian and African conscript workers suffered negative ascriptions of them as the perfect ideal of human machines. As a scholarly observer astutely wrote in 1933, new colonies were acquired by conquest, and under Britain's expansive military empire, "African negroes and Chinese coolies . . . [were treated] merely as human machines for digging trenches, carrying loads and building base camps."[69] Conjoining the words

"human" and "machine" did little to humanize the person or group labeled as human machine, as it alludes to them as not fully human by association with machinery.

The language of the human automaton found specific purpose in colonial settings and laboratories to substantiate white racial superiority. Protestant missionary Karl Friedrich August Gützlaff wrote extensively about Chinese manners, customs, history, and society to generate support for the spread of Christianity in East Asia. The Prussian-born explorer provided insight into the inculcation of Confucianism and this cultural system's firm hold on an unchanging race: "Faithful to ancient customs, they abhor nothing so much as change, even when it is for the better. Their etiquette is proverbial, and their affected politeness is subject to the strictest rules. Individuals of the higher classes are naturally more under this influence, presenting, on occasions of ceremony, living automatons."[70] Though not all Europeans thought this way, such cogitation remained popular with certain learned classes and enlivened mainstream discourse, percolating through various social circles and spheres of influence.

Human subjects and body parts were put on display as objects within colonial exhibits and museums, and this public staging encapsulated "various New World acquisitions in cabinets of curiosities and, indeed, of ethnographic objects from the 'savage' peripheries of Europe."[71] So broad in scope was the anthropological project that some colonial scholars used the term "Oriental machine" to describe the indentured servants of East Africa ruled by Germany and "Orientalized" Africans as tractable workers for building railroads in present-day Tanzania and Namibia.[72] This infantilizing description circulated in Egypt under British rule, where a colonial manager found the "lazy boy" mechanic similar to the work "fitting to address lazy, childlike, subject races."[73] Insofar as colonial political society and schedules were understood mechanically, nonwhites had been crafted as stagnant in the mind, patiently suffering, and wasteful of time; in short, they were automatons for temporary use. This colonial myth appeared self-evident to that British administrator, who claimed that once someone explains to an "Egyptian what he is to do . . . he will assimilate the idea rapidly. He is a good imitator, and will make a faithful, even sometimes a too servile copy of the work of his European teacher. . . . His movements will, it is true, be not infrequently those of an automaton, but a skillfully constructed automaton may do a great deal of useful work."[74]

Colonialism's imposition of technoscientific racial knowledge upon the capitalist world system forced a radical rethinking of the machine-man metaphor. Even when some European thinkers sounded sympathetic to the plight of the colonized, they still considered colonialism necessary to free *those*

people of their automaton-like existence. Adherence to primitive lifestyles meant they did not maximize or utilize the ecological abundance of nature.[75]

The "machine" in English-language Victorian discourse generally meant the technology the British were importing to dissipate the entirety of India's well-established garment industries, while in the process of casting the myth of Indians as lazy or lethargic machines. In 1881, the British colonial governor of Bombay made the assertion that "the Hindus are not a mechanical race."[76] That is, they were not mechanical in the industrial sense but were still mechanical in their manners and affectation. British merchants bemoaned the slow importation of electric fans, owing to the popularity of "punkah-wallah," a low-caste servant that manually fanned colonialists in the hot tropics. Punkahs were considered natural substitutes for cooling machines, according to one British naval officer, as they were reportedly able to "go through three times as much fatigue . . . as would kill an Englishman outright."[77] The myth of the "self-acting punkah" bore the distinctive automated ability "of a small specimen of Asian humanity" able to inordinately work even while fast asleep—a talent "that was difficult for any machine to replicate."[78] Leaders in the British engineering industry found the punkah to be an inefficient worker, but "the same may be claimed of a very large number of human machines."[79] They admitted that mass electrification in the state of Bengal would take some time to replace the punkah coolie, since no machine could actuate the machinelike punkah.

Political economist Karl Marx commented on the practices of the Dutch East India Company in Java as setting the example of mercantilist domination as it "employed all the existing machinery of despotism to squeeze from the people . . . the last dregs of their labor, and thus aggravated the evils of a capricious and semi-barbarous Government."[80] The Western colonial project extended the European automaton metaphor from the core to the peripheries, as observed in the Netherlands' control over modern-day Indonesia. While the British were ruthless and vile in their plundering of India, Marx admits, their ill-gotten ways could be justified on the basis that Europeans propelled mankind's global destiny. The British spread mental freedom by wringing Asian Indians from their "vegetative" animal-worshipping state: "Whatever may have been the crimes of England she was the unconscious tool of history in bringing about that revolution."[81] Britain's colonial machine trumped the despotic Oriental machine as the revolutionary engine for humanity.

When measured against more "advanced" civilizations of Japan and China, the races of South and Southeast Asia occupied a lower tier with human variability, occupying a less-admirable status as performative machines of tedium. Milton Reed, an American travel writer, toured throughout the

Asia Pacific to compare the white man's active personality with the perfunctoriness and pusillanimity of "the passive Oriental character."[82] Reed found the natives of the East Indies to be cognitively sterile, "without any spark or potency of intellectual power."[83] Even touring Burma, he found the "Hindu coolies" there to be the same sea foam of humanity he encountered back in India. This prompted him to ask: "Who are they? What are they? Are they realities? Do they have thoughts? Or are they only so many human automata?"[84] Unlike the quaint adaptive Japanese or the patiently industrious Chinaman, he cringed at the work ethic of the Javanese, whose childish, monotonous lives of toil justified over two centuries of colonization by the Dutch. While initially objecting to the colonizers' cruel administration, the observer felt at a basic level that the Indian coolies were "silent, somber, cheerless . . . a ghostly procession of human automata; shadowy and grim."[85] This is much different from the "human machines" referenced by Mahatma Gandhi in arguing for Indian economic independence using the collective autonomous power of villagers.[86]

Indigenous and autochthonous peoples from the Global South were thereby considered primitive automatons who were unlike mechanical humans of the north. The Amerindians in British Guyana would celebrate holidays with dance, but missionaries there would describe how their "unvaried and regular movements of the hands and feet, together with the absence of animated expression in their countenances," gave them the appearance "rather of automata than human beings."[87] This statement was very similar to generalizations made by German ethnologist Fedor Jagor in 1875 about the "natives" in the Philippines. A paucity of natural "gaiety" characterized the population living under Spanish rule, which he said could be ascribed to the small development of their nervous system and wonderful ability to bear pain.[88] Describing them as "eccentric" copycats of Western culture, professional scientists like Jagor saw the people of the Philippines almost no differently than religious envoys on civilizing missions. Jagor provided this vignette about watching native actors moving in robotic fashion: "Their countenances were entirely devoid of expression, and they spoke like automatons. If I had understood the words, the contrast between their meaning and the machine-like movements of the actors would probably have been droll enough. . . . Both the theatrical performance and the whole festival bore the impress of laziness, indifference, and mindless mimicry."[89] These brown Asians are described as indolent rather flamboyant robotic mimics. This portrayal departs from the industry and diligence attributed to the Chinese or Japanese. As soon as the United States colonized the Philippines at the end of the nineteenth century, wresting it away from Spain, it developed this myth about these islanders as affable animalistic automatons that would reflexively follow colonial education and "ape" American cus-

toms. What it means to be an Asian automaton was worked out across the many transits and moments of U.S. empire.

As more Asian labor was needed for the United States' hungry empire, the importation of *orientalium machina* took on greater precedence, especially as the African slave trade came under assault. This heightened economic demand for coolies only reinforced workers' nonhuman status rather than encouraging their inclusion in the Western humanistic tradition. Historian Lewis Mumford proposes that great civilizations are the sine qua non of a "megamachine," built on powerful institutions in which humanity aspires toward building something big that could reach the heavens. Slaves in the megamachine did the bidding of kings and mass controllers as cogs in the machine. Their "mechanized human parts" held together an artificial social system built on worshipping powerful gods and towering totems of progress.[90]

If empires are structured as megamachines, says Mumford, then what about those human machines subjected to imperial rule? In *Myth of the Machine*, Mumford documents how since the fifteenth century, the thought of lifelike automata emerged alongside clocks and mills, while men gained mechanical attributes. Through (scientific) invention and (social) regimentation, we find a double movement: "Mechanization of human labor was, in effect, the first step toward humanization of the machine—humanization in the sense of giving the automaton some of the mechanical equivalents of life-likeness. The immediate effect of this division of process was a monstrous dehumanization."[91]

In the second of his two-part magnum opus on machine society (*Power of the Pentagon*), Mumford segues from the megamachine first originating in ancient Egypt to the American megamachine. He recognizes that the monsterization and mechanization of humanity—epitomized by the totality of American command control—was not the end product of human beings striving toward greater efficiency or civilization (technics). Rather, it posed a series of choices by political actors in pursuit of power, profit, publicity, and prestige. The humanization of the machine and the mechanization of human beings find their apogee in the ultimate machine society, the United States. While the Soviet Union under Stalin was a totalitarian megamachine premised on turning people into enslaved unfree robots, the United States relied on its myth-making powers to instantiate a machine system based on protecting freedom and humanizing other races, often through force.

This set of qualities also came to define new regimes of power centered on technologies for managing life and death. Complementing the anatomo-politics of thinking "the body as a machine," says philosopher Michel Foucault, is the biopolitics of the collective body of the "species" which aims to

discipline population, morality, health, and longevity.[92] The automatized colonial subject-body disrupts these assumed social domains to announce another physical life-form and species-being, those racial specimens found beyond the normal purview of Western modernity. In *Machines as the Measure of Man*, historian Michael Adas observes how, by the early 1900s, many prominent Western thinkers thought of nonwhites as inferior humans.[93] With the "white magic" of industrial technology replacing Christianity as the marker of modern life, imperial civilizing projects legitimized "efforts to demonstrate the innate superiority" of the white race over other races through "the application of technology and scientific gauges of human potential."[94] With formal colonization operating on a global scale, Europeans no longer found themselves enthralled by the mighty Asiatic civilizations of yore. Former awe transmogrified into a sense of the darker societies as stunted and immutable, as it was now fair-skinned men who held the means to mold mankind's future. The superstition of myth shores up the might of the sword.

Myths provide a center of gravity for a national community and who belongs in its cosmology. Derived originally from *mythos* and the fables of old mythology, the word *myth* entered the English language in the nineteenth century to describe a product of the human *imaginaire* that conveys fabulist and magical elements of the nonhuman world, coming to life as expressions that are "'timeless' (permanent) or fundamental to periods or cultures."[95] Myth is the story of a people involving supernatural beings or events that suspend the belief in the fixity of human limits, a cognitive mapping that defies rational explanations, an exaggeration or distortion of truth, and a widely held tendentious belief about a person or fictitious thing. Myths come to define so many of the shibboleths that emblematize the uniqueness of the United States as a "nation among nations." They are baked into narratives of social mobility (the American Dream), religious calling (Manifest Destiny), and cultural distinctiveness (American exceptionalism).[96] Such myths, for all their glorification of the triumph of the American national spirit, gloss over much. Specifically concerning Asians, the model machine myth denies them human status due to their extraordinary ability to perform and function in ways that resemble the work of automatons, where the basic meaning of the word *automaton* is something or someone who can "act in a mechanical or unemotional way."[97]

Myths replicate themselves through stories where technological rationality/artifacts and cultural mores/practices converge. They compose the magical alchemy of that technocultural interaction. A historical explanation of the model machine myth brings much needed awareness to technoculture and the close relation "between technological reproduction and cultural displacement."[98] As literary scholar Despina Kakoudaki writes in

Anatomy of a Robot, the cultural work around artificial people is just as important as technological knowledge in constructing the human (and its nonhuman negation) for it recognizes the participation of fictional entities "in the larger negotiation of what it means to be a person at any given point in a society."[99]

Kakoudaki speaks to noncitizenship and slavery. Recognition of the robot as slave is instructive here for ideas about how automaton performances are not so different from the mechanism of slavery. Like slaves, robots can be humiliated (affected) when bought and sold or "honorably" brought into pressed labor (absorbed). The institution of slavery was and remains formative in the discourse of indentured servants and "the artificial human." While people of Asian extraction were never enslaved in the same manner as Black Africans were, the impressment of "coolies" into forced labor regimes collapsed into running "models of national cultures," which relied on myths produced from "post-slavery histories."[100] In that awkward dissonance, historian Lisa Yun explains how Asians were a "presence yet absence" placed in a "deep and lengthy process of disclosure, one of unfixing entrenched binaries."[101] Different machine imaginaries disclose binaries like visible and not visible, enslaved versus free.

In critical fashion, the model machine allows for discussion about all sorts of people who are both summarily extruded from the category of humanity. It must be remembered that this excision is nuanced, multidirectional, and contradictory. Within humanity are sliding scales of value and a spectrum of humanness. Humanity is a category of law with the capacity to make someone human, and its application can invariably also take away one's humanity. This polarized notion of humanity comes out of colonial history to measure distance between global populations. Under colonialism, for the first time, humanity itself needed to be performed, declared, grounded, and asserted as the ideal of the human, one in which imperial powers mobilize the full human against the "absent human" (women, colonial subjects).[102]

The almost-human Asian falls into those polarized spaces, which seem to align with the value consignment of "threatening" or "useful." Whether the discussion of the Asian automaton is about imperial expansion (war machine) or capitalist innovation (virtual machine), those things can encompass use and threat at the same time, but they still are about Asian exclusion from humanity writ large. Even if all figurations of the machine involve some form of threat and use value, the very utility of the Asian model machine means it can be both a capitalist worker and cultural threat. As an instrument of capital, the automaton-as-Asian depletes the human values of the United States and, by extension, Europe. On the other hand, when the machine is about brainless imitation (labor machine) or libidinal

functionality (sex machine), there is a sort of subhuman or less than human use value to be co-opted by imperial states.

Philosophical questions of mechanical contrivance or machine-people must inevitably touch upon racial epistemologies, legal bureaucracies, gender regimes, political environments, religious institutions, and economic systems. All these facets are involved in giving an identity or name to a non-person and the duties and responsibilities accorded therein. Thinking of the Asian as human technology throws a wrench in our commonsense definition of history as a mere record of human activity, since the "automaton is a figure of both repetition and allegory, of the radically discontinuous temporal relationship that cuts us off from the pre-origins of modernity."[103] That is, the racial automaton could perhaps operate as another form of human storytelling and mythology, but because it is fully born out of the framework of modernity, it cuts people off from the pure world of fantasy to make something unreal appear real.

Social critiques made from deconstructing the model machine myth offer a way out of what philosopher Denise Ferreira da Silva describes as the sociological documentation of how groups have been treated inhumanely in the past.[104] The post-Enlightenment constituted a global racial project that must be considered through the figure of (European) man as it oscillates vis-à-vis the "Others of Man."[105]

The self-determined subject of Western philosophical thought was always a white (hu)man. Cultural feminist Amber Jamilla Musser connects projections of opacity and robotic automaticity to brown and Black people; despite their perceived overt bodily sensuality, they appear to merely react, and do not feel or think. By virtue of their nonhumanity, these people are thought to have no human thoughts and lack interiority (reflection, contemplation, innovation, imagination). These social projections, of course, are founded and predicated on brutalizing machine myths.

While the machine provides an excellent lens through which race scholars can materially examine the depersonalization of Asians, myth focuses critically on the power of words. Myth, opines Roland Barthes, forms a type of speech derived from everyday discourse, where "everything can be a myth provided it is conveyed by a discourse."[106] The actual thing conveyed by a mythic sign is "arbitrary and natural . . . [since] the meaning is always there to *present* the form; the form is always there to *outdistance* the meaning."[107] Because the model machine gives symbolic form to some meaning of informational content, the "myth is not defined by the object of its message, but by the way in which it utters this message."[108] Myth hides more than what it divulges, and certain myths proliferate enough in society in that they perpetuate the hegemonic interests of the ruling classes. Barthes refers to the

tendency of myths to become so naturalized and unquestioned that they take on preternatural features. More than false truths, myths are forms of speech that imbue images and social constructs with enormous power. In a sense, myths give shape to abstract forms of knowing and behaving in modern societies, bringing nonhuman occult elements into the man-made world. Myths marry ancient beliefs in magical spirits to a modern cosmology where "the dead and the living, the invisible and the visible, the medium and the message—became one."[109]

Imperial myths veil certain incontrovertible truths and realities about race. Cultural theorist Wendy Chun suggests that *race as form of technology* reframes ethical questions of good and evil, right and wrong.[110] Recognizing that race, like technology, is constantly improvised, Chun contends that "race historically has been a tool of subjugation . . . through which the visible traces of the body are tied to allegedly innate invisible characteristics . . . rendering some mere objects to be exploited, enslaved, measured, demanded, and sometimes destroyed."[111] Chun asks whether the data-like Asian subject can be a site for creativity and insubordination. Chun's observation and suggestion calls into question our usual modes of "visualization and revelation . . . making possible new modes of agency and causality."[112] Framing race as technology splits up the neat coeval relationship between form and function, essence and artifice, the basic and the exemplary. Asians signify the machine even as they break the machine.

Scholars of American Studies like Leo Marx, David Nye, and John Kasson, known for their "myth and symbol" school of thought, attended to popular narratives of technology undergirding myths about the American frontier, progress, and heroism.[113] Technology becomes imagined as supernatural in the morality play of the United States, a country whose creed of "exceptional humanism" does not square with its ugly history of jingoism and special pedigree in racial chauvinism. This creed manifested in the pseudoscientific language of biometrics, which was developed most thoroughly in the United States. It was based on the "mismeasure of man," derived from the symbology around the "unlived" Other.[114] That form of computing humanity would guarantee that the "white living body" and the "mathematics of the unliving" would become the "measuring stick through which other bodies are calculated."[115] This biased knowledge economy held a strong current in history, as capitalism forcefully converged with race.

the person who construes them that way. When they are described as imitating humans, these Asians are supposedly modeling themselves on good or bad terms dictated by whites. We detect this claim when Asian Americans are given the moniker of "model minorities" or Asia is described as a model civilization for lesser ones. The racial modeling of Asians as hard workers or successful merchants falls into this dynamic, casting them as better than other people of color, but they are never as good as whites within the pecking ordering of humanity. As political scientist Claire Jean Kim notices, relative valorization (economic insiders) and civil ostracism (cultural outsiders) of Asians work in tandem with anti-Black racism and discourses in which Asians are "presented as so hard-driving and self-denying that they seem barely human."[116]

The balancing act between valorizing and ostracizing Asians changes with the time or place. My focus on labor, war, sex, the virtual, and global machines represent five main areas for examining the model machine myth, because they speak to different modalities for being almost machine and scarcely human. They reveal how the racialized technologization of the Asian functions in relation to new developments in U.S. racial capitalism. Moreover, they are interrelated: they all involve some form of (mis)recognition of Asian people as useful automatons for articulating labor needs and social threats within specific circumstances. What ties these historical chapters is a critical attention to the Asian automaton as a figuration of alternative/surrogate/artificial humanity. A deeper engagement with the cultural history of the Asian machine addresses how technological progress relies "upon rendering invisible those excluded."[117]

Racial capitalism emerges as a central concept for this project to draw out how the model machine flares up in history. It is based on critiques of the United States as an exclusionist nation, racial state, economic superpower, and imperializing force. In this vein, I ask what the machine myth does to Asian racialization and how it functions through global/American racial capitalism. Racial capitalism—as it has been articulated by political scientist Cedric Robinson and other critics—can be found in the middle ground between the racism of "liberal" apartheid regimes like the United States and an antiracist radical tradition arrogated by people of color. While acknowledging that national/social formations of race and class are specific and ever-changing, Robinson asserts that the racism and racialism that emerge from capitalism generally operate as a matter of *civilization*—namely, Western civilization as the acme of human civilization, one built on the very machinery of colonial expropriation and exploitation of "colored" labor. Quoting W. E. B. Dubois, he exposes the *permanence* of the systemic oppression of nonwhite people: "Out of the exploitation of the dark proletariat comes the Surplus Value filched from human breasts which, in cul-

tured lands, the Machine and harnessed Power veil and conceal. The emancipation of man is the emancipation of labor and the emancipation of labor is the freeing of that basic majority of workers who are yellow, brown and black."[118] Similar to political theorist Tiffany Willouby-Herard, who posits the U.S. modes of racial capitalism as a centrifugal force for "global whiteness," geographer Yousuf Al-Bulushi unpacks and locates racial capitalism in the generative spaces and possibilities of imagining race and capital beyond the obviousness of state racism and political economy.[119] In this broader open sense of the system, U.S. racial capitalism works through global capitalism.

For Asians, racial capitalism plays out differently, if not separately, than for other groups. According to cultural studies scholar Iyko Day, Asians as alien capital/labor embody the social ills of capitalism that must be somehow integrated, if never really resolved, into the white colonial settler state.[120] Capitalism's destructive capacity is based on the rehearsal of Asia as a relatively "developed" site of heightened economic-labor exploitation, one intimately linked to Indigenous displacement and the treatment of First Peoples as nonhuman savages. Modern empires were able to meet greater demand for labor through the Asian coolie, whose place in colonial history forms a kind of absent presence.[121] New scientific demands for categorizing and sorting out racial difference (to justify racial subjection) churned out "unintelligible" forms of humanness that manifested within the "complicated anxieties regarding external and internal threats to the mutable coherence of the national body."[122] According to cultural theorist Lisa Lowe, Asians, rendered malleable, could embody all at once "the invading multitude, the lascivious seductress, the servile yet treacherous domestic, the automaton whose inhuman efficiency will supersede American ingenuity."[123]

Despite its liberal pretenses, the United States could never acknowledge the full humanity of nonwhite people, which distilled a central problem at the heart of American modernity and its ruse of liberty. While European powers scrambled to gobble up colonial territories with impunity, the United States advanced itself in the world in an imperial manner without the formal pretense of a colonial empire. As a token of Americanist imperial thinking, the myth of labor machines reached into academia to scientifically explain the sallowness of the yellow race. Take this "scientific" observation about the Chinese from ethnologist and historian Hubert Howe Bancroft, who in the early 1900s trumpeted U.S. global leadership in his masterwork *The New Pacific*: "As an economic factor, the Chinaman is the ideal human machine, the best intelligent and industrial animal that can be produced at the price. . . . Call him animal, vegetable, or mineral, he comes all the same, and proves indeed a worthy implement [of civilization]. . . . Not that he is

altogether perfect. . . . He is less human than some others. First, his skin; it is off color; for so says the constitution of the United States, the Black and white shall inherit, but not the yellow."[124] This quote frames Chinese as animals and machines, but also as vegetation and minerals. The Chinaman is the barest of living organisms and is sometimes an inorganic element. The academic gave some thought to the Chinaman, a great liar and thief, similar to the Black man, concluding that "Negro Peril" and "Yellow Peril" are not comparable for the latter "is a machine; good only for work. . . . For American society and citizenship better material can be found."[125]

Despite suggesting America's "pure" racial stocks were diluted by the "non-advancing" Chinese race, educated scholars like Bancroft were self-avowed "enlightened" liberals who believed all people are equal. He berated slavery and argued that the United States was less imperialist than the French, Portuguese, Spanish, Dutch, and British. Yet Bancroft also recognized that "Nature" is not equal and does not give great potential to all. While the scholar was quick to indict the colonial domination of India, long suffering under the blows of England, Indian people were of such "low development," he said, they required "whitewashing" to enter the world historical movement toward rational freedom. Echoing philosophers like Hegel, this disparagement of Asian society went hand in hand with white men's exploitation of Asian labor. At the end of the day, Bancroft argued, the "New World" is determined "by American capital and Asiatic labor."[126] Whites can own foreign lands with the proviso they never stay permanently or else they "go native." We can spot the currents of this contradiction within U.S. popular thought—between economic liberalization and cultural racism, between domestic protection and expropriation of resources—running within iterations of the machine myth.

Throughout this book, I provide provocative ways of rethinking Asians and Asian Americans as machines. This rethinking is done through examples in which they are literally and figuratively called machines but also through a sustained rumination upon the wider stakes and repercussions of this trope in the development of U.S. society and global societies. Conceptually, I theorize the model machine in terms of what it is as a social construct or stereotype and what it does as a condition of subjugation or oppression. My creative play with language works through the model minority stereotype to give greater historical weight to something we might think or know as contemporary. In many ways, identifying the model machine in history helps us advance the discourse about the model minority, recognizing that this post-1965 social type bears an older lineage.

Within U.S. racial capitalism, racial difference marks the type of labor to be exploited to death. Arguments defending such labor exploitation were

given life by unverified speculations, rumors, gossip, guesswork, hearsay, and conspiracies about the Asian machine. The machine's iterations—labor machine, war machine, sex machine, virtual machine, global machine—coalesce in the model minority myth, influencing and shaping it and bending its convoluted history. The machine myth takes present worries and themes related to Asian representation and marginalization and bounces them back to previous moments when Asians were thought of as not yet human. When presented in any discussion, the model machine recenters old-fangled discussions of the machine—industrial fantasy and colonial labor—within latter-day concerns with identity and social class. One cannot entirely talk about a model machine in the same way as a model minority, but their similarity is suggestive in warping our given sense of time.

Long before the model minority, the model machine myth foretold of Asians as the most perfect technical workers, an ingenious if stupid bunch of automatons—qualities that haunt today's model minorities. While the notion of the perpetual foreigner is still relevant as a concept, the model minority appears as the preeminent organizing principle and linchpin for racializing Asian Americans presently—an accident of history explained by historian Ellen Wu that demands more critical expectations for engaging the preconditions enabling the historic rise of the model minority myth.[127] Model machines are a symbolic precursor to model minorities, reaching across a long stretch of time to say we never abandoned the practice of indentured servitude, sexual slavery, and military conscription just because (certain) Asians are now considered good worker-subjects. Multiculturalism, masquerading as postracialism, cannot dent the colonial reminders of the history of dehumanization, or even mishumanization, as practiced over the course of centuries.

Plumbing the depths of model machine mythology does that work, reminding us of history's imprint upon our thought process, which is why lab workers today can be called "high-tech coolies" in an echoing of machine stereotypes from centuries ago. A factory worker employed, moreover, by an American subcontracted company in China is *not* a model minority since they are not found within the confines of a U.S. nation. Yet they "model" ideas about the docile capitalist racial subject in a globalized world, which collapses the distinction between the foreign Asian and the domestic Asian American. These "Americanized" workers in Asia are global subjects. As a machine, within a local-global spectrum, they exist uniquely within the dominion and extended "parts" of the United States.

The model machine myth jumps spatial scales but also loops through the historical "unthought" of history. Indeed, it is a series of not totally realized expressions about crisis and regeneration. Just as the robot's ancestor is the automaton, the (Asian American) model minority trope finds its pre-

decessor in the (Asian) model machine myth, a rambunctious myth that cannot be confined to a singular history. As signaled by the multiple arcs of this myth, past humans were always obsessed with the horror or great splendor of a monster, and this speculative history changes form, ad infinitum, much like monster stories.

Machine myths can be considered one subset or offshoot of Orientalism in the way that Edward Said summarized that term as marking the "positional superiority" of white Europeans over non-Europeans. The slippery slope of talking about Asians as robot/automaton/machine gives way to the real issue of the Western "gaze," the way the Orient and Orientals are treated as inanimate objects to be taxonomized, grasped, and acted upon by outsiders.[128] At the same time, the Asian machine myth transcribed the particular technocultural inflections that Orientalism might take in places like the United States, which "likes to imagine [itself] a great nation whose citizens all conform to a single model and are directed by a single power."[129] This quote belongs to French diplomat Alexis de Tocqueville, who spoke of the young republic as paradigmatic of a dynamic state in contrast to the proper social order of China, which he calls the finest model of centralized administration "that exists in the universe."[130] Despite China's tranquility and harmony, he said, the Chinese trampled their own great civilization by losing the power of renewal, absorbed only in productive industry and formulaic imitative behavior.[131] Stasis of the kind seen in China is what could happen if liberal democracies like the United States do not improve and constantly evolve. Asian robotic conformity and the inertia it engenders cast a shadow over the United States' future.

While not addressing specifically Asians as model machines, Cathy Schlund-Vials's *Modelling Citizenship* is a useful study as it provides a path to understanding citizenship in the United States through modeling selfhood. She documents the unfairness of the 1790 Naturalization Act, in which the "free white person of moral character" clause provided the precondition for becoming a citizen. This racial prerequisite excluded unfree and unscrupulous aliens of color "through discourses of liberalism, rubrics of whiteness, and rhetorical omission."[132] Here, "naturalization" means more than legal or cultural Americanization; it means the natural ability to be human and be naturalized as human. The fictive space of U.S. liberalism masked a decidedly "racist citizenship matrix, replete with innate moral values and assessments of racial inferiority."[133]

The study of model citizenship helps us track the bumpy historical move from conceiving Asians as perpetual foreigners (forced exclusion) to model minorities (forced assimilation). The idea of "never white" as "never human" is important to Schlund-Vials, who discusses the "model minoritization" as the affective frame for utopian/dystopian rhetoric surrounding Asians in

the United States. Asian Americans never made it out from the space of the nonhuman (or out of Asia), even when later designated as model minorities. The "break" between a dehumanizing brutal past and humanizing future is flummoxed by the spatiotemporal "crossings" between American human and Asian nonhuman. These zoonotic "species crossings" remain undeniably present in U.S. immigration policy as well as in racial characterizations of Asians. As I show, both the "positive" and negative characterizations of Asians as machines summon an antiquated dehumanizing past to bear upon a posthuman future where nothing is ever what it appears to be.

Taken together, the chapters of *Model Machines* serve to compensate for the scant attention paid by scholars to racial unintelligibility via robotic impressionability. The book provides a massive and sustained history on the topic of racial mechanization. There have been books and articles in the field of Asian American studies that, at times, examine how the Asian/American has been presented as cyborgs and robotic machines. Despite citing a wide array of scholars from various fields, my work and arguments are mostly posited in relation to and engage with contemporary thinkers or texts, such as David S. Roh, Betsy Huang, and Greta A. Niu's edited volume *Techno-Orientalism*, David Palumbo-Liu's *Asian/American*, and Kalindi Vora and Neda Atanasoski's *Surrogate Humanity*.

I take particular interest in intervening in the history of science and technology studies, ethnic and cultural studies, and global and international studies. In science and technology studies (STS), race has served as a new lens to think about the history of technology and rethink techne.[134] Within ethnic studies and cultural studies, Asian American specialists are seeking to discover posthuman ecologies, imagining otherwise the field as one without proper human subjects, now more concerned with analyzing *objects* of knowledge and the production of *difference* rather than starting with an assumed Asian human identity.[135] In global studies, there is a renewed push to reimaging the world through a continuum of space and time. In keeping with what global studies scholars Eve Darian-Smith and Philip McCarty laid out in *The Global Turn*, I seek to decenter Asian and American exceptionalism by thinking globally but also aim to recast the world imaginary by overcoming the "prevailing logics that put everything into hierarchies, ordered positions, center and periphery models, and developmental progressions."[136] Hence, the global encompasses the local, the regional, the national, the subnational, the supranational, the imperial, the colonial, the transnational, the postnational, and the international.

I put all these spaces into play when discussing the model machine myth—a global myth that moved with U.S. nationalism, imperialism, militarism, and capitalism, amid the circulation of scientific ideas and technology.

Asian American Science and Technology Studies

In a burgeoning field that I designate as Asian American science and technology studies, my book comments on how the machine trope has been approached by transdisciplinary studies scholars interested in transnational flows of militarism, migration, capitalism, and globalization as they shape the racialization of Asians. It offers a much-needed intervention into cultural critiques, which have not properly addressed the machinic typecasting of people as a unique form of racial subjection. Speaking to all these sites, *Model Machines* intervenes by *bridging* various intellectual areas of concern, *adding* temporal parameters and useful vocabulary for study, and *building* a conceptual scaffolding and stitching of bodies of thought into one cohesive project. Further, it aims toward *subverting* the idea that the Asian automaton was some weird fluke or minor footnote in the annals of history to assert that model machinerization remains a vector of transacting American racial capitalism and colonial modernity. This key symbology forms a root cause of current human (and nonhuman) oppression.

In *Surrogate Humanity: Race, Robots, and the Politics of Technological Futures*, feminist scholars Kalindi Vora and Neda Atanasoski identify the "surrogate" as a racialized gendered form of humanity elided under the common belief that technology is performing or doing the work of actual humans. The scholars aver that this surrogate effect appears as a fantasy in which the real humans are "removed from the degraded arenas of manual labor and killing, and instead nonhuman others populate warehouses and the field of war."[137] Following Vora and Atanasoski, I contend that Asians act as the surrogate humanity for white humanity. This surrogate, though, sits as a product of history that precedes the neoliberal contemporary moment. I explore this historical matter of freedom versus exploitation through my examination of the model machine myth (MMM) in terms of interior/exterior life (models), closed/open systems (machines), and new/old imaginaries (myths).

Media studies scholars like Chun and Beth Coleman have theorized the broad connections between race and technology. If race and technology can be considered almost the same yet distinct, according to Chun, how does that inform "an engagement of race as technology—specifically, Asians as robot-like"?[138] How do alternative readings in the rendering of Asians as robots help evacuate the hidden transcript of race behind technocultural discourse?

Parallel with Chun's task of making the unseen knowable, Coleman reflects on the invisible mastery found in the colonized voice: "In rendering *certain* people machines—dumb and mute ones, who have no proper voice—a structural position of mastery had been encoded in the machine itself. . . . This mistreatment set in motion a binary logic of master/slave, man/ma-

chine, or man/beast with deep and long consequences for Western culture as a whole and for the fate of people of color in particular."[139] Here, the social modeling of nonwhites as machines says more about Western civilization than it does about intrinsic qualities of people of color.

Methodical tracking of humans treated as machines helps rupture historical linearity and document how they are denied any self-determination of *will* and of *presence*. And to critique machineness as a lived social experience reveals the obfuscation of the obvious: people remain human in every single way, even when powers do not acknowledge this fact. Asian American critiques of science and technology bridge broader theories of race as well as the relationship of Asians and/as technology.[140] My contribution to the conversation is in saying that we must grasp the model machine as moored in specific historical moments and institutions. This intervention is necessary, even if model machine discourse seems to exceed or escape facile periodization, given an assumption that the "intelligent machine" is a thing of the future.

While techno-Orientalism as a framework is elastic and capacious enough for all kinds of rich analysis, it can also be too broad; the same criticism has been similarly leveled against Edward Said's definition of Orientalism. A working definition of techno-Orientalism, according to scholars David S. Roh, Betsy Huang, and Greta A. Niu, is "the phenomenon of imagining Asia and Asians in hypo- or hyper-technological terms in cultural productions and political discourse . . . infused with the languages and codes of the technological and the futuristic."[141] As literary historian Michelle Huang observes, the Asian robot's origins predate the techno-Orientalism of the 1980s and Japan Panic, but it provides a bridge to earlier historical moments: "Indeed, the 19th-century Chinese coolie [as] . . . the robotic worker thus serves as a hinge point between historical forms of Orientalism (railroad worker) and more futuristic iterations (cyborg)."[142] Given this temporal cycling of machine tropes, Huang recommends a posthumanist reading of history and speculative futures.

Asian American science and technology studies adapts to the long duration and future-thinking of U.S. liberal empire. With a numerical upsurge in naval clipper ships and steamships able to navigate across vast oceans, the pastoral myth of the republic as a yeomen Jeffersonian garden or Eden gave way to the halcyon myth of an "American machine" that could successfully extend much farther than prior European empires could.[143] Historian Leo Marx elaborates on how the unshakable faith in American exceptionalism grew stronger, accreting under U.S. technocultural imperialism: "The American machine has become a transcendent symbol: a physical object invested with political and metaphysical ideality. It rolls across Europe and Asia,

liberating the oppressed people of the Old World—a signal, in fact, for the salvation of mankind."[144] Marx claims that the metaphysical machine—pivotal for Newton, Bacon, and Descartes studying the cosmos—was replaced by visual images of the biological world. A new scientific-philosophical rationalism emerged through the "appearance of the machine technology in the underdeveloped 'new world' [as the] . . . great central figurative conception of nineteenth-century American culture."[145] The nineteenth century that Thomas Carlyle proclaimed the "Age of Machinery" found a bold model of progress in the United States, blazing forth in the world with inventions like the cotton gin, phonograph, and electric light bulbs. The American machine supplied a beacon of hope to improve cultures and societies stuck in an animal/automaton state of nature. American science and technology brought "locomotives rushing and roaring, and the shrill steam-whistle, tying the Eastern to the Western sea."[146] During this transition in which the United States rose to become a global power and imperial machine, the myth of Asians as human machines took off as "preindustrial societies, less powerful governments, and people of color proved a powerful magnet to a maturing American technological base that at the same time was challenging the 'workshop of the world' within its own boundaries."[147]

The field of racial science and technology explains why this presupposition of people as machine gained traction over time. Beginning in the industrial age, the United States sought to affirm its superior humanity over and against alt-human others who appeared more mechanical in appearance. Hedging against the technological determinism that says man-made machines will chasten ignorance and bring enlightenment to all (freeing humans from toil), there is a need for scholars to deconstruct machines as just another feature of human culture. They must disassemble how discourses about human automatons become appropriated in conjunction with folk prejudices to generate the myths of the machine.[148] The human automaton is not simply a metaphor or misrecognition of Asians as actual human beings but serves a tangible product made from the dehumanizing mechanisms of race.

Despite profound changes to society wrought by human innovation, technology still functions as an imperializing tool of white mythology that affirms Euro-Americans as human subjects and world masters.[149] Race concerns more than intergroup differences, since automated racial bodies can stand in as "vectors for evidence" to stake out a mythological war against animals, monsters, the undead, and aliens in our midst.[150] Against the historical backdrop of technology as a vehicle of white supremacy, it is crucial then to outline the mechanized Asian corpus as part of "social relations of science and technology, including crucially the systems of myth and mean-

ings structuring our imaginations."[151] Retrieving the genealogy of the model machine allows us free rein to co-imagine "what was" and what seems nearly impossible.

The machine is more than a system or a small unit of a system. In an essay titled "Machine and Structure," theorist Félix Guattari draws out the spatiotemporal dynamics of historicizing the machine: "The emergence of the machine marks a date, a change, different from a structural representation. The history of technology is dated by the existence at each stage of a particular type of machine. . . . Yesterday's machine, today's and tomorrow's, are [related] by a process of historical analysis, by reference to a signifying chain."[152] In other words, the model machine is a sign in a long chain of signs. Conceiving this machine, as of its time and beyond it, allows me to grasp the disparate effects of historical disruption, retroactive thinking, and futuristic orientations found in the model machine.

To bring up the outlandish idea of Asians as robotic raises both mental confusion and curiosity. It is a familiar yet bewildering idea that exceeds a clear frame of reference, supplying fleeting impressions and quick snapshots of time. This somewhat unbounded "subject" of history, the Asian automaton, lies somewhere in the psychic undercurrents of our public discourse. It haunts the edges of the social imagination, alongside demons, aliens, ghosts, witches, vampires, and zombies. Insofar as every version of the Asian machine resembles or copies previous models, a machine incorporates some aspect of the wider social machine and assimilates other terrifying figures. The machine time travels across a richly imagined panorama filled with infinite possibility. The model machine is a monster machine.

Let us attend nevertheless to specific times when people are designated as robotic machines or automatons and when they are imagined as such in relation to "Asian-looking" cyborgs. Even at moments when charges of roboticism are assigned to someone who appears to be a lackey or minion, a special resonance inheres when it is applied to Asians. There is an added racial layer of unease toward machinelike races, which goes beyond the "uncanny valley" or empathy/revulsion humans feel toward robots with an eerie resemblance to *Homo sapiens*.[153] The endowment of Asian bodies with machine meanings casts a mold (or model) of intelligence and a physicality that appears to defy the laws of mortal physics. This association of para-human qualities only serves to manifest and entrench the elements of Orientalism, which Said described as a Western intellectual enterprise that "shares with magic and with mythology the self-containing, self-reinforcing character of a closed system, in which objects are what they are *because* they are what are, for once, for all time."[154]

Despite Said's main emphasis on humanism as the answer to Orientalism, it might be best to think of Orientalism (or even techno-Orientalism)

as an open pathway for unspooling the (de)humanization of Asians and, perhaps, the Asianization of technological objects.[155] As literary scholar Anne Cheng points out, Orientalism is not a one-way process of turning people into machines but turning machines into the likeness of people: "The history of Orientalism in the West is not just a history of objectification but also a history of personification: the making of personness out of things. This non-person, normally seen as outside of modernity and counter to organic human individualism, actually embodies a forgotten genealogy . . . [about] the modern understanding of humanness."[156] The long-running myth that Asians are technomarvels calibrates difference—where the affirmation of American life, liberty, and happiness is counterposed to Asian death, unfreedom, and misery. Ratios of humanism gained even more import in the transition from the American Century to the Asian Century.

From the American Century to the Asian Century

As there is no specific historical archive for my unique subject matter, *Model Machines* proceeds as a scholarly work of the imagination, building a unique collection of texts and gathering a wide range of sources that run the gamut. It is a historical project that reaches into literary and cultural studies, film and media studies, global and international studies, ethnic and American studies, and gender and sexuality studies. The book achieves all this range by following the roving figure of the Asian automaton as it manifests within newspapers, films, television shows, creative fiction, war propaganda, cultural ephemera, personal memoirs, legal court cases, and political discourse. From the outset, all these sites appear to bear no direct relation to one another but, when brought together, speak to the roboticized Asian as a constant fixture in the minds of prominent leaders (in academia, politics, or business), in the creative brains of artists, and in the *sensus populi* of everyday people.

The history of technology tends to be understudied when it comes to Asian racialization, which is interesting considering that representations of Asians are ineluctably connected to technological skills or artifice.[157] Charting this capricious myth of the model machine and how it is fostered and disseminated in history, this study bears important stakes in terms of raising queries about the ethics and ramifications of calling a whole race machines. Recognizing this sleight of hand as a point of contention follows David Palumbo-Liu's observation that American attitudes toward Asians have involved "shifting and often contradictory predications of 'Asia' onto and into the United States imaginary."[158] Through reckoning with the model machine myth, we can track the means by which actors in the United States and elsewhere contributed to "the eroding distinction between the human

and the robot [as] an analogy for the slippery distinction between the American and Asian."[159]

One can spot this semantic slippage with the U.S. designation of Asians as "aliens ineligible for citizenship," a legal category of exclusion ironically cemented in the same year as the etymological birth of the robot.[160] In 1921, dramatist Karel Capek coined the term *robot*, a neologism he first brought to life in 1917, when he wrote about the existence of intelligent but stupefied mechanical people in his dramatic play *R. U. R.*, or *Rossum's Universal Robots*, which imagined a race war between differently colored robot workers in a factory that included Negro robots, Chinese robots, and Italian robots. Robot derives from the Czech word *robota* for "to work," in the vein of "forced labor" and compulsory service/hardship. It was invented to denote things that look human meant for use by their human creators, who still feared their mechanical slaves might overtake them.[161] In the very same years that Capek was developing the robot, the U.S. Congress passed two major racist immigration acts: the 1917 Asiatic Barred Zone Act and the 1921 Emergency Quota Law, barring almost all Asian immigration to the country, prompted by distress over an alien takeover. The correlations between enslaved robot and the indentured Asian worker coagulate in the labor machine myth, a distortion that also helps explain why Asians in Asia and Asians outside of Asia are often indistinguishable (as one and the same). As a trope for representing the dehumanizing of humans by other humans, robots are used "to express anxieties over annihilation . . . [and] convey an ongoing agitation about human domination over other humans."[162]

In its century-long westward expansion, the United States set its sights on Asia as the key site for expropriating cheap labor and natural resources. In the meantime, the United States buffeted its national borders to halt Asian immigration. Triggered by the Asian machine's threat to the country's "spirit of invention," the United States felt a need to legally exclude Asians while economically needing them, which displays the complex "modeling function the Asian plays and fulfills for the American psyche."[163] The dynamic started to change as modernized Asian nations like Japan and China began to brook serious challenges to the United States as the preeminent world power in the twentieth century, or what political commentator Walter Lippmann nicknamed the "American Century."[164] Also referred to as the "Technological Century," the period witnessed the birth and mass production of inventions developed in the United States, such as lasers, transistors, DNA decoders and recombination, nuclear weapons, airplanes, automobiles, mobile cellular phones, satellites, and computers. The last portion of my book takes place in this momentous time, concluding with what many today declare to be the Asian Century.

The timeline of this study will be recognizable to those readers familiar with Asian American history and the chronology of U.S.-Asia relations: the labor migration of coolies to the United States and the exclusion of Chinese workers (1840–1924); the U.S. conflagration with Japan and the internment of Japanese Americans during World War II (1907–1945); the U.S. embroilment in the Vietnam War and the Cold War conscription of Southeast Asian women into military sex/service work (1950–1980); the globalizing late-capitalist era that saw greater influence by Japanese corporations as well as immigration of Asian high-tech labor to the U.S. (1980–2000); the rise of global China and other Asian economies at the beginning of the new century (2000–present). I chose these case studies because they appear as defining moments, so examining them allows for closer study of recurrent ideas about model machines.

Model Machines considers the rise of the United States as a hegemonic and technocultural power, one forged in relation to the model machine myth and its unsettling history. I find that the myth popped up at moments of crisis for the United States but occasionally appeared in other places like Peru, South Africa, Australia, Canada, the United Kingdom, Mexico, and Japan. There is burgeoning work on Japanese people's views of automaton life that is well beyond the scope of this book, but the final chapter discusses how countries in Asia like Japan are renovating the notion that robotic people are characteristically "Asian."

While historical events are arranged in chronological order, I thoroughly explain how each periodic model machine type is produced by previous formulations or speaks to later ones. Starting with this introduction, I spot the ways Chinese coolies contracted by evil employers are the modernized retelling of Asians as slaves of despots. In modern times, however, the "emperors" exploiting the automaton masses are foreign countries and multinational companies. To synthesize a vast array of sources that span well over hundreds of years, I supply useful typologies, such as the "labor machine," to organize a vast body of scientific, legal, scholarly, cultural, and religious knowledge.

Given all the shapes or models that the machine assumes, this introduction begins to parse out when the Asian automaton presents a sign of innovation (innovating technology) and when it is a sign of a stripped human authenticity (regressive roboticism). It attends to the parallel moments when the machine trope was attributed to "more advanced" Asian states like South Korea as opposed to less wealthy countries like the Philippines. The individual chapters are productively worked out in thinking about the model machine in terms of what it means to fight, assemble, exploit, contain, and reconfigure the machines. Each chapter asks: What is the figure or model of

machine being presented (automaton), what ideal exactly is being socially modeled (archetype), and what is the machine modeled or based upon (assumption)?

Chapter 1 commences in the early nineteenth century with the first arrival of Chinese coolies to the United States and how they arrived on the path to fame as the world's greatest "labor machines." This chapter irons out the distinctions between free white labor and indentured Asian servitude to describe various degrees of humanism found at the dawn of the so-called Second Industrial Age. It shines light on perceptions of the Chinese as demonized effigies of technology and how their mechanized gender-confusing bodies threatened the American national family, manhood, and civilization.

Chapter 2 moves from domestic concerns with migrant coolie labor machines to international issues with Japan as a "war machine," given the ascent of Japan as a military power. It examines the Japanese citizen-soldier as an incarnation of Japan's technocultural empire, one able to steal Western technology only to deploy it against the United States. The reimagining of human relations under this war machine trope puts up the Japanese—whether in the United States or in Japan—as a superhuman race perpetually on the warpath.

Chapter 3 provides an interregional geopolitical focus, remarking upon the mythic construction of Southeast Asian women as "sex machines" over the course of the Cold War, when demands for both assembly-line-style factory work and militarized prostitution exploded. In a period when the United States sought to turn foreign territories in into militarized "societies structured in domination," I identify the simulation of bionic women of color as slaves for men.[165]

Chapter 4 charts the late twentieth century as a moment of high-tech capitalism shot through with dystopic digital fantasies of "virtual machines" epitomized by Japanese corporatism and new Asian immigrant labor. The chapter synthesizes popular meanings about the Asian alien as alien cyborg in the twilight years of the American Century.

Chapter 5 explores a moment when Asian automatons are truly global, defined more and more by Asian cultural influences. In this global millennial era, Asians are still seen as machines, but this myth is no longer strictly an American worldview or intellectual province but one involving non-American nations and imaginaries.

While early historical examples of model machines distinguish national/ethnic types as different kinds of machines (Chinese as labor machines, Japanese as war machines) given the dominant discourse about the Asiatic threat, Cold War Orientalism brought a panoply of other Asians under the extensive fold of the U.S. model machine myth. Hence, the machine labor

type of Vietnamese, Thai, and Korean women might reference the labor of Chinese coolies as its historical origins, even as Asian women were already thought of as sexual automatons long before the Cold War. And yet those machines reference the power to shape perception by the United States, engaged in a furtive "war on women" in the Global South.

My first three chapters take on particular pivots: Chinese coolies (labor machines) as a *national* concern for U.S. race wars and Japanese war machines operating within an *international* world war. The rest of the chapters take notice of the forms of labor (use) and war (threat) that can take shape. Asian woman (sex machines) caught up in a *supranational* Cold War are sexually threatening and economically useful to Americans. The last two chapters move to discuss Asia and Asian America more broadly in my take on *transnational* virtual machines and *postnational* global machines within a more deterritorialized setting. Attention to this *differential* sense of model machines—become crucial in (dis)articulating the alternating stipulation that Asians are excludable threat and exploitable labor. The posthuman is part and parcel of the imagining of the model machine, which is why I engage with this concept in the epilogue on Asian posthuman futures.

Model Machines acknowledges the economic and political incentives found in pegging certain races as machines and denying humanity to whole groups of people. Low-wage migrant workers from Mexico and Latin America are often accorded the status of "techno-braceros," appearing to signify *manual machines*, who simply provide the raw energy to power up major U.S. agrobusiness and service industries.[166] Native Americans were described by evolutionary naturalists like Comte de Buffon—one of the earliest inventors of modern racial categories based on anatomy and aesthetic appearance—as an inactive, feeble *primitive machine* or "a kind of weak automaton . . . incapable of correcting Nature" with "no control over either animals or elements."[167]

As both "low-tech" and "high-tech" workers, Asians are envisaged in a different register of automaton, especially given their "significant roles as developers, consumers, and manufacturers of technology."[168] Decoding the myths about Asians as model machines in connection to other automatons of color, I scrutinize how Black, Latine, and Indigenous people never quite moved from being monstrous "objects" of fear and fascination to proper minority "subjects." They remain unable to evade the skein of objectification or the process of thinging.[169]

The excessive framing of the Asian as real-life automata provokes many queries, chief among them: What does the language of model machinery do in terms of producing the Asian/American subject? What does the model machine myth tell us about the symbiosis between culture and technology, alienation and personhood, material reality and media representation?

What does the Asian as automaton reveal in redefining history as stories of human "objects" with voices which can and must be heard? As our world becomes more complicated with droids, cyborgs, and robots, it behooves all of us to center the perspectives of racialized automatons struggling to find their place in the white (hu)man's world.