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MAIDEN, MOTHER, CHROME:
FEMINIST FICTIONS OF THE FEMALE INHUMAN
IN AMERICAN MAGAZINES, 1880-1936

By

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ABSTRACT OF THE DISSERTATION

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“Maiden, Mother, Chrome: Feminist Fictions of the Female Inhuman in American Magazines, 1880-1936” examines how middlebrow magazines in the U.S. wove together women, science, and fiction to produce a discourse on the female inhuman. This dissertation argues that despite the misogynist implications of dehumanizing women, the female inhuman is a contested site, used across ideological spectrums to varying results. Because these texts are frequently penned by minor authors and tend to be published in middlebrow magazines, these stories comprise an understudied archive in U.S. literary studies. Through extensive archive work, literary analysis, and cultural history, this dissertation excavates these fictions, and tells the story of a forgotten fad constellated around a permanent set of figures: the female machine, the worker bee, and the alien from outer space.

Although the trope of the machine, the hive, and the alien are instantly recognizable as science fiction tropes, this dissertation shows instead that these science fiction figures were in fact inherited from a middlebrow periodical context. Women

writing for periodicals used these tropes in creative and unexpected ways during the late nineteenth and early twentieth century, which has been lost in the masculinization of SF. These texts are the earliest extant iterations of the trope, and they actively shape the genre in the decades that follow.

The figures of the female inhuman in the chapters that follow are a reaction against women's exclusion from the category of the human, which, because it is perceived to be genderless, is in fact perceived to be male. For many of these texts, the logic of the human is not dismantled, merely shifted to allow for women's inclusion. That being said, one contribution of this project is to look at moments of the embrace of the inhuman. In these tales, we can trace a genealogy of feminist thinking that imagines gender to be functional and artificial, which anticipates later feminist theories of gender as performance and as aesthetic.

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Introduction

In the February 1930 issue of the science fiction pulp *Amazing Stories*, one eager reader wrote in to toss bouquets to his favorite magazine. In his letter, he begs for more investment in particular types of science fiction (SF) texts. “Please let us have some more Interplanetary stories, some more Insect stories, some more Robot stories,” he writes, before adding, “and a few archeological ones.”¹ This reader is participating in a moment of genre formation. By grouping texts by thematic—and capitalized!—content, the reader identifies three subgenres of science fiction, and he forges a connection between them. The Interplanetary, the Insect, and the Robot may seem to be only loosely connected by one man’s idiosyncratic tastes. But these popular subgenres share an unlikely relationship: for decades, these three motifs had been used by women writers to write about femaleness as something unnatural and unhuman. The Robot, the Insect, and the Interplanetary are three forms taken on by the female inhuman, and they get played out in science fiction stories of turn-of-the-century America. “Maiden, Mother, Chrome” traces a genealogy of the female inhuman as it emerges in these three repeated forms: the female machine, the female insect, and the female space alien.

Metaphors of femaleness as something artificial, grotesque, or alien exist across literary genres, and they exist across literary periods. We know that the monstrous female is neither historically nor generically bounded. Yet, the emergence of the particular and specific motifs from 1880-1935 is worth a closer examination. It is in science fiction that these metaphors become literalized, and these iterations of the female nonhuman are

¹ “Discussions,” *Amazing Stories* 4, no.11 (February 1930): 1100.

materialized into story subgenres. Science fiction offers these tropes as literary conventions, making them available for writers to deploy and engage with them, which is one way in which we identify texts as participating in science fiction. Science fiction, after all, has a historical dimension; the idea of the genre has accumulated meaning, conventions, and tropes as time has gone by. Changes in the genre provide particular insight into thought patterns defining the feminist movement during the period, showing in particular how women's humanity was shaped, questioned, and contested.

I. Science, Fiction, and Science Fiction

"Maiden, Mother, Chrome," is particularly invested in magazine science fiction of the early twentieth century. But defining and delimiting what "counts" as SF—when does it start? what does it include?—is an exhausting and inexhaustible task, admirably executed most recently in the 2018 *Cambridge History of Science Fiction* by Eric Carl Link and Gerry Canavan. The problem, of course, with delimiting a genre is that any definition risks being at once too inclusive and too restrictive, which explains my proclivity to stretch the boundaries. Well-known and well-meaning definitions bend in circles to accommodate and define the formal and thematic conventions that science fiction encompasses, such as Darko Suvin's "literature of estrangement" or Christopher McKitterick's "literature of change."² But since these definitions only work if one already possesses a vague understanding of what science fiction is, and since most people

² Darko Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven, CT: Yale University Press, 1979); Christopher McKitterick, "The Literature of Change," *World Literature Today* (May/June 2010), <https://web.archive.org/web/20100524011547/http://www.ou.edu/worldlit/onlinemagazine/2010may/mckitterick.html>

do, I am myself partial to the brevity of Damon Knight's definition: science fiction is "what we point to when we say it."³ The problem is worse than that, though. Suvin's and McKitterick's definitions function descriptively, but they also delimit the bounds of the genre, a thought exercise that is perhaps intellectually interesting to some, but more often than not forecloses interpretive moves before they can begin. Here's an example. Let's say that we define science fiction by noting its self-conscious relationship to science. This seems descriptive enough, but in fact, it invites strange bedfellows: under this definition, Milton's *Paradise Lost* would be a work of early science fiction, while George Lucas's *Star Wars* films would not.⁴ Here's another example. Scholars working in the field of black science fiction, or speculative fiction, have persuasively argued for the inclusion of works such as W.E.B. DuBois's "The Comet" (1920) as a work of science fiction (Sheree Thomas). And W. Andrew Shephard argues convincingly of writers such as Ralph Ellison, Frances E.W. Harper, and Pauline Hopkins in the black futurist tradition, constructing a genealogy of black science fiction that is focused on shared participation in conventions.⁵ A too fastidious definition of the genre forecloses conversations about texts that make use of science fiction conventions, even if they are not considered traditional SF.

³ Damon Knight, *In Search of Wonder: Modern Essays in Science Fiction* (Illinois: Advent Publishers, 1956), 1.

⁴ "How John Milton Invented Sci-Fi in the 1600s," *Slate*, Katy Waldman 24 December 2012, <https://slate.com/culture/2012/12/was-poet-john-milton-the-father-of-science-fiction.html>. The argument about whether *Star Wars* is science fiction or fantasy has been made often.

⁵ A third example: Paul March-Russel's book, *Modernism and Science Fiction* (London: Palgrave Macmillan, 2015) which explicitly challenges the high/low culture distinction. There's a persistent association of science fiction with genre fiction, i.e. mass market fiction, in opposition to literary fiction. This association has been contested with regular frequency over the last twenty or so years, but the charge has, nevertheless, stood.

What's interesting is not whether a text *is* science fiction, but how a text participates in certain aspects of the science fiction genre. As with any literary genre—the gothic, the pastoral, the western—defining science fiction should be more clued toward inclusivity and shared formal, thematic, content and conventions of any text or set of texts. For this dissertation, I am especially interested in science fiction as fiction of science, i.e. literature that is thinking about observation, understanding, and intervention in the natural world. Science fiction is especially interested in how human beings are both subject and are subject to natural processes—how they relate to the natural world while also seeking to intervene, alter, destroy, and improve it. It is this tension between human technology and human nature that unites the science fiction texts of this dissertation, and nowhere is the tense relationship between what's natural and what's artificial seen more clearly than when imagining what I will be calling the female inhuman: non-human figures such as machines, beehives, and outer space aliens that are gendered female.

Women were obviously not new to science or science fiction by the time they started publishing in American magazines in the late nineteenth and early twentieth century—think most obviously Marie Curie and Mary Shelley—but as I will be discussing, they did become something of a newly hot topic at this time. The magazines played a role in making women increasingly visible in scientific fields. The fact that the magazines published scientific papers alongside science fiction by women reinforced the pervasiveness of the topic. For example, entomology (see Chapter Two), was filled with female professionals, editors, scholars, and amateurs. Female astronomers (see Chapter Three), too, were becoming more and more visible—1894 Margaretta Palmer becomes the first woman to earn a doctorate in astronomy; Caroline Herschel, sister of astronomer

William Herschel, discovered comets and earned a salary for her work in science.

Astronomer Isabel M. Lewis, a celebrated science writer and scientist distilled complex astronomy to a popular audience. She even had her own astronomy column for the *Experimenter*, a monthly technical science magazine that also published essays by Nikola Tesla. The *Experimenter* is a particularly interesting example for thinking about the crossover between science journalism and science fiction, for within its pages it also slipped in some early science fiction. The editor of the *Experimenter*, Hugo Gernsback, would later go on to start the first science fiction magazine in 1926. Women, science, and fiction were all being interwoven together, and the magazine was the key medium where all of this was happening.

We can get a feel for some of the issues this new visibility raised by turning to a sonnet that Alice Dunbar-Nelson published in 1921 in the Philadelphia *Public Ledger*. The poem exemplifies the excitement and possibility of science, and it also speaks to women's hyper-visibility in the field. The poem celebrates Curie's scientific discoveries as it contemplates women's legacies and avenues for fame and immortality. The poet writes:

Oft have I thrilled at deeds of high emprise,
 And yearned to venture into realms unknown,
 Thrice blessed she, I deemed, whom God had shown
 How to achieve great deeds in woman's guise.
 Yet what discov'ry by expectant eyes
 Of foreign shores, could vision half the throne
 Full gained by her, whose power fully grown
 Exceeds the conquerors of th' uncharted skies?
 So would I be this woman whom the world
 Avows its benefactor; nobler far,
 Than Sybil, Joan, Sappho, or Egypt's queen.
 In the alembic forged her shafts and hurled
 At pain, diseases, waging a humane war;

Greater than this achievement, none, I ween.⁶

The poem reflects on the limits and bounds of greatness for women. While acknowledging that the paths to greatness for women is circumscribed, the poem praises women's accomplishments in scientific discovery, granting "power" and a "throne" to Curie. Discovery in science is compared favorably with another sense of discovery: exploration and conquest of continents and nations. The scientist, according to the poem, has conquest over nature itself. Dunbar-Nelson chooses four women to directly compare Curie with; these exceptional individuals are famed for politics, beauty, literature, and war. The achievements of Queens and conquerors fall short to this woman who has mastered nature and become the "benefactor" of the whole world. Like conquests over nations, literary pursuits are similarly outmatched by the sciences. If Marie Curie is "nobler" than Sappho, she is also superior to the poet, who declares "So would I be" Curie, taking on the imaginary position, trying out the role. Women may have been at the forefront of cutting edge scientific research, and yet they were marveled at as exceptional.

The science magazine of the American *fin-de-siècle* was absolutely brimming with boasts of the United States' scientific progress and achievement. The population's enthusiasm for science was part and parcel of American myth making.⁷ A scientific journal such as *Science* was, in the 1880s, broad in scope, publishing articles on psychology, sociology, entomology, and public health, to name a few topics. More specialized periodicals began to pop up in the late 1880s and 1890s: such as, *American*

⁶ Alice Dunbar Nelson, "To Madame Curie," *Public Ledger* (Philadelphia, 21 August 1921).

⁷ Frank Luther Mott, *A History of America Magazines* volume 4, (Cambridge: Harvard University Press, 1957), 306.

Anthropologist, *Astrophysical Journal*, *American Geologist*, along with many journals of medicine, dentistry, and pharmacy. As Frank Luther Mott explains, these kinds of journals reached professionals and enthusiastic amateurs alike, and the stories they published found their way into other magazines, so that scientific discoveries, such as the X-ray and the hunt for the cure for tuberculosis, made their way into living rooms and salons across the nation.

The proliferation of science journals is matched by those journals dealing with technology and invention, and it is in these mechanically-minded magazines that we find the early seeds for what would become science fiction. Mott refers to the “romance” that invention held for everyday American people: new inventions by American engineers reinforced citizen’s overwhelming optimism about science, as well as their sense of patriotism and progress. The hold that new discoveries had on the imaginations was generally matched by the profound effects that the inventions had on the country: electric cars altered the geography of the nation, and incandescent lighting fundamentally shifted the country’s urban landscape. Essays and editorials would reflect on how the changing national landscape intersected with American women: most notably in the debates on women’s driving the automobile.⁸ The existence and success of the magazines themselves were the product of new technological advances: words and print owed the mechanical typesetter and the high-speed rotary press, and the gorgeous images owed half tone photo-graphic screening and color lithography.⁹ The national appetite for speculating about science contributed to the later emergence of the science fiction

⁸ Mott, 329

⁹ John Cheng, *Astounding Wonder: Imagining Science and Science Fiction in Interwar America* (Philadelphia: University of Pennsylvania Press, 2012), 21

magazine, both in the audience primed for science fiction stories and the editors who noticed a desire for them. Hugo Gernsback, the founder of twentieth-century pulp science fiction magazines, was publishing radio magazines fifteen years before he was putting out issues of *Amazing Stories*.

Amazing Stories opened up the field of science fiction pulp publication in 1926, though it was not the first pulp magazine nor the first magazine to publish science fiction, just the first to do both exclusively at the same time. The pulp magazine, named after the inexpensive wood pulp paper on which these magazines were printed, appeared on newsstands in 1896.¹⁰ It reached peak popularity with the American public following World War I, expanding in popularity during the interwar period and, when other businesses were suffering under the Depression, pulp magazines boasted reaching record sales.¹¹ While pulp science fiction magazines published many new stories, they also republished old content. Stories by Edgar Allen Poe and Jules Verne were especially popular reprints when new content could not be had. One effect of this was a retroactive claiming of certain authors as proto-science fiction writers. A second, less welcome consequence, was complaints from readers who were tired of buying stories they had read before. The readers of science fiction pulps were a loud and opinionated bunch, and their tastes dictated what was published in the magazines as much as the writers and editors.

Science fiction is a joint creation, marked by discussion, debate, and collaboration. This project highlights the role of gender and biology, and in particular an evolving debate about what makes women human, in this conversation. It follows the form and direction of science fiction, by focusing largely on relatively unknown and

¹⁰ Cheng, 20. It was Munsey's *Argosy*.

¹¹ Cheng, 24.

unrecognized authors and unremarkable texts—and texts that have silently contributed to the early days of the genre. These texts participate in the creation of a genre by establishing the very tropes that would come to dominate it. They capitalize on the popularity of the genre while collecting an audience who clamors for more. In 1850 no one was writing to demand more robot, insect, and interplanetary stories, but by 1930 they absolutely were. Robert Ward was; and he couldn't have done it without the relatively forgotten contributions of women writing science fiction for magazines in the decades before. This dissertation reclaims these texts as setting the foundation for the tropes, imagery, and preoccupations of science fiction to come.

Now, let us return to Ward, our letter writer to *Amazing Stories* from 1930, who is at this point almost certainly not thinking about representations of femaleness, but is rather on the hunt for a good yarn. We know very little about this fan besides his name and address, which are signed at the bottom of the column: Robert A. Ward, of 544 East 38th Street, Baltimore Maryland. The inclusion of Ward's full address invites correspondence from other readers of the magazine, marking Ward as part of the SF fandom, a member of a community of readers who actively participate in the content and distribution of science fiction. Though we think of fans as enthusiastic *consumers* of SF content, the reality is that fans are active participants in every aspect of the process. And although they are enthusiastic, they are also the first to criticize. Their deep engagement with SF means that they take things personally. The readers of *Amazing Stories*, for example, refer to the periodical as “our magazine,” a term of endearment that reflects the complicated relationship that fans have to the content they consume, and highlights the sense of ownership that readers felt toward the material.

Letters written by fans, like the letter written by Ward to *Amazing Stories*, are, themselves, a genre of writing, complete with formal and stylistic conventions. Rarely do they diverge from form. Letters to the magazine typically begin by expressing approval for a few things in the magazine, frequently a story or illustrated the letter writer particularly admired. The letter would then follow with a much longer paragraph tossing brickbats at aspects of the magazine the writer didn't like. Many letters would also write in to discuss—or more frequently complain about—faulty science in the stories. Instead of complaining, though, Ward lobbs compliment after compliment, each punctuated with an exclamation point. He exclaims: “Talk about a neat publication! The stories are better, the binding stronger, the covers as near perfect as anything on this sphere can be, and most of your artists, fine!”¹² Ward's rush of affection toward *Amazing Stories* includes its reliability; he later claims that the magazine is always on time, a claim I'm sure the editors were eager to broadcast.

Actually, the fact that *Amazing Stories* was still publishing and distributing science fiction in 1930 was in itself a small miracle. For months the future of the magazine had been in doubt. Exactly one year before, *Amazing Stories* had begun involuntary bankruptcy proceedings, which would force its editor, Hugo Gernsback, to step down. The new editing team, made up of *Amazing* veterans T. O'Connor Sloane, Miriam Bourne, Wilbur C. Whitehead, and C.A. Brandt, seamlessly carried on with the magazine, illustrating what should be recognized as a second defining trait of science fiction: it has never been about one person. From the beginning, editors, authors, scientists, and audience collaborated together to create what would become known as

¹² Discussions,” *Amazing Stories* 4, no.11 (February 1930): 1100.

science fiction. Nor were these roles static, as members of the community frequently inhabited multiple roles during their lifetimes. Gernsback's successor, Sloane, wrote science fiction before becoming editor in chief. Brandt, the literary editor for the magazine in 1930, was originally a chemist. And science fiction fans, especially in the early days, had a penchant for crossing over into authorship in what Justine Larbalestier has termed "the fluidity of the science fiction community."¹³ Science fiction as we know it came about through a group endeavor. The ownership that fans like Ward felt toward *our magazine* is not unwarranted. In fact, it is fundamental to understanding science fiction's emergence as a genre.

The pulp magazines mark the beginning of science fiction as a publishing genre and for that reason they also mark the end of this dissertation. Stories that have elements of what we would now call science fiction had been appearing in the magazine for decades before. Because scientific speculation was such a popular discourse, we can find what we now term science fiction in all kinds of periodicals.

So, what does the corpus look like? In my research, I have logged upwards of 330 English language stories written by women between 1880 and 1936 that have fantastic elements, including forms of science fiction, speculative fiction, horror, and fantasy. Of these, I narrowed my focus to three recurring figures that trope femaleness, each of them related to the categories described in *Amazing Stories* by Robert Ward, the machine, the hive, and the space alien. They are ordered in this way because they appear chronologically. The female machine emerges in the 1880s and flourishes through the early twentieth century. The female hive picks up steam in the early nineteen hundreds.

¹³ Justine Larbalestier, *The Battle of the Sexes in Science Fiction*, (Middletown, CT: Wesleyan University Press, 2002), 6.

And the female space alien appears in pulp era science fiction in the late nineteenth and early twentieth centuries. The dissertation begins in late 1880s and constructs a genealogy of the nonhuman women in short, fantastic fictions of the time, starting with the trope of the female machine (1880s-1910s), moving to the trope of the insect woman (1900s-1920s), and ending with the creation of female aliens in the science fiction pulps (1926-1936). The dissertation focuses on women authors writing for periodicals, some of whom are rather famous but many of whom have been forgotten to history. What we do know about Alice Fuller, Clare Winger Harris, Minna Irving, and more we know through the science fiction scholarly and fandom community. Scholars such as Justine Larbalestier, Everett Franklin Bleiler, Mike Ashley, Eric Leif Davin, Patricia Ockerbloom, Lisa Yazek, and Patrick Sharp have painstakingly indexed and catalogued the early days, and in their own ways contributed to the construction of an early history of science fiction. My dissertation builds off of the work of this community. It also seeks to bridge the gap between science fiction studies and *fin-de-siècle* American fiction, incorporating science fiction texts within a late nineteenth and early twentieth-century literary-historical framework.

II. Science Fiction and Feminism

In the spirit of Dunbar-Nelson's exceptional female scientist, let us turn to an anecdote on the subject of women and science involving two exceptional fiction writers, H.G. Wells and Charlotte Perkins Gilman. The story, which illustrates a larger, conceptual problem in late nineteenth- and early twentieth-century feminism and science fiction, goes something like this. On his 1906 tour of America, Wells, who along with Jules Verne has been called the father of science fiction, gave an interview about "his

American ‘curiosities’”¹⁴. The journalist asked him who, among all of the American intellectuals, radicals, and reformers, he wished to meet the most. Wells thought for a moment and replied that he wished to meet Charlotte Perkins Gilman. It would be a few years before Gilman would come to be called the “Most Famous of ‘Feminists,’” and the “leading intellectual in the women's movement” in America—either pejoratively or affectionately depending on the speaker—and a few years more before Gilman would cite Wells as a literary influence in her 1911 preface to *Moving the Mountain*.¹⁵ But by 1906, Gilman had already made waves as a radical advocate for women’s rights with her best-selling book *Women and Economics*. It’s a telling choice for Wells, and certainly a meeting between these two authors would have been immensely generative. Besides sharing many of the same ideologies of their day, most notably socialism and futurism, Wells and Gilman both applied themselves to the woman question.

What’s most interesting about the anecdote, though, is how frequently Gilman scholars cite it, despite the lack of evidence that this interview ever took place. We must look, then, at what is attractive about pairing these two individuals, and ask why Gilman scholars repeat the anecdote, while Wells scholars *do not*. I would like to suggest that pairing Gilman and Wells highlights Gilman’s participation in the emergent genre of science fiction, and that reading Wells and Gilman together reveals two things. The first deals with conceptual differences and is therefore ideological, while the second pertains with Gilman highlights a larger ideological schism within feminism, one which

¹⁴ Tim DeForest, *Storytelling in The Pulps, Comics, and Radio: How Technology Changed Popular Fiction in America*, (Jefferson, NC: McFarland, 2004), 9.

¹⁵ Cynthia J. Davis, *Charlotte Perkins Gilman: A Biography* (Stanford: Stanford University Press, 2010), 313.

dominates debates about the Woman's Movement. Wells's fiction approaches the woman question by advocating for philosophies of sex difference. Women, in this argument, have unique characteristics—they are “moral, nurturant, pacific, and philosophically disinterested, where males were competitive, aggrandizing, belligerent, and self-interested.”¹⁶ Gilman takes an alternate route. She emphasizes women's humanity, deliberately minimizing biological sex difference.¹⁷ Although these two stances are logically antithetical to each other, they both were used by women's rights activists to achieve their goals. Indeed, these tactics were sometimes used in the same breath, giving “the spectrum of ideology” in the women's movement.¹⁸ As feminist historian Nancy Cott explains, the women's movement had a “see-saw quality: at one end, the intention to eliminate specific limitations; at the other, the desire to recognize rather than quash the qualities and habits called female.”¹⁹ As feminists, Wells and Gilman represent two poles of discourse, incompatible in logic, but used together in practice. Literature during this period captures the multiple and contradictory registers of the nascent feminist movement, and created a forum for these ideas.²⁰

Second, besides personifying a conceptual/ideological schism within feminism, pairing Wells with Gilman makes available a methodological difference in the way that the two authors approach the use of genre. As feminist thinkers and futurist writers, Wells and Gilman are harbingers of the advantageous but potentially dangerous possibilities of

¹⁶ Nancy Cott, *The Grounding of Modern Feminism*, (New Haven, CT: Yale University Press, 1987), 19.

¹⁷ Judith A. Allen, *The Feminism of Charlotte Perkins Gilman: Sexualities, Histories, Progressivism*, (Chicago: University of Chicago Press, 2009).

¹⁸ Cott, 19.

¹⁹ Cott, 19.

²⁰ Joan Wallach Scott, *Only Paradoxes to Offer: French Feminists and the Rights of Man* (Cambridge: Harvard University Press, 1997).

new science and technologies. But Gilman hoped that technological innovation might bring about cultural revolution, and that the feminist project of seeing women as “humans” rather than “females” might find a home in speculative fiction. Wells’s science fiction distinctly goes against this strain of thought. He notably does not turn to science fiction to work through problems of sex difference. But even when he does turn to literature to address the woman problem, Gilman finds that Wells comes up short.

Particularly important for our purposes is Gilman’s review of Wells’s New Woman novel *Ann Veronica*, wherein she objects to Wells’s ideology of sex difference in precisely the terms I want to elaborate in this dissertation. She writes:

Like many another great man, Mr. Wells loses his perspective and clear vision when he considers women. He sees women as females—and does not see that they are human; the universal mistake of the world behind us; but one unworthy of a mind that sees the world before us so vividly.²¹

Wells’s feminism, she believed, oriented itself toward sex difference rather than human sameness. Gilman repeats this criticism in her fiction. In *Moving the Mountain*, the 1911 precursor to *Herland*, Gilman has one character profess:

Wells, who did so much to stir his generation, said, “I am wholly feminist”—and he was! He saw women only as females and wanted them endowed as such. He was never able to see them as human beings and amply competent to take care of themselves.²²

Gilman’s attack on Wells’s purported feminism, and her proposal of humanism in its place, comes back to this central claim that women are a subset of the human, which is a contested category largely defined by its exclusions. Gilman’s critique of Wells focuses on the contradiction between Wells’s professed progressive attitude toward women and the content of his writing.

²¹ Gilman, *The Forerunner* 1 no.3 (Jan 1910): 28.

²² Gilman, *The Forerunner* 11 no. (5 May 1911): 137.

In other words, although Wells is deeply interested in the woman question, women are not pertinent to his science fiction. Instead, he isolates the Woman Problem by writing the “New Woman” novel *Ann Veronica*. Indeed, Wells’s science fiction is troubling in its insistence on distinct gender boundaries. Sex historian Angus McLaren notes that in *The Time Machine*, for example, Wells is so afraid of blurring gender boundaries that “the narrator’s first concern upon entering a future society” is of a loss of manliness; his main worry is about the widespread androgyny.²³ “What if in this interval the race had lost its manliness, and developed into something inhuman, unsympathetic, and overwhelmingly powerful,” he wonders, aligning manliness with humanness, and suggesting that what is inhuman might then be what is female.²⁴ Importantly, the narrator links the inhuman to the overwhelmingly powerful. Like Wells, women writing about the female inhuman will also use the idea of a powerful or dangerous inhuman as a way of thinking through unmanly, feminine-coded inhumans. These two strands—the fear of the inhuman and the fear of the androgynous—spring from a single source, and these twin concerns set the stage for women’s speculative writing during this period, which very often projects the idea of the female onto super-powerful nonhuman entities: androids, who by nature both gendered and inhuman, the unsympathetic possessors of super strength; worker bees, again both gendered and inhuman, a utopic vision of an all-female society; and space aliens who are portrayed as romantic and sexual partners for humans in a future, intergalactic world.

²³ Angus McLaren, *Reproduction by Design: Sex, Robots, Trees, and Test-Tube Babies in Interwar Britain*, (Chicago: University of Chicago Press, 2012), 15

²⁴ Harry M. Geduld, ed. *The Definitive Time Machine* (Bloomington: Indiana University Press, 1987), 44.

Gilman, on the other hand, would find speculative fiction a particularly fruitful place to explore a rearrangement of the gendered social. As we will see at greater length in the second chapter, Wells and Gilman disagreed on the use of the genre to articulate social change. Their practices indicate radically different views on the potential of science fiction as a genre to reimagine women's roles in the twentieth century. Remember that Gilman's review of Wells critiqued his lost potential: his mistake in seeing women as solely females was "the universal mistake of the world behind us; but one unworthy of a mind that sees the world before us so vividly."²⁵ Gilman's sharp distinction between "the world behind us" and the one "before us" demonstrates her great interest in fictions that are driven by the possibilities of the future, rather than those which merely comment on the present. To see the "world before us so vividly" suggests that Wells might have combined a vision of women's liberation with the utopian impulses of speculative fiction. This, at least, would be what Gilman would do, forging feminism with speculative fiction, when she wrote *Herland*.

For all of her frustration with Wells's methods, Gilman greatly admired the craftsmanship and artistic vision of *The Time Machine*. His talent, she insists, is that "of electrifying the world's slow mind to the splendid possibilities of life as it might be."²⁶ Gilman's focus on possibility and potentiality points to one branch of science fiction—although certainly not the only branch—that believes that technological advances might usher in corresponding advances in social formations. In other words, for Gilman, science fiction is the genre by which sociology is explored. It's a trait she admired in Wells's *The Time Machine*, but with a caveat: Gilman hoped that advances in human technology

²⁵ Gilman, *The Forerunner* 1 no.3 (Jan 1910): 28.

²⁶ Gilman, *The Forerunner* 1 no.3 (Jan 1910): 28.

might also bring about advances in gender politics, and in an expansion of possible roles for women to take on in society. The juxtaposition of *Ann Veronica* and *The Time Machine* suggests that the two could be combined, and in fact should be combined—that perhaps the best way to make women human is through fiction. *Herland* would do exactly this.

Yet, to speak of *Herland* as though it were exceptional belies the thick landscape of speculative fictions that would appear in print publication from the years 1880-1935. This dissertation seeks to extend the conversation beyond the “exceptional” figures of Gilman and Wells. Gilman’s *Herland*, which appeared in the 1915 *Forerunner*, is considered exceptional in the feminist movement—a midpoint in a draught of feminist science fiction, a text that reconfigures earlier utopian work and lays the groundwork for feminist science fiction to come. But *Herland*, is just one single part of a larger trend from the period’s speculative fiction that offers alternative futures that address feminist issues. In these works, women explore gender dynamics that grant men “humanity” while relegating women to what Wells feared a dystopian future might hold: “the inhuman, the unsympathetic, and the overwhelmingly powerful.” These stories explore possibilities for the future, either with new machines, new social formations, or interplanetary exploration, that meditate on the ways that women can inhabit forms of being human.

Much intellectual labor has been put to contextualizing Gilman with other intellectuals and with other utopian models. Even more so than science fiction, utopian projects penned by women proliferated during this period. The sheer volume of utopian

texts “suggests the degree to which, at the turn of the century, women were the future.”²⁷

Gilbert and Gubar believe that Gilman and her contemporaries,

strove to redefine female power in works which imply that woman’s fantasies have frequently been feminist in nature and that, concomitantly, feminism imagines an alternative reality which is truly fantastic.²⁸

All of this work has done much to contextualize *Herland* generally and Gilman more broadly. But I believe Gilman’s work is illuminated best when it’s read beside her contemporaries writing magazine fiction, putting mass market fiction beside Gilman’s. The fact that mass market writers were responding to similar themes and ideas and political climate indicates the extent to which these ideas circulated in the American climate before Gilman took pen to paper to write *Herland*. That is to say, *Herland* articulates ideas which had already begun to circulate in the American turn-of-the-century cultural milieu, especially the artificial divide between the female and the human that would surface as discourse during this era.

“Maiden, Mother, Chrome” is then also a cultural history. The project tracks the dispersion of intellectual ideas through low forms of culture: middlebrow magazines of the late 1800s, practical entomology of the early 1900s, and pulp magazines of the 1920s and 30s. In all of these various texts, a multifaceted discussion and definition of femaleness accumulates multiple meanings, all of which take place outside of the boundaries of the human. In these everyday reading experiences, the representation of femaleness, and the meaning of being female, was discussed, constructed, debated, and torn down.

²⁷ Katherine Stern, “When the Women Reign: Fantasy Literature in the Suffragette Era,” *Critical Matrix* 3 (Spring 1987).

²⁸ Sandra Gilbert and Susan Gubar *No Man’s Land: The Place of the Woman Writer in the Twentieth Century*, Vol. 2 *Sexchanges* (New Haven, CT: Yale University Press, 1989), 50.

III. The Female: Human and Inhuman

In arguing for a genealogy of nonhuman women in science fiction, I wish to draw attention to the way that these women writers divorce what is female from what is human. In essence, this dissertation takes an approach to thinking about the nonhuman that has drawn significant attention over the last decade and draws it into conversation with a largely unknown archive of writing from a century ago that seems to have addressed many of the same issues. As I hope will become apparent, the advantage of this combination resides in its usefulness for exploring the idea of the female inhuman historically. The nonhuman also offers a new lens for reading and understanding fictions that gender machines, beehives, and aliens as female.

However, the scope of this dissertation on the female inhuman does not even begin to scratch the surface of the multitude of forms the inhuman took in the United States during the nineteenth and twentieth centuries. Black Americans, American Indians forced onto reservations, and Asian and East Asian American immigrants excluded from citizenship, had to contend with the exclusions of the human. The human was denied to nonwhite people living in America through multiple overlapping systems of oppression: government policies, scientific racism, and white supremacy. White supremacy was especially prevalent in the writings of some vocal and well-known feminists, particularly Gilman herself. White progressives like Gilman only wanted to extend the term human to those they deemed “civilized”—in this case, white women.²⁹ Therefore, the human is not a neutral term: the human is formed through who is excluded. Much of the work done on

²⁹ Gail Bederman, *Manliness and Civilization: A Cultural History of Gender and Race in the United States: 1880-1917*. (Chicago: University of Chicago Press, 1995), 121.

the inhuman, then, has been invested in rejecting the binary of the human/inhuman altogether.

Scholars working who are working on race, affect, and feminism, especially by Zakiyyah Jackson, Kyla Schuller, and Kyla Wazana Tompkins have turned the human as a key term in their work. Recently, the human has also become a contested site in new materialist studies, including many with a feminist turn, notably Karen Barad's *Meeting the Universe Halfway* (2007), and Jane Bennet's *Vibrant Matter* (2009), who are building off the work done by Elizabeth Grosz in *Volatile Bodies* (1994). The new cohort of scholars have breathed life into the field. Jackson, for example, has critiqued new materialist studies for often ignoring race and gender in their analyses. Writing on female-gendered machines, insects, and space aliens follows in this lineage of feminist posthumanist framework, especially the work done at the intersection of feminism and science studies that is critical of binary thinking and seeks to explode traditional stories about subjects and objects. such as Donna Haraway's feminist cyborgs and N. Katherine Hayles's work on disembodied information. Hayles's work, for example, questions the dualist assumptions that plague studies of cyberspace. Her work is engaged with how to mediate the virtual with the material in a way that acknowledges the materiality of the body in cyberspace.

The dominant framework of studies of the human is posthumanist, which endeavors ultimately to disassemble (human) agency. A posthumanist approach seeks to decenter the human and place humans in their environmental contexts. My own anachronistic application of labels such as "feminist" and "posthumanist" helps us see continuities in history, and attention to the shifting historical demarcations of political

thought. The terms themselves were not used by the authors and texts in this dissertation. For example, though Gilman's *Women and Economics* is a feminist text, Gilman called herself a "humanist." She chose humanist because women, theoretically and materially, were not "human." Not yet, anyway: Not while they were "trapped" in female bodies.

But it is bodies that are interesting—and the transformation of bodies into nonhuman subjects. My dissertation is at core invested in the material effects of gendered bodies in the world, because women's bodies have been used as justification for their oppression. Women in the nineteenth and twentieth centuries recognized this. Consider Gilman's statement in *Women and Economics* (1898) where she writes: "Women are growing honester, braver, stronger, more healthful and skilful and able and free, more human in all ways."³⁰ For Gilman, becoming human is a sliding scale and a process of becoming, one that is intimately tied to able bodies. Though Gilman is misguided in her association of being able with being human, she is acutely aware of the forms of oppression that come from the body and are projected onto people because of the bodies they inhabit. Gilman is not an outlier in turning to the material body as a contested site of the human. Think also, for example, of Sojourner Truth's famous speech, in which she links the body to gender justice:

I have as much muscle as any man, and can do as much work as any man. I have ploughed and reaped and husked and chopped and mowed, and can any man do more than that? I have heard much about the sexes being equal; I can carry as much as any man, and can eat as much too, if I can get it.³¹

³⁰ Charlotte Perkins Gilman, *Women and Economics* (Boston: Small, Maynard & Company, 1898), 149.

³¹ Marius Robinson transcription of Sojourner Truth's speech. First published 21 June 1851 in the *Salem Anti-Slavery Bugle*. Reproduced from *The Sojourner Truth Project*. <https://www.thesojournertruthproject.com/compare-the-speeches/>

Truth's rhetoric emphasizes the ties between a material body in the world and humanity. Her stake to humanity is partially built on the food she eats—"as much as a man." She gestures toward the materiality of the body too by incorporating the labor of the body—what it has ploughed and planted—as well as the feeling of the body—what pain it has had to bear. Claims of material humanity are also echoed in Elizabeth Cady Stanton's objection to the way that inhabiting a certain kind of body affects the way someone exists in the world. She protests against the idea that "the negro's skin and the woman's sex are both *prima facie* evidence that they were intended to be in subjection to the white Saxon man," and she decries oppression based on the materiality of the body.³² Stanton draws familiar parallels between bodies marked by skin and bodies marked by sex in order to show that female-gendered bodies have long been defined in opposition to the normative male body, just as black bodies have been defined in opposition to white bodies.

The human body carries with it the weight of this problem. The inhuman females in science fiction, inhabiting either mechanical bodies, insect bodies, or alien bodies, are actively imagining a way out. In what follows, I argue that the intersection of feminism and science fiction exists from the start of the genre, and it is therefore important not only to understanding the genre, but to understanding how feminism evolves moving forward. The female inhuman is a tongue-in-cheek response to the inhumanization of women. By separating what is female from what is human, and placing femaleness in nonhuman bodies, these writers create friction between the binaries of female/woman, embodiment/disembodiment, and human/inhuman.

³² Elizabeth Cady Stanton, "Mrs. Stanton's Address to Legislature in 1860," in *History of Woman's Suffrage: 1848-1861*. (New York: Fowler and Wells, 1881), 681.

I say that the female inhuman is a direct response to the inhumanization of women during this period, and much of the female-authored speculative fiction of this period offer positions that are both politically and philosophically radical. Annie Denton Cridge's *Man's Rights, or How Would You Like It?* (1870), Olive Schriener's "Dreams," (1890), Alcanon O. Grigsby and Mary P. Lowe's *Nequa; or, The Problem of the Ages* (1900), Inez Haynes Gillmore's "Angel Island," (1914), Charlotte Perkins Gilman's *Herland* (1915), and Francis Stevens "Friend Island" (1918) are examples of texts with overt feminist self-consciousness and radical politics. Yet, many of the texts do not have this political consciousness, and are not themselves professing to be radical. Nonetheless, because they gravitate toward representations of the female as inhuman, they participate in the discourse.

One important achievement of this project is the introduction of a store of texts largely ignored or forgotten by literary critics. The construction of this corpus took the better part of a full year, and the method of construction used both directed and undirected research. A key principle of this project is the act of browsing—aimless reading—rather than searching. Browsing short stories in late nineteenth-century periodicals encouraged creative new pairings and readings of texts. The parameters of science fiction and themes of the project became defined as a result of this browsing, which revealed the repeated cultural expression of a femaleness that took on nonhuman forms. The resonance with current thinking about the human, and in this case the female inhuman, are hard to ignore in the context of this expanded archive.

Science fiction offers the most direct metaphorization of the female inhuman during this period. Browsing the stacks then became browsing indexes of any and all

science fiction texts that amateur and professional scholars had catalogued, most especially Everett Bleiler, Mary Mark Ockerbloom, Eric Leif Davin, Jane Donawerth, Mike Ashley, Lisa Yaszek, and Patrick Sharp. By combing through references, I found more references to science fiction published by women in the years before science fiction got its name. Bleiler's work of SF bibliography should be the first stop for any SF scholar, and is by far the most comprehensive, cataloguing over 3000 short stories, novels, and plays considered to be science fiction. His combined works are extraordinarily comprehensive, and have the added benefit of including citations for texts that are otherwise completely lost. Ockerbloom's "A Celebration of Women Writers" website database catalogues over 19,000 women authors, and has an added interest in utopian fiction by women, starting with Lady Mary Wroth's 1621 *The Countess of Mountgomerie's Urania*, through James Tiptree, Jr.'s 1968 "Fault." Davin's work on female science fiction writers is extremely well-organized and inclusive, and it begins in 1926 and goes through 1960. Davin's bibliography is limited only in that it does not include works of science fiction published outside of a set number of science fiction pulps. Davin's bibliography, then, obscures the permeability of medium that makes delimitating science fiction so tricky. While there are periodicals dedicated to the publication of SF, the genre's popularity can't be overstated, and many other kinds of periodicals, both literary mags and genre mags, published stories of recognizable science fiction. Donawerth's survey is especially important as it establishes a tradition for feminist science fiction in opposition to a male tradition. Ashley's anthology is focused rather than broad, but it provides useful biographic information on the authors, which the other sources do not. Yaszek and Sharp's *Sisters of Tomorrow*, the most recent

anthology, is especially notable for including female science writers as well as science fiction writers, documenting more fully women's participation in the cultural production of science writing during the early twentieth-century.

My project contributes to the field by observing the repetition of female inhuman figures that proliferated during the early days of science fiction, and by arguing that feminist thinking is present during the origins of magazine science fiction. These texts, and the radical ideas within them, are actively shaping the genre in the years that follow. Thus one can trace how the evolving discourse of the female inhuman in science fiction writing could provide fodder for more contemporary contemplations of the human. The tensions one can imagine between, say, the feminist poetry of Alice Dunbar Nelson and fandom of Robert Ward, or the political investments of H.G. Wells and CPG, appear newly relevant when registering the long history of women in science fiction alongside the new theoretical attention to posthuman ontologies.

IV. Roadmap for the Female Inhuman

Because science fiction does not exist in a vacuum, "Maiden, Mother, Chrome" embraces multiple modes of nineteenth and twentieth-century discourse: autobiography, film, entomological tracts, fan letters, and newspaper hoaxes. Throughout the dissertation I weave together a history of publishing to connect nineteenth-century texts with twentieth-century ones, and to place science fiction texts in context with others.

In the first chapter I do this by situating Henry Adams, Melville, and Ruskin within the female machine framework, showing how the female machine became a cultural touchstone for a society confused by the changing role of women and obsessed

with the threat and possibly of machine labor. These two concerns are fused in the figure of the female machine. There are plenty of stories that consider the effects of machine technology on the lives and labor of women. But the machine stories that most interest me are a subset of what we might call android fiction, i.e. fiction that explores the existence of humanoid non-humans. Female machines—machinery that is designed to take on female forms—is necessarily about work. The etymology of the word “robot” after all, is “forced labor.” The first chapter therefore takes on the imagined role of technology on women’s lives—questions that could be asked is whether technology will fundamentally change women’s work, whether automation will make things better or worse, and that women were especially cognizant that the gendering of machines reveals the close relationship of gender and labor.

In fact, women were twice as likely to write about androids as their male counterparts. My first chapter, then, offers a reconsideration of the trope of the female machine by way of an intensive historical survey based on archival discoveries of an array of fictions of the female machine. This chapter compares female machines written by women with contemporary texts written by male-counterparts. When anti-female writers write the female machine, the stories are often vehicles for parody and misogyny. But when women writers take up the trope, their female machines are ultra-powerful and super-strong, wreaking well-deserved havoc on husbands and homes alike. She has had many names through the years—the bionic woman, the fembot, the gynoid. At the turn of the century, though, thirty years before the term “robot” came into use, she was a female machine: more than an automata, less than the cyborgs of the future.

The female machine especially sits on the boundary of human/nonhuman.

Artificial humans can be both male and female, but the male form is frequently organic, while the female form is mechanical. This suggests to me a key to reading the female machine, which points to the artificiality of gendered forms of expression—that the manufacturing of female machines, which often begins as a parody of the artificiality of femininity, in fact commonly points to the artificiality and arbitrariness of gender itself.

In the second chapter I look at discourse in nature writing and in the history of women's participation in entomology. By tracing the history of the feminization of the honeybee, Chapter Two finds continuity between metaphors used in scientific discourse and motifs used in women's science fiction writing. The symbolic and even didactic relationship between natural patterns and human social formations is most clearly articulated in Chapter Two, which takes a deep dive into fiction that is actively thinking about how we use the natural world to make models of our social and political worlds.

While the first chapter considered texts that see an opposition between nature and technology, the second looks at texts that propose nature as a model for human social organization. The stories discussed in this chapter reverse the narrative dominant at the time of the female bee as a dystopic animal by changing the emphasis from the singular queen to the plural hive, and from the metaphor of the “queen-mother” to the “worker-sisterhood.” The women writers discussed in this chapter investigate the utopian possibilities of the worker-sisterhood, and used the honeybee hive as a model of a utopian society free from the dominating, violent, individualistic, and frequently imperialist instincts of men. I use three dichotomies to guide us through the readings. First, the honeybee as a queen and worker. Second, the honeybee hive as utopic and dystopic. And

third, wrapped up in these first two, is the debate over whether the honeybee is mother or machine. These binaries are held in tension in many of these readings, and the honeybee itself is frequently an ambiguous and ambivalent symbol—it all depends on who is using it. I argue that the dystopic honeybee is a patriarchal nightmare of female power. The utopic honeybee, in contrast, appears in works by women dreaming of matriarchal societies.

Reading utopian fiction as science fiction is a choice that unites a deeply rooted tradition of women's writing (i.e. utopianism), with a tradition that has been traditionally read as male-dominated (i.e. science fiction).³³ Many scholars before me have included utopian fiction as a subset of science fiction. Donawerth and Kolmerten describe utopian literature as women's "literature of estrangement"—a female version of science fiction, and they argue that there is a continuous tradition of women's utopian fiction from the seventeenth century to today.³⁴ Mary Mark Ockerbloom, digital librarian, archivist, and creator of "A Celebration of Women's Writers," a meticulously researched online catalogue of over 19,000 women authors, would agree with Donawerth and Kolmerten's assessment: Ockerbloom begins her list of utopian fiction with Lady Mary Wroth's 1621 *The Countess of Mountgomerie's Urania*, and continues it through the twentieth-century. But one problem with grouping female-authored science fiction within the well-documented legacy of women's utopian fiction, as Justine Larbalestier argues, is that it risks ignoring the intricacies of the field of science fiction, where female futures are just

³³ Although not in its origins—Mary Shelley, after all, is the frequently cited as the founder of the Genre.

³⁴ Jane Donawerth and Carol A. Kolmerten, *Utopian and Science Fiction by Women: Worlds of Difference*, (Syracuse: Syracuse University Press, 1994), 1.

as likely to be written as dystopias as utopias.³⁵ Though Larbalestier is thinking particularly of Joanna Russ's texts from the 1980s, the same argument applies to turn-of-the-century science fictions written by women much earlier.

In Chapter Three, which focuses on love affairs between earth men and alien women, science fiction stories are read alongside letters by fans to show the deeply seated connection between science fiction pulps and family life. By studying the repetition of tropes across mediums, we have a better idea of the symbolic resonance of these three metaphors. Perhaps more than any other trope, the female alien has come to stand for feminist scholars as the ultimate nonhumanization of femaleness—the alienation of women from themselves as they write women as aliens. This chapter offers another view by changing the lens, looking away from the female alien's monstrous body to instead interrogate how the female alien reorients the nuclear family. All three of the inhuman figures discussed in this dissertation imagine a monstrous female. But unlike the female machine, which is thinking about labor and the artificiality of gender, and the female hive, which is thinking about social organizations, the female alien is often explicitly about sex, family, and futurity.

The question of the inhuman female is more pressing than ever, not only because we live in a world with rampant misogyny, but also because the gender binary itself is increasingly understood to be actively causing harm. Medically, socially, and governmentally, we live in an age that is actively rethinking, and relegislating the relation between gender identity and biological sex. These ideological battles have flesh and blood consequences. For example, the current administration has recently attempted to

³⁵ Larbalestier, *The Battle of the Sexes in Science Fiction*, 3.

target trans people's access to health care by rolling back the distinction between sex and gender in the Affordable Care Act, allowing medical providers to discriminate against people whose gender identity diverges from their biological sex. Binaries like sex/gender, in other words, are harshly defined categories that cause real damage to people's lived experience. Similarly, as I am writing this introduction, the Trump administration proposed an ignominious rule that would encourage homeless shelters to use visual cues of gender to identify ciswomen and transwomen—one of many such rules under consideration by conservative lawmakers nationwide. These policies seem to consider a person's gender over a person's humanity, reinforcing the "claustrophobia" of gender.³⁶ What this project argues is that government policies such as these are expressions and articulations of what gender has always already been doing. State regulations inscribe the violence of gender into law, but that violence was already present in the way that gender—and "woman" specifically—has been constructed. More optimistically, this project looks at the ways that the inhuman has been a place of creativity and productivity in imagining a more equal society and perhaps, one day, a postgender society. Curiously, it may be a postgender future that fictions of the female inhuman had been imagining all along.

³⁶ Denise Riley, *Am I That Name? Feminism and the Category of "Women" in History* (Minneapolis: University of Minnesota Press: 1988), 6.

Chapter One

Female Machines: The Artificial Life of Gender in Nineteenth-Century

Fictions of the Inhuman

Arguably, twentieth century American cultural studies begins with *The Education of Henry Adams*, which means that it begins with a preoccupation with gender and machines. Imagine the scene. It's the summer of 1868, and Henry Adams has just returned to America, after seven years in London and a Civil War. He is astonished and slightly dazed by the rapid industrial growth experienced by his native country in the years of his absence. The fecundity of the American technological scene appears in sharp contrast to the stunted virility of American men, more aroused by their levers than their wives. Even more worrisome to Adams is the way that industrial production has inexplicably but assuredly usurped the place of female reproduction. Sexless and set free, the American woman has abandoned her family. She "must, like the man, marry machinery."³⁷ Now, rather than multiply the members of the family by reproducing, women multiply themselves, proliferating into new female "types" which combine the woman and the machine: "in every city, town and farmhouse, were myriads of new types,—or type writers, —telephone and telegraph-girls, shop clerks and factory hands."³⁸ As symbolized in the cyborg like combination of human and machine—type/writer, telegraph/girl—the machine has attached itself to the American girl. She is married to the machine, even adopting the name of a machine in place of the name of her husband. Woman, as a symbolical concept, is replaced in cultural force by the machine.³⁹

³⁷ Adams, Henry. *The Education of Henry Adams*, rev. ed. (1907; repr., New York: Vintage Books/ The Library of America, 1990), 414. Citations refer to the Library of America edition.

³⁸ Adams, 412

³⁹ Adams refers to woman as the "animated dynamo," 412

That is to say, women's reproductive force has been replaced by the productive force of the machine. In tying together female reproduction and mechanical production, Adams sets up a relation that machine studies hasn't since been able to shake. Women's bodies have formed a silent backdrop to theories of technology, industry, and the machine in American literary studies ever since.

Adams may have been surprised to learn that these sexless, hybrid American women had already begun to be imagined in popular, comic literature in the most literal of ways: the female machine. We find the female machine in middlebrow magazines such as *The Black Cat* and *The Arena*, both based in Boston. She appears in *The Argonaut*, a San Francisco newspaper, and across the Atlantic in *Pearson's* and *Belgravia*. She turns up in novels, in short stories, and, in one memorable instance, in an advertising booklet for a vegetable laxative.⁴⁰ Though these female machines are fictional, they were not that far-fetched: in fact, female automata were exceedingly popular, especially in Paris. With clocklike mechanism within delicate bisque faces, these real-life female machines could dance, sew, and even talk. They were frequently depicted participating in the changing roles and hobbies of women: riding bicycles, perhaps. At least one of these living dolls was depicted as a *suffragiste*: when her clockwork was wound, she would peer through spectacles at a paper titled "Droits de Femme."⁴¹ In short, the female machine was a

⁴⁰ Bellamy, Elizabeth Whitfield. "Ely's Automatic Household." *The Black Cat* No. 51 (Dec 1899): 14-23. Fuller, Alice W. "A Wife Manufactured to Order." *The Arena* 13 (July 1895): 305-312. Don Quichotte. "The Artificial Man. A Semi-Scientific Story." *The Argonaut*. San Francisco. 1884. E.E. Kellett, "The Lady Automaton." *Pearson's Magazine*. London: 1901. George Augustus Henry Sala. "The Patent Wife, As Described in the Papers of the Late Mr. Prometheus." *Belgravia*. 1876. George Haven Putnam, *The Artificial Mother. A Marital Fantasy*. Putnam. New York: 1894. Jerome K. Jerome, "The Dancing Partner," *Novel Notes*. New York: 1893. Howard Fielding, *Automatic Bridget and Other Sketches*. Manhattan Therapeutic Co.; New York, 1889.

⁴¹ Julie Wosk, *My Fair Ladies: Female Robots, Androids, and Other Artificial Eves* (New Brunswick: Rutgers University Press, 2015), 44.

much-discussed topic in the western world, though she generally appears in a middlebrow, comedic setting. The late nineteenth century generated a proliferation of stories of female machines that are firmly entrenched in the discourse of the bourgeois heterosexual couple and family. We have the family who hires an automatic maid to replace their human servants; the husband who designs a mechanical nursemaid to do the mothering for his children; and the bachelor who invents the perfect wife, only to discover that marriage to a mechanical woman pales in comparison to marriage to the genuine article.⁴² Throughout, the machine is gendered female and performs women's labor, which in turn detaches femaleness from the body.

This chapter offers a reconsideration of the trope of the female machine by way of an intensive historical survey based on archival discoveries of an array of fictions of the female machine. One of the goals of this chapter is to establish the ways that repression and empowerment are both key terms in discourse on the female machine. In the wrong hands, female machines represent the worst kind of misogyny, triggered by the anxiety of seeing women's bodies as a means of mechanical production rather than biological reproduction. When anti-female writers write the female machine, the stories are often vehicles for parody of femaleness and femininity. But for some writers, the female machine enacts a fantasy of female power, and this is especially true when figured in fiction written by women. When women writers take up the trope, their female machines are ultra-powerful and super-strong, wreaking well-deserved havoc on husbands and homes alike. The female machines discussed in this chapter are fictional, superhuman

⁴² Bellamy, Elizabeth Whitfield. "Ely's Automatic Household." *The Black Cat* No. 51 (Dec 1899): 14-23. George Haven Putnam, *The Artificial Mother. A Marital Fantasy*. Putnam. New York: 1894. Fuller, Alice W. "A Wife Manufactured to Order." *The Arena* 13 (July 1895): 305-312.

forms of the female inhuman—scraped together from metal parts and animated by steam—that, by their strength, throw into relief the laboring bodies of their biological counterparts. In fact, strength and force in the nineteenth century is the primary locus for understanding the female machine. This shifts over time. By the twentieth century, with the advent of the field of AI, machines become closely identified with superhuman intelligence. As we forge our way through the twenty-first century, it's becoming increasingly apparent that machines surpass humans in strength and in intelligence, and so we turn to the feelings, emotions, and affect to gauge machine technology. Force, intellect, and heart: these are the three historical stages in the progress of the female machine.

I delve into tales of the female machine in order to demonstrate that while some of these tales are steeped in anti-female representations of women, more often these stories project fantasies of an escape from the drudgery of female work, whether that work be performed on the factory floor, inside the domestic space, or within the marriage contract. And these two iterations of the trope work together to construct meaning. I argue that the manufacturing of female machines, which often begins as a parody of the artificiality of femininity, in fact commonly points to the artificiality and arbitrariness of gender itself. What female machines reveal about gender is a historically demarcated understanding that gender is not natural, but is in itself artificial — assigned, contingent, functional, and performative. That female machines are created to dress like women, talk like women, and act like women, indicates a historical sense of gender not based on interiority, but on external factors such as dress, speech, and work. When humans create fictional machines that look like women to do the work of a woman with the efficiency of

a machine, a whirlpool of mimicry and mimesis emerges.⁴³ This shouldn't be a surprise to anyone with a familiarity with what Denise Riley terms the "tedious mania" of the nineteenth century for categorization. As Riley argues, we ought to be suspicious of any overarching argument about "women" as a stable category: "'women' is historically, discursively constructed, and always relatively to other categories that change."⁴⁴ The archive of the nineteenth century fictional female machine shows how writers in the nineteenth century frame gender in a way that anticipates later theories of gender performativity.

The nineteenth-century texts that form the foundation of this chapter all appear between 1876-1899, a relatively short window of time. In this small pocket of literature, culture, and history, the trope of the female machine emerges, flourishes, then disappears. But the female machine is hardly a foreign concept to us today, though we might call her by a different name., fembot perhaps, or gynoid.⁴⁵ By the time she resurfaces in the twentieth-century, she is transformed into something else: rather than a relatively common middlebrow magazine motif, she has become a recognizable science fiction (SF) trope. Yet the trope carries with it traces of the things that made the female machine interesting to nineteenth-century audiences: the female inhuman, the instrumentality of the machine, and the artificiality of gender. This is because in the nineteenth century, the

⁴³ Judith Butler, "Imitation and Gender Subordination," in *Inside/Out*, ed. Diana Fuss. (New York: Routledge, 1991), 21.

One is reminded of Butler's now famous remark that "gender is a kind of imitation for which there is no original."

⁴⁴ Denise Riley, *Am I That Name?*, 3.

⁴⁵ Female machines will ultimately become a science fiction trope, becoming "fembots" (1975) and "gynoids" (1985). The first recorded use of the word "fembot" is from the television series *The Bionic Woman*. The term "gynoid" was first used by Gwenyth Jones in her novel *Divine Endurance* (1985). Both gynoid and fembot occur and are used in science fiction contexts. But in the nineteenth century, they are not quite SF, but rather are something composite.

female machine, by virtue of being synthetic, instrumental, and female, performs three interesting roles at once. First, the female machine exists on the boundary of the human and the nonhuman. Second, the female machine's instrumentality reinforces the relation between labor and gender: it is functional first and gendered second. Third, the female machine's artificiality suggests that the artifice of gender and the artificiality of the machine are one and the same. As a contradictory site with far reaching implications, the figure of the female machine is an important subcategory of the larger, socio-historical machine motif that accompanied America's era of steam-power, machine labor, and industrialization.

The female machine stories that most interest me are a subset of what we might call *android* fiction, i.e. fiction that explores the existence of humanoid non-humans. A catch-all term, android fiction is much broader than the female machine trope, because it encompasses both the organic and the inorganic: curators of the android tale might count the mummy and the cyborg alongside the automaton. Of the fantastic stories penned by female authors between 1876 and 1899, only eight of them feature an android.⁴⁶ Roughly this comes out to about 2.4% of all stories. If this number seems small, take into consideration that male writers during this period, according to Bleiler's estimates, were responsible for about 2,500 stories featuring fantastic elements during this time, and that within these, I have found just thirty-one stories of androids. This means that only about 1.24% of fantastic fiction written by men during this time featured androids as part of

⁴⁶ Actually, the android as a term is kind of a problem for SF terminology. Android is a catch-all term that covers any kind of humanoid non-human. Sometimes they are organic (e.g. the mummy), sometimes synthetic (the automaton), and sometimes they are a mixture of the two (the cyborg). The trouble with the android as a figure, then, is that it casts too wide of a net, incorporating disparate figures that do not quite carry the same valences. There is a tremendous difference between reanimated corpses and living machines; the kinds of desires, fears, and meanings these motifs activate are so different as to make them entirely different topics of study.

their universe.⁴⁷ Before writing this chapter, I had hypothesized that men and women would be roughly equally as likely to write stories about androids; however, what these numbers suggest is that women were twice as likely to write about androids as their male counterparts.⁴⁸ In hindsight, these stories are recognizably SF but also recognizably middlebrow nineteenth-century-magazine stories. As they straddle two lines, they form an interesting prehistory of SF texts.

Curiously, the organic android and the artificial android are gendered differently, and this fact is immensely revealing about the purchase of the female machine. Organic androids during this period tend to be male, like the monster of Frankenstein. The male android explores themes of scientific progress and illicit knowledge. But mechanical humans, like the living statue of Pygmalion, tend to be female. These fictional binaries were mirrored in real life automata. As Norton M. Wise explains, in the eighteenth century, automata were equally male and female, but in the nineteenth, automata more often approximated women, children, and exotic or uncanny creatures.⁴⁹ Wise suggests that this is because *mechanism* became gendered female — that the literal recreation of female figures does in practice what is considered female in metaphor. Humanoid

⁴⁷ None of these numbers include stories published by untraceable authors — which are plentiful during this period! I count four stories written by unknown authors that use the figure of the android: Don Quichotte's "The Artificial Man," M.L. Campbell's "The Automatic Maid-of-all-Work," W.M. Stannard's "Mr. Corndropper's Hired Man," and W.K. Mashburn's "Sola." If any of my readers has information on the identity of these authors, I would welcome the note.

⁴⁸ The intersection of androids with sexuality, reproduction, and ecology has been documented by Angus McClaren. Angus McClaren's book, *Reproduction by Design*, makes note of many of the British fictions of radical accounts of potential shifts in gender relations, including Lady Florence Dixie's *Gloriana; or, The Revolution of 1900* (1890) and Elise Kay Gresswell's *When Yvonne Was Dictator* (1935). He also features a very long list of antifeminist utopias written during this same period, such as Walter Besant's *The Revolt of Man* (1882), and Allan Reeth's *Legions of the Dawn* (1908). It's clear that proliferations of antifeminist utopias go hand-in-hand with ones which feature positive depictions of women in power.

⁴⁹ M. Norton Wise, "The Gender of Automata in Victorian Britain," in *Genesis Redux: Essays in the History and Philosophy of Artificial Life* (Chicago: University of Chicago Press, 2007), 167.

automata increasingly represent “exotics” rather than western/white/Christian adult men—African children and ballerinas are the examples given by Wise. And in fiction, we also find that when mechanical men are featured, they are racialized. As Taylor Evans’s “The Race of Machines” argues, the black steam man in the 1868 dime novel *The Steam Man of the Prairies* shows the extent to which white masculinity was dependent on the racialization of the machine as black. The blackness of machines, as Evans explains, is one way of reinforcing white masculinity, white mastery, and techno-supremacy. What is human is defined in part by what is mechanism.

The female machine in these texts participate in the discourse of the human/machine binary, but they often work against themselves. By feminizing the machines, they investigate the relationship between the biological and the mechanical. That is to say, the industrial production of the female machine is a perverse mirror image of the biological reproduction of the human woman. Stories about the female machine are preoccupied with the difference between innate, natural, feeling, biological matter and external, performative, unfeeling, mechanical matter. But these texts often tangle up what is external and what is internal, and what is natural and what is performative. Interestingly, this divide between external/performative and internal/natural maps the boundaries of our theoretical terms of gender and sex. Women have sex; female machines have gender. And although to speak of gender in the nineteenth century is to write anachronistically, theories of gender more accurately describe the “femaleness” of the female machine. Her femaleness is artificial as opposed to natural, performative rather than intrinsic, and assigned rather than innate. The proliferation of the female machine motif in the nineteenth century is highly invested in the visibility of femininity’s artifice,

and it shows a historically demarcated and evolving understanding of gender as instrumental and functional.⁵⁰ One way that the female machine does this is by representing the ever-evolving relationship between gender, technology, and culture. What this chapter argues is that to recontextualize the relationship between gender and machines in the nineteenth century we can look to nineteenth-century fictions of the female machine.

I. Force, Intellect, and Heart

Nineteenth century autonomous machines are, notably, “female machines,” not “artificial women,” a distinction that suggests the genre’s engagement with what we would now describe as gender. In these nineteenth-century stories, the female machines are given exaggerated gender characteristics: the female machines are more beautiful than human women, more docile, and more obedient (up to a point). That the legibility of gender in these stories is in part composed of props and performances is one of the most interesting aspects of these automatic women; exaggerating gender characteristics also simultaneously diminishes them. The female machine is a bundle of artifice, role-playing, and light-hearted enjoyment. There’s something rather emancipatory about a sexless (because always deferred) and genderless (because exaggerated to the point of meaninglessness) robot world. The divorce of gender from sexuality that the female machine offers also speaks to the American crisis of masculinity—or, as Henry Adams

⁵⁰ J. Halberstam *In a Queer Time and Place: Transgender Bodies, Subcultural Lives*. (New York: New York University Press, 2005), 134.

This is not to say that masculinity is in any way more “natural” than femininity. I agree with Halberstam’s claim that male sexual appeal has a “prosthetic nature” which is less visible but just as reliant on artificial enhancements as female sexuality.

exclaimed, “The American Man is a Failure!”⁵¹ So although we tend to assume that female machines are sexualized by hetero-male authors, the stories suggest otherwise. The representation of machine women by men is not always a fantasy of sexual fulfillment; at times it is a fantasy of male sexual reprieve. The erotics are always deferred.

The female machine exaggerates gender characteristics to draw attention to their artificiality, but they also draw attention to the ways that gender is tied to intention and instrumentality. The attribution of femaleness to a humanoid machine follows what Lisa Zunshine calls the “functionalist rhetoric of machines,” wherein machines are given a function first and a gender second.⁵² These stories also draw attention to the ways that femaleness is instrumental and functional for the female machines: the machines are built female when they are required to perform female labor. The functionalist rhetoric that accompanies machine discourse anticipates the kinds of work that gender theory accomplishes. More broadly, the female machine obliquely suggests that gender itself is something that is artificial. Although ostensibly commenting on the trappings of femininity, they produce an unwitting critique of the sex/gender binary. These stories all unanimously bind gender with labor, so that to know one is to know the other. Therefore, female machines also suggest that external actions not internal consciousness constitute a person (or machine’s) identity as a gendered being.

One thing to note about stories of the female machine in the late nineteenth and early twentieth centuries is how generically alike they are to each other. Most of them

⁵¹ Adams, 410

⁵² Lisa Zunshine. *Strange Concepts and the Stories They Make Possible*. (Baltimore: Johns Hopkins University Press, 2008), 130.

share a similar format, appearing as short stories in nationally distributed middlebrow magazines. Additionally, they share a similar register: comedic, bourgeois, middle class. As a class or subgenre, they even share the same style. Both the format and the register of these texts indicate that they are mainstream. Although they use motifs that are now associated with science fiction, it's not enough to use these texts to confirm the existence of an early science fiction tradition. Rather, because they are effortlessly intermixed within bourgeois periodical fiction, these stories demand to be read and understood within a nineteenth-century literary context. Although many of the female machine stories are written by women, most are narrated in the first person by a worldly and world-weary gentleman—almost never the scientist and never from the perspective of the female machine herself. The inexplicability of the technology of the female machine story, which is true in most although not all of the tales, is another marker of these texts' engagement with the other middlebrow battle-of-the-sexes comedies published alongside them.

Rather than jump right in to a description of the nineteenth-century texts, I want to defer for a minute, and describe instead a postmodern fictional female machine, that activates a nexus of gender, sexuality, and technology similar to but ultimately quite different from its nineteenth-century antecedents. Her name is Ava, and she is the female machine of Alex Garland's 2014 film *Ex Machina*. No doubt its audience viewed *Ex Machina* as a distinctly postmodern tale, full of Facebook and Google-aged anxiety about the role of technology, surveillance, and the ascendance of a posthuman future. Yet, Ava comes from a long lineage of female machines. Ava may have a shiny new set of gears and pistons, but she's not so very different from the female machines dreamed up by

nineteenth century minds. As I will discuss shortly, Alex Garland, the writer and director of the film, mentions *Metropolis*'s female machine Maria as an influence.⁵³ If Ava, like a femme fatale, spins the heads of the men who encounter her, it's because she's been programmed to perform femininity. Her "femininity" is as calculating as a computer. Because her gendered body is manufactured, critics have referred to her as "post-gender," and Garland defended in an interview the idea that she is "literally genderless."⁵⁴ Garland's statement is true in the same sense that computers, being inhuman, are not biologically gendered. But, like the female machines created over 125 years before her, Ava is functionally gendered female, and like her predecessors she reveals the extent to which gender is both artificial and external. The difference with Ava is not that she is post-gender, like some writers would have us believe, because all female machines are both gendered and post-gender. Instead, what makes Ava unique is the way she exemplifies the modern female machine, which reframes the achievement of the female machine from strength (nineteenth century) and intellect (twentieth century) to something like heart. *Ex Machina*, therefore, offers a retrospective to the emergence of female machines a century and a quarter earlier.

The Turing Test, referenced heavily in *Ex Machina*, famously deferred asking the question "Can machines think?" in favor of a less ambiguous question, which asks whether a machine might be able to imitate thought in a way that would make it indistinguishable from humans. What *Ex Machina* demonstrates is that we're struggling

⁵³ "Ex Machina's Director on Why A.I. Is Humanity's Last Hope," *Wired*, Angela Wattercutter, 7 April 2015, <https://www.wired.com/2015/04/alex-garland-ex-machina/>

⁵⁴ "Does Ex Machina Have a Woman Problem, or Is Its Take on Gender Truly Futuristic?" *Vulture*, Kyle Buchanan, 22 April 2015, <https://www.vulture.com/2015/04/why-ex-machina-take-on-gender-is-so-advanced.html> and also "Ex Machina Has a Serious Fembot Problem," *Wired*, Angela Wattercutter, 9 April 2015, <https://www.wired.com/2015/04/ex-machina-turing-bechdel-test/>

with an entirely new question today—not “can machines think” but “can machines feel?” I believe Turing’s resistance to that kind of question makes sense when applied to questions of affect, emotion, and feeling. We’re better off asking “can machines simulate human emotions such that they can recognize empathy, and form bonds with their humans,” so that even knowing that the machine is inhuman the human interrogator cannot help but form an attachment. *Ex Machina* is explicitly about male feelings. It’s about their desire to create female machines as companions because of their hunger for intimacy, which is to say, for both social connection and control. The female companion offers intimacy, the female machine obedience.

Indeed, *Ex Machina*’s version of the female machine reveals what is unique about the historical moment of nineteenth and early twentieth century fictional female machines. *Ex Machina*’s focus on intimacy, affect, feeling, and emotion (twenty-first century) rather than intellect (twentieth century) or strength (nineteenth century), marks it as a distinctly postmodern tale. Just as the nature of fictional female living machines is different now than it was then, the fears and desires projected onto these machines is different. Whereas in the twenty-first century, the machine imaginary is all about superhuman emotions, in the nineteenth century, the machine imaginary is all about superhuman strength. Nineteenth-century fantasies of the machine are tied to endurance—i.e. the machine can work for long periods of time without fatigue—and to strength—the machine can do the job of a dozen human workers. The superhuman strength of the machine illustrates a widespread fear of overproduction. Materially, the superhuman strength of the machine may create a glut on the market. Emotionally, the superhuman strength of the machine might be something menacing by putting the meager

body of the human to shame. The female machine in this period, therefore, is both menacing—will she replace human women?—and empowering—what labor-saving utopian possibilities does she offer?

In contrast, fantasies of machines today are far more concerned with questions of intimacy, affect, emotion, and feeling. It may seem like a minor distinction, but it helps us learn how to read the transformation of these inhuman women over the last 150 years. It's not that nineteenth-century and twentieth-century female machines have no intimacy with their human creators; indeed, one strain of female machine stories during this period is the creation of the "perfect" wife. The idea that a female machine might provide companionship is as old as August Villiers de L'Isle-Adam's novel *Tomorrow's Eve* (1886), where the female machine Hadaly is built to be the perfect woman, and it pops up frequently in the corpus of female machine texts, for example, in Lester Del Rey's SF story "Helen O'Loy" (1938), where the female machine falls in love with her creator, but I think there's truly something unique about the current moment's obsession with feeling and emotion. It's as if, having already proven computers to be stronger and smarter than humans, we're left grasping at something—anything—that makes us human.

Though, in fact, Ava is not the only female machine in the movie. *Ex Machina* tells a big story with a small cast: two men and two female machines. The two men are Nathan, the eccentric billionaire, dude-bro genius inventor of Ava, and Caleb, a wide-eyed programmer who works for Nathan's company. Beguiling Ava is one of the female machines, lifelike yet ultimately inscrutable. Finally, there's Kyoko, a mute AI who Nathan uses as a maidservant and sex object (more on this in a minute). At the start of the movie, Caleb is chosen to spend a week at his boss Nathan's residence, which is part

bunker, part bachelor pad, and part research lab. When Caleb arrives, Nathan asks him to be the “human component” of the Turing test. Nathan, it turns out, has created an AI—the female machine Ava. If, after a week, Caleb believes Ava has consciousness, then Ava passes the test. The simple premise mirrors the middlebrow female machine stories of the nineteenth centuries, not least because narratively it is focalized through Caleb, as opposed to Nathan, the inventor, or Ava, the female machine. Just as in the first female machine stories, our story will be told from the male perspective of a disinterested observer.

So, Caleb meets Ava: a classic boy-meets-robot-girl movie. The two appear to develop mutual crushes on each other, despite the fact that Ava is not really a girl at all. Only her face, hands, and feet are flesh, the rest of her shapely body being modestly encased in metal and silicon. Even so, Ava is routinely eroticized; when silhouetted, she could pass for a woman. The camera luxuriates in long shots of Ava undressing, followed by close-ups of Caleb’s tremoring neck, his desire for Ava strange and unnatural but a necessity nonetheless. Nathan, too, is aware of Ava’s attractions. As her creator, he boasts crassly of her sexual anatomy, which he, perversely, though perhaps unsurprisingly, has designed complete with a mechanical vagina (46:46). We don’t need to ask if Nathan made her a mechanical clitoris—in the male-oriented world created by the film, the answer is obvious.

Kyoko as a female machine is even more disturbing. She is one of the few machines who is not racialized as white in this chapter, and she’s also the character most subjected to violence. The violence enacted against Kyoko in the movie lays bare the ways that hierarchies of race are inscribed into seemingly benign technology. Even if we

accept the idea that *Ex Machina* presents AI as post-gender, which, as I've argued above, is both true and untrue, it would be impossible to watch the movie and come away with the idea that it views AI as post-race. Kyoko's characterization is created out of harmful stereotypes about the sexuality of Asian women. Moreover, the machine itself is not ideologically neutral, and it holds within it the logic of white supremacy. Indeed, following Margaret Rhee's argument in "In Search of My Robot," the human/animal/machine symbolic triad reinforces white supremacy and was part of the creation of race: the animal justifying the objecthood of BIPOC, and the machine justifying the subjugation of Asian Americans.⁵⁵ The movie shows the silent Kyoko sexualized, abused, raped, and murdered by her creator. As an Asian female machine, she is fetishized as sexually submissive in what Patricia Park refers to as the "Madam Butterfly Effect"⁵⁶ Kyoko brings up in a technicolor way the way that the human/inhuman divide has been used against nonwhite women in particular.

Much of *Ex Machina* appears to plug into a century of tired stereotypes: Kyoko and the Madame Butterfly effect, Ava and the femme fatale. Yet for all this, the movie is at its most compelling when it's thinking about the problem of intimacy, which marks it as a new stage in the progression of the female machine. For example, despite the movie's apparent fixation on erotic desire, Nathan and Caleb's conversations about Ava's sexual nature mask unvocalized concepts of intimacy and power. In one conversation

⁵⁵ Margaret Rhee, "In Search of My Robot: Race, Technology, and the Asian American Body" (Barnard Center for Women: *Scholar & Feminist Online*, 2016), <http://sfoonline.barnard.edu/traversing-technologies/margaret-rhee-in-search-of-my-robot-race-technology-and-the-asian-american-body>.

and Wendy Kui Hyong Chun, "Race and/as Technology, or How to Do Things to Race" in *Race After the Internet*. (New York: Routledge, 2011), 7-35.

⁵⁶ "The Madame Butterfly Effect: Tracing the History of a Fetish," *Bitchmedia*, Patricia Park, 30 July 2014, <https://www.bitchmedia.org/article/the-madame-butterfly-effect-asian-fetish-history-pop-culture>.

Caleb, guilty and confused about his attraction to Ava, complains to Nathan that he shouldn't have given her a sex or a gender: "Why did you give her a sexuality? An AI doesn't need a gender," (46:00). He pointedly confuses sexuality with gender, a glaring conflation that the movie's characters do not address. Nathan's response clues us in to the real issue on the table by linking Ava's sexuality to humanity's desire for connection. "Can you give an example of consciousness at any level, human or animal, that exists without a sexual dimension? [...] What imperative does a grey box have to interact with another grey box? Can consciousness exist without interaction?" According to Nathan, Ava's sexuality compels her to interact with humans, and likewise compels humans to interact with her. Unvoiced, yet heavily implied, is that sexuality is a way of creating intimacy, which it appears Nathan has been craving all along. Unlike Caleb, however, his need for intimacy is always in antagonistic tension with his need for mastery; it reveals more about Nathan's sordid sociality than Ava's. Nathan cannot imagine a world system in which power is not tied to sexuality. Being both manmade and female, Ava appears to offer Nathan the solution to his double-edged desire. As a female companion Ava can bring sexual intimacy and companionship to Nathan; and as a female machine, she offers her creator abject subjugation. Or at least she should.

We know from hundreds of other books and films that Ava is superhumanly strong and intelligent, but what about her feelings? *Ex Machina* is highly invested in the way that feelings motivate and justify actions. Does Ava have a crush on Caleb? Does Ava know that she's imprisoned? Does Ava feel sad that she's never seen the outdoors? But more important to the narrative in *Ex Machina* is its frequent check-ins with the

feelings of its male characters. Early in the movie, Nathan prods Caleb to stop talking jargon and describe how he feels about Ava.

NATHAN: I understand that you want me to explain how Ava works. But I'm sorry, I'm

not going to be able to do that.

CALEB: Try me. I'm hot on high-level abstraction.

NATHAN: It's not 'cause I think you're too dumb. It's 'cause I want to have a beer and a

conversation with you not a seminar.

CALEB: [chuckles] Yeah. Sorry.

NATHAN: No, it's okay. You're all right. Just? Answer me this. How do you feel about

her? Nothing analytical. Just—How do you feel?

CALEB: I feel—that she's fucking amazing.

NATHAN: Dude-- Cheers.⁵⁷

In the dialogue above, two key things stand out. First is the focus on feelings, gut reactions, and emotions, which are always in direct contrast to intellect. In response to Caleb's remark that he's "hot on high-level abstraction," Nathan pushes back, replying that the conversation is "not a seminar" and he desires "nothing analytical." Second, the conversation exemplifies male bonding. As they fumble towards friendship, both men apologize to each other, each saying "sorry" once during the conversation. Nathan also compliments Caleb to put him at ease ("it's not 'cause I think you're too dumb," he assures Caleb). Caleb uses casual language; he swears not because he's angry, but because he's trying to bond with Nathan. Interestingly, although the conversation begins with an expectation that Nathan will explain the nuts and bolts of Ava's AI, the conversation takes a turn, and focuses instead on the men's pursuit of emotional intimacy.

⁵⁷ *Ex Machina*, directed by Alex Garland (2015), 16:57-17:54.

Male ego, it turns out, is the primary topic of the film. The two men depicted paint an uneasy picture of masculinity. Nathan is an easy case: overtly a creep, he has been using his genius in AI to create sentient sex robots, like Kyoko, or the four other unnamed female machines, created and destroyed before the start of the movie, whose ghosts haunt *Ex Machina*. His creations detest him (“what’s it like to have something you’ve made hate you?” Ava asks him), and in time Caleb, too, will be repulsed by Nathan’s twisted relationship to the machines he’s built. Where Nathan is robust, Caleb is fragile, yet both interact with the female machines as if they were made expressly to satisfy the male ego. Caleb is so excited about the possibility of having a girlfriend that the biggest worry on his mind is whether Ava’s feelings are artificial. “Did you program her to flirt with me?” he pines. “Did you give her sexuality as a diversion tactic? Like a stage magician with a hot assistant?” the chivalrous Caleb wonders. His lips trembling, his eyes watering, he steels himself to ask again: “Did you program her to like me, or not?” “Caleb, you’re starting to annoy me,” Nathan replies.⁵⁸ Caleb is incapable of viewing himself as anything other than Ava’s savior, and so he, more so than Nathan, underestimates Ava’s abilities, including her capability for murder. To Caleb’s surprise, and perhaps to the audience’s as well, the movie ends with Ava cold-bloodedly murdering both of the men in her life. Ava’s femininity is a computer program; her lovely eyes and supple body are the creation of a lonely techbro with a God complex and an alcohol problem. Margohla Dargis, reviewer for the *New York Times*, hits the nail on the head when she writes that *Ex Machina* is a movie “about men and the machines they dream up, but it’s also about men and the women they dream up.”⁵⁹ Ava perhaps exceeds

⁵⁸ *Ex Machina*, 47:40-48:18

⁵⁹ “In ‘Ex Machina,’ a Mogul Fashions the Droid of his Dreams,” *New York Times Online*,

the bounds of her being by using the tools Nathan gave to her in the same way a femme fatale would, leading both men on to their deaths.

At the end of the movie, Ava, like the monster from *Frankenstein* before her, escapes with murder on her mind. She and Kyoko together kill Nathan (in the scene, Kyoko literally stabs Nathan in the back), a form of collective female protest that probably elicited cheers from the audience. Nathan, after all, was a pig, and so the conclusion is very satisfying. But the movie doesn't end there. Ava leaves the hapless Caleb to die, abandoning him in the locked, windowless bunker as she makes her escape. Here I want to suggest that we can understand something about *Ex Machina* because of this, something about the kind of story it wants to tell. In a movie like *Ex Machina*, which character should have our sympathy? If the audience believes in Ava's capacity to feel, then the female machine's revenge against the men who imprisoned her is justified. But if we sympathize with Caleb, then his murder becomes a problem.

Caleb's mistake is one of genre: he thinks he's part of a fairy tale, but it turns out he's in a contemporary SF version of a female machine story. In a fairy tale, plot components occur in a set sequence, one that is not accidental and one that is identical across fairy tales.⁶⁰ In a contemporary SF story, these plot points are shuffled, reversed, and disoriented. Caleb, and by extension, the audience, mistake Ava for a princess locked in Bluebeard's castle. There are many correspondences between the stories besides just the prominence of Nathan's beard. Ava is trapped, forbidden to explore the house, which

Marghola Davis, 9 April 2015. <https://www.nytimes.com/2015/04/10/movies/review-in-ex-machina-a-mogul-fashions-the-droid-of-his-dreams.html>

⁶⁰ Vladimir Propp. *Morphology of the Folktale*. Translated by Laurence Scott. 2nd ed. (Texas: University of Texas Press, 1968), 10.

contains, as we discover, actual closets full of female body parts, leftover from the female machines who preceded Ava. Except, what the film reveals in a shocking reversal, is that it is Caleb who is trapped — trapped in the fairy tale narrative expectations of Bluebeard and his [mechanical] princess. The female machine story is no fairy tale—and when it gets translated into a contemporary SF story, as it does in *Ex Machina*, the logic of the female machine is carried to its unexpected conclusion: the female machine, programmed without empathy, with feelings but only feelings for herself, is a nightmare.

Questions of feeling fuel the fictional representation of machines, as in Ava's relationship to Nathan and Caleb in *Ex Machina* and they are also mirrored in the real world. This is true even though scientifically, humans' emotional pathways are much more complicated and opaque than their neurological ones. At this point in time, it's unlikely that robotics engineers could recreate a human's emotional makeup even if they wanted to, simply because we don't fully understand how emotions work.⁶¹ Human emotions are not universal, but are contingent on environment and culture.⁶² The mystery of human emotions makes the emotional make up of machines currently the most fascinating frontier of robot studies.

The affective consciousness of machines is, today, a major concern of female machines' real-world counterparts. For example, Sophia, Hanson Robotics' famous female machine who, among her many accomplishments, has graced the cover of *Elle Brasil* and has appeared live *The Tonight Show Starring Jimmy Fallon*, is by all accounts

⁶¹ "How We Feel About Robots That Feel," *MIT Technology Review*, Louisa Hall, 24 October 2017, <https://www.technologyreview.com/2017/10/24/148259/how-we-feel-about-robots-that-feel/>

⁶² Lisa Feldman Barrett, *How Emotions are Made: The Secret Life of the Brain* (New York: Houghton Mifflin Harcourt, 2017), xii.

not quite AI at all, but rather something more akin to a “chatbot with a face.”⁶³ Sophia’s female appearance has even gotten her embroiled in Saudi Arabian politics. When the kingdom of Saudi Arabia misguidedly granted Sophia citizenship, protestors noted that Sophia had more legal rights than Saudi women. But news stories on Sophia are more frequently of the kind one might find in a newsstand gossip magazine. “Could you fall in love with this robot?” *CNBC* asks. “I met Sophia, the world’s first robot citizen, and the way she said goodbye nearly broke my heart” *Business Insider* reports. “Sophia the robot wants a baby and says family is ‘really important,’” from the BBC.⁶⁴ Clearly, we care a lot about Sophia’s emotional state.

Our obsession with the affective consciousness of machines remains true even when the female machine in question is not as lifelike as Sophia. Octavia, a humanoid robot employed by the U.S. Navy to fight ship fires, is cute and cartoonish. Her wide eyes are expressive, thanks to her engineers who have given her a range of facial expressions to help demonstrate “the kind of thinking she’s doing and make it easier for people to interact with her.” In other words, her facial expressions do not stem from an inner emotional state (she has none) but from her developers’ desire to enhance Octavia’s communication skills. Octavia’s “feelings” are there to make her better at doing her job.

⁶³ Hanson Robotics, the Hong Kong based company behind the lifelike Sophia the robot, advertises five male models and only three female ones. So I don’t mean to say that all robots are female machines, just that female machines tend to arrest our attention.

⁶⁴ “Sophia the Robot Wants Women’s Rights for Saudi Arabia,” *Newsweek*, Janice Williams, 5 December 2017, <https://www.newsweek.com/sophia-robot-saudi-arabia-women-735503>
 “Could You Fall in Love With This Robot?” *CNBC*, Harriet Taylor, 16 March 2016, <https://www.cnn.com/2016/03/16/could-you-fall-in-love-with-this-robot.html>
 “I Met Sophia, the World’s First Robot Citizen, and the Way It Said Goodbye Nearly Broke My Heart,” *Business Insider*, Becky Peterson, 29 October 2017, <https://www.businessinsider.com/sophia-the-robot-first-robot-citizen-nearly-broke-my-heart-2017-10>
 “Sophia the Robot Wants a Baby and Says Family is ‘Really Important,’” *BBC Newsbeat*, 25 November 2017, <http://www.bbc.co.uk/newsbeat/article/42122742/sophia-the-robot-wants-a-baby-and-says-family-is-really-important>

Like the fictional Ava and the female Sophia, Octavia's been gendered externally because of the kind of labor she's doing. We've already resigned ourselves to being outsmarted by machines. But we can't get over caring if machines have feelings.⁶⁵ Likewise, the ethics of machine feeling presents serious problems. As Louisa Hall points out, "[t]hese issues are especially well demonstrated by military robots that, like Octavia, are designed to be sent into frightening, painful, or potentially lethal situations in place of less dispensable human teammates."⁶⁶ We have to ask ourselves what kind of life we've built for the female machine, and whether it's even ethically responsible to endow such a robot with feelings. We might also want to consider the dangers of creating a female machine whose function is to deal with traumatic situations: "If her unique robot life, for instance, is spent getting sent into fires by her human companions, or trundling off alone down desert roads laced with explosive devices [...] if she spends her life in inhumane situations, her emotions might not be recognizably human."⁶⁷ For the female machines and for ourselves we fear the dangerous outcomes of creating feeling machines. We recoil at the ways that machines are becoming more like humans every day.

By contrast, for writers in the nineteenth century, the question was not how machines may become human, but with the ways that humans are already very alike to machines. The machine, for example, was a useful metaphor for modelling social relations. In the nineteenth-century, the machine contained a useful metaphor about how hierarchies work together for the good. One commonly held theory of the machine

⁶⁵"Meet George and Octavia, America's Robot Allies," *The Atlantic*, Hans Villarica, 18 October 2011, <https://www.theatlantic.com/technology/archive/2011/10/meet-george-and-octavia-americas-robot-allies/469308/>

It's worth noting here that Octavia has an "older brother" named George, a less advanced model. Octavia has been programmed to be a more helpful teammate than George.

⁶⁶ Hall, "How We Feel About Robots That Feel."

⁶⁷ Hall, "How We Feel About Robots That Feel."

imagined the machine as a single entity made up of two parts which existed in a hierarchy: at the head of the hierarchy was the engine, which generated energy, and at the bottom was the mechanism, which transmitted that energy.⁶⁸ Splitting the machine in two models the social in a useful way. With the engine as producer and the mechanism as repetitive reproducer, the machine metaphorically modelled labor relations: the engine is the owner, whose capital generates power, and the mechanism is the workers, whose hands reproduce the product. As the machine works, so does the factory.⁶⁹

As M. Norton Wise remarks, the metaphor of the machine also represents nineteenth-century gender relations on the factory floor. Wise points to the Lowell mill girls—the “minders”—who were supervised by male overseers, or “overlookers.”⁷⁰ Herman Melville’s fictional representation of factory girls, “The Tartarus of Maids,” works just as well to demonstrate the point. Even though it doesn’t feature a female machine, it is an illustrative example of the intersection of technology, gender, and labor. In Melville’s story, the white-cheeked maids are servants to the machine. Melville’s orientalist and erotic rendering of the mill workers as slave girls in a Sultan’s harem eroticizes mechanized labor.

Machinery—that vaunted slave of humanity—here stood menially served by human beings, who served mutely and cringingly as the slave serves the Sultan. The girls did not seem accessory wheels to the general machinery as mere cogs to the wheels.⁷¹

⁶⁸ Wise, 167.

⁶⁹ Charles Babbage, *On the Economy of Machinery and Manufactures*. Fourth Edition. (London: J. Murray, 1846). *Archive.Org*, <https://archive.org/details/oneconomyofmachi00babbrich/page/n7/mode/2up>

⁷⁰ Wise, 170

⁷¹ Herman Melville, “The Paradise of Bachelors and the Tartarus of Maids,” rev. ed. (1855; repr. *Billy Budd, Bartleby, and Other Stories*, New York: Penguin Books, 2016), 328. Citations refer to the Penguin edition.

Lori Merish shows how Melville's story "both enacts and ironizes... the pervasive sexualization of antebellum working-class women in cultural representation." Merish connects factory production with "sexual coupling and reproductivity," although the mill itself is "seemingly devoid of female desire."⁷² Yet the anxiety about female reproductivity is also a tacit critique of women as commodities. The insincerity of working-class women—their imitation of gentility—becomes the butt of the joke. In this way the working-class woman and the female machine are not in fact so very different, for female machines, like working-class women, are imitators.

Melville's use of femaleness, mechanization, and deferred erotics in "The Tartarus of Maids" provides a useful framework for the female machine stories that come after it. Melville's story makes clear that the machine was not only a metaphor that represented historical realities of labor hierarchies, but that these historical realities illuminate abstracted theories about gender and labor. Moreover, machines rendered gender as artificial rather than natural, performative rather than essential, and functional rather than innate.⁷³ Gender was manufactured and manufacturable. These correspondences coalesce around gender and labor, seeming to reproduce "[t]he most basic dualism of western thought, reason/nature, which historically has paired women with nature *and* with machines..."⁷⁴ For the boundaries between human and machine, however, gender is an important subtext. This is because gender is a binary that exists in

⁷² Lori Merish, "Factory Labor and Literary Aesthetics: The 'Lowell Mill Girl,' Popular Fiction, and the Proletarian Grotesque," *Arizona Quarterly: A Journal of American Literature, Culture, and Theory* 68, no. 4 (Winter 2012): 1-2.

⁷³ Beyond performing labor-saving tasks, machines might also function as entertainment. Nineteenth-century automata combine technical expertise and ingenuity with aesthetically pleasing forms. They might, for example, mimic the fluttering of a songbird.

⁷⁴ Patricia Melzer, *Alien Constructions: Science Fiction and Feminist Thought*. (Austin: University of Texas Press, 2006), 24.

a hierarchy, one that is reproduced in the division of labor that creates female “minders” watched by male “overseers” and in theories of labor that separate female “mechanism” from male “engine.”

Expanding upon the materialist philosophy of man-as-machine touted by Descartes and La Mettrie, nineteenth-century theorists honed and sharpened the metaphorical possibilities of the human machine. Socially and economically, theorists such as Marx and Ruskin vigorously objected to what they saw as the mechanization of human labor. In *The Stones of Venice*, Ruskin writes:

You must either make a tool of the creature, or a man of him. You cannot make both. Men were not intended to work with the accuracy of tools, to be precise and perfect in all their actions. If you will have that precision out of them, and make their fingers measure degrees like cog-wheels, and their arms strike curves like compasses, you must unhumanize them.⁷⁵

The mechanization of men is protested against as a problem of modern society. The workers’ fingers are cogwheels, and their arms are compasses. The problem isn’t that the machines are humanoid, but that the men’s bodies are turning into machines. In addition to their bodies, Carlyle refers to the emotional and psychological blurring of man and machine:

Men are grown mechanical in head and in heart, as well as in hand. They have lost faith in individual endeavour, and in natural force, of any kind. Not for internal perfection, but for external combinations and arrangements, for institutions, constitutions, for Mechanism of one sort or other, do they hope and struggle. Their whole efforts, attachments, opinions, turn on mechanism, and are of a mechanical character.⁷⁶

⁷⁵ John Ruskin, *The Stones of Venice*, rev. ed. (1851; repr. Boston: Aldine Book Publishing Co., 1890), 162.

⁷⁶ Thomas Carlyle. “Signs of the Times,” repr. ed. (1829; repr. *Critical and Miscellaneous Essays*, 5 vols. London: Chapman and Hall, 1864), 103. Citations refer to *Critical and Miscellaneous Essays*.

The figurative and metaphoric power of the human machine in thought and rhetoric demonstrates how important a figure the human machine was in the nineteenth century. Writing on automatons, historian Minsoo Kang suggests that the self-moving machine has been used throughout western history as “a conceptual tool with which western culture has pondered the nature and boundaries of humanity.”⁷⁷ But with the female machine, those boundaries take particular focus on labor issues, at least in the nineteenth century.

II. Labor, Sexuality, and Domesticity

The female machine motif is one way of understanding the slippery relationship between technology, gender, and culture in the nineteenth century. Two strands of the female machine motif dominate the period: the “perfect woman” female machine, and the labor-saving female machine. Perhaps unsurprisingly, these two themes overlap effortlessly, and not in the least because the upkeep of female beauty is in itself a form of labor.

I’d like to focus specifically on four representative stories, which are comedic, domestic-robot tales which appear within twenty-three years of each other, each of which conceptualizes humanoid automata that are female in physical appearance and that are manufactured to perform female-gendered labor divisions.⁷⁸ Of these representative

⁷⁷ Minsoo Kang, *Sublime Dreams of Living Machines: The Automaton in the European Imagination*. (Cambridge: Harvard University Press, 2011), 12.

⁷⁸ George Augustus Sala, “The Patent Woman: As Described in the Papers of the Late Mr. Prometheus C.C.” *Belgravia* 1875. Alice Fuller, “A Wife Manufactured to Order” *The Arena* 1895. George Haven Putnam, *The Artificial Mother: A Marital Fantasy* 1894. Across the English-speaking world, stories featuring androids and female machines pop up in London, Toronto, and New York. See also: Frederic Beecher Perkins, “The Man-ufactory,” *Devil-Puzzlers*. Mrs. M.L Campbell “The Automatic Maid-of-all-Work. A Possible Tale of the Near Future” *Canadian Magazine* 1893. Jerome K. Jerome, *Novel Notes*, 1893, which includes the story of a mechanical dancing

stories, two fall into the first category, imagining a “perfect woman” female machine.

These are George Augustus Sala, “The Patent Woman: As Described in the Papers of the Late Mr. Prometheus C.C.” (1875); and Alice W. Fuller, “A Wife Manufactured to Order” (1895). The last two fall into the second category, that of the labor-saving female machine. These stories are George Haven Putnam, *The Artificial Mother: A Marital Fantasy* (1894); and Elizabeth Croom Bellamy, “Ely’s Automatic Housemaid” (1899). If these stories are representative of the female-machine motif, they also contradict each other in interesting ways, and follow a pattern wherein the later story responds to or offers a corrective to the one that came before it.

The prototype of these stories is invariably said to be Auguste Villiers de l’Isle-Adam’s *Tomorrow’s Eve* (originally *L’Ève future*, first published in France in 1886), which is not the first but which is such a touchstone that I need to start the story there. *Tomorrow’s Eve* is a philosophical novel set around the classic triad of the female machine story: the inventor, the lover/purchaser/consumer, and the female machine herself. This triad of characters is so iconic that we see it repeated even today; *Ex Machina* replicates the same structure. Thomas Edison, the inventor in the story, builds a female machine for his aristocratic friend Lord Ewald, who, hopelessly in love with Alicia Clary, a beautiful woman with unfortunately bourgeois sensibilities, asks Edison to replicate his beloved with a mechanical double. Edison responds by building Hadaly, a

partner whose indefatigable vigor for the waltz causes him to murder his dancing partner, the unlucky Annette. Perhaps the most famous of female machine stories is E.T.A. Hoffman’s short story “The Sandman,” in which a young man is horrified to discover that the beautiful girl next door is in fact a clockwork automaton. Freud quotes Hoffman’s story at length in his essay “The Uncanny.” They reappear in 20th century SF stories: Clement Fezandie, *No. 6. The Secret of the Tel-Automaton* 1922. Stephen Butler Leacock, *The Iron Man and the Tin Woman* (1929). W.K. Mashburn, “Sola” *Weird Tales* (1930), Lester del Rey’s “Helen O’Loy” (1938), and C.L. Moore’s “No Woman Born” (1944).

female machine built to look identical to Alicia. Lord Ewald falls head over heels for Hadaly—the human/machine romance apparently less distressing to him than a bourgeois woman—and he intends to return with Hadaly to London.

Villiers's story is hopelessly complicated in execution, but somewhat simple in interpretation. In *The Desirable Body: Cultural Fetishism and the Erotics of Consumption*, Jon Stratton argues that in *Tomorrow's Eve* the passivity of the female machine is preferable to the active and voluntaristic human woman.⁷⁹ Julie Wosk, in her book on women and machine technology, describes the basic set up as the construction of “men's notion of the ideal, nonthreatening female.”⁸⁰

The only reader who has found redemption in Villiers' tale, and has looked beyond its overt misogyny, is automata historian Minsoo Kang, who points out that the story is complicated by the introduction of a fourth character, the female spiritualist named Sowana, who provides invaluable help to Edison in the construction of Hadaly, even animating the machine with her own spirit. Kang contends:

The fact that Edison, the supposed master of technology, had to resort to supernatural means in order to achieve his end, like some medieval sorcerer, puts into doubt not only his expertise, as it is unclear if he could have succeeded in animating Hadaly without Sowana's help, but also all of his ideas on women and the feasibility of their mechanical reproduction. In the end, the two men of power, a wealthy aristocrat and an inventive genius, are revealed to have been the pawns of an intelligent and cunning female spirit.⁸¹

Kang's contention is valuable, because it points to the complexity of the female machine story, and warns of the danger of foreclosing alternative readings of the motif. It shows

⁷⁹ Jon Stratton, *The Desirable Body: Cultural Fetishism and the Erotics of Consumption* (Urbana: University of Illinois Press, 1996), 215.

⁸⁰ Wosk, 139

⁸¹ Minsoo Kang, “Building the Sex Machine: The Subversive Potential of the Female Robot.” in *Intertexts* 9, vol.1 (Spring 2005), 12-13.

how the reinforced hierarchies of man/engine and woman/mechanism are undermined by the very stories that assume to propose them.

Villiers's *Tomorrow's Eve* gets a lot of credit for being the first tale to introduce the word "android" (*l'andréide*), but George Augustus Sala's "The Patent Woman," published in 1876 in the London periodical *Belgravia*, is the first instance of the motif I have found, predating *Tomorrow's Eve* by over a decade. Both "The Patent Woman" and *Tomorrow's Eve* share an interest in femininity: both what it means and how it's expressed. Their version of femininity is a femininity without feeling and without thinking, one solely directed toward the labor of eliciting and also satisfying male desire. While Villiers's famous female machine, Hadaly, is more recognizable than Sala's female machine, Miss Spinks, and although Hadaly illustrates many of the same important ideas of the female machine that Miss Spinks does—including the clash between female middlebrow sensibilities and male intellectualism, the artificiality of female sex appeal, and the "perfect woman" as an invention created by a misogynist inventor—Miss Spinks takes precedence for its tone, being a lighter, more comedic instance of the motif; for its publication, appearing in a middlebrow general interest periodical; and for its chronology, appearing first on the scene. In fact, not only is Villiers's Hadaly not the first female machine, but she's also not the most interesting. When read distantly, Villiers' novel is just one of many female machine stories which proliferated in the nineteenth century. Sala's "The Patent Woman" recontextualizes Villiers' more recognizable text.

Despite the fact that "The Patent Woman" appears before *Tomorrow's Eve*, little has been written on it. It's format, register, and narration are of a piece with the stories

that will come after it: it appears as a short story in a middlebrow magazine, it is comedic in tone, and it is told through embedded narration rather than directly from the scientist himself. That scientist is the famous inventor Prometheus — yes, *the* Prometheus—who is living in nineteenth-century London. Femininity is the object of Prometheus’s critique. Prometheus’s papers document his experiment in creating a “patent woman,” a female machine who will be better even than nature ever made. Nature, in Prometheus’s view, has only ever made subpar, neurotic, bad-tempered, artificial women. If anyone needs proof, all they have to do is look at Prometheus’s sister-in-law, Pandora. Of Pandora, he writes: “Pandora died of temper, cosmetics, and chlorodyne; and my brother buried her very handsomely in Brompton Cemetery.”⁸² His summary of Pandora’s death articulates three gendered stereotypes about femininity—petulance (temper), artificiality (cosmetics), and wanton pursuit of pleasure (chlorodyne). All that the narrator can say is that Pandora was buried “very handsomely” — linking consumption and spending with death. Sala’s tale sets up a battle-of-the-sexes framework for understanding the perfect woman subtype, beginning with the inventor’s general misogyny as a motive for building a female machine.

For his female machine, Prometheus builds Cordelia Spinks—named after the inscrutable Egyptian Sphinx. Not only is Miss Spinks designed to be beautiful, but she is also designed to be a heartbreaker and a flirt. Miss Spinks is invented to be instrumentally feminine. Prometheus builds in beauty and flirtation in order to set her loose on the men who have wronged him over the years. As a self-moving female machine in the nineteenth-century, one can imagine Miss Spinks would be worth a great deal. But

⁸² George Augustus Sala. “The Patent Woman. As Described in the Papers of the Late Mr. Prometheus C.C.” in *Belgravia*, vol.28. (1875): 189.

Prometheus endows her with even more monetary value by creating her body out of a mix of metals and precious stones animated by electricity. Prometheus explains:

I made her forehead of brass, her eyes of opal, her ribs of steel, and her Heart of the Nether Millstone. I made her teeth as sharp as a serpent's, her tongue as venomous as an adder's, her nails as hard as the talons of my friend Mr. Zeus' pet eagle.... Well, I modelled this Patent Woman of mine. I cast her in gutta-percha, in Sulphur, in silver, in lead, and ultimately in pure gold. There was diamond-dust in her; there was quicksilver; there were melted pearls; there were distilled rubies (for her blood). O, I can assure you that I spared no expense! I pounded up pride and avarice and vanity, cupidity, frivolity, and lunacy. I brayed all these qualities in a mortar, and I made her nerves, and her spinal marrow, and her brain with them.⁸³

The physicality of the female machine is in stark contrast with the softness of the female body. More than that, Miss Spinks is explicitly designed to be costly, greedy, and vain. Her very being, with eyes of opal and rubies for blood, recalls the connection of femininity with consumption. Miss Spinks is both an expensive piece of work and a piece of work who likes expensive things. Prometheus, that is to say, gathers up all the things he detests of femininity and turns them into a weapon of revenge: a Patent Woman designed to break every man's heart. In Sala's version of the "perfect woman" story, the female machine is made in order to make a better version of a human woman. The inventor's misogyny, however, limits his understanding of women, and so he ultimately creates a female machine that exaggerates women's undesirable traits. The female machine is also made to be feminine for instrumental purposes, that is to say, she is built to flirt with men specifically to break their hearts. Finally, the female machine exceeds the bounds of her creator: in "Patent Woman," Miss Spinks pulls one over on Prometheus, absconding with the bellhop.

⁸³ Sala, 190

Miss Spinks illustrates the way that the female machine, in the nineteenth-century imagination, is always superhumanly strong, but rarely superhumanly intelligent. Miss Spinks, with her “ribs of steel” and veins of rubies, is a model of conspicuous consumption. She is not, notably, extremely clever, nor do the other characters care much about how she feels. She is a model of functional femininity, a “perfect woman” built to enact heartbreak and revenge.

Miss Spinks’s body, made of metal and rubies, addresses the human/nonhuman imaginary that is the main argument of this dissertation, positing a mechanical woman in place of an organic one. Unlike “perfect women” machines who are built to be superior to human women, Miss Spinks is built as an exaggeration of a woman. As a perfect encapsulation of bourgeois women, she indexes a series of concerns about the undesirable traits of middleclass women: artificiality, vanity, consumerism, frivolity, and petulance. The misogyny encased in Miss Spinks attempts to work as a critique of femaleness, but the text works against itself. Miss Spinks’s body reinforces a key aspect of my argument: that the female machine which emphasizes the artificiality of femaleness will ultimately suggest the artificiality of gender itself.

In order to demonstrate the evolution of the motif, it can be useful to take a look at a counter example from within the same subcategory, the perfect woman story, and show how the later female-penned story offers a corrective to the earlier male written one. Alice Fuller’s “A Wife Manufactured to Order” picks up on the themes laid out by Sala’s “Patent Woman,” but Fuller’s story turns the motif on its head. Rather than use the female machine to critique femininity, Fuller’s light-hearted version of the tale challenges femininity only as far as it is *devised* by men. The male narrator in Fuller’s story

imagines that an artificial wife will do him better than a flesh and blood one, but he discovers his mistake, and at the end of the tale returns to the arms of Florence, a woman “who retains her individuality, a thinking woman.” Fuller’s story is fascinating for two reasons. First, the romantic marriage plot format of Fuller’s tale, with the coupling of man and female machine, transgresses the boundary of the human and the nonhuman. Second, the female machine’s artificiality suggests the artifice of gender and the artificiality of the machine are one and the same.

We know little about Alice Fuller. One scholar, in his history of early science fiction writing by women, suggests that Fuller might be a young Connecticut teacher. He hints, “I have a sneaking suspicion she may be the 26-year-old teacher living in Hartford, Connecticut, but I cannot substantiate that; nor am I aware of anything else she wrote.”⁸⁴ Whereas Sala wrote prolifically for periodicals, even founding his own journal, named after himself, Fuller may have written no more than this single story.⁸⁵ What inspired her to submit this remarkable piece of fiction to a journal is unknown. It’s clear that the motif had become, if not ubiquitous, then widespread, before Fuller set pen to paper to write her female machine story.

Published in 1895 in the liberal Boston periodical *The Arena*, “A Wife Manufactured to Order” is a dynamic combination of science fiction and middlebrow battle-of-the-sexes fiction. This makes sense because *The Arena* published pieces on various kinds of reform. It didn’t exclusively publish fiction, let alone exclusively publish science fiction. The sexual politics of Fuller’s story are recognizably bluestocking: the

⁸⁴ Mike Ashley, *The Dreaming Sex: Early Tales of Scientific Imagination by Women*. (Chicago: Peter Owen Publishers, 2011), 72.

⁸⁵ Sala started the weekly periodical “Sala’s Journal” in 1892. From all reports it was a phenomenal failure.

narrator must realize that he wants an independent, intelligent, and free-thinking woman—not an insipid replica of a man’s ideal woman. Its value as an instance of the female machine motif derives from its neat subversion of motifs established by authors such as Sala and Villers, making “A Wife Manufactured to Order” a corrective to its sister stories.

In “A Wife Manufactured to Order,” Fuller tells the story of Charles Fitzsimmons, a bachelor from Washington, DC, who decides to settle down. The problem, however, is that the woman Charles *should* marry, Florence Ward, is an intellectual, the kind of bookish and opinionated woman “liable to investigate all sorts of scientific subjects and reforms.”⁸⁶ Florence (in the words of the narrator) “knew how I disliked so many of the topics she persisted in talking upon” (he lists Emerson, Edward Bellamy, Hume, Huxley, and Mill as some of her favorite topics of conversation)—but continues to discuss them with him anyway.⁸⁷ In short, Charles’s fears of female intellectual and political domination are refigured as aversions to women’s chattiness.

She unfortunately had strong-minded ways, and inclinations to be investigating woman's rights, politics, theosophy, and all that sort of thing. Bah! I could never endure it. I should be miserable, and the outcome would be a separation; I knew it.⁸⁸

A wife manufactured to order, in contrast, can only repeat words that Charles gives to her. She comes with a handful of vacuum tubes which, when inserted, will cause her to say a few pre-written phrases. Charles could add as many tubes of pre-recorded phrases as he likes, but the builder advises him against too much variety in speech: “most men

⁸⁶ Alice Fuller, “A Wife Manufactured to Order,” in *The Arena* 13 (July 1895): 307. <https://archive.org/details/ArenaMagazine-Volume13/page/n317/mode/2up>

⁸⁷ Alice Fuller, 307.

⁸⁸ Alice Fuller, 305.

don't care for such a variety for a wife — too much talk, you know.”⁸⁹ Charles marries his automatic wife, names her Maguerette, and regrets nothing, living a blissful existence with his Stepford wife, until one day when the market crashes and he loses everything. As a companion, Maguerette is unable to offer any real sympathy or common human feeling. Disgusted with her, Charles returns to the woman he loved in his youth, Florence. They reconcile, dispose of the other wife, and promise to marry within the year.

Both “The Patent Woman” and “A Wife Manufactured to Order” employ the “perfect woman” female machine trope, but they do so to achieve remarkably different ends. “Patent Woman” features a wildly ingenious inventor who decides to create a mechanical woman in cruel imitation of what he takes to be the stereotypical woman, consumed by jewels, clothes, and other artificial markers of femaleness. In “A Wife Manufactured to Order,” the inventor builds a mechanical woman who will do the work of a wife without the bother and upkeep of a human wife. In both of these stories, the men are enthralled by the bodies of human women, but ambivalent about their intellect. So, they make use of their inventive powers to physically recreate the figures of women who can labor unencumbered by the base female mind.

Fuller’s “Manufactured to Order” takes the gender politics of Sala’s text and flips them on their head. Where Fuller’s story reworks the dynamic set up by Sala’s tale is by making the problem with human women not their shallow interests and intellect but rather their propensity to take too great of an interest in “woman's rights, politics, theosophy, and all that sort of thing.” At one point in Fuller’s text, the narrator says of Florence:

⁸⁹ Alice Fuller, 307.

I really believed she cared for me, but she knew how I disliked so many of the topics she persisted in talking upon. What mattered it to me what Emerson said, or Edward Bellamy wrote, or Henry George, or Pentecost? what did I care about Hume or Huxley or Stuart Mill? any of those sciences, Christian Science or Divine Science or mind cure? — bah! it was all nonsense. The topics of the day were enough, and if I attended closely to my business I needed recreation, not such things as she would prescribe.⁹⁰

Fuller's female machine, in other words, does not mock the perceived artificiality of femininity, as does Sala's. Nor does it proceed from a hatred of women. Rather, Fuller's tale uses the "perfect woman" version of the female machine motif in order to remark on the crisis of masculinity, and to stage a battle-of-the-sexes story wherein the woman is victorious.

Finally, by incorporating a marriage between man and female machine, both stories toy with the reproductive possibilities of the female nonhuman. As a beautiful mechanical woman, the "perfect woman" female machine inspires two competing emotions, desire and repulsion. Desire works in two ways in these stories, as an outcome of capitalist longing for labor and money saving technology, and as the sexual desire of men for women's bodies. As we've seen, in "Manufactured to Order," the wax and wire machine is molded into the shape of an attractive woman, the kind that "'most makes your mouth water to look at.'" "Manufactured to Order" is shockingly straightforward about the kind of sexual labor women commit themselves to, and is reminiscent of the kinds of argument Charlotte Perkins Gilman makes in *Women and Economics*, what Gilman calls humankind's "sexuo-economic relation."⁹¹

The same appears in Fuller's story: the manufactured wife is a *better deal* than the human one, because the manufactured wife only requires a one-time payment. Charles

⁹⁰ Alice Fuller, 307.

⁹¹ Charlotte Perkins Gilman, *Women and Economics*, 108.

wants an automatic wife because of what she *won't* do. In the passage below, he describes his ideal mechanical partner solely in negative terms:

And then there was a vision of a happy home, a wife beautiful as a dream, gentle and loving, without a thought for anyone but me; one who would never reproach me if I didn't happen to get home just at what she thought was the proper time; one who would not ask me to go to church when she knew it was against my wishes; one who would never find fault with me if I wished to go to a base-ball game on Sunday, or bother me to take her to the theatre or opera.⁹²

If Charles's description of his machine wife might appear to represent male sexual fantasies—or at least, male domination fantasies—it in fact espouses a desire that is always deferred. His main longing is simply to be left alone.

Strangely, then, the human/nonhuman erotic attachments in these stories reflect a longing for the female to be unsexed. The female machine, because she's unsexed, offers a safe space for male desire. Perhaps, too, the deferral of sexual consummation with the female machines indicates that the male sexual energy is directed elsewhere. In his work on sexbots in cultural fetishism, Jon Stratton makes the point that these stories frequently suggest sublimated homoerotic desire between the men who share the female machine, i.e., her inventor and her purchaser. In Stratton's argument, the female machine is closer to a dildo—what Stratton calls the female machine's "phallic quality"—than a human.⁹³ In "A Wife Manufactured to Order," Charles's desire for Marguerrite indicates an object-oriented erotics. Upon meeting his wife manufactured to order for the first time, Charles feels an insuppressible longing to be alone with her:

The hands extended towards mine, the lips opened, and a low, sweet voice said, "Dear Charles, how glad I am you have come!" I stood spellbound, and only a chuckle from Mr. Sharper brought me to my senses.

"Kiss your affianced, why don't you?" he said, and chuckled again.

⁹² Fuller, 306.

⁹³ Stratton, 217.

I felt as though I wanted to knock him down for speaking so in that beautiful creature's presence. And then a little soft rippling laugh, and she moved towards me. Oh, could I get that beast to leave the room! Why did he stand there chuckling in that manner?

"Sir," I said, "you will oblige me by leaving the room for a few moments."

With that he chuckled still louder and muttered, "Bless me, I really believe he thinks her alive."⁹⁴

The scene focuses on Marguerette's voice, which is like a siren: low, sweet, and tempting, it ripples when she laughs. It animates her as if she were alive, and the narrator is spellbound even though he *knows* that his wife is mechanism, not woman. The focus on voice is particularly compelling because the narrator has ordered his wife with prerecorded phrases the he himself chose, an autoerotic feedback loop of conversation. The passage, on the one hand, is played for laughs. The reader is asked to identify with Mr. Sharper, who chuckles not once, not twice, but three times; he is utterly bemused and amused at the narrator's lack of recognition. On the other hand, the passage thrice reinforces the husband's confusion, his desire for the inhuman, and his longing to be alone with his machine wife. This inability to discern and discriminate forces a correspondence between female and mechanism. If the automaton wife occupies a human/nonhuman liminal position, then her husband's desire for her reflects what is, by implication, a longing for the unsexed female.

Turning now to a second subtype of the female machine motif, the female-gendered labor-saving device, I want to attend to stories of George Haven Putnam and Elizabeth Croom Bellamy. Even more than the "perfect woman" female machine, the labor-saving device is indebted to nineteenth-century anxieties about the rapid changes brought on by industrialization. For example, one generalized fear of industrialization is

⁹⁴ Fuller, 308.

the conversion of female reproductivity into machine productivity—the transformation, in other words, of women into machines. Because of the overlap of production and reproduction, laboring women are often eroticized in these stories in ways we saw in Melville’s “Tartarus.”

The first of these, Putnam’s illustrated story *The Artificial Mother*, a short 30-page story published as a standalone text from the Knickerbocker Press in 1894, begins with a tongue-in-cheek warning to all the men reading the story, “To The Oppressed Husbands and Fathers of the Land, And to the Unknowing Young Men Who May be Contemplating Matrimony, This Little Treatise is Sympathetically Dedicated by the Author.”⁹⁵ The narrator recounts his creation of an “artificial mother” to take care of the children in place of his wife. Lest we think this husband over-generous for his wife, he informs us that his reasons are selfish. The husband, requiring more time and attention from his wife, resents the children for taking his wife away from him. He complains, “If, going ‘fair shares’ with my progeny, I had been permitted to put in a claim for say an even *tenth* of her attention, I should have nothing to say. But those ogres of children pull her to pieces in small mouthfuls through the twenty-four hours between their nine voracious selves, without giving me a chance for even a thirty-second nibble.”⁹⁶ By all accounts, the wife, Polly, seems perfectly happy to dote on her children. She enjoys taking care of them, and she enjoys feeling wanted. All they want, Polly explains to her suffering husband, is “a little motherly affection, to be sure...They want *me*”:

‘Bosh,’ I rejoined. ‘They want merely something soft to touch, a swinging motion to addle their brains (if they have any), and a monotonous din in their ears, and they would be just as well satisfied if these were supplied by a steam-engine as by

⁹⁵ George Haven Putnam, *The Artificial Mother, a Marital Fantasy*. (New York: G. P. Putnam's sons, 1894), 3.

⁹⁶ Putnam, 12-13.

their mother [...]’ The word uttered in jest remained in my mind. ‘*A steam-engine!*’ Yes! Why not? Or an engine of some kind to perform at least this routine labor of keeping the young savages at rest by keeping them in motion. Something steady, and soft, and swinging, and ‘crooning.’ Pshaw! Science had solved worse problems than this...’⁹⁷

The husband believes that only the mother’s body is necessary, and vows to replace her body with a mechanical one that can croon and rock the children. He views the Polly’s motherly labor as rote, repetitive, and mechanical—something that could easily be replaced by a steam-engine. Polly, in contrast, feels certain that the children require something more essential from her. The husband believes that femaleness is something that can be recreated with steam and steel, that it can be mechanized.

One danger of building a female machine who looks exactly like your wife is that you might find yourself attracted to her. Although the artificial mother is built as a labor-saving machine, the story brings together themes of eroticization of female labor and the desire for the mechanical that appears in the “perfect woman” stories and, indeed, in Melville’s “Tartarus.” The artificial mother built by the narrator carries such “calm dignity and sweet motherliness” that he is “irresistibly impelled to give her a kiss of husbandly approval. “What would Polly say? I thought, as I wiped from my lips the slight touch left on them by the damp paint.”⁹⁸ Like the inventors of female machines that appear before him, the narrator of *The Artificial Mother* finds the female machine irresistibly attractive.

Putnam’s artificial mother possesses superhuman strength. Like so many of the female machine texts in the nineteenth-century, the story reaches its comedic conclusion when the artificial mother goes haywire, threatening the humans, destroying the house,

⁹⁷ Putnam, 14-16.

⁹⁸ Putnam, 24-25.

and wreaking havoc all around. The mother and the artificial mother fight over the children, and the gentle machine “mother” is transformed into a powerful fiend:

But even as she spoke the swinging redoubled in velocity until the two babies grew black in the face, and seemed merged into one. The crooning burst into a savage roar, as if, indeed, a fiend had taken possession of my innocent ‘mother,’ and to my excited imagination it really seemed that her eyes flashed fire and her face assumed an expression of demoniacal malice.⁹⁹

The dramatic duel over the children becomes savage, demoniacal, and malignant. It seems that the machine is not so innocent as its creator believed, and she must be dismantled in order for order to be restored. The female machine-as-double, implicit in many of the other stories, takes on new life in Putnam’s tale. The industrial production of the female machine—her superhuman strength as witnessed when she rocks the children— is a perverse mirror image of the biological reproduction of the human woman.

A similar outcome appears at the end of the last female machine story of the nineteenth century, Elizabeth Croom Bellamy’s short story “Ely’s Automatic Housemaid,” published in December, 1899 in *The Black Cat*. Appearing at the end of the century, Bellamy’s tale is certainly one of the most sophisticated female-machine stories. Bellamy herself was a fairly well-known and regarded author, poet, novelist and essayist. A short bio for her appears in the 1893 reference book *A Woman of the Century: Fourteen Hundred-seventy Biographical Sketches Accompanied by Portraits of Leading American Women in All Walks of Life*. She also published fiction under the penname Kamba Thorpe, including two novels.

⁹⁹ Putnam, 30.

In “Ely’s Automatic Housemaid,” the narrator recounts his experience purchasing an “An Automatic Household Beneficent Genius. — A Practical Realization of the Fabled Familiar of the Middle Ages” invented by a friend. In fact, he orders two—a cook and a maid—and the story proceeds from the irony that the machines complete their jobs a little too well. Automata arrive in the mail, the husband promptly fires the help, names the automatic housemaids after the human ones, and introduces the automatic Bridget and Juliana to his family. The learning curve is steep, as the narrator and his family discover that the machines are very specific and regulated in their functions. For example, they will continue to work for the amount of time set for them, not stopping after a task is completed. The family also discovers that the machines are brutally strong and completely heartless—while making the bed, Juliana almost kills the narrator’s son. These two points come to a head when the two automatic housemaids need to use the same broom. They fight like gladiators in the family living room while the family watches on in horror. In the end, Bridgette and Juliana are sent back to their creator, who in turn promises to work out the kinks. He never does. He seems to resent that the family didn’t appreciate the robots’ aplomb for work.

Bellamy is a skillful storyteller, deftly weaving together humor and horror. Her female machines have faces made of bisque; lifelike giant china dolls which appear in boxes shaped like coffins, and look out at their humans with empty eyes:

I opened the oblong box, where lay the automatons side by side, their hands placidly folded upon their waterproof breasts, and their eyes looking placidly expectant from under their waterproof hoods.

I confess the sight gave me a shock. Anna Maria turned pale; the children hid their faces in her skirts.

“Once out of the box,” I said to myself, “and the horror will be over.”¹⁰⁰

¹⁰⁰ Elizabeth Whitfield Bellamy. “Ely’s Automatic Household.” *The Black Cat* No. 51 (Dec 1899): 16. *HathiTrust*. <https://hdl.handle.net/2027/umn.319510007302002>

But the horror only intensifies once Bridget and Juliana are out of the box. The story recounts a series of escalating encounters with the two machines. Anna Maria, the narrator's wife, begins to call them "fiends"; she increasingly accuses the machines of having lifelike or human emotions. At one point in the narrative, Anna Maria recounts the experience of feeding them oil by pouring it down their throats. "It was horrible!" She tells her husband, "They seemed to me to drink it greedily."¹⁰¹ The eerie horror elicited by the automata transforms into outright revulsion when the two machines begin to fight. The narrator says that "Considering their life-likeness, we should hardly have thought it strange if blood had flowed, and it would have been a relief had the combatants but called each other names, so much did their dumbness intensify the horror of a struggle."¹⁰² In the middle of their fight, the waterproof hoods fall off of their eyes, "revealing their startlingly human countenances." Anna Maria loses her head ("They're alive! Kill 'em! Kill 'em, quick!" shrieked my wife, as the gyrating couple moved towards the stair-case") and the family cowers in fear of these horrific, humanoid machines.¹⁰³ In this instance, the "inhuman, unsympathetic, and overwhelmingly powerful" female machines nearly destroy each other and themselves.

Today, we might say that these female robots sit in the uncanny valley, Masahiro Mori's 1970s theory of robot design and aesthetics. Mori's paper theorizes human reactions to humanoid robots. He argues that human response moves from sympathy to revulsion the closer the robot attempts—but fails—to take on human likeness. Mori

¹⁰¹ Bellamy, 20.

¹⁰² Bellamy, 22.

¹⁰³ Bellamy, 22.

gives the example of the lifelike prosthesis, which resembles and looks recognizably like a human hand.

However, when we realize the hand, which at first site looked real, is in fact artificial, we experience an eerie sensation. For example, we could be startled during a handshake by its limp boneless grip together with its texture and coldness. When this happens, we lose our sense of affinity, and the hand becomes uncanny.¹⁰⁴

“Housemaid” and “Manufactured to Order,” written years before the explosion of robotics, don’t yet have this vocabulary. And yet the works theorize revulsion exactly along these lines. Magurette becomes uncanny to the narrator — what once appeared real to him is shown to be artificial. The night is dark and stormy, like it always is in these cases. Charles says, “I went into the library, where Margurette always waited for me. No lights; I stumbled over a chair. I accidentally touched Margurette. She put up her lips to kiss me and laughingly said, ‘Precious darling, tired to-night?’ Great God! I came very near striking her.”¹⁰⁵ The passage could very well be found in a horror story: Margurette has crossed the threshold, she has become grotesque (“my beautiful Margurette, whom I literally hated — I could not endure her face”).¹⁰⁶ Margurette’s face, form, and speech, which were chosen for her by her husband, represent the male fantasy of womanhood. The female imaginary is shown to be more than just unrealistic — it is monstrous.

III. The 20th Century Female Machine

So then, what becomes of the female machine as it enters the twentieth century?

To answer this question, let us now turn to the most iconic female machine of the

¹⁰⁴ Mashiho Mori, “The Uncanny Valley,” rev. ed. in *IEEE Robotics and Automation Magazine*, trans. Karl F. MacDorman and Norri Kageki, (1970; repr. June 2012): 99.

¹⁰⁵ Fuller, 308.

¹⁰⁶ Fuller, 308.

century—Maria from Thea Von Harbou’s *Metropolis*, or perhaps her silver screen twin from Von Harbou’s husband’s movie of the same name (Fritz Lang’s German Expressionist masterpiece *Metropolis*, for which she wrote the screenplay), who has inspired countless female machines, including Ava from Alex Garland’s *Ex Machina*.¹⁰⁷ Although *Ex Machina*’s Ava is clearly indebted to *Metropolis*’s Maria, *Ex Machina*’s keen interest in feelings, both of the female machine and of the human men she seeks to destroy, marks it as a distinctly twenty-first century tale. In contrast, *Metropolis*’s epigram, “The Mediator Between Head and Hands Must Be The Heart!” which seems to promise an exploration of the affective consciousness of machines, instead, over the course of the novel, reassures us of the primacy of human intellect over the power of the machine. Where the “heart” does appear in *Metropolis*, it tends to fall into one of two categories: the love of the mother, which is an antidote to the production/alienation of the machine/factory, and love as a kind of erotic attachment to the machine, which is represented as both unnatural and inescapable.

Metropolis is devoid of a cohesive message. Debates about the insincerity of *Metropolis*’s message (as much as it has one—the story is famously convoluted) often boil down to the words of the final title card of the silent film and the concluding lines of the novel: “The Mediator Between the Head and the Hands Must be the Heart.” This line in fact scaffolds a larger question about the history of the female machine. As the female machine theme develops from a question of strength, to one of intellect, to one of heart, Thea Von Harbou’s cloyingly sentimental moral lobs a bait and switch. *Metropolis* is not about the heart at all, but about the head. *Metropolis* as a pivot point between the

¹⁰⁷ For an excellent analysis of the automatic human which begins with *Metropolis*, rather than ending with it as this chapter does, see Scott Selisker’s *Human Programming* (2016).

strength-based nineteenth-century novels and the heart-based twenty-first century ones. *Metropolis* anticipates the debates about AI and intellect embodied by the Turing Test and the founding of the field of AI in the 1950s— not because its female machine Maria is especially intelligent, but because the story is hopelessly wrapped up in questions of human brainpower and ingenuity. Maria is a red herring, for *Metropolis* is more invested in the troves of other machines that populate its pages than the iconic Maria.

In many ways, *Metropolis* marks a pivot point between the nineteenth-century female machines and contemporary female machines epitomized by *Ex Machina*'s Ava. *Metropolis* differs markedly from the bourgeois, nineteenth-century stories, not least in register and tone. The female machine, rather than being a comedic resolution to gender trouble, becomes a femme fatale, as we've seen in Ava. It loses much of its Campiness, and all of its middlebrow charm. The poetics of machinery in *Metropolis* constitutes a kind of machine-worship, that is to say that *Metropolis* is a futurist text. One might expect *Metropolis* (novel) to be sympathetic to a critique of class-divide, since *Metropolis* (film) represents totalitarianism and which offers a Marxist vision of the factory system by revealing "the human robot as a sign of factory alienation."¹⁰⁸ However, *Metropolis* (both film and novel) is a decidedly fascist text, autocratic and authoritarian.¹⁰⁹ That is was perceived as such even during its time, perhaps against Lang's intentions, is clear: Joseph Goebbels claimed to have seen and enjoyed it.¹¹⁰ Much ink has been spilled over Von Harbou and Lang's *Metropolis*, and it is not within the

¹⁰⁸ Selisker, Scott. *Human Programming : Brainwashing, Automatons, and American Unfreedom* (Minneapolis: University of Minnesota Press, 2016), 14, 7.

¹⁰⁹ Kracaur, Siegfried. *From Caligari to Hitler: A Psychological History of the German Film*. (Princeton: Princeton University Press, 1947), 164.

Lang was Jewish and Von Harbou a Nazi sympathizer; they divorced soon after the film and Lang fled to America.

¹¹⁰ Kracaur, 164.

scope of this chapter to dramatically alter anything that has been said before.

Nevertheless, as *Metropolis*'s Maria is the most significant female machine of the twentieth century, I wish to identify a couple of key points in *Metropolis* that can help us understand transition from nineteenth-century machines to twenty-first century ones. The novel in particular, translated into English in 1927 is of interest for two reasons. First, the role of the mother is much larger and more important in the novel. The mother, who represents natural reproductive power, is an antidote to the productive power of the machines. *Metropolis*, and especially Von Harbou's *Metropolis*, sets up a dichotomy between natural and unnatural types of (re)production by gendering *all* of the machines in the book female, not just the femme fatale Maria. Second, I want to point out the pervasive machismo of the book, and especially the ways in which man's erotic attachment to the machine is represented as both compulsive and unnatural. These two forms of love—that of the mother's love for her son and the son's love for the machine—show *Metropolis* to be a node between nineteenth-century female machines and twenty-first century ones.

A synopsis of *Metropolis* is difficult to achieve because the text itself is much less about plot than it is style. As Enno Patalas suggests, "The film, its metaphors, its allegory require interpretation. The interpretation is part of the film's story, even if contradictory, bizarre and excessive. There is no need to believe or accept any of them, but they should be acknowledged as this is one of the pleasures the film offers, which are unthinkable without a certain degree of light-hearted detachment."¹¹¹ The sparse outline of the plot is this: Metropolis is a place where the rich are few and have everything, and the poor are

¹¹¹ Fritz Lang, *Metropolis*, 1:57:25

many and have nothing. The entire city is run by machines, who are said to feast on human flesh.¹¹² The idle rich play while the workers sell their souls to the machines. The figurehead of all of this is the Father (Joh Fredersen), who runs the machines, and owns the city. The story follows the awakening of the Father's son (Freder) and his subsequent rebellion. All of the characters are more figures or symbols than what we would call characters. The son witnesses the preaching of Maria, a socialist woman who advocates for brotherhood. In the underground city, he falls in love, and leaves his father for her. Angered, the father seeks out the scientist, and they use Maria's face, figure, and soul to craft a false Maria, a Maria of gears and glass and steel, and they use her to incite a labor rebellion. The labor rebellion, in other words, is orchestrated by the Father, presumably in order to get his son back, but also to further violence and chaos. We discover, for example, that the underground city is kept safe from a mechanical waterpump and dam, without which the entire city is underwater. The laborers, upon realizing that their homes and their children have drowned, light a bonfire and burn the false Maria at the stake. Meanwhile the real Maria rescues the children, and the son rescues Maria, so that the two of them are reunited. The scientist tries to kill the son, the son kills the scientist instead, and the father watches in horror. After, the father repents and promises to change.

The mother, a key emblem of female reproduction often challenged by the presence of the female machine, is the moral center of *Metropolis*. There are three important mothers in the text: Joh Fredersen's mother (unnamed in the text), Freder's mother (Hel), and Maria herself, who is mother to the masses. The novel ends with the

¹¹² Thea Von Harbou, *Metropolis* rev. ed. (1925; repr. Boston: Gregg Press, 1975), 23. Citations refer to the Gregg Press edition.

reconciliation of Joh Fredersen with his mother and with Freder's mother. As Enno Patalas suggests,

In Harbou's novel the chastened Fredersen finds comfort with his mother, who does not appear in the film, she gives him a letter from his dead wife who pledges her love throughout all eternity. A Female trinity has the last word: Mary, Fredersen's mother, Hel... In the film as shot by Lang, the women retreat totally into the underground and background.¹¹³

The sanctifying power of the mother is taken too seriously in the book; it has none of the Campiness of stories like "Ely's Automatic Housemaid" or *The Artificial Mother*.

Nevertheless, the basic concept of the machine as mechanical production as opposed to the mother as natural production hails back to Melville's paper mill maids in *Tartarus*. Thus, while the tone has shifted, the themes are contiguous.

Finally, *Metropolis*'s erotics are tied to machines, but not necessarily female machines. It prefigures *Ex Machina*, especially in the attitudes of Caleb and Nathan toward Ava. Unlike the "Wife Manufactured to Order," where the husband's desire for his "perfect" wife is lampooned, Freder's love for machinery is earnestly eroticized:

Freder caressed his creation. He pressed his head gently against the machine. With ineffable affection he felt its cool, flexible members.

'Tonight,' he said, 'I shall be with you. I shall be entirely enwrapped by you. I shall put out my life into you and shall fathom whether or not I can bring you to life. I shall, perhaps, feel your throb and the commencement of movement in your controlled body. I shall, perhaps, feel the giddiness with which you throw yourself out into your boundless element, carrying me—me, the man who made—through the huge sea of midnight [...]

He stopped, closing his eyes. The shudder which ran through him was imparted, a thrill, to the silent machine.¹¹⁴

The physicality of the scene, with its throbbing members and shuddering bodies, stands in stark contrast to the deferred erotics of a story like "A Wife Manufactured to Order."

¹¹³ Enno Patalas, ed. *Metropolis*, 1:54:20- 1:54:50

¹¹⁴ Von Harbou, 21-22

But the scene is intimate as well as erotic. Freder caresses the machine, presses his head gently against the machine, and speaks to the machine with affection. Freder worries that the machine will be jealous of his newfound desire for Maria: “perhaps you notice, my beloved creation, that you are no longer my only love. Nothing on earth is more vengeful than the jealousy of a machine which believes itself to be neglected.”¹¹⁵ He speaks of love and affection, rather than sex and pleasure. That the machine itself — not the female machine specifically but any kind of living machine more broadly—is the object of affection and desire, suggests a flirtation with mechanism beyond where *Ex Machina* is willing to go. To put it plainly: *Metropolis* as a text is interested in two kinds of love—love for the mother and love for the machine—but it is not at all interested in the love for female machines. The false Maria is a red herring—the movie wrests apart the female and the machine in a way that is entirely different from what comes before or after.

Maria is hardly the last female machine of the twentieth century. Notable instances of the twentieth-century female machine include Helen O’Loy from Lester del Rey’s short story of the same name (1938), C.L. Moore’s Deirdre in “No Woman Born” (1944), assorted housewives from Ira Levin’s *The Stepford Wives* (1972), and replicants in *Blade Runner* (1982). All of these stories present vastly different versions of the female machine. She is sweet and loving in “Helen O’Loy,” superhuman in “No Woman Born,” menacing in *The Stepford Wives*, and tragic in *Blade Runner*. Yet even despite the diversity of representations of the female machine in the twentieth-century, the stories tend to cluster around a set of themes markedly different from the nineteenth-century stories that came before. These stories tend to question the humanity of the machines,

¹¹⁵ Von Harbou, 22

whereas nineteenth-century stories questioned the mechanical quality of humans. That is to say, that nineteenth-century female machines are laboring machines built to exaggerate the mechanical qualities of humans: rocking babies, sweeping floors, even making conversation. Twentieth-century machines are more frequently concerned with sentience, consciousness, and intelligence. In the nineteenth-century, female machines, with their lungs of steel and hands of gold, could be a source of empowerment for women. But as the female machine motif becomes ubiquitous in the twentieth century, she becomes too laden with history, foreclosing the possibility that they might signify anything more than the object-ness of women.

Female machines offer liberation to female laborers, performing childcare, housework, and even sex work in place of human women. In these stories, this liberation is, of course, fantasy. We imagine a reprieve from labor, but the reality of working machines may yield the wrong results. Outside of fiction, it seems that only the wealthy profit from machines. As Kathleen Richardson explains, “

Automation, machines and robots do not, in of themselves reduce or end inequalities, in fact, as wealthy elites primarily drive robotics, the purpose of these developments is to generate new forms of capital.¹¹⁶

Richardson envisions a future world wherein the existence of working robots will put half of the world’s human population out of work. Yet it is possible that these apocalyptic visions of mass unemployment created by the movement of machines into the workforce are overblown. Perhaps they are similar to the response to women’s movement into the workforce a century before. Henry Adams, for all his foresight, thought of the nineteenth-century woman,

¹¹⁶ Kathleen Richardson, “Sex Robot Matters: Slavery, the Prostituted and the Rights of Machines!” *IEEE Technology and Society* 35 no. 2 (2012): 49.

it was surely true that, if her force were to be diverted from its axis, it must find a new field, and the family must pay for it. So far as she succeeded she must become sexless like the bees, and must leave the old energy of inertia to carry on the race.¹¹⁷

But the human race has hardly come to a halt, and women continue to work outside the home.

Laboring female machines, whether performing childcare or sex work, are one issue at hand. But an ancillary issue at stake is whether or not the “perfect woman” female machine compels human women to appear more like machines. Are women being forced to look more like machines, adopting a “perfect woman” aesthetic for their bodies through Photoshop and Snapchat filters? Are the standards for beauty now impossibly high? Perhaps. Nevertheless, there is emancipatory potential here as well. Computer programs can now (virtually) apply make up for women, eliminate body fat in photos, and smooth over blemishes on faces. These apps and filters make a bevy of cyborg women, half organic and half computerized. Yet, by creating virtual “perfection,” the apps also *diminish* the imperative to look a certain way *in real life*. In other words, female machines can be liberating for human women by taking on women’s beauty labor—i.e., the traditional prosthetics of female sexual appeal are now achievable by use of a computer program.

This is the kind of argument that follows a lot of feminist cybernetics theory, which argues that the internet is liberating because it is bodiless.¹¹⁸ Of course, our lived realities may not reflect these theories, but there’s a difference between imagining the technology as inherently bad and believing that it is bad because it exists in a patriarchal

¹¹⁷ Adams, 413.

¹¹⁸ Melzer, 162.

world. Then again, our lived reality has shown only too well how unfree the virtual space of the Internet really is for women in particular. Though the Internet is both an artificial space and a virtual one, the dangers posed to women on the Internet are terrifyingly real: doxing, stalking, hate mail, threats of sexual assault, and death threats. What the Internet has shown us is that these threats to human safety are less salient under the mask of maleness. Who could have predicted that far from being a genderless space, the Internet has become a space where everybody is gendered male. The connection between femaleness and victimhood and its opposite, femaleness and safety plays out again and again in public spaces such as parks, city streets, and mass transit, wherein we know that the mere existence of women in the space makes the entire space seem more safe. The apparent lack of women in the “space” or the “web” of the Internet surely, then, contributes to the real danger posed there. Two options remain: to become unsexed, aka male, and to become implacable—the female machine.

To put it differently: if female machines are male wish fulfillment, they are also, across decades, female wishful thinking. Unlike stories of the nonhuman that meditate on human extinction, the primary affect of female machines is, surprisingly, optimism. Think back to Caleb, Nathan, and Ava. Ava begins as Caleb’s wish fulfillment, but by the end of the movie the revenge she enacts is wishful thinking. And I would add, wishful thinking for whom? Who is wishing? Ava’s revenge is on the men who made her female and then exploited her femaleness. In this sense I want to call attention to the fact that, as humans, we dream up female machines not only in horror, but also in desire, and that these desires are often middle class and mundane: the desire for an equitable marriage in “Wife Manufactured to Order,” the desire for more time with your wife in *Artificial*

Mother, the desire for better servants in “Ely’s Automatic Housemaid.” By exaggerating gender, the female machine works to eliminate it.

Chapter Two

“He Said They Could of Course Kill Him — As So Many Insects Could”:

Reading the Female Hive in Progressive Era Fiction

Two thirds of the population of the honeybee is female, which is perhaps why the honeybee, like the female machine, has been used by writers as one form of the female inhuman. This number reflects the fact that in any hive there are effectively three types of bees: the female worker bees, the queen bee, and the male drones. The worker bees outmatch the drones: there are thousands of workers, but only hundreds of drones. Adding to the disadvantage of the drones is the fact that at the change of the seasons, to conserve resources, the workers starve the drones and then kick them out of the hive to die in the cold. Inhuman females indeed! But despite the “monstrous” tendencies of the worker bees, or perhaps because of them, the honeybee—and indeed the insect in general—was used frequently in the late nineteenth and early twentieth centuries as a discursive tool for thinking about female communities.¹¹⁹ This chapter traces the tension between the dystopian and the utopian beehive: is the hive a nightmare of mechanistic groupthink or is it a dream of worker-sisterhood? At either pole, the beehive is an inhuman construction. The dystopian beehive, like the female machine, is viewed as mechanical and inhuman. However, the utopian version is counterintuitively just as

¹¹⁹ Plenty has now been said about the honeybee, gender, and governance in early modern Europe. See: Jeffrey Merrick, “Royal Bees: The Gender Politics of the Beehive in Early Modern Europe” (1988); Mary Baine Campbell “Busy Bees: Utopia, Dystopia, and the Very Small” (2006); and Graham Murphy “Considering Her Ways: In(ter)secting Matriarchal Utopias” (2008) In 2004, Danielle Allen’s essay on bees admits being rather embarrassed about the *obviousness* of the bee metaphor. She explains, “The symbol of the bee as a model for the citizen, laborer, and monarch seems almost too trite—too consistent a poetic invocation of nature and too obvious in its implications—to be worth taking seriously...”¹¹⁹ But of course, she does take it seriously, and so should we.

inhuman, because it analogically takes insect society as its model for human social organizations.

In the first chapter, I demonstrated how some late-nineteenth century science fiction writers on both sides of the political spectrum separated femaleness from humanness. In the process of isolating what we would now call gender from sex, these writers revealed gender expression to be artificial, a heap of metal welded together with little more than scientific ingenuity, not a biological entity but a social construct. This separation of female from human is exemplified in the many stories of the female machine which proliferated around the turn of the century, and the trope of the female machine remains with us today. In Chapter Two, I will show how the honeybee becomes a utopic animal, and how this is represented most in the shift in emphasis from the queen bee to the worker bee as the primary discourse for the female insect. Along the way, I explore the history of the femaleness of the bee and investigate the significance of the honeybee for white colonial settlers in America. I then delve into the allegories and micro-figurations that nineteenth and early twentieth-century entomologists used to describe the honeybee, before moving on to the large-scale macro-figurations used by speculative and science fictions when representing the female insect. That is to say, the little metaphors in the entomological literature can provide a gloss for reading the female-as-insect in speculative fiction. I conclude with a discussion of how the honeybee hive and ant colony differ in representation.

One way of reading the history of the female insect in the popular imagination, and the female honeybee in particular, is that the moment she transitions from queen-mother to worker-machine the honeybee ceases to be a utopic animal. The beehive, for

scholars such as Dunn and Erlich in their work on dystopia and mechanization, is a key figure in twentieth-century dystopian literature.¹²⁰ Dunn and Erlich's "A Vision of Dystopia: Beehives and Mechanization" (1981) explains the symbolic resonances of the beehive: the bee as worker, the bee as dystopia, and the bee as machine. Dunn and Erlich argue that in the twentieth century, the "hive or machine is the essential condition of human life . . . [the mechanical hive is] the symbol for the things in human social life that can render us helpless, insignificant, unhuman."¹²¹ The beehive, rather than being a utopian model, becomes a dystopian model. Dunn and Erlich don't acknowledge or account for the transformation from utopic to dystopic, but the dots aren't that hard to connect. Traits that seemed virtuous for early modern intellectuals—order, rationality, obedience—become the hallmarks of a social order that trivializes and disenfranchises the individual—surveillance, bureaucracy, and automation.

However, the fall of the honeybee, and the turn from utopia to dystopia as described as a twentieth-century phenomenon by Dunn and Erlich, *simply does not apply* to the honeybee in women's writing during the fin de siècle. This is because Dunn and Erlich's examples disregard the sexual connotations of the honeybee as well as the sexual-political ones. Incredibly, their article sublimates gender entirely. They miss how, in the words of Charlotte Sleight,

The central presence of a female, ant-queen-like figure reveals how the mechanization or antification of society was viewed as a process of feminization... the all-female ant society was seen as the image of everything that western males feared about modernity.¹²²

¹²⁰ Thomas P. Dunn and Richard D. Erlich, "A Vision of Dystopia: Beehives and Mechanization" *The Journal of General Education* 33, no. 1 (Spring 1981): 45-46.

¹²¹ Dunn and Erlich, "A Vision of Dystopia," 49.

¹²² Sleight, Charlotte. "Inside Out: The Unsettling Nature of Insects," in *Insect Poetics: Literary and Cultural Entomologies* (Minneapolis: University of Minnesota Press, 2006), 292.

Dunn and Erlich miss that the queen bee's divestment comes about because of her femaleness, and that therefore she transforms into a useful metaphor for female-governed societies at the moment she loses her queenship.

In other words, the feminization of the honeybee goes hand-in-hand with accusations of the honeybee as mechanism. Historically speaking, the unveiling of the queen bee's genitalia and the insinuation of her promiscuity, which, as we will shortly see in more detail, happened at the same time in the early 1800s, are two versions of the same thing. The queen-mother bee, who in previous times had held a position of honor among entomologists, gains a new reputation that paints her as more of a monster than monarch, and more slut than mother. The queen-mother bee is described in literature from the sixteenth and seventeenth centuries as one who operated on pure instinct, was either animal or mechanical, but certainly not human.¹²³ The "monstrous" and "mechanized" honeybee, then, becomes one more version of male angst about female power, and, especially in the case of the bee, the female collective. The association of the honeybee with dystopic societies in America is vastly overshadowed by its association with women's utopias. What my research has found is that writers adapted and transformed the beehive to suit the twentieth century. While the queen bee, with her special place as revered mother of the colony, remains an important analogy for female governance, it is the worker bee who takes on increasing importance in the nineteenth and early twentieth centuries. The worker bee after all is the animal manifestation of an all-female institution. The shift in focus to the worker bee represents a distinct repurposing of a long tradition.

¹²³ It's no coincidence that the honeybee as a relatively harmless metaphor for governance suffers a setback as absolute monarchy falls into decline. See, for example, French entomologist Réaumur, who in 1740 argued that the queen bee was more accurately the mother bee, having no monarchical power at all.

The divestment of the queen bee and indeed her exposure as female obscures the femaleness of the worker bee and the superabundance of potential for this new referent for the honeybee.

This chapter argues that this narrative overlooks the ways that this transition played out in reverse for women writers in the late nineteenth and early twentieth centuries. These writers instead celebrated the utopian possibilities of the worker-sisterhood, and used the honeybee hive as a model of a utopian society free from the dominating, violent, and frequently imperialist instincts of men. Curiously, those characteristics are reserved for another class of story I will consider briefly at the end of the chapter, the ant colony. I have three dichotomies in mind that will guide us through these readings. First, the honeybee as a queen and the honeybee as a worker. I find that that metaphors of the queen bee transform into the worker bee during the American fin de siècle. Second, the honeybee hive as utopic and the honeybee hive as dystopic. I argue that the dystopic honeybee is a patriarchal nightmare of female power. The utopic honeybee, in contrast, appears in writing by women dreaming of female-dominated societies. Wrapped up in these first two tensions is the debate over whether the honeybee is a mother or a machine. These binaries are held in tension in many of these readings. The dilemma here is the bee's capaciousness to signify the utopian values, such as social order, monarchy, governance, and commonwealth, alongside its incompatibility with metaphors of patriarchy.

Part one of this chapter focuses on the metaphoric language used by turn of the century entomologists to describe the honeybee. This section demonstrates how the scientific discourse, laced as it is with cultural imagery, chooses to metaphorize the

female honeybee, and provides a primer to help read the fictional texts which follow. I start with John Burroughs (1837-1921), perhaps the most famous American nature writer from the nineteenth century. I show that despite the fact that Burroughs relies heavily on metaphor and personification when writing about insects, his writing ignores the implications of the female hive collective. Because Burroughs overlooks the potential of the worker bee, his writing sets in sharp relief the nature writers who *do* reflect on the implications of a female-dominated society, as exemplified in the writing of Margaret Warner Morley (1858-1923), and Anna Comstock (1854-1930). These later writers negotiate between the empowering potential of the queen bee as hive mother and the liberating possibilities of the sexless worker bee. Not only are Morley and Comstock well-known entomologists, but I believe that, as women entomologists, their perspective on the female-as-insect is particularly illuminating.

Part two of this chapter turns to works of speculative and science fiction published in U.S. periodicals that use the honeybee as a touchstone for gender. In this section, I contextualize Charlotte Perkins Gilman's *Herland* (1915), perhaps the most well-known all-female utopias, with four other stories. By placing *Herland* side by side with other texts that rely on insect metaphors to work through ideas about sex difference, gender, and women's roles, I hope to draw attention to the conversation that Gilman enters into when she describes the all-female society of Herland as insect-like. First, I begin by discussing Elizabeth Bisland's "The Coming Subjection of Man" (1889), in which the sex-role reversal story is explicitly invoked as a warning. Barring Gilman's work, Bisland's story is perhaps the most literal as well as the most overtly political piece in the chapter. I then use Bisland as a springboard to discuss the ambivalent insects in

Gilman's all-female utopia, and especially the internal conflict about who gets to have the metaphors, who gets to name them. The section concludes with a discussion of Leslie F. Stone's "The Conquest of Gola" (1931), in which the female beehive relocates to outer space. In this story, the hive communication of the female insects emphasizes the competence of worker bee societies, both in peacetime and in war.

The final section of this chapter turns to another female insect, the ant, to discuss the differences between ants and honeybees. It reveals how the ant is used in discourse on primitivism, and how the ant is often used to maintain taxonomic species boundaries between human and animal, which is then mirrored in the boundary drawn between white and nonwhite. Curiously, ants appear to have none of the ambiguous relationship to feminism that honeybees have. Indeed, though bees and ants are both used by anti-female writers to describe the gross "unnaturalness" of the sex-role reversal social order, ants are never recuperated as a model by women entomologists or fiction writers. In this section, I read L. Taylor Hansen (Lucile Taylor)'s space adventure "What the Sodium Lines Revealed" (1929); Louise Rice and Tonjoroff-Roberts's "The Astounding Enemy" (1930); and Bob Olsen's "Peril Among the Drivers" (1934). To conclude, I discuss a battle-of-the-sexes story that pits male ants against female bees, Frank Belknap Long's "Green Glory" (1935), and look for answers in a story that posits human heteronormative sex as the final, suicidal act of resistance to the dominion of the hivemind.

I. The Honeybee Becomes Female

When and how did the bee become female? First the honeybee was a king. Slowly, the king became a queen, and the bees became female. Through observation,

English apiarist Charles Butler announced the sex of the queen bee in 1609. Through technological advances, Dutch scientist Jan Swammerdam used the microscope to locate female genitalia when dissecting the queen bee. His drawings are published posthumously in 1737. Through experimentation, the riddle of the queen bee's reproduction became solved, in bits and pieces by French inventor René-Antoine Ferchault de Réaumur (egg-laying, 1740), German priest Adam Gottlob Schirach (the rearing of a queen from workers, 1760), Swiss naturalist Fancois Huber (bee mating flight, 1788), polish apiarist Jan Dzierzon (parthenogenesis proposed, 1835), and German zoologist Theodor von Siebold (parthenogenesis confirmed, 1857).¹²⁴ In all of these ways, at all of these times, the bee's femaleness was in the process of being confirmed.

The bee's femaleness is also what makes her inhuman. Whereas the beehive was a popular model for successful governance, when Swammerdam unveils her as female, she becomes animal. For Swammerdam, the honeybee's female genitalia, rendered in precise detail, exposes the animality of the queen bee. The "discovery" and publication of the queen bee's anatomy is the public unveiling of her femaleness, which comes in tandem with her demotion from governing body to pure animal instinct. The downfall of the queen bee is also tied to her unfortunate association with monarchy. As Merrick tells it, the honeybee falls out of fashion with the French National Convention, and returns to popularity with Napoleon. Merrick's essay records an incident at a meeting of the Convention of the French Republic in 1795 where a proposal to put the emblem of a hive surrounded by bees on the national seal and buildings meets with disapproval. The

¹²⁴ Florian Maderspacher, "All the Queen's Men" *Current Biology* 17, no. 6 (March 2007): 191-195.

Convention, in Merrick's telling, vetoed the honeybees because of its "association with monarchy and matriarchy."¹²⁵ Merrick records one member's protest:

Everyone knows that bees were the arms of several French kings of the first dynasty, such as Childebert and Chilperic. Besides, bees can not be the emblem of a republic: don't you know that they have a queen, whom they all court?¹²⁶

A symbol of a monarch—and a *female* monarch at that—would not do for the French Republic. Explicit in the protest is the suggestion of promiscuity. The queen bee is neither head-of-state nor queen mother; she is a wanton and a slut. If the beehive is truly governed as a kingdom, then the honeybee is no longer a useful symbol for the modern world. In both of these examples, the honeybee's femaleness is explicitly referenced as one reason why the bee is either too animalistic or too monarchical. The *femaleness* of the bee—her genitalia on display, her animality, her promiscuity—is what divests the queen bee of her usefulness for Enlightenment republican virtues.

The femaleness of the queen bee is a huge problem for natural scientists of the sixteenth and seventeenth centuries, so much so that some apiologists chose to "pretend" that the hierarchy of the beehive is subject to the rule of a male, rather than a female bee, refuting over a century of literature in order to stick to this absurd claim. To do otherwise would vex the usefulness of the beehive as a natural model for rational social order. In her study of Early Modern France, Natalie Zemon Davis explains that early modern men believed the female sex *by nature* subordinate to the male sex, and that this made women unfit for rule. All of this she sees mirrored in early modern law, religion, and science. Salic law excluded women from queenship in France, and religious figures such as John

¹²⁵ Merrick, Royal Bees: The Gender Politics of the Beehive in Early Modern Europe," *Studies in Eighteenth-Century Culture* 18 (1988): 26.

¹²⁶ Merrick, 26.

Knox and John Calvin called female governance “a monstrous regimen” and “among the visitations of God’s anger.”¹²⁷ As for science, Davis adds, “[a]s late as 1742, in the face of entomological evidence to the contrary, some apiologists pretended that nature required the rule of a King Bee”¹²⁸ If the female sex is indeed by nature subordinate to the male, then the existence of a queen bee doesn’t align with the natural order of things. For Davis, it was a casual comment, and one meant to emphasize a more general observation: natural models don’t always behave the way men want them to. For studies in bee literature, it was a catalyst. What did this tiny insect, and more pertinently, people’s attitudes toward it, have to say about gender, culture, and the use value of natural models?

In feminist utopias, as we will see, the female worker bee is seen as a model for the perfect collective society, one that is free of men. Her body is biologically female, but the worker bee is not a mother. It’s this distinction that electrifies the conversation around the worker bee during the American Progressive Era. The intersection of gender and the honeybee in U.S. writing between 1880 and 1935 shows the eclipse of the *topos* of the queen bee as Amazonian, and her replacement with her laboring counterpart, the worker bee. Hardworking, communistic, competent, and infertile, the worker bee activates anxieties about women’s collectives, women’s labor, and women’s reproduction. By pulling together nature writing and fiction writing, this chapter provides a layered cultural history of the web of associations that constellate around the honeybee, the hive, the insect, and the female. The worker bee is a powerful iteration of the female inhuman, one

¹²⁷ Natalie Zemon Davis, “Women on Top,” *Society and Culture in Early Modern France: Eight Essays by Natalie Zemon Davis*. (Stanford: Stanford University Press, 1975): 125.

¹²⁸ Davis, 125-126. She’s probably referring to Jean-Baptiste Simon, whose 1740 *Republique des abeilles* refers to the bees’ devotion to their king.

which reimagines human societies through the lens of the natural world. In this era, the worker bee becomes a touchstone for authors dreaming of female-dominated societies.

II. The Honeybee in America

In its European context, the bee emblemized government, monarchy, and commonwealth. In its American context, the bee held a different valience: white settler colonialism, for one, and later, women's work. Thrifty, industrious, democratic, and profitable: what could be more American than the honeybee? Plenty of things, it turns out, for the truth is that the honeybee is about as indigenous to the Americas as the wild horse, which is to say, it isn't.¹²⁹ There are 4,000 species of bee native to the United States, and the honeybee is not one of them.¹³⁰ So perhaps the most "American" thing about the honeybee for the early U.S. is that, like the white settlers, the honeybee was a colonist. Indeed, as the U.S. expanded westward, the humble honeybee becomes a symbol of the frontier. Stories abound—all, as far as historians can tell, apocryphal—of the "white man's fly," a phrase first recorded by Thomas Jefferson.¹³¹ Washington Irving repeats Jefferson's erroneous claim in his *Tour of the Prairies*:

It is surprising in what countless swarms the bees have overspread the far West within but a moderate number of years. The Indians consider them the harbinger of the white man, as the buffalo is of the red man; and say that, in proportion as the bee advances, the Indian and the buffalo retire.¹³²

¹²⁹ English and German settlers of the North American continent introduced the domesticated breed into the American landscape when they brought the European black bee across the Atlantic. History is uncertain of the exact date of contact, but reports indicate that the domesticated bee thrived in Virginia in the early seventeenth century. Up in Massachusetts, local records confirm a municipal apiary in Newbury in 1640. Bee Wilson, *The Hive: The Story of the Honeybee and Us*. (New York: St. Martin's / Thomas Dunne, 2004).

¹³⁰ Beatriz Moisset and Stephen Buchmann, "Bee Basics: An Introduction to Our Native Bees," *A USDA Forest Service and Pollinator Partnership* (United States Department of Agriculture, 2011): https://efotg.sc.egov.usda.gov/references/public/SC/Bee_Basics_North_American_Bee_ID.pdf

¹³¹ Thomas Jefferson, *Notes on the State of Virginia*. (Philadelphia: Prichard and Hall, 1788): 79.

¹³² Washington Irving, *A Tour on the Prairies*, rev. ed. (1835; repr., Norman, OK: University of

And in *The Song of Hiawatha* (1855), Longfellow imagines how indigenous Americans may have seen the honeybee as a companion to the European colonist-settlers.¹³³ These stories invented an American mythology that tied together the activities of the honeybee with that of the white settlers. There is no record whatsoever of any Native American describing the white settlers as bees. What these American myth-making texts demonstrate is a record of the colonialists' self-association with the honeybee. Wherever the colonists settled, bees followed—or so the colonists liked to believe. Identifying with the honeybee is one key feature of American self-fashioning, and this is especially true in the mid nineteenth-century.

If the honeybee is associated with white colonizers, it's also notably associated with women's work, both materially and metaphorically. A whole industry of beekeeping for women appeared as the turn of the century approached, as women became active in the beekeeping profession, attending conferences, editing journals, teaching classes, and publishing beekeeping handbooks. In her book-length study of the history of bees in America, Tammy Horn points out that after the Civil War, apiarists actively encouraged women to take up beekeeping.¹³⁴ The first beekeeping handbook targeted for a female audience appears in 1884 (*How I Made Money at Home, with the Incubator, Bees,*

Oklahoma Press, 1956), 50. Citations refer to the University of Oklahoma edition.

¹³³ Wheresoe'er they move, before them

Swarms the stinging fly, the Ahmo,

Swarms / the bee, the honey-maker;

Wheresoe'er they tread, beneath them

Springs a flower unknown among us,

Springs the White-man's Foot in blossom.

(Henry Wadsworth Longfellow, "The Song of Hiawatha")

Wilson makes note of this passage as well in her section on "American Workers."

¹³⁴ Horn, Tammy. *Bees in America: How the Honeybee Shaped a Nation*. (Lexington: University Press of Kentucky, 2006), 134-154.

Silkworms, Canaries, Chickens, and One Cow; By John's Wife).¹³⁵ Magazines such as the *Ladies Home Journal* encouraged women to take up beekeeping; beekeeping offered an opportunity for fresh air and exercise, and a method of employment that could make money from home. Beekeeping was a profitable activity that could also fit within a domestic schema. The sweet temperament of the beehive and the gentle touch of women was a perfect match.¹³⁶ An industry rose up around beekeeping, complete with professional journals, conferences, and beekeeping classes. Women were a part of every aspect of the beekeeping community, writing entomological tracts on bees, such as Margaret Warner Morley's *The Honey-Keepers* (1899), editing professional journals, such as Jennie Atchley's *Southland Queen* (first published 1901), teaching classes on beekeeping, such as Margaret Murray Washington did at Tuskegee (c1901), and writing apiarists handbooks, such as Anna Comstock's *Beekeeping for Women* (1905).¹³⁷

Though these practical examples of women beekeepers cluster around 1900, we find the appropriateness of beekeeping for a genteel female lifestyle explored in fiction at least a decade earlier, which suggests that these practical handbooks were entering an already established cultural fact. Lillie Devereux Blake's short story "A Treasure Trove" (1892) exemplifies this inextricable link connecting women and bees to profit.¹³⁸ In the short story, two spinster sisters, Polly Tomlinson and Hephzibah Tomlinson, live together in a small house that is plagued by bees. The youngest of the three sisters, Gertrude, has gone missing twenty years before the start of the story, run off with a gentleman from

¹³⁵ *How I Made Money at Home, with the Incubator, Bees, Silkworms, Canaries, Chickens, and One Cow; By John's Wife*. (Philadelphia: Hunter MacCulloch, 1884).

¹³⁶ Horn, *Bees in America*, 134-135.

¹³⁷ Horn, 150-151.

¹³⁸ Lillie Devereux Blake "A Treasure Trove." *A Daring Experiment: And Other Stories*. (New York: Lovell, Coryell & Company, 1892): 252-261.

New York. As the story begins, news of the death of their long-lost sister reaches Polly and Hephzibah, and they discover that Gertrude has left behind a ten-year old child of the same name. Although the aunts are very poor, they take in their niece. The young Gertrude discovers that the bees which have been plaguing the house actually live inside the house—and that their honey is literally packed away between the first and second floors. The house which had been worth so little has, through the activities of the bees, become a treasure trove. The women lift up the floorboards,

And what a sight was presented! Liquid gold encased in snowy cells! Pounds and pounds of the most beautiful honey! Some of it damaged, of course, but the rich deposits extended back among the old rafters, showing the labors of a score of generations of bees.¹³⁹

With the discovery and transgenerational reconciliation of the sisters marked by the return of another Gertrude, poverty transforms to wealth at the same time that barrenness turns to motherhood. The “generations of bees” is the double for the generation of women, generations of labor that only now give profit and income—just like that adopted niece who now brings life and rejuvenates and generates new life for the aunts. The bee triply represents female production, female reproduction and female profit.

III. Nature Writers and the Bees

The gender of the honeybee is allegorized, metaphorized, and illustrated by entomologists and nature writers during the nineteenth and early twentieth centuries. These ostensibly scientific and observational forms of writing rely on metaphors to describe the workings of the insects they are writing about, and in doing so clearly illustrate the shift of emphasis from the queen bee to the worker bee. There's a tension in

¹³⁹ Blake, “A Treasure Trove,” 260.

these works between the empowering potential of the queen bee as hive mother and the liberating possibilities of the sexless worker bee that can be seen in the writing of Burroughs, Morley, and Comstock.

In this section, I look at the metaphorical and allegorical language used by entomologists and nature writers at the turn of the century. What metaphors did entomologists fall back on to describe natural processes and phenomena? These moments of figurative and allegorical language within scientific writing are particularly salient because they show how metaphors become naturalized and wrapped up in scientific discourse, which in turn makes the metaphors themselves appear natural. As Emily Martin argues, the heavily metaphorized images used in science writing can create a feedback loop which in turn justifies human behavior.¹⁴⁰ Consider, for example, Londa Shiebinger's argument on the taxonomy of the mammal. Shiebinger describes how Linneaus rather over-zealously named an entire class of animals "mammals" from the term "mammar," meaning the female breast. Since it describes a single characteristic that is only seen in females, the term is strangely limited. Moreover, it neither describes all animals termed mammal (the horse was brought up in Linneaus's time in protest of his term), nor is it the only characteristic shared by mammals—it is one of at least six unique characteristics. The Linnaean term, as it turns out, reinscribes eighteenth-century gender politics onto scientific nomenclature.¹⁴¹ Natural history, therefore, naturalizes The encapsulated allegories connect human and bee society, and help us understand then the

¹⁴⁰ Emily Martin, "The Egg and the Sperm: How Science has Constructed a Romance Based on Stereotypical male-Female Roles." *Signs: Journal of Women in Culture and Society* 16, no. 3. (Spring 1991): 500.

¹⁴¹ Londa Shiebinger, "Why Mammals are Called Mammals: Gender Politics in Eighteenth-Century Natural History," *The American Historical Review* 98, no. 2 (April 1993): 392.

fictional stories that expand and speculate on bees as more involved efforts to think about the philosophical and metaphysical ramifications of figuring bees as women.

The extent to which nature writing should rely on allegory and romance was a topic for debate at the turn of the century. John Burroughs famously rallies against the proliferation of allegories that misleadingly personify and trivialize animal life in 1903, publishing “Real and Sham Natural History” in the *Atlantic Monthly*, beginning the “Nature Fakers” debate. The objection raised by Burroughs was that the nature writings weren’t writing truthfully, and that the most egregious of these writers anthropomorphized animals beyond all recognition. In her chapter “The Egg and the Nest: Gender Politics, John Burroughs, and Popular Ornithology,” Elizabeth Donaldson lays out how

what begins as a fairly clear-cut conversation about true observation and lies soon becomes a struggle over the disciplinary boundaries of science and literature... [for Burroughs], legitimate natural history is factual, a form of nonfiction distinguished from both literature and sentiment.¹⁴²

Sentiment is the key term here, as Donaldson reframes the nature fakers controversy into a debate about the feminization of science. “In a contemporary climate in which feeling was devalued and feminized, Burroughs’s impulse to separate sentiment and natural history is an attempt to purge feminine associations from nature writing and science.”¹⁴³ Fact and feeling, however, are inseparable from nature writing, and even the most astute observer of the environment is bound by their own cultural limitations.

¹⁴² Elizabeth Donaldson, “The Egg and the Nest: Gender Politics, John Burroughs, and Popular Ornithology,” in *Sharp Eyes: John Burroughs and American Nature Writing*. ed. Charlotte Zoe Walker. (Syracuse: Syracuse University Press, 2000): 180.

¹⁴³ Donaldson, 181.

Nature writers' biases intrude into their observations, and this is true even for those writers like Burroughs who strenuously object to the intrusion of sentiment in science writing. For example, Donaldson argues perceptively that Burroughs *does* anthropomorphize nature, but that the metaphors he most gravitates to are military, warlike, and hostile. "More specifically, Burroughs implies that legitimate natural history is written using anthropomorphic metaphors of war and combat...His animals are the hunter and the hunted, pioneers and natives, trapped in never-ending combat."¹⁴⁴

The books written by nineteenth-century entomologists demonstrate a remarkable mix of allegory and observational science. Alongside John Burroughs, naturalists such as Margaret Warner Morley and Anna Comstock wrote advanced entomological tracts that approached the workings of nature with a romantic and imaginative eye. Nowhere is this tendency to mix hard science with metaphor more present than in discussions of the gendered nature of insects—in their mating rituals, personal habits, social interactions, sexual characteristics, and gendered appearance.

Burroughs's "An Idyl of the Honey-bee" (1881) repeats and echoes accounts that associate the honeybee with the white settlers. For one thing, instead of feminizing the honeybee, he racializes it. First, he repeats the apocryphal story first recorded by Jefferson and later repeated by Irving and Longfellow. He expands upon the tradition, and cements the relation between honeybee and "white man":

The Indian regarded the honey-bee as an ill-omen. She was the white man's fly. In fact she was the epitome of the white man himself. She has the white man's craftiness, his industry, his architectural skill, his neatness and love of system, his foresight; and above all his eager, miserly habits. The honeybee's great ambition is to be rich, to lay up great stores, to possess the sweet of every flower that blooms. She is more than provident. Enough will not satisfy her, she must have all

¹⁴⁴ Donaldson, 189

she can get by hook or by crook. She comes from the oldest country, Asia, and thrives best in the most fertile and long-settled lands.¹⁴⁵

The passage begins by arguing that the honeybee is “the epitome of the white man himself,” but winds into a completely different set of metaphors which trouble the axiom. This is because the honeybee’s femaleness fractures the integrity of the metaphor. Her avarice and insatiability make her an unsuitable metaphor for the “white woman,” and instead Burroughs codes her in obviously orientalist terms. For Burroughs, the honeybee is both the white man and the Queen of Sheba, but certainly not a genteel white woman.

Recalling the entomological work of Swammerdam and Réaumur, Burroughs divests the queen bee of her stately powers, making clear that she is “as a mother and not as a sovereign.”¹⁴⁶ He deliberately de-emphasizes the gender of the worker bees, referring to the queen bee as “the only female in the hive.” But he is not that interested in the queen, instead choosing to highlight the democratic swarm:

The notion has always very generally prevailed that the queen of the bees is an absolute ruler, and issues her royal orders to willing subjects. Hence Napoleon the First sprinkled the symbolic bees over the imperial mantle that bore the arms of his dynasty; and in the country of the Pharaohs the bee was used as the emblem of a people sweetly submissive to the orders of its king. But the fact is, a swarm of bees is an absolute democracy, and kings and despots can find no warrant in their example. The power and authority are entirely vested in the great mass, the workers. They furnish all the brains and foresight of the colony, and administer its affairs. Their word is law, and both king and queen must obey. They regulate the swarming, and give the signal for the swarm to issue from the hive; they select and make ready the tree in the woods and conduct the queen to it.¹⁴⁷

¹⁴⁵ John Burroughs, “Bees: An Idyl of the Honey-bee.” rev. ed. (1881; repr. in *Bird and Bees: Sharp Eyes and Other Papers*, New York: Houghton Mifflin Company, 1907), 45. Citations refer to Houghton Mifflin edition.

¹⁴⁶ John Burroughs, “Bees: The Pastoral Bees.” rev. ed. (1881; repr. in *Bird and Bees: Sharp Eyes and Other Papers*, New York: Houghton Mifflin Company, 1907), 75.

¹⁴⁷ Burroughs “Bees: The Pastoral Bees,” 75.

Burroughs's bees abolish absolute monarchy in favor of the "great mass" of workers. What Dunn and Erlich call "mechanization" is, in Burroughs's hands, a well-run democracy. Rather than viewing the swarm as a loss of individualism, Burroughs's swarm vests "power and authority" to those that labor. It's noteworthy that Burroughs doesn't spend time reflecting on the implications of a female-dominated democracy. Once he gets to the social and democratic organization of the honeybee, the worker's femaleness is no longer of interest.

The femaleness of the queen, however, is of great interest to Burroughs. His passages on the queen demonstrate an aesthetic—even erotic—interest in the queen bee's body:

The queen, I say, is the mother bee; it is undoubtedly complimenting her to call her a queen and invest her with regal authority, yet she is a superb creature, and looks every inch a queen. It is an event to distinguish her amid the mass of bees when the swarm alights; it awakens a thrill. Before you have seen a queen you wonder if this or that bee, which seems a little larger than its fellows, is not she, but when you once really set eyes upon her you do not doubt for a moment. You know that is the queen. That long, elegant, shining, feminine-looking creature can be none less than royalty. How beautifully her body tapers, how distinguished she looks, how deliberate her movements! The bees do not fall down before her, but caress her and touch her person. The drones or males, are large bees too, but coarse, blunt, broad-shouldered, masculine-looking.¹⁴⁸

In the passage above, Burroughs writes of the suspense of seeking the queen bee, and the satisfaction he feels upon finding her. He treats the queen lovingly, admitting that she earns the title "queen" through her "distinguished" features and her "feminine-looking" figure, which he admires greatly. The passage culminates in the rest of the bees embracing and caressing her. For Burroughs, the sexual dimorphism of the bees enacts an

¹⁴⁸ Burroughs, 76.

anthropomorphic fantasy wherein the “broad-shouldered” male bees lovingly protect the regal mother figure.

Burroughs is a brilliant stylist. His prose is generally reflective, philosophic, often nostalgic, and written in the first person. It is so Emersonian in style and content that Burroughs recounts submitting an essay to the *Atlantic* and having it mistaken for a work by Emerson (211).¹⁴⁹ Besides being spiritual (although Burroughs would use the word “religious”) and philosophical, his prose is often poetic and frequently humorous, giving life to the little dramas lived by the creatures he observes. In one essay, he brings to life the conflict between a pair of wrens who take up residence in his garden’s birdhouse and the bluebird couple who decides to settle themselves into the birdhouse later in the spring. What follows is a mock-heroic conflict, one that involves a reversal of fortunes through the death of the father bluebird, the introduction of a bachelor bird to comfort the bereaved widow, and the bluebird widow finding out that she did not really require a new husband after all. In another essay, Burroughs writes, “I have been accused of romancing at times. But it is not true. I set down the thing exactly as it fell out.” When people protest that they do not observe nature the way he describes it, he responds:

the fact as it lies there in nature is crude and raw: it needs to be brought out, to be passed through the heart and mind and presented in appropriate words. This humanizes it and gives it an added charm and significance. This, I take it, is what is meant by idealizing and interpreting nature. We do not add to or falsely color the facts: we disentangle them and invest them with the magic of written words.¹⁵⁰

Burroughs’s is a poet, a stylist, and naturalist. Above all, he has an intensely human style, and one which finds in animals human characteristics not to anthropomorphize these

¹⁴⁹ Burroughs, “An Egotistical Chapter,” rev. ed. (1889; repr. in *The Art of Seeing Things: Essays by John Burroughs*, Syracuse: Syracuse University Press, 2001), 211.

¹⁵⁰ Burroughs, 214.

animals but to read through them. Burroughs's stylistic choices make for a fanciful story, but beneath the charm of his style there is a clear focus on observation and description.

Even in its more fanciful moments, Burroughs's writing puts a premium on the scientific method of observation. He has a complex and sophisticated theory of observation that emphasizes perception. To truly perceive the natural world, one must possess three kinds of qualities: openness and receptivity; love and enthusiasm; and doing and experience. The receptivity to the world Burroughs describes as having "a mind sensitive to outward objects...like a house with many faces at the doors and windows."¹⁵¹ A person who lives "retired within," shut off from the world outside, will never be able to observe nature. Part of this openness and receptivity involves taking pleasure in what you see: Burroughs famously quips: "You must have the bird in your heart before you can find it in the bush. . . The eye sees what it has the means of seeing, and its means of seeing are in proportion to the love and desire behind it."¹⁵²

Burroughs sets up dichotomies of perception, those who can see and those who cannot. He generally gestures toward the urbanite as one who lacks the necessary means of perception. Particularly, he has a habit of using urban women — and especially urban literary women—as his examples of those who cannot properly perceive and enjoy nature. In one essay, who uses the example of "a well-known literary woman and editor" who claims that no birds visit her mountain home. Burroughs corrects her, adding that he has seen a half-dozen birds from her porch the morning. "I do not see them or hear them," she replies, "and yet I want to very much." "No," said I; "you only *want to want*

¹⁵¹ Burroughs, "The Art of Seeing Things" rev. ed. (1908; repr. in *The Art of Seeing Things: Essays by John Burroughs*. Syracuse: Syracuse University Press, 2001), 8.

¹⁵² Burroughs, 14.

to see and hear them.”¹⁵³ In another instance, a friend of Burroughs engages “to take two city girls out for a walk in the country, to teach them the names of the birds they might see and hear.” The urban women’s ears are unpracticed, and when they are finally able to hear the sparrow, one of them says, “What! that little squeaky thing?”¹⁵⁴ Burroughs’s distaste for bookish, urban women stands in sharp contrast to the reverence he reserves for the mother bee, and recalls his disinterest in the gender of the democratic swarm of worker bees.

By ignoring the implications of the female hive collective, Burroughs sets in sharp relief the nature writers who *do* reflect on the implications of a female-dominated society. These later writers must negotiate between the empowering potential of the queen bee as hive mother and the liberating possibilities of the sexless worker bee. Which form of femaleness gets to be celebrated? Which form is feared?

For example, Margaret Warner Morley, an American biologist, writer, and illustrator active in the 1890s, focused on the bees as a family in her 1899 *The Honey-Makers*, (perhaps the title references Longfellow) an entomological tract on the honeybee. For Morley, the bee as a metaphor is an endless source of nourishment, of familial structure, and of motherly love. Morley focuses on the hive as a kind of family. She says of the queen bee, “It is known to be female, the only perfect female in the hive. It is also known that she is not a queen. She is a mother, the mother of all the colony.”¹⁵⁵ Like Burroughs, Morley is strict in observing that the queen bee is not actually a

¹⁵³ Burroughs, 14.

¹⁵⁴ Burroughs, “Bird Songs” rev. ed. (1905; repr. in *The Art of Seeing Things: Essays by John Burroughs*. Syracuse: Syracuse University Press, 2001), 31.

¹⁵⁵ Morley, *The Honey-Makers*. (Chicago: A.C. McClurg and Company, 1899), 114.

sovereign. She explains that the task of the queen bee is more difficult than governance.

The queen be

is in no sense a ruler. She does not issue commands nor examine the work done with a view either to criticize or to advise, nor does she indulge in royal idleness. On the contrary, no bee in the hive performs so stupendous a task as she. There may be over a hundred thousand bees hatched in one season, and of all these she alone is the mother.¹⁵⁶

Morley's take on the queen bee participates in a cult of motherhood.

Yet Morley's writing also highlights the tension between celebrating motherhood and critiquing the limitations of the role. The queen bee's body and function become sites of aversion for Morley, as seen in the following excerpt:

She is in reality from the time she begins her maternal task little more than an egg-laying machine. As she has no responsibility of finding nectar or building waxen cells, or even of caring for her own wants, she has no use for the highly developed nervous organization that distinguishes the worker bees, and we find this mother of the hive possessed of a small head, a small brain, and a simple understanding. Her antennae contain but two-thirds as many sense organs as those of the workers, and her compound eyes have each somewhat less than five thousand facets, while the workers' contain over six thousand.¹⁵⁷

Here in Morley we see a taste of the mechanization that Dunn and Erlich describe, but for Morley it is not the labor of the worker bees that inspires terror but the labor of the mother bee. The queen is likened to an "egg-laying machine." This kind of femininity is sharply criticized for lacking usefulness—the queen has no responsibilities, she cannot even care for herself. The relative helplessness of the queen inspires a small amount of disgust on the part of the writer. She has "a simple understanding." We also see in this passage a small celebration of the worker bee's bodies. Not only are they intelligent and competent, with "highly developed nervous organization," they also possess more

¹⁵⁶ Morley, 120.

¹⁵⁷ Morley, 120.

impressive bodies. Their eyes contain over six thousand facets, and their antennae have a third more sense organs than the queen. If the queen is an automated mother, reminiscent of the female machines discussed in the last chapter, the worker is an admirable female laborer.

As the nineteenth-century passed away and the twentieth dawned, female entomologists were increasingly drawn to the worker bee. Anna Comstock, one of the most noteworthy naturalists of the day, presents an interesting contrast to Morley. Comstock is the author of multiple practical handbooks for beekeeping, such as *Beekeeping for Women* and *How to Keep Bees, a Handbook for Use by Beginners*. She co-wrote with her entomologist husband John Henry Comstock *The Study of Insects* (1895), which she also illustrated. *The Study of Insects* went through over twenty editions during the Comstocks' lives. Comstock, like her contemporary Margaret Morley, weaves together allegory and fact, romance and science in her nature writing. But whereas Morley admires the hive because it functions like a family, Comstock appreciates the worker bee specifically: they are “the worker-sisterhood” who do all of the labor for the hive.¹⁵⁸

Comstock observes with a twinkling eye the figure of the queen bee, posing her observation with what we would now call the male gaze. She writes in 1905,

The laying queen is a very graceful insect; her body is long and pointed, and extends far behind the tips of her closed wings. *Svelte* is a graphic word applied to her figure by the *Spectator*; just a glance at her reveals her splendid physical development and proves her a queenlier bee than those that gather around her.¹⁵⁹

¹⁵⁸ John Henry Comstock and Anna Botsford Comstock *The Study of Insects*. (Ithaca, New York: The Comstock Publishing Company, 1895), 674

¹⁵⁹ Anna Botsford Comstock, *How to Keep Bees: A Handbook for the Use of Beginners*. (New York: Doubleday, Page & Company, 1905), 28.

Comstock's prose description of the queen bee is sensual, even flirtatious. She distances herself from her description of the queen's body, choosing instead to highlight phrases that others have used to describe her.

Comstock marvels at the queen bee's beautiful figure, but reserves her greatest admiration for the character of the worker bee. Of the worker bee, Comstock writes in 1895:

We marvel at her industry; but she is ever driven on with the sense of her responsibilities: for the worker-sisterhood must do all the work of the hive, collect and store the food, manufacture the wax, build the comb, take care of the footless, helpless larvae, fight the battles for protection, and manage affairs generally.¹⁶⁰

In Comstock's beehive, it is the worker bee who demands admiration from the reader, and the writers we turn to next followed in her footsteps.

IV. The Beehive in Science Fiction

The micro-figuration of the honeybee visible in turn-of-the-century nature writing has shared characteristics with the macro-figuration of the honeybee in speculative and science fiction that take the female-as-insect to extremes. Many — but not all—of these stories imagine the female hive as a utopian concept. They model what Comstock valued in the worker bee, the fact that she “is ever driven on with the sense of her responsibilities” to the hive at large, without worry for herself. As a natural model, the beehive imagined in Comstock's image is a sisterhood; it is a utopian community.

In Justine Larbalestier's book-length study of the battle of the sexes trope in science fiction, she explains how the female-dominated society often “serves to demonstrate that female rule is misrule. At the heart of these texts is the struggle to

¹⁶⁰ John Henry Comstock and Anna Botsford Comstock, *The Study of Insects*, 674.

restore male rule and the “natural order of things.”¹⁶¹ But hive stories don’t follow this mold, asking instead what it means when nature itself rejects male rule? What happens when nature offers a model for a female-dominated society? You see, the trouble with natural models is that they don’t always behave the way you need them to. There are some parts of nature which, when looked at closely, radically rework what we call “natural.” Honeybees may be hardworking, industrious, thrifty, and democratic, but they are also, as we’ve seen, matriarchal. For some writers, this inverted social order offered utopian possibilities. For others, the female commune of the honeybee represented a dystopic social order, one specifically caused by the topsy-turvy gender relations. The coming “worker-sisterhood,” as Comstock called it of worker bees was not uniformly greeted with wide eyes and open hearts.

One such story is Elizabeth Bisland’s “The Coming Subjection of Man,” a short work of science fiction published in *Belford’s* in 1889. “The Coming Subjection” takes the metaphor of insect-women to an extreme in order to ridicule the optimism of such a vision of female governance. Bisland’s story reframes the “utopian” beehive through the eyes of the male drones. The drones’s put a new spin on the beehive, inverting the usual narrative and seemingly exposing the truth behind the governance of the beehive. By focalizing the hive through the drones, Bisland’s story recasts the beehive as a dystopia for men, while reaffirming the resonance of the beehive as a metaphor.

Belford’s Magazine (1888-1891), later *Belford’s Monthly and Democratic Review*, (September 1891-March 1892) then, for its final year *Belford’s Monthly*, was a Chicago-based limited-circulation magazine which published an assortment of political

¹⁶¹ Larbalestier, *The Battle of the Sexes in Science Fiction*, 40.

essays (on tariffs, international copyright, the death penalty, and so on), reports on the Democratic National Convention, book reviews, short stories, and novel-length stories. It published verse too, which fills the white space after an essay or story ends. It routinely publishes work by women authors, including a novel-length text by Elizabeth Whitfield Croom Bellamy (discussed in chapter one as the author of “Ely’s Automatic Housemaid”). Nevertheless, the editors frequently take a dismissive attitude toward literary women, even mocking them at length in the feature “The Evolution of the ‘Literary Woman,’” published in the May 1893 edition.

Bisland was a professional writer, a Louisiana-born journalist who moved to New York in 1887 to ply her trade. She wrote for many of New York City’s periodicals and newspapers: *The Sun*, the *New York World*, *Atlantic Monthly*, *Harper’s* the *Brooklyn Eagle*, the *Illustrated American* and the *North American Review*. She would become an editor at *Cosmopolitan* magazine. She hosted salons and had a reputation for gentility and good taste, a marked contrast from many of the spunkier, mass-market journalists of the period.¹⁶² She notably protested against the notoriety of newspaper authorship, shrinking from celebrity in favor of rational, often anonymous, authorship. Indeed, her most remembered achievement, that she raced around the world against Nellie Bly, was something she herself downplayed in her life. It goes unmentioned in her obituary.

When it came to women’s rights, Bisland was a reactionary. Throughout her life, she wrote passionately about the woman question, but her complex stance is filled with admiration for masculine men and derision for non-feminine women. Her writing on the

¹⁶² Karen Roggenkamp, “Dignified Sensationalism: *Cosmopolitan*, Elizabeth Bisland, and Trips around the World,” *American Periodicals: A Journal of History, Criticism, and Bibliography* 17, no.1 (2007): 33.

female shows a commitment to the qualities of “courage, submission, or duty,” over “that furious and debasing *fin de siècle* demand for happiness at all cost.”¹⁶³ The story’s attitude toward the worker bees—who represent non-feminine women— might be described as thinly veiled contempt.

Bisland’s writing shows an incisive intellect and a strong sense of history, but very little present-day social awareness. She is content to relegate the woman question to a problem of the past, and mocks her contemporaries for their protests, which she derides as “their vague ecstasies of longing, their confused cries of discontent, their indistinct moans and reproaches.... like the cry of an infant — suffering but inarticulate.” She ends her essay with the following *bon mot*: “When the miracles of male achievement are pointed to to-day, women know enough to say proudly, “Did man make this? Well, I made man”; and is content.”¹⁶⁴ It would seem, then, that when Bisland turns to the beehive, she might celebrate the reproductive fecundity of the queen bee as mother. Alas, Bisland’s beehive has no place for the queen bee. The hive in “The Coming Subjection” is governed by the worker bees, who represent the worst of Bisland’s contemporaries. They have usurped power from the drones, who are left to complain to the human narrator of the story.

The narrator is a male entomologist and scientist, who has made amazing discoveries in his research. As an academic, he presents himself as cloistered and unused to writing for a general audience. Urgently he announces that he has taken up a “the *rôle* of warning prophet,” on a topic “so curious and important that, despite my misgivings, I

¹⁶³ Elizabeth Bisland, “The Cry of the Women,” *The Secret Life: Being the Book of a Heretic* (New York: John Lane Company, 1906), 80.

¹⁶⁴ Bisland, 80.

feel that my duty to humanity requires I should make it public.”¹⁶⁵ Immediately, the narrator’s position as learned academic, possessor of esoteric knowledge, individual, scientist, researcher, telling a first account, establishes this story as science fiction. The narrator’s research in entomology involves use of the microphone to amplify the sounds made by insects.

With the ability to hear bee noises, he puts his mind to decoding the language of bees. What interests him most is the social economy of bees. After a bit of “scientific eavesdropping,” the narrator invents an instrument that will allow him to converse with the bees. He hopes that his professional insight will offer aid to the social problems they experience in the make-up of their hive. As he interviews the drones, he realizes that their society is in fact a warning for what could happen in human society. The drones relate their sad history in a passage that is quoted in full below:

This very intelligent insect said: “Our civilization is of vast age. Almost from the first we were gathered into communicates, the methods of organizing which have undergone the most radical fluctuations. You will be surprised to learn that though many thousand years ago our form of government was monarchical as at present, the sovereign instead of being a queen was invariably of my own sex. And not only was this true, but also the females in most hives were fewer in number than the males, and did not work at collecting honey; they were occupied at home in laying eggs and caring for the young. The work of building the comb and collecting honey was entirely performed by male bees. I am proud to say the hexagonal school of comb architecture was invested and perfected during the male regime, and so far has never been improved upon. There was a queen, of course; but she performed only the duties of consort to the kind, and of bringing forth eggs which contained the germs of future sovereigns.”¹⁶⁶

The tale of woe told by the drones reinscribes a patriarchal civilization. The utopia of the past imagines the female worker bees remaining in the hive, laying eggs and caring for

¹⁶⁵ Bisland, “The Coming Subjection of Man,” *Belford’s Magazine and Democratic Review* 3 (June-November 1889): 691.

<https://hdl.handle.net/2027/iau.31858045317892?urlappend=%3Bseq=703>

¹⁶⁶ Bisland, 693

the young. The queen bee is a consort to a male king bee, and the drones take on all the activities usually performed by the worker bees. The drones are not just the honey-makers and the laborers—they also are *architects*. In this fantasy, the innovative design of the honeycomb is attributed to the intellect of the male bee. The narrator even mentions that the drones *outnumber* the female bees: the fact that so few of the bees are male is clearly a sore point.

What's curious about the tale is that the text takes up the honeybee at all as its subject. Surely there are other animals that could serve as a natural model for a patriarchal civilization wherein men make up most of the population, have all the brains, and do all the governing. But it's exactly because the beehive is, in nature, matriarchal that Bisland takes it up as a model. The bees's present state serves as a warning for humans. As the drones tell their history, discuss the strictures on female bees' movements outside of the home and hive, and the regulations produced by their mating rituals. The drones also describe a change in bee government, documenting a transition from hereditary monarchy to elective monarchy, and then from elective monarchy to democracy. The drones explain that following their adoption of a democratic government, the female worker bees grew in number, and to the dismay of the drones, they increasingly demanded a voice in hive government:

This was followed by an abolition of all the old rules governing females; they began to share in the search for food, and took upon themselves the duties of paternity also. As a result of this more active life on their part, the number of eggs hatching females began to exceed those producing males; and with the growing preponderance of their sex they began to insist upon having a voice in the government of the hive.¹⁶⁷

¹⁶⁷ Bisland, 694

As the female bees gained numbers, they agitated for political power and pushed themselves into office. “No male ever again governed,” the drone tells drearily. Although the bees had decided upon a democratic government, under female governance, democracy disappeared. From the utopic vision of old, the drone transitions to the dystopic vision of life after female governance. Worker bees selfishly stop caring for their children, choosing instead to provide for the hive themselves. As female solidarity and political agitation becomes a reality, the drones see a corresponding decline in society.

Only one “real female” remains, and she is the queen. She remains in her maternal role, what the drone calls “nominal sovereignty,” while the others became unsexed. The drone refers to the queen as the “one real female” of the hive—language that repeats what Burroughs claim that the queen is “the only female in the hive.” The worker bee therefore becomes the unsexed woman, activating fears that women’s increased presence in political life might coincide with or even cause a population decline, as women might refuse to become mothers. The worker bees—all unsexed women — “destroy the greater number of the young males, leaving only a few subordinate individuals called drones.” Female empowerment has ended in three results: male genocide, unsexed women, and the downfall of democracy. The fate of the women is, if anything worse. The female bees become unsexed to the degree that they become workers, there is only “one real female” in each hive, and the workers destroy the young men. For Bisland, the beehive isn’t a metaphor for the utopian possibilities of female community, but a warning of the dangers of women’s empowerment in political and social life. The beehive is a dystopia of androgyny, drudgery, and a seemingly *unnatural* usurpation of power.

Bisland's dystopian beehive is not the end of the story, though, and the double-use value of the beehive as a natural and *unnatural* model of a matriarchal society continues into the twentieth century. The beehive metaphor would come to be used by perhaps the most famous feminist utopia in the American twentieth century, Charlotte Perkins Gilmore's *Herland* (1915). Gilman uses insect metaphors to describe the social structure of the all-female society discovered by three male explorers. The novel recounts an expedition of these explorers to uncharted lands—the unnamed country the men style “Herland.” In the tradition of anthropological encounters, the narrator seeks to describe his experience in this new society. These men function as types. First there is Terry O. Nicholson, the man's man. He's hotheaded, athletic, and believes women should be subordinate to men. Unsurprisingly, he has the hardest time adjusting to life in Herland. “Terry's idea seemed to be that pretty women were just so much game and homely ones not considering.”¹⁶⁸ Terry's inability to adjust to social life Herland eventually leads to the men's eviction from the country. Then there's Jeff Margrave, the sensitive idealist. Jeff is a southern man with a tender heart, and he reveres women as mothers. “He had such rose-colored halos on his womenfolks,” explains the narrator. Finally, we have narrator himself, Vandyck Jennings, who is the third member on this expedition. Vandyck describes himself as a sociologist. Where women are concerned, Vandyck explains, “I held a middle ground, highly scientific, of course, and used to argue learnedly about the physiological limitations of the sex.”¹⁶⁹ He sees himself as moderate, whereas the others are extreme. Of course, Vandyck has his own shortcomings and

¹⁶⁸ Charlotte Perkins Gilman, “Herland,” 6 no. 1 (January 1915). Facsimile reprint in *Radical Periodicals in the United States: 1890-1960*. New York: Greenwood Reprint Corporation, 1968. <https://hdl.handle.net/2027/mdp.39015029837609?urlappend=%3Bseq=5>

¹⁶⁹ Gilman, 16.

biases. His insistence that his point of view is “highly scientific” continues throughout the novel, and is repeatedly shown to fall short.

The men use insect metaphors to describe and understand the all-female society, and it becomes unbearable for them.¹⁷⁰ But the women do not reject the insect metaphor suggested by the men; in fact, they embrace it. The first time the metaphor is introduced is when Zava, one of the women of Herland, explains how the women of Herland have children without men. She is shocked that the men are so confused by this, because, she explains, there are models for parthenogenesis in the natural world. Jeff cannot believe it.

“Will you excuse us all,” he said, “if we admit that we find it hard to believe? There is no such—possibility—in the rest of the world.”

“Have you no kind of life where it is possible?” asked Zava.

“Why, yes—some low forms, of course.”

“How low—or how high, rather?”

“Well—there are some rather high forms of insect life in which it occurs. Parthenogenesis, we call it—that means virgin birth.”¹⁷¹

Searching for a natural model in answer to Zava’s question, Jeff admits that some “low forms” use parthenogenesis. Zava corrects his androcentric assumption: “How low—or how high, rather?” inverting the idea that asexual reproduction belongs to “lower” lifeforms. Since the Herlanders are decidedly more advanced than the explorers, she makes a convincing point. Jeff explains that some insects use asexual reproduction, and, sticking with the metaphor, Zava serves it back to him. She exclaims that it would be fascinating to compare the differences between the Herlanders,

who are only mothers, and you, who are mothers and fathers, too. Of course we see, with our birds, that the father is as useful as the mother, almost. But among

¹⁷⁰ As Lauren Wilcox, in her work on feminist swarms and utopias explains, the women’s society “is a society free from war, violence, and poverty . . . The cooperative nature of the women’s utopia is juxtaposed to the competitive, hierarchical, masculine order . . . What appears as a utopia for the women becomes an unbearable dystopia for the men, who cannot reconcile themselves to a life of equality with women” (Wilcox 26).

¹⁷¹ Gilman, “Herland,” 90

insects we find him of less importance, sometimes very little. Is it not so with you?¹⁷²

Zava looks to the natural world to confirm what she already knows. With birds and insects, for example, the males are less “useful” and less important. While turning to the natural world to support human social arrangements is frequently a conservative act—in Zava’s hands it is in fact a radical repositioning of what men do. Since the natural world supports Zava’s understanding that men are unessential, why not harness the lesson and extrapolate it for the human social world?

While the men grasp at insect metaphor to translate the strange customs of Herland, the women choose to figure their experiences not through metaphor but anecdote. Where Jeff claims that bees and ants don’t live in competition, and that Herland is much the same, Ellador speaks in facts and experiences. She describes how her career as a forester began with her finding a big purple-and-green butterfly. When she brings the rare creature to her insect teacher, the teacher cries out in joy. “This is a female of the obernut moth,” the teacher explains,

They are almost gone. We have been trying to exterminate them for centuries. If you had not caught this one, it might have laid eggs enough to raise worms enough to destroy thousands of out nut trees—thousands of bushels of nuts—and make years and years of trouble for us.¹⁷³

If we were expecting a story of the capture of an endangered species, a careful mothering of that species and re-release into the wild, we are sorely disappointed. This is an anecdote that reveals much. This anecdote puts a premium on the natural world as something we control. The future forester learns that to husband trees, you must control

¹⁷² Gilman, “Herland,” 90

¹⁷³ Gilman, 239.

and “exterminate” alien invaders. It’s a surprising story, and a marked twist of the kinds of metaphors the men have been using to describe the women’s communal life.

If the men speak in analogy, and the women speak in anecdote, their philosophies and psychologies are no less different. These fundamental and irreconcilable differences come to a head when Terry, Jeff, and the narrator marry Alima, Celis, and Ellador. A triple wedding takes place in the large Herland temple, and the occasion is full of joy and anticipation that a new, higher way of life of Brotherhood as well as Sisterhood will open this country up to the rest of the world. But in this utopia, there is no happy ending. Consumed by his need to “master” his wife, Terry, the most manly of the three whose misogyny has kept him from admiring or integrating into Herland’s hive culture, tries to force himself on Alima. The attempted rape shatters the marital bliss of all three couples. There is a trial, and Alima wants to have him executed. The narrator describes how, at one point, Terry

did let himself go once, explained in definite terms that they were incapable of understanding a man’s needs, a man’s desires, a man’s point of view. He called them neuters, epicenes, bloodless, sexless creatures. He said they could of course kill him—as so many insects could—but that he despised them nonetheless.¹⁷⁴

The insect metaphor that Terry, Jeff, and Vandyck have been relying on for the whole experience rears its head again. This time, Terry has fully lost it. It’s no longer a metaphor to Terry, but an actual description of these women, who will not have sex with him, and who are therefore “insects.” Whereas the hive metaphor has been used to describe a communist and communal society, here it has turned into something monstrous in the eyes of Terry, a hive of insects attacking and dismembering their prey.

¹⁷⁴ Gilman, 293.

The matriarchal utopia has no place for Terry, and so he transforms the cooperative women into monstrous insects. Terry's contemptuously masculinist response to a matriarchal utopia, Graham Murphy writes, manifests itself in an anxiety toward insect-dominated societies. Though under the rule of a queen, there's no question that the hive is communist, or at least socialist, by the time Gilman employs the metaphor. Murphy notes that the hive's communism presents a major problem to western modernity, especially as it is constructed in a male-dominated world. The communist hive (which is female-dominated) "challenges the dominance (and relevance) or liberal humanism's focus on individual identity and selfhood. Communalism appears monstrous to utopia's visitor's, who typically carry liberal humanist heteronormative codes..."¹⁷⁵ The hive rejects individuality and selfhood, and turns communality into the greater good. The female insect, for these men, threatens to unwind modernity itself. Women working together becomes monstrous, and even dangerous, to men.

Murphy isolates Gilman's *Herland* as an early twentieth-century example of a narrative which reclaims the female insect. But as I have shown earlier, the use of the beehive as a model for female governance has been around for hundreds of years. Where Gilman's hive is distinct is in her dismantling of the queen bee in favor of a hive of workers. Contrast Gilman's female insect to that of Burroughs, who emphasized the ungended democratic swarm as a model for governance. *Herland's* female insect is in fact best understood as a logical outcome of Morley and Comstock's female worker bee. Remember that for Morley, the functionality of the worker bee's body was beautiful. The worker bee might not have the natural beauty of the queen, but their bodies, which

¹⁷⁵ Graham J. Murphy, "Considering Her Ways: In(ter)secting Matriarchal Utopias." *Science Fiction Studies* 35, no. 2 (July 2008): 273.

contain a third more sense organs than the queen, is lovely for her ability and work ethic. Comstock's worker bee presses home the point even more when she celebrates the worker bees as the "the worker-sisterhood" of the hive.

We see this theme of cooperation within the female hive as fundamentally dangerous to male-gendered persons reappear in Leslie F. Stone's "The Conquest of Gola," published fifteen years later in *Wonder Stories*, a Hugo Gernsback SF magazine. *Wonder Stories* was the 1930 consolidation of two of Gernsback's other periodicals, *Air Wonder Stories* and *Science Wonder Stories*. Stone had published in *Air Wonder Stories* in 1929. Although her name is ambiguously gendered, Stone was always known by her audience to be a woman author, and her portrait appeared beside many of her stories, including "The Conquest of Gola." As such, she was one of the first women writers to write for the SF magazines.

"The Conquest of Gola," a sex-role reversal story that takes place on another planet, is the culmination of the female hive at its feminist best. The Golan society is meant to imagine a completely alien planet in its power structures and values, yet it also inscribes a philosophy of care that feels familiar to the work done in Gilman's *Herland*. Like *Herland*, it creates a society that functions like a beehive to celebrate the female "hive mind" and the industry of the worker bee. Stone's story depicts the supremacy of the hive-like organization of the Golans in the face of their would-be conquerors, "the ignoble male creatures" of Earth—called by the Golans the planet Detaxal, the third rock from the sun. These men come to Gola "to conquer, to lay waste, to struggle and fight as the animals do over a morsel of worthless territory"¹⁷⁶ The men underestimate, however,

¹⁷⁶ Leslie F. Stone, "The Conquest of Gola," *Wonder Stories* 2, no. 11 (April 1931): 1279.

the superiority of the female Golan hive collective, which, as we see in the story, outmaneuvers them mentally, physically, and technologically.

The language of the attempted conquest frames it in terms of sexual predation and assault. As the invasion begins, the narrator, for example, describes the men's ships as "cylinders" which "hung" above the city, "pushing cautiously through the cloud mists, seeking that which lay beneath."¹⁷⁷ The implications are certainly sexual. Batya Weinbaum explains that these men come to the planet as explorers, and that that act of exploration and conquest is framed as a ravishment of resources and of the planet which in its essence is a "fundamentally masculine" act.¹⁷⁸ The hanging cylinders above the city, pushing and seeking through the cloud mists, undertake "a kind of imperialist rape."¹⁷⁹ Yaszek, in her book-length study on women writing SF in postwar America, mentions Stone as a progenitor of the genre. She writes succinctly of "Gola": "[I]t depicts a world of technologically advanced, telepathic women who fend off conquest by the rapacious men of a neighboring planet."¹⁸⁰

And yet, no conquest actually happens in the story. "The Conquest of Gola" is in fact about the failure of conquest of the female-dominated planet Gola. Over the course of the story, the men from the planet Detaxal try and fail to conquer and exploit Gola on two separate occasions, and both times the Golans fight back and retain their independence.

¹⁷⁷ Stone, 1280.

¹⁷⁸ Batya Weinbaum, "Sex-Role Reversal in the Thirties: Leslie F. Stone's 'The Conquest of Gola.'" *Science Fiction Studies* 24, no. 3 (November 1997), 473.

¹⁷⁹ Weinbaum, 472.

¹⁸⁰ Lisa Yaszek, *Galactic Suburbia: Recovering Women's Science Fiction* (Columbus: Ohio University Press, 2008), 27.

The narrator of the story is a seasoned matriarch, the oldest Golan on the planet, and the only one who was alive during the failed invasions. The Golans are monarchical and nationalistic—and they are obviously modeled on bees. The story begins with a salute to the daughters of Gola, who are listening eagerly to the tale. Here's what we discover about Gola. Gola is a wet planet, protected from the sun's rays by cloud cover. Golans communicate through mind speech, which is also their primary weapon. Through strength of willpower they can break their enemies. The Golans' bodies are made of rounded limbs and circular shapes, lacking an endoskeleton and covered in golden fur. It's said that the Golans bodies maintain structure from pure muscular development, implying that although their most obvious weapon is force of mind, they could physically overpower their enemies as well. They present a sharp contrast to the hard bodies of the Earth men. "Everywhere in their bodies are these cartilaginous structures—hard, heavy, bony structures developed by the chemicals of the being for its use."¹⁸¹ The soft, golden, rounded bodies of the Golans are described as superior to the hard, bony bodies of the Earth men, emphasizing sexual dimorphism but reversing the expected outcome.

This fundamental hierarchy based on sex underwrites the Golan's hive-minded worldview. For example, the male Golans identify with the earth men, despite their lower place on the social ladder. We hear that seeing the earthlings in their spaceships

was upsetting the morale of the males, for on learning that the two ships contained only creatures of their own sex they were becoming envious, wishing for the same type of playthings for themselves.¹⁸²

And Golan leadership repeatedly underestimates the earthlings because they are male:

"To think of mere man-things daring to attempt to force themselves upon us. What is the

¹⁸¹ Stone, 1281.

¹⁸² Stone, 1281.

universe coming to? What are their women back home considering when they sent them to us. Have they developed too many males and think that we can find use for them?”¹⁸³ The irony, of course, is that the Golans in power are female-chauvinists. They reject the possibility of equity between the sexes, grasping onto their power at the expense of progress. Then again, what equitable relation can be had between colonizers and a resource rich planet?

The Golans find fault with capitalist exploitation and imperialist conquest, valuing unity and community instead. Their values are reflected in their method of communication, telepathy, which rapidly transmits ideas throughout the community for the harmony of all. The Golans are hive-minded, and the hive functions at its best when the whole works for the good of the group. The hive, as I’ve been arguing, is an inhuman female collective, one that combines a natural model (insect societies) with a mechanistic one (the hivemind), and the Golans are clearly legible in this paradigm. Explicit in the sex-role reversal story is the gendering of desires and goals that structure the world. Their concerns are domestic: loving their cities, their homes, their daughters, and their consorts.¹⁸⁴ In contrast, men are aligned with imperialism, capitalism, and exploitation. The men, who are implied to be Americans, profess to come to Gola “with the express purpose of exploration and exploitation” to establish “commerce and trade.”¹⁸⁵ The paradise of the female hive is in its anti-capitalist, anti-imperialist policies, something which the attempted conquest of Gola would devastate. Luckily for the Golans, their superiority of mind, strength, and technology fends off the mercenary men, and the

¹⁸³ Stone, 1282-83.

¹⁸⁴ Stone, 1279.

¹⁸⁵ Stone, 1284.

female hive survives and thrives for future generations. The daughters of Gola live to pass on the tale of the failed “conquest” of Gola.

V. Hives and Colonies: Bees and Ants

Frequently while writing this chapter, the question came up of why the honeybee. Ants are just as prevalent a motif in Gilman’s *Herland* as honeybees, and the ant is similar to the honeybee in their social formation, especially in that ants are also organized under a queen. Indeed, this lumping together, as it were, of various kinds of insect hives happens frequently in critical writing on hives and dystopias: e.g., in Dunn and Erlich’s “Vision of Utopia: Beehives and Mechanization,” Graham Murphy’s “Matriarchal Utopias” and Lauren Wilcox’s “Drones, Swarms, and Becoming.” Acknowledging the slippage between beehives and ant colonies in contemporary writing on hives reveals the extent to which, as far as modernity is concerned, all hives are the same.

Despite the similarities of hives to colonies in figurative and metaphoric writing, I want to conclude this chapter by proposing two significant ways in which the ant colony and beehive function differently for nineteenth and twentieth century authors.

First, if the honeybee is emblematic of the white settler self-imagining, as we saw with Thomas Jefferson, Washington Irving, and Henry Wadsworth Longfellow, the ant is regularly used to activate discourse about primitivist and racist taxonomies. It is the ant—and not the honeybee—that critic Sherryl Vint calls “a favoured cultural symbol for interrogating the related logics of imperialism and capitalism.”¹⁸⁶ In other words, though the ant is not self-consciously employed in the iconography of white colonialism, it is, in

¹⁸⁶ Sherryl Vint, *Animal Alterity: Science Fiction and the Question of the Animal* (Liverpool: Liverpool University Press, 2012), 120.

practice, *more frequently* used in fictional figurations to represent nonwhite populations' encounters with imperialism.

Second, although ant colonies are primarily composed of female worker ants and are dependent on the queen for reproduction, ant colonies are not used by women writers to celebrate worker-sisterhood. This is almost certainly because ants were considered to be militant, an association women writers were quick to want to shed. Comstock, for example, observes of the ant:

If one chances upon an ant battle, one must compare it to a battle of men before the invention of gunpowder; for in those days fighting was more gory and dreadful than now, since man fought man until one of the two was slain.... Woe to the one on which the jaws of her enemy are once set! For the ant has bulldog qualities, and if she once gets hold, she never lets go even though she be rent in pieces herself. At night the ant armies retreat to their citadels, but in the morning fare forth again to battle; and thus the war may be waged for days, and the battlefield be strewn with the remains of the dead and dying. So far as we are able to observe, there are two chief causes for ant wars; one is when two colonies desire the same ground, and the other is for the purpose of making slaves.¹⁸⁷

Notice how Comstock slips between male and female-gendered pronouns when discussing the warlike ants. These ants are like men battling in melee combat for land and slave ownership. They are imperialist expansionists and cruel masters. This gendering of the ants contrasts with Comstock's writing on honeybees, where she declares of the worker bee:

she is ever driven on with the sense of her responsibilities: for the worker-sisterhood must do all the work of the hive, collect and store the food, manufacture the wax, build the comb, take care of the footless, helpless larvae, fight the battles for protection, and manage affairs generally.¹⁸⁸

¹⁸⁷ John Henry Comstock and Anna Botsford Comstock *The Study of Insects*. (Ithaca, New York: The Comstock Publishing Company, 1895), 674.

¹⁸⁸ John Henry Comstock and Anna Botsford Comstock, 391.

The reign of the queen bee, and the worker-sisterhood of the workers, present two worthy models to be followed by young women, in stark contrast to the warlike expansionist ants.

Four ant stories are particularly worth discussing in this context. L. Taylor Hansen's "What the Sodium Lines Revealed" (1929; she is also known as Lucile Taylor); Louise Rice and Tonjoroff-Roberts's "The Astounding Enemy" (1930); Bob Olsen's "Peril Among the Drivers" (1934); and Frank Belknap Long's "Green Glory" (1935). Hansen, Rice and Tonjoroff-Roberts's stories, being works by women writers, are the clearest in showing the rejection of the idea of ant-as-female. They also directly implicate the ant—and their authors—in explicitly colonialist and racist worldviews. Olsen and Long's stories offer a model of the female-as-insect that differs from their women-authored counterparts. In marked contrast to the stories we've seen previously, these stories emphasize the inferiority of women and celebrate the importance of heterosexuality. This difference reflects the work of the women writers from earlier in the century who had discovered utopian possibilities in the female hive.

L. Taylor Hansen's "What the Sodium Lines Revealed" (1929) offers a framework for reading the "primitive" ant. In Hansen's story, a human space traveler demands technological aid from an alien intelligence called Magu of IV. Magu refuses. As the "superior" intelligence, Magu feels no obligation to help humans, and he counters that humans rarely offer to help others on their own planet. Magu has two examples for this: the Hottentots, which we would now call the southern African Khoikhoi, and the ants. This juxtaposition of two groups, which are both alike to the space traveler but "inferior" in intelligence, effectively compares a nonwhite and nonwestern human society

to an animal one. For Magu, this is no problem. He argues that ants, like humans, “have nations, wage wars, build cities, divide up their work among professions, herd domestic animals, attend meetings, harvest again and hold competitive games for amusement.”¹⁸⁹ Magu generalizes that the American in front of it represents Man and that other groups, like the Khoikhoi, here referred to derogatively as “Hottentots,” are less-than human and less-similar to “Man” than the ant society. Magu reproduces the narrator’s racist assumptions by drawing an ontological distinction between “you people” and the Khoikhoi, and then underscores this difference by posing insect life as *more* advanced than the African form of human society. For the alien Magu, the ant is less inhuman than the Khoikhoi, and interspecies sympathetic identification can happen before intraspecies.

The passage is one example of how race and empire are often explicitly called upon in human/insect analogical thinking. It also suggests that although the honeybee is the self-chosen symbol for white Americans during the founding of the United States, the ant might be a more salient symbol for the racist and colonialist imaginings of the period’s writers. There’s a historical-material component here, too. Sleight writes that ants were dangerous to white settlers in Africa, destroying crops and spreading disease.¹⁹⁰ The materiality of the insect is never far from its symbolic resonances. If bees were a source of profit for white settlers in America, ants were a source of danger to white settlers in Africa.

¹⁸⁹ L. Taylor Hansen (Lucile Taylor) “What the Sodium Lines Revealed,” *Amazing Stories Quarterly* 2 no. 1 (1929): 135.

¹⁹⁰ Charlotte Sleight, “Empire of the Ants: H. G. Wells and Tropical Entomology.” *Science as Culture* 10 no.1 (2001):37

Ants and ant society threaten modernity itself in Rice and Tonjoroff-Roberts's "The Astounding Enemy" (1930).¹⁹¹ In "The Astounding Enemy," a group of scientists investigate the mysterious force attacking all metals; metaphorically, the force appears to be attacking all that represents modern progress and technology. As in Magu's story, the ants are highly technologically developed, and they have discovered their metal-eating acid through their scientific knowledge of chemistry. The story describes an admiration for the ant's scientific progress in developing a metal-eating acid, while nonetheless holding out confidence that human technology has placed humans above all other animals.¹⁹² In the story, the ants are compared with an "oriental menace" that was assumed to be sabotaging "modernity."¹⁹³ At the conclusion of the story, the protagonist Colonel Fortescue must save a white woman from a sexual attack by a giant ant. The image of the demure white woman, trapped in a silken web as a dark and menacing ant approaches her, is on the first page of the story.¹⁹⁴ As Sherryl Vint argues, the predatory ant is clearly acting out white fears of miscegenation, "betraying even more of such tales' tendency to conflate anxiety about non-white hordes with images of teeming insects."¹⁹⁵

In contrast to the human-animal-inhuman divide that ant stories reinforce, and the colonizer-native framework that underpins ant stories, ants are generally not used to represent or allegorize sex difference. This is despite the fact that ants are female-governed colonies in much the same way that bees are female-governed hives. Perhaps it's because bees are genteel and ants martial. Indeed, there's a misogynist thread woven

¹⁹¹ Louise Rice and Tonjoroff-Roberts "The Astounding Enemy." *Amazing Stories Quarterly* 3 no.1 (Winter 1930): 78-103.

¹⁹² Vint, 122-124.

¹⁹³ Louise Rice and Tonjoroff-Roberts, 78-103.

¹⁹⁴ Louise Rice and Tonjoroff-Roberts, 78.

¹⁹⁵ Vint, 123.

into stories on ants and women that is much more pronounced than in stories on bees and women—or at the very least, is less challenged. This is the idea that women are by nature too individualistic to understand the social organization of the colony. Such a criticism is lobbed by Bob Olsen in his “Peril Among the Drivers” (1934), which imagines its heroine, Diana, as selfish, lazy, and vain. Raised by an entomologist father, Diana’s love for insects is put to new use with the introduction of a technology that enables Diana to become an ant. Diana wishes to become a “princess ant,” that is, a future queen ant. Throughout the story, Diana’s selfish and foolish nature gets her into trouble, and her future husband Gordan needs to rescue her. “Peril Among the Drivers” represents a dramatically different version of the women-as-insect story, one which focuses on individualization instead of collective action, and one which mocks women for being lazy (Diana desires to be a princess ant because “they don’t have to work and they don’t have to fight”) instead of hardworking.¹⁹⁶

Finally, Frank Belknap Long’s “Green Glory,” published in *Astounding Stories* in 1935, exemplifies the association of bees with gentility and ants with warfare and conquest. In “Green Glory,” the world is at war: ants rule the underground, and bees rule the skies. Atasmas, the protagonist, is a human man in willing service to the ants. Men have skirted extinction just barely, and women have, as far as Atasmas knows, met extinction. To keep the human race alive, the ants propagate men by artificial means. Ants keep them alive to serve them in war. Meanwhile, the men have been having strange dreams—dreams of women. They don’t understand these “night shapes,” because women

¹⁹⁶ Vint has a very good reading of this story and how it reinforces the idea that women’s nature is more closely tied to their bodies and to animals than men’s, and how ants might be used to suggest problematic gender ideologies of sociobiology (97-98).

have seemingly gone extinct. As the story begins, Atamas is sent by the ant queen on a suicide mission; he is to release a deadly fungus into the hive of the bees. But the queen sends him with a warning: at the beehive, Atamas will meet the “night shapes” — “the little ones who visit [men] in dreams,” in other words, the images of women.¹⁹⁷ When Atamas infiltrates the beehive, he discovers that women have not gone extinct, but have been taken by the bees. The queen reveals that during the near-extinction of humanity, the ants saved the men, and the bees saved the women. She explains, “the night shapes seemed to us feeble, weak things. We refused to help them... Only a few survived and were succored by the weak and sentimental bees.”¹⁹⁸ The ants have saved the glory-seeking men, and the “sentimental” bees have saved the “feeble” women.

Here again the beehive is depicted as an essentially sex negative organization—only this time it’s the ant colony doing the depicting. Heterosexuality still exists, but the ants have purposefully artificially reproduced men and kept them from women in order to keep the men subservient. They fear that knowledge of the survival of women might cause the men to break ranks. Upon meeting the “night shape,” Atamas gives credence to these fears. He is overwhelmed by instinct and takes the woman in his arms. The scene is rendered as a battle between Atamas’s natural human instinct and his conditioning as an ant thrall. Both dominate Atamas: he can neither escape the woman nor ignore his queen’s command to release the deadly spore. So, Atamas chooses. He embraces the woman and spreads the ant’s fungal spore. In their first and final kiss, the fungus spore spreads, transforming their brains into plants. “And then the transition was so rapid that he did not agonize, but was transformed in an instant, and remained everwrapped in glory

¹⁹⁷ Frank Belknap Long, “Green Glory,” *Astounding Stories* 14 no.5 (January 1935): 69.

¹⁹⁸ Long, 69.

and a shroud of deepest green.” The rapturous, instantaneous death is three things at once: the sexual death of the man and woman, the mortal death of the bees and the human women, and the transformation of human to plant that makes Atamas’s body become another garden of Eden. Atamas’s act of biological warfare against the bees is intended to be the final, genocidal act of war, and I can’t help but be troubled by the conclusion. The fungus spore that kills Atamas and his female companion would also have wiped out every last woman alive. In “Green Glory,” human heteronormative sex is the final, suicidal act of male resistance to the dominion of the female hivemind.

The female insect can be monstrous to patriarchal worldviews, because it suggests the capacity of women to form self-sufficient communities. Moreover, the communist implications of the “worker-sisterhood” suggested by a community of worker bees rejects individuality and selfhood. The female honeybee therefore finds itself sympathetic to feminist socialist rhetoric. The moment the female insect transitions from queen-mother to worker-machine the honeybee becomes a feminist animal. The worker bee becomes a symbol for the utopian possibilities of women’s working communities, free from the unflinchingly heterosexual, frequently violent, and always exploitative impulses of male liberal personhood. The ant colony, discussed at the end of this chapter, brings to light the ways that the honeybee is distinct among animals for offering a model of the female insect that is adopted as a utopian metaphor by women writers. Not all women can be queen bees, but, these writers show us, most women don’t want to be. To embrace the feminist hive is to become a worker bee.

Chapter Three

“He is Married, Perchance has a Family Grown”: Romance, Domestication, and Aliens in the Science Fiction Pulps 1926-1934

Forty years after the publication of a story many consider to be the first work of feminist science fiction, Catherine Lucille Moore’s “Shambleau” in *Weird Tales* in 1933, the author quipped that if there’s a single argument her writing pursues, it’s that “the most treacherous thing in life is love.”¹⁹⁹ For a writer best known for her weird fiction and science fiction in pulp magazines in the 30s and 40s, the idea might seem, on the face of it, as “weird” as the pulp magazines she wrote for. Certainly any reader might counter that dangerous new technologies, bug-eyed monsters, or space aliens—all staples of Moore’s pulp fiction— are arguably more treacherous than love. Superficially, the pulps appear to be exceptionally ill-fitted for stories about love. Science fiction, after all, has a reputation for spurning sentimentality in exchange for cold, hard science, and its stereotypical audiences are mistakenly assumed to be young men engrossed in their adolescent fantasies. Moore’s writing then raises the question: what are the historical affordances provided by science fiction to women writers interested in an exploration of the dangers of love? In the broader context of American pulp fiction of its time, SF’s reputation for unsentimentality would necessitate a short memory and selective reading. Indeed, as this chapter will argue, science fiction during the pulp era, and perhaps especially that written by women, is uniquely imbricated in questions of family, domesticity, romantic attachment, sexuality and gender—problems its authors frequently

¹⁹⁹ C.L. Moore, “Introduction,” in *Fury* rev. ed. (New York: Lancer Books, 1973), 1.

pursue by way of interspecies love stories, the now classic, but new at the time, genre of boy-meets-sexy-space-alien.

One place where alien love interest plays out is in the pulp SF magazines of the 1920s and 1930s. Science fiction during the 1920s and 1930s was deeply embedded in romance, family, marriage, and domesticity, both in the content of the stories and in the whims and wishes of its readers. This chapter argues that because of science fiction's deep investment in the vernacular of the nuclear family, it contains within it a vehicle for critiquing the nuclear family. Indeed, because science fiction stories are so entangled in questions of heterosexual romantic attachment, the genre capaciously acts as a medium for the powerful critique of patriarchal fantasies of the nuclear family. By rearranging romantic relationships between masculine men and feminine women to those between humans and aliens, SF in the pulps modifies the gender work we have already seen in chapters one and two. The female inhuman as alien, like the female-as-machine and the female-as-hive participates in the discourse of the inhuman, and therefore monstrous, woman. The female alien in particular has been generative for feminist theory: unknowable and grotesque, she appears at first to encapsulate gender binaries based on patriarchal theories about women. Yet, the early instances in the pulps of the female alien, or more broadly the alien love affair, complicates this narrative.

This chapter, then, will tell the story of the SF pulp magazines' love affair with romance with an eye to uncovering its ideological continuity with other instances of the female inhuman. The first half of the chapter tracks the gendered engagement with a growing interest in popular science with the creation of science fiction genre magazines. In particular, I trace the history of public engagement with science and scientific hoaxes,

especially the Locke Moon Hoax of 1835, on two levels. First, I show the path leading scientific amateurs to become science fiction fans and consumers when the Locke Moon Hoax gets republished within the pages of *Amazing Stories*, the first SF pulp magazine. The history of moon hoaxes thereby gets claimed as a form of science fiction. Second, I consider what it means that this inclusion is by no means universally approved by fans, including the female fans, the opinionated readers of *Amazing Stories* who regularly write into the magazine. The readers' conversations published in the back of the magazine tell much about the tastes and habits of the magazine's audience. In these discussions, readers reveal bits and pieces of their lives outside of fandom. They also make their tastes known, throwing brickbats at things they dislike and bouquets at things they praise in *Amazing Stories*. They comment on the content of the stories and the quality of the illustrations, but they also write to take part in conversations happening within the *Discussions* section itself. Under debate is the place of both romance and interplanetary adventures in SF, and the role of female love interests.

The second half of the chapter then considers how these female love interests, especially as adopted in the form of the romance between human males and space alien females, have become a touchstone for thinking about feminist science fiction. I begin with an analysis of feminist scholars' theorizations of the female alien, which the chapter then pursues with readings of four alien romance stories that confirm and challenge the themes of alien romance. We begin with Minna Irving's "The Moon Woman" (*Amazing Stories* 1929) and Clare Winger Harris's "The Fate of the Poseidonia" (*Amazing Stories* 1927), follow with C.L. Moore's "The Bright Illusion" (*Astounding* 1934), and conclude with Moore's famously celebrated, and at times maligned, "Shambleau" (*Weird Tales*

1933). The female inhuman reappears as the alien, but unlike the machine and the hive, the alien is assimilated into the logic of the nuclear family; or, rather, she attempts to fall into patterns of coupling and romance, but fails. Female machines and intelligent hives are two forms of science fiction stories that warp the logic of gender difference, placing gender under a microscope in order to magnify and exaggerate gender difference. In female machine stories, we see women writers telling stories of artificially powerful women who wreak havoc on their domestic duties—cleaning house, having sex, rearing children. In insect hive stories, the all-female societies wave goodbye to childbirth and free themselves from the coded-masculine violent impulses of colonialism and imperialism. The takeaway is that women's science fiction stories, when they imagine alternative social formations or advanced technology, often use them to build different sex relations, and not generally more equal ones. Alien love affairs work differently. Couplings reveal affinities, and create allegiances, forging new bonds of relation that did not exist prior to the coupling. In the case of marriage, these new allegiances unite disparate families—in the case of children, the bonds anticipate the future. But in alien romance, the desires and couplings cannot easily fall into familial patterns. When the marriage is interplanetary, concepts like allegiance and futurity become stressed. The alien romance is therefore uniquely able to explore the dangers of love and romance outside of familial and patriarchal structures.

I. Popular Science and the Emergence of Pulp Science Fiction: The Significance of 1926

Before 1926, texts that we might now call “science fiction” were dispersed through multiple channels of distribution. The female machine stories discussed in chapter one, for example, are often strikingly similar in style to other short stories published in bourgeois middlebrow presses, with which they shared space. In contrast, the female hive comes out of a tradition of nineteenth-century utopian fiction, which often explicitly metaphorized utopian societies as insect collectives – beehives, anthills—in order to suggest an alternative social arrangement that was in itself natural if not human. But with the publication of Hugo Gernsback’s *Amazing Stories* in March 1926, the science fiction genre magazine was born. The emergence of the genre-specific pulp SF magazine marks an important distinction from the kinds of science fiction published in the 1890s and 1900s, the change in format being reflected in a change in style. It is after 1926 that interplanetary stories begin to be incorporated, although not without protest, in science fiction, and so it is after 1926 that the alien love story really comes into its own.

Placing the pulp magazines discussed in this chapter alongside the middlebrow and utopian fiction of chapters one and two shows the extent to which alien romance is historically bounded and is tied to the emergence of the pulp magazines and science fiction fandom communities. Before 1900, what is “interplanetary” exists, but it tends to exist within the same framework as something like an arctic expedition tale.²⁰⁰ One might travel to the North Pole, or the lost city of Atlantis, as soon as travel to Mars. Nineteenth-century speculative fiction favors technological invention, such as the female machine, and utopian models, such as the beehive. It isn’t until the 1920s that authors start to move

²⁰⁰ A much earlier example, but Margaret Cavendish’s “Blazing World” mixes both: a multidimensional otherworld and the arctic north.

their stories beyond earth in large numbers, and interest emerges in interplanetary adventure, which invites the introduction of alien life forms and alien love interests. The middlebrow female machines from Chapter One appear clunky next to these elaborate planetary romances, which imagine entirely new alien beings, planetary eco systems, and civilizations. In these interplanetary texts, new and alternative marriages between humans and aliens are played out that reinforce the nuclear family, even as they denaturalize it.

While the topic, then, is new, the audience for the pulp SF magazines remained gendered along lines familiar from the late nineteenth century. *Amazing Stories* fostered a real community of readers, who corresponded with the editors, and with each other, in the *Discussions* section at the back of the magazine.²⁰¹ In the first decade of science fiction, *Amazing Stories* was a space that invited all kinds of readers, and welcomed a wide range of stories, many of which were only marginally related to science. Women and girls frequently wrote to the magazine, as discussed in more detail in the following section.²⁰² The community's inclusive stance toward women stands in contrast to 1938-1946's "Golden Era" of science fiction, which followed the pulp era, and which is characterized by hostility to women across the board—hostility to women as authors, as audience, and as subject matter.²⁰³ *Amazing Stories*'s welcoming attitude toward female readers marks it as part of late nineteenth and early twentieth century print culture, which appealed largely to female readers and has been coded feminine.²⁰⁴

²⁰¹ Cheng, *Astounding Wonder*, 51-78; Larbalestier, *The Battle of the Sexes in Science Fiction*, 15-38.

²⁰² Jean Stine, Janrae Frank, and Forrest Ackerman, eds. *New Eves: Science Fiction About the Extraordinary Women of Today and Tomorrow* (Longmeadow, MA: Longmeadow Press, 1995).

²⁰³ Alec Nevala-Lee, *Astounding: John W. Campbell, Isaac Asimov, Robert Heinlein, L. Ron Hubbard, and the Golden Age of Science Fiction* (New York: Harper Collins, 2018). Nevala-Lee's portrait of Campbell shows how chief characteristics of this "Golden Age" included misogyny and white supremacy, traces of which are still affecting science fiction communities today.

²⁰⁴ Robert Weinberg, *Biographical Dictionary of Science Fiction and Fantasy Artists* (Westport,

Alongside the inclusive attitude toward all audiences, part of what made science fiction successful was a similarly inclusive attitude toward all kinds of science. *Amazing Stories* piggybacked on the trend of popular science and amateurism that characterized the first two decades of the twentieth century. In early twentieth-century America, science became more and more of a public affair, with scientific discourse becoming a regular feature of popular discourse circulating through newspapers. Newspapers would report on popular science in a sensational way that tended to mix fact and fiction. One telling example of this is Robert Goddard's rocket to the moon, which achieved viral status in 1920. Physicist and rocket scientist Robert Goddard was rocketed to fame when newspapers picked up a scientific treatise he wrote on rocketry, "A Method of Reaching Extreme Altitudes," and newspapers such as the *New York Times* ran front page headlines, "Believes Rocket Can Reach Moon."²⁰⁵ Goddard became a star, and Goddard's rocket, which did form the basis of what would become modern spaceflight, suddenly had dozens of volunteers for passengers to space. The problem, of course, is that Goddard's text was a work of theoretical physics. However, the enthusiasm of the public for theoretical rocket science speaks to the role that popular science had in the U.S. during this period. Goddard's popularity also points back to the influence of science fiction on scientific experiment: Goddard claimed to be a SF lover, and credited his early interest in the scientific method to H.G. Wells's *War of the Worlds*.

The first popular space stories in the U.S., then, appear in newspapers, rather than pulp magazines. What constitutes science fact and what is merely science fiction are

CT: Greenwood Press, 1988); Lisa Yaszek and Patrick Sharp, eds. *Sisters of Tomorrow: The First Women of Science Fiction* (Middletown CT: Wesleyan University Press, 2016).

²⁰⁵ Cheng, *Astounding Wonder*, 1-4.

blended in newspaper reports of popular science, and this fluidity of truth gets mirrored in pulp magazine fiction, which are often marketed as the science fact of tomorrow.²⁰⁶

The influence of scientific journalism on science fiction is especially apparent on narrative voice in fictional interplanetary stories. With an emphasis on description of new sociological and ecological systems and an “objective” narrator, the first interplanetary stories carry the traces of science journalism. Nowhere is the relationship between scientific journalism and science fiction clearer than in the first of America’s interplanetary stories—nineteenth-century moon hoaxes.

Before interplanetary romances, there were moon hoaxes. For Antebellum Americans, moon hoaxes quickly became fairly routine. For example, a parody of this sort of “journey to the moon” story appeared in the *Southern Literary Messenger* entitled “Recollections of Six Days Journey to the Moon, by an Aerio-Nautical Man.” It was published in 1844. The author of “Recollections” travels to the moon by use of “Aeriotism, or the faculty of self-suspension in the air.”²⁰⁷ Through self-suspension, he is able to achieve his dearest ambition of visiting the moon, from which he returns after a “most refreshing tour of six days, five hours and forty seven minutes.” Most of the story is taken up with a ponderous account of his preparations, which include procuring a map of the moon, and the whole account is heightened with a heavy amount of gravity puns. “[I] packed the lightest food I could think of, together with a map of the moon, and some cheap publications to supply me with light reading by the way...”²⁰⁸

²⁰⁶ Gary Westfahl, *The Mechanics of Wonder: The Creation of the Idea of Science Fiction* (Liverpool: Liverpool University Press, 1998), 37-63.

²⁰⁷ “Recollection of Six Days’ Journey to the Moon, by An Aerio-Nautical Man,” *Southern Literary Messenger* 10 (July 1844): 434.

²⁰⁸ “Recollection of Six Days’ Journey to the Moon,” 435.

“Recollections of Six Days Journey to the Moon,” would have been influenced by an even earlier satire of scientific discovery stories—the Locke Moon Hoax. In August 1835, six articles appeared in the *New York Sun*, claiming to tell, as the headline read, of “Great Astronomical Discoveries Lately Made by Sir John Herschel, L.L.D. F.R.S. &c. At the Cape of Good Hope, From Supplement to the Edinburgh Journal of Science.” John Herschel, the well-known astronomer, of course having nothing to do with any such discovery. Why the *Sun*, a penny paper which mostly published lurid reports of local crime, would republish John Herschel’s scientific discoveries was not questioned. What is important is that for six days, eager readers of the *Sun* were treated with new and exhilarating details about the diversity of life on the Moon, accompanied by gorgeous lithographs depicting lunar landscapes. The whole incident, complete with an amused letter by Margaret Herschel to her husband, delighted to discover the “clever piece of imagination in an American Newspaper,” is recounted by Paul Maliszewski in his 2005 article “Paper Moons.” As Maliszewski notes, it wasn’t until the fourth installment that the paper finally revealed that among the flora and fauna of the Moon included humanoid beings. “No journalist before or since Locke has buried a lead so deep,” Maliszewski says appreciatively.²⁰⁹ By then, the *Sun*’s total worldwide circulation reached 19,360, making it the world’s most widely circulated periodical. Curiously, the Locke Moon Hoax wasn’t even the first of its kind: Edgar Allan Poe accused Locke of riffing from his own story, published two months prior in the *Southern Literary Messenger* (“Hans Phaall A Tale”). Clearly, there was a market for moon stories.

²⁰⁹ Paul Maliszewski, “Paper Moon,” *Wilson Quarterly* 29, no.1 (Winter 2005): 31.

The Locke Moon Hoax, which would come to be known as “The Great Moon Hoax” reappears nearly a century later within the pages of *Amazing Stories*. It would get reprinted in full, including the original illustrations, alongside a full-page editor’s comment, in the September 1926 issue of *Amazing Stories*. *Amazing Stories* makes one particularly interesting editorial choice: the editor adds a section at the end quoting contemporary newspapers’ enthusiastic responses to the hoax. The story’s reception then become a part of the story. The editor gleefully reminds critics of the story that the hoax was “good enough to fool hundreds and thousands of people, who actually believed the hoax in question.”²¹⁰ By threading together text and paratext, *Amazing Stories*’s “Great Moon Hoax” makes the entire event into the story, emphasizing the connection between fiction and belief, and illuminating the thin line between the false and the possible. On the surface, the choice to include a piece of fake journalism from nearly a century prior doesn’t fit the magazine’s growing practice of publishing new fiction. Read the “Great Moon Hoax” as a document that confirms the real impact that fictional stories can have on public imaginations, however, and the decision makes sense. The “Great Moon Hoax” is the perfect illustrative example for a theory of reading that insists that the fiction of today would inspire the inventors of tomorrow. It is this willful optimism about the role of fiction on the minds of exceptional individuals that is returned to again and again in the editorials, and that works as a justification for the publication of science fiction.

II. Families of Opinionated Readers in *Amazing Stories*

²¹⁰ “The Great Moon Hoax,” *Amazing Stories* 1, no. 6 (September 1926): 556-574.

Pulp science fiction is deeply embedded in discourse of the nuclear family, in both its narrative themes and its audience's reading practices. Indeed, science fiction, especially in the pulp era, is a fundamentally domestic genre, and not just in the content of the magazines, but in the character of magazine's imagined audience. As John Cheng recently noted, the pulp *Science Wonder Stories* went so far as to imagine the ideal reader of science fiction pulps as a contented husband, a man who

is married, perchance has a family grown. He has been married to one woman for years... and he knows real marital love, deepening and becoming richer with every passing year... The scientifically-minded reader is a decent man, in his middle years, with an enduring commitment to his wife and children. This is the kind of reader who disapproves of salacious content, and enjoys the comforts of domestic life, as well as their inclusion in the fiction he reads.²¹¹

Such is the reader identified in a 1929 essay "What Science Fiction Means to Me" published in the first issue of *Science Wonder Stories*. This wholly imaginary reader tells us less about the actual readers—who, as we will see, who occupied a much more diverse range of ages, marital statuses, genders, and tastes—than about the values of the magazines: family, marriage, and domestic life. The ideal science fiction reader paints a picture of a fundamentally decent kind of fiction—one that is both morally bracing and socially fortifying. Reading science fiction was perceived as an activity which, like creating a happy home, could offer a respite from the complexities of modern life. Rather than an idealized reader, then, what we have is a theory of reading.

During this period, science fiction's professed fortifying nature and good moral quality meant that reading it was a family affair. Readers of all ages devoured the magazines and became a part of a community. The diverse set of ages and interests of the

²¹¹ Edward Elmer Smith, Ph.D., "What Science Fiction Means to Me," 2nd honorable mention, *Science Wonder Stories* 1, no.1 (June 1929): 88

audience found itself reflected in the content of the magazine, which was encouraged by and contributed to what one scholar calls a “broader domestic sensibility within science fiction.”²¹² Their tastes differed broadly, but they had one thing in common: they loved reading science fiction—although the definition of what should be in science fiction was always unstable, and hotly contested. This family dynamic is expressed humorously by a reader named Bradford Butler in one cheeky letter written to the editor of *Amazing Stories*: “Once a month, [A.S.] turns an otherwise amiable and attractive household into an inferno of selfishness—son against father, daughter against mother, and each against the field... each seeking to pre-empt the copy of the magazine to learn how Gerald got out of the mountains of Mars of how Octavius saved the fair Olivia from the machinations of the super-heterodyne monster of the Moon.”²¹³ Butler’s account of a family at war reveals the extent to which *Amazing Stories* was thought to be a family magazine.

Butler’s account of a lively family at a war also mirrors the dynamism of the debates that took place within science fiction, especially as to what science fiction should encompass. It seems unlikely today, but interplanetary stories themselves were once a contested part of science fiction. One reader, for example, wrote in to complain about the interplanetary stories. This reader writes:

It also has been a constant source of intermittent amusement and irritation to me, as I have observed the almost universal desire among writers of science fiction to quit the confines of good old ‘terra firma’ or earth and go roaming through space with their characters. Please Mr. Editor, cannot you hold them down to earth a little? I dare say that the planet earth has not been exhausted as a setting or background for some good science fiction stories.²¹⁴

²¹² Cheng, *Astounding Wonder*, 112.

²¹³ qtd. by Cheng, *Astounding Wonder*, 113-14.

²¹⁴ “Discussions,” *Amazing Stories* 8, no.3 (June 1933): 281.

Good old planet earth, as this reader protests, has quite enough room for science fiction adventures. But whether on earth or in space, the trope of the exotic woman was already tired by 1927. In the December 1927 issue of *Amazing Stories*, one fed up reader complains:

Am getting sick of reading of a man going to some other planet, or to the middle of the earth, or to some forsaken jungle, always to find the same thing—some “beauty” among the savages...Once or twice is all right, but for the love of Pete, make it the rule to keep ‘em on earth. They sound a little too improbably away from home.²¹⁵

This letter critiques the “savage beauty” trope and begs for more realism in the romance. The letter writer’s plea to “keep ‘em on earth” is a show of decency from the reader that is typical of the kinds of requests and critiques that formed the basis of pulp science fiction’s audience. Nevertheless, it should be surprising to see a fan of science fiction prefer terra firma over outer space. Whether interplanetary stories should be considered an essential part of science fiction was a matter for debate. In response, many readers made it known that they desired more interplanetary adventures. Barbara Baldwin from Grand Rapids, Michigan writes to make her preferences known:

This is another letter from a mere girl. I am seventeen years old, and have been reading *Amazing Stories* for about a year. I’ll say they’re great. What we want is more interplanetarian stories and less detective stories. I think that most of the other girls will agree with me in that respect.²¹⁶

Baldwin goes on to criticize the science in one of these stories, and to indicate that she bought a telescope after getting interested in astronomy through the pulp magazines. These letters reveal a sense of ownership that the community had over what they affectionately referred to as “our magazine,” and indicate that the parameters of science

²¹⁵ “Discussions,” *Amazing Stories* 2, no.9 (December 1927): 908.

²¹⁶ “Discussions,” *Amazing Stories* 4 no.10 (January 1930): 988.

fiction was always under debate. In Baldwin's letter, we also see the blurring of fiction and reality that the magazines fostered, and the idea that reading science fiction might contribute to amateur—and one day professional—pursuit of scientific inquiry.

Just as interplanetary stories were up for debate, romantic stories were similarly put up for discussion. One annoyed reader argued that the best science fiction subordinated love—although it shouldn't eliminate it entirely:

Again I think I may bring an example from Wells in the question of the part love should play in these tales. Wells, who is surely one of the most popular of writers, has hardly ever used the motif of love in his fantastic tales. Of course, I do not mean to convey that love should be entirely eliminated, but I do say that it surely ought to play a more subordinate part than it usually does.²¹⁷

Yet another reader, William Wong from Canada, felt that the romance was entirely lacking. He complained:

Noticeably absent in a majority of the stories is the element of romance. Of course, essentially speaking, romance is not usually associated with science, but we must not forget that these stories are also fiction and a romantic vein always heightens the interest of the reader.²¹⁸

Whether there was too much romance or not enough was clearly in the eye of the beholder. What is abundantly clear from these letters is that the SF pulps of the 1920s and 1930s were deeply imbedded in questions of love, family, and romance. The diversity of interests and the diversity of audience made space for many different kinds of stories, and this diversity included plenty of alien romances. There was clearly a debate about the interplanetary stories that linked them to ideals of family and domesticity, and readers seemed to find the stories to be fertile prompts for discussions of those matters.

²¹⁷ "Discussions," *Amazing Stories* 4 no.8 (November 1929): 761.

²¹⁸ "Discussions," *Amazing Stories* 8 no.12 (April 1934): 137.

III. The Female Space Alien and Feminist Theory

Let us return to the original statement of this chapter, which is Moore's contention that the basic argument of her writing is "the most treacherous thing in life is love." Human-alien romance is the site in which treachery is borne out, due to its unique ability to exaggerate femininity, enable swapped gender roles, and rearrange romantic relationships. Narratives about science fiction in the twentieth century agree that it has historically reproduced heteronormative family structures. Despite the technological progress depicted in interplanetary science fiction, social progress is often ignored, particularly when it came to women's roles. Authors who were otherwise thoughtful and creative about future societies often failed to consider that sociological changes accompany technological advances. Women in SF found themselves inhabiting what Joanna Russ in 1971 famously called "galactic suburbia." In effect, this means that frequently the only female subject in an interplanetary SF text is an inhuman subject: a female space alien. The major figure for interrogating romance, gender, and domesticity in SF is in consequence the alien, and most particularly the alien love interest.

Although not all alien love interests are feminine, female aliens have been an especially important touchstone in feminist scholarship on SF. The consensus in feminist scholarship has been that allegorizing the female-as-alien generally implies the existence of a male-as-human, and that the creation of this battle-of-the-sexes dichotomy makes it possible for SF to explore questions of sexual conflict through interplanetary adventures. Under this theoretical framework, species-based conflicts substitute for sex-based conflicts.²¹⁹ The very oppositions set up in theories of science fiction—hard science

²¹⁹ Joanna Russ, "The Clichés From Outer Space." *Women's Studies International Forum* 7, no.2 (1984): 121–24.

versus soft science, technology versus biology, human versus alien—map onto constructions of masculinity and femininity.²²⁰ Gilbert and Gubar, for example, write that in the science fiction tradition, “the comparatively subtle terms of sexual struggle...is explicitly allegorized through an examination of the ways in which humans (men) must confront and confound aliens (women).” This idea that femaleness is transmuted into alienness in science fiction is expanded to a critique of authorship by Robin Roberts, who argues that since SF has historically published more male writers than female writers, the genre is culturally masculine. She writes: “Because most science fiction was written by men, the genre reflected the larger culture’s treatment of woman as alien, with the significant difference that in sf, women could be depicted as literally alien.”²²¹ According to Roberts, until the feminist interventions of the 1960s, the genre struggled to represent women, femaleness, and femininity, so that what was feminine could only be represented by the female alien, who must be dominated and controlled by the male astronaut or scientist.²²² The texts discussed in this section offer a counterbalance to Roberts reading. I argue that Roberts is not entirely wrong, but that her reading doesn’t tell the full story. Female aliens occupy a much more diverse set of roles than frequently imagined. Following the logic of Roberts reading, we would be forced to conclude that even female aliens who invert the trope, by say, murdering the male astronaut instead of marrying him, are proof in the pudding. The monstrous female alien inverts patriarchal relations but reinforces the logic of the patriarchy in which might makes right. Fictions

²²⁰ Vivian Sobchack, “The Virginity of Astronauts: Sex and the Science Fiction Film” in *Alien Zone: Cultural Theory and Contemporary Science Fiction Cinema*. Annette Kuhn, ed. (New York: Verso, 1990), 104.

²²¹ Robin Roberts, “The Female Alien: Pulp Science Fiction’s Legacy to Feminists,” *Journal of Popular Culture* 21 no.2 (Fall 1987): 33-52.

²²² Robin Roberts, “The Female Alien,” 33-52.

that pursue a different course by celebrating the femaleness of the alien fall into another trap, by reverting to the logic of sex complementarity, thereby naturalizing male/female difference.²²³ The goal of this section, then, is to acknowledge the value of these earlier readings, but to offer new evidence and fresh perspectives on how the female alien challenges the nuclear family.

Perhaps convinced by the obvious logic of these readings, early feminist scholars argued that women who wrote female aliens were “alienated” from themselves.²²⁴ But I disagree. The fact that many female writers employed the trope of alien romance shows the elasticity of the figure of the female alien. And, happily, these narratives have been amended in recent years, especially by Lisa Yaszek, who revises Russ’s “galactic suburbia” by arguing that 1950s SF suburbia embraces technological progress as a feminist cause, thereby deconstructing the technology/biology binary, and by Patrick Sharp whose writing on “Darwinian feminism” in female-authored science fiction offers a new perspective on the use of evolutionary theory as a challenge to Darwinian masculinity. As should become clear, this chapter aims to join Yaszek and Sharp in rereading the female alien by focusing especially on human/alien romance plots, which are so imbricated in discourse of heterosexual love and family that they are uniquely situated to comment on it.

Significant to my understanding of the female alien stories is the disconnect between scholarly practice and public-facing indexes in science fiction. Feminist scholarship, when it has engaged with science fiction, has examined the intersection of

²²³ Sarah Lefanu, *In the Chinks of the World Machine: Feminism and Science Fiction* (London: Women’s Press, 1988), 33-36.

²²⁴ Robert, “The Female Alien,” 33.

romance, gender, family, and science fiction; however, because romance is considered to be a female-driven genre, the intersection of romance and SF has been drastically understudied outside of feminist scholarship. For example, the Encyclopedia of Science Fiction (SFE) includes 888 “themes” in science fiction, arranged alphabetically from 10th Planet (SF that takes place in outer planets, i.e. as opposed to on Mars) to Zoo (SF that deals with people in enclosures who are watched or studied, also texts that see the whole world as a “zoo” in this metaphysical sense). “Sex” is included as a topic of interest on the list, but “Romance” is not. Neither is “Domesticity,” “Family,” “Marriage,” or “Love.” Most astonishing of all, at the time of writing, “Gender” links to a page empty except for a promising “[Entry to follow].” The page was last updated December of 2011.²²⁵ The problem, of course, is that women, gender, romance, and domesticity are massively important themes within SF, as demonstrated for at least the last thirty years in the scholarly work of Vivian Sobchack (“The Virginity of Astronauts: Sex and the Science Fiction Film” 1990), Jane Donawerth, (*Frankenstein’s Daughters: Women Writing Science Fiction* 1997), Justine Larbalestier (*The Battle of the Sexes in Science Fiction* 2002), Lisa Yaszek (*Galactic Suburbia: Recovering Women’s Science Fiction* 2008), John Cheng, (*Astounding Wonder: Imagining Science and Science Fiction in Interwar America* 2012), and Patrick Sharp (*Darwinian Feminism and Early Science Fiction: Angels, Amazons, and Women* 2018). I propose that we continue the conversation, making it louder and more comprehensive to reach a larger audience. This involves filling in the gaps. The largest of these gaps is lack of discussion on romance in SF, particularly that which involves human/nonhuman pairings.

²²⁵ “Gender,” *SFE, The Encyclopedia of Science Fiction*, 20 December 2011.
<http://www.sf-encyclopedia.com/entry/gender>

Because it has been under-studied in public facing indexes, alien romance in science fiction, and especially in pulps, might conjure unwelcome images of chiseled men and distressed damsels, bulging pectorals and heaving bosoms, and coupled with an almost compulsory heteronormativity. To go back to the SFE index, an entry on “Women in Science Fiction” recommends that we see also “Clichés.”²²⁶ One of the foundational interplanetary romances, Edgar Rice Burroughs’s Barsoom series (*All-Story Magazine*, 1912), is an oft-cited example of a SF tale that deals in and reproduces sex role stereotypes. In brief, the adventure tells the story of the protagonist, Confederate veteran John Carter, who rescues the captive Martian princess Dejah Thoris with heroic feats, quickly winning her affection and ultimately winning her hand. The hypermasculine Carter and the “slender, girlish,” and basically unclothed Dejah, if imagined as the prototypes for human/alien love affairs that follow, might at first suggest that romance in SF is premised on male sexual wish fulfillment and the promised “clichés” of women in SF. Carter and Thoris’s dénouement, though, is strangely tame. They fall in love, marry, and hatch an egg—the Martian way of procreating. Foundational in science fiction stories, then, is domesticity and the cultivation of the gender-stereotypical nuclear family, even when that family is alien to humanity.

Burroughs is not just an early example of science fiction’s propensity for the domestic, he is also an eminently important one. His depiction of John Carter and Dejah Thoris made an incredible impact on fledgling SF writers who would come into their own as writers in the decades to follow, including a young Leslie F. Stone, the author of “The Conquest of Gola” discussed in Chapter Two. C.L. Moore, too, cites Burroughs as an

²²⁶ “Women in SF,” *SFE*, 31 August 2018. http://www.sf-encyclopedia.com/entry/women_in_sf

influence, and recounts devouring the Barsoom series as a child. Burroughs's Carter and Thoris are prototypes for the mix of romance and adventure that dominate much of the pulp fictions of the 1920s and 1930s. Ray Bradbury once claimed that

Burroughs is probably the most influential writer in the entire history of the world [...] By giving romance and adventure to a whole generation of boys, Burroughs caused them to go out and decide to become special.²²⁷

Bradbury's comment, though, reveals a bias in memory, because Burroughs didn't just influence a generation of boys. His stories were formative for a host of women writing science fiction, too.

The stories we've been discussing already have had a through line of heterosexual couplings and monstrous unions. Burroughs's story, then, though bathed in clichés, offers valuable insights into SF, and ones that we've been witnessing, if not articulating, all along. First, that human/inhuman love affairs are foundational to the genre. We've seen couplings and romance in the female machine stories, for example, where often the female machine is set up as a sexual competitor for the human woman. Even in stories like *Herland*, hetero-couplings form the site of tension and renewal, playing out in a microcosm the stories macro concerns about gender relations. In *Ex Machina*, Caleb and Nathan's conversations offer arguments that human interaction is necessitated on sexual interest. Love and aliens are not so much at odds with each other but constitutive, offering non-totalizing affinities and unpredictable evolutions. The reason, I want to suggest, is because these couplings speak to fascinating, if often unacknowledged, questions of hybridity.

²²⁷ qtd. in Sam Weller, *Listen to the Echoes: The Ray Bradbury Interviews*. (Brooklyn: Melville House, 2010).

IV. Alien Romance in Four Stories

A common formulation of alien romance brings together a masculine explorer with a feminine alien—“some ‘beauty’ among the savages,” in the words of one fed up reader.²²⁸ Donawerth calls these women “BAMS” – beautiful alien monster-women.²²⁹ But of course, these cliché pairings are not the only alien couplings found in SF. In this section, I look at two alien romances that invert the formula, both published in *Amazing Stories* before 1930: Minna Irving’s “The Moon Woman” and Clare Winger Harris’s “The Fate of the Poseidonia.”

A female-authored space story, Minna Irving’s “The Moon Woman” was published in the November 1929 issue of *Amazing Stories*. The story borrows from many of the tropes of scientific journalism and the moon hoax story, including the existence of winged humanoids, although in Irving’s telling the wings are technological contraptions, not biological appendages. The story also offers a description of the moon’s people, civilization, and government, with one important caveat: the story takes place in a future where the moon people have successfully colonized the earth. Most interesting of all, the story is explicitly filtered through themes of romance and womanhood.

Though published in *Amazing Stories*, “The Moon Woman” is nearly entirely romance. Irving’s real name was Minna Odell, and she was also a poet. Her pen name is a probable tip of the hat to Washington Irving, whose “Rip Van Winkle” seems to have offered a model to her for the story. Besides the initial suggestion of a formula for suspended animation that allows the professor to awake in the future world, the story

²²⁸ “Discussions,” *Amazing Stories* 2 no.9, (December 1927): 908

²²⁹ Donawerth, *Frankenstein’s Daughters: Women Writing Science Fiction* (Syracuse: Syracuse University Press, 1997), 42.

includes very little science. As far as we know, this lack of hard science didn't both any of its readers, except for one who wrote in to say there was "not enough science, too much hot air."²³⁰ Most of the readers' comments suggested that they enjoyed the story, which tells us a great deal about the tastes of SF pulp readers. "You're getting better and better," raved one enthusiastic reader. "'The Moon Woman' was great."²³¹ If "The Moon Woman" had "not enough science" and quite a bit of romance and "hot air," what does it mean that a majority of readers nonetheless praised the tale? It's clear that romance—and in this case, rather silly, female-driven romance—is not incompatible with the tastes of SF fans. What's more important is what romance lets into the genre: the possibility of thinking in scientifically and sociologically serious ways about civilization, evolution, and futurity.

Irving's "The Moon Woman" contributes to the trope of alien romance and engages in evolutionary discourse. The story imagines a future world in which moon people and earthlings intermarry to create a new, enhanced type of being. In the story, Professor James Holloway Hicks, after discovering the secret chemical formula for suspended animation, orders his friends to use the serum on himself. He makes plans to use the suspended animation serum to travel to the future. When he awakes from the deathlike sleep, he will have traveled to the future without having aged a day. When he awakes, it is the year 3015. The quasi-human "moon woman" in question is Rosaria, who stumbles upon Hicks's mausoleum and discovers the professor's existence. Hicks's falls head-over-heels in love with the moon woman, astonished by her beauty and enraptured by the stories she tells of the world in which he has found himself. The story, then,

²³⁰ "Discussions," *Amazing Stories* 4 no.8 (November 1929): 1097

²³¹ "Discussions," *Amazing Stories* 4 no. 8 (November 1929): 1100

inverts the swooning damsel trope and replaces it with a swooning male scientist. “For the first time in his two hundred and thirty-five years, the professor was in love,” the narrator explains. Professor Hicks

suddenly felt how silly all his crucibles and retorts and serums had been. He could not even remember the formula of the serum of suspended animation, and he didn’t care if he never remembered it now; it had served its glorious purpose, it had bridged the centuries between him and this super-girl, who was winged like an angel, and he felt that he was through with all that had been so important to him two hundred years ago.²³²

The swooning professor completely loses his head. He is grateful only that his serum has led him to this moment, to be with this angelic woman. The triumph of romance over science puts science in the service of romance.

Irving was widely known for her patriotic poetry, which frequently commemorated war scenes as seen through the eyes of women (“Marching Still,” “Betsy’s Battle Flag”).²³³ Her foray into science fiction pulp publishing may seem like an unusual turn in her career, but her short story bears many of the hallmarks of her other writing—especially her point-of-view focalization, which begins with the male scientist but shifts to her female alien’s eyes by the end of the story. The moon woman, Rosaria, exudes a kind of femininity that is curiously unanchored. Donawerth refers to the moon woman herself, Rosaria, as well as her fellow moon women as “winged versions of the Victorian angel of the house,” a reference that is over sixty decades belated.²³⁴ But Donawerth is right, Rosaria is quite literally angelic, with her white gown and white wings. In the accompanying illustration, she is flying upward, illuminated in a halo of sunlight. Tellingly, though he doesn’t offer a close reading, Eric Leif Davin, in his book

²³² Minna Irving, “The Moon Woman,” *Amazing Stories* 4 no.8 (November 1929): 753.

²³³ For example, poems like “Marching Still” and “Betsy’s Battle Flag.”

²³⁴ Donawerth, *Frankenstein’s Daughters*, 49.

length study of women writing science fiction post-1926, calls Irving's story "strongly feminist," in which I imagine he means that it owes a debt to the type of radical feminism exemplified by Gilmore's *Herland* and to Inez Haynes Gillmore's novel *Angel Island* (1914) whose identifying hallmark is an unfaltering critique of androcentrism.²³⁵ Davin is also trying to find continuity between the tradition of feminist utopias and women writing science fiction for the pulps. He locates "The Moon Woman" in a "tradition of feminist and socialist utopias, which appeared in the pulps—and nowhere else—between 1920-1950."²³⁶ There is some truth to what he says. If Rosaria has an analogue in female-driven SF tales, the closest would be the women of *Herland*; like the Herlanders, Rosaria represents a solid, muscular form of womanhood. A lover of exploration and archeology, Rosaria is no swooning damsel. She is, in the words of the narrator, "150 pounds of solid, healthy womanhood," athletic, and muscular.²³⁷ However, Rosaria's world is in no way utopic. She radiates ideal white womanhood—she is a clear precursor to "Norma" – the youthful, heterosexual, and white "normal" woman, described in Julian B. Carter's *The Heart of Whiteness*, that became the obsession of eugenics-minded, American social scientists in the 1930s and 1940s.²³⁸

Rosaria represents a certain version of progress. Nowhere is this clearer than in the fact that her angelic features are in fact technological enhancements. For what we know of the moon-people, their bodies are similar to human bodies. The moon people are certainly similar enough in bodily anatomy to reproduce with humans. Rosaria's body,

²³⁵ Eric Leif Davin, *Partners in Wonder: Women and the Birth of Science Fiction: 1926-1965*. (Lanham, MD: Lexington Books, 2006), 232.

²³⁶ Davin, *Partners in Wonder*, 235

²³⁷ Irving, "The Moon Woman," 751.

²³⁸ Julian B. Carter, *The Heart of Whiteness. Normal Sexuality and Race in America, 1880-1940*, (Durham, NC: Duke University Press, 2007), 1-2.

though, is enhanced through wings and weaponry. To reiterate: it is technology, not civilization, that grants Rosaria freedom of the skies. She has wings that help her fly, and a weapon to protect herself. The benefits have been especially felt by wealthy women, a fact which highlights Rosaria's troubling lack of class consciousness. The perspective of this "feminist" story, as Davin calls it, is decidedly bourgeois. For example, through the invention of food tablets, women have been freed from kitchen drudgery. According to Rosaria, the technological advances of food capsules have "eliminated a great deal of unnecessary work and solved the servant trouble and expense that used to be such a great source of annoyance to our grandmothers."²³⁹ It seems that advances in technology have eliminated a great deal of jobs as well. "Our grandmothers," to Rosaria, are a certain class of older women who paid other women to do the labor for them. Technology benefits the rich. In the world of "The Moon Woman," new technologies are money-saving rather than labor-saving. The claim that "The Moon Woman" presents a feminist utopia, then, depends entirely on whether "feminism" includes working class women.

The prevalence of weapons in Rosaria's world also brings the utopian claim under suspicion. Rosaria carries a "radiomatic" around her neck, a small, green cylinder that fires a bubble of "radium gas." Rosaria explains, "...nothing can withstand it, neither steel, nor iron nor living flesh." Every woman is equipped with this powerful, radioactive weapon. "All women carry them . . . for since everybody flies who can afford to buy, borrow, rent or steal a pair of wings, it is not safe for any woman to fly out alone without being able to protect herself."²⁴⁰ The "utopian" solution is barbaric. Importantly, Rosaria highlights that *everybody* can fly, even those who can't afford to buy a pair of wings, but

²³⁹ Irving, "The Moon Woman," 753.

²⁴⁰ Irving, "The Moon Woman," 754.

instead must borrow them, rent them, or even steal them. The dangers that Rosaria points to again seem to exist from the working class and poor, who still exist in this utopia, and who are painted as villains who could attack women—and moon women—at any time. By renting or stealing wings, even the poorest can access the skies and therefore become predators to angelic winged women like Rosaria.

Furthermore, Rosaria's attitude toward non-human species on earth is alarming. The ecology of "The Moon Woman" noticeably varies from Gilmore's *Herland*, and with progressive nineteenth-century attitudes regarding animal rights. The women's movement has frequently had a connection with antivivisectionism and vegetarianism. Food reform connected the oppression of female animals with that of women: the women of *Herland*, for example, refuse to separate cows from their calves, finding shared motherhood across species, and have eliminated the domestication of animals. "The Moon Woman" shares none of these sympathies, showing no concern for animal rights. In fact, "The Moon Woman"'s ideology reverses that of *Herland*; the utopian future as written by Irving has eliminated *all but* domesticated animals. Within two hundred years the moon people have destroyed every animal on earth but cows, chickens, pigs, and, for companionship, dogs. Irving's sympathetic identification with the alien moon people, then, seems not to extend to interspecies identification on Earth.

Irving's story is also in tension with the major themes of interplanetary SF stories, which largely rehash themes from social Darwinism: exploration, colonization, and conquest. Rather than positing a posthuman future, many interplanetary stories are extremely anthropocentric, frequently depicting human supremacy over alien life forms. Humans, it seems, are capable of racism on astronomic scales. The future offered by

Irving in this story, though stated to be utopian, involves eradicating human beings and replacing them with alien hybrids. Through the intervention of an alien race, everything from human civilization to the human body is made better. This is a reversal of fortunes as typically expressed in anthropocentric SF of the 1920s. As Patrick Sharp argues, by imagining the aliens to be enlightened, benevolent colonizers, Irving “inverts the colonial frontier narrative... with the enlightened aliens colonizing humans instead of the other way around.”²⁴¹ The aliens are imagined as an evolutionarily advanced society, although we only have access to this narrative through Rosaria, who is herself an alien, and therefore biased in her assessment. She assures the human Professor Hicks that the moon-people, “finding earth so very far behind moon-times” decided to stay. “Being so much wiser and so much farther advanced in civilization than the earth-people, they became rulers here, and by intermarriage soon improved the earth-races—mentally, morally, and physically,” Rosaria assures Hicks.²⁴²

The story treats the improvement of the race ambivalently. On the one hand, “The Moon Woman” is not anthropocentric. On the other, the way that it imagines the aliens as being better versions of humans is clearly tainted by eugenicist ideas. The “improvement” of the humans through alien intermarriage assumes that the resulting hybrid species is a modified, superior version of the human race. This is exemplified in Rosaria herself, who has a human father and an alien mother, because of course her mother was the alien. Hicks certainly doesn’t question the superiority of the new race of humans, especially with Rosaria as proof of the better world in his eyes. To some extent,

²⁴¹ Patrick Sharp, *Darwinian Feminism and Early Science Fiction: Angels, Amazons, and Women*, (Cardiff: University of Wales Press, 2018), 120.

²⁴² Irving, “The Moon Woman,” 754.

it is credit to the story's complete rejection of an anthropocentric worldview that the audience is intended to read the genetic modification of humans through alien marriage and interbreeding as a utopian future. Still, if we pay attention to the resonances of Rosaria as a kind of "Norma," the text in fact registers as an attempt to value marriage as a tool to enshrine and protect whiteness.²⁴³ Marriage matters, in an evolutionary sense, and it contributes to an tacit ideology of eugenics. The story typifies alien encounters in many science fiction stories that fall into the evolutionary scheme of race survival, extinction, and propagation. Darwinian survival, as Sharp points out, is the name of the game, and the opponent is the inhuman alien. The survival of the species is at stake. Yet, Carter's argument that American marriage and sexual discourse during this period enshrined "civilization" and "evolution" as whiteness complicates Sharp's optimistic reading. Evolution, in the words of Carter, was "an immensely attractive conceptual resource for racism." Evolution is therefore not a neutral ideological position for the text, and the "superior" hybrid race of human-moon people ends up being a version of the ideal white woman.

Early twentieth century writers were obsessed with evolutionary theories, and the alien was the perfect figure for exploring it. But there is also another, quieter but no less important, struggle for the species that often appears in SF romance stories—procreation. The sexual or romantic competitor—often an inhuman alien—presents an existential threat to the human race, too. Several Clare Winger Harris short stories explore the theme. In "The Miracle of the Lily," (*Amazing Stories* 1928), the scene for Darwinian survival of the fittest is war. It is an evolutionary tale in which human's world dominion

²⁴³ Carter, *The Heart of Whiteness*, 3.

is threatened by a new ascendant species—the insect. After a hard-fought battle, the humans push the insects to extinction by razing the earth’s ecosystem to the ground. The earth is a cement landmass with factories to produce agriculture and oxygen for the humans. The war is won, but very little beauty remains. Humans are in contact with Venusians, who call for help in an evolutionary struggle of their own; they, too, are overrun by insects. In the twist ending, the Venusians are large sentient insects, and the “insects” they want to exterminate are tiny humanoids. The war for evolutionary supremacy begins anew, this time in outer space. Another Clare Winger Harris story, “The Fate of the Poseidonia,” (*Amazing Stories* 1927) makes homologies between the depletion of the Earth’s water supply and the disappearance of Earth’s women. Both are needed for life to survive. “The Fate of the Poseidonia,” is especially interesting because it’s one of the few texts to introduce a female explorer and a male alien.

Clare Winger Harris has become, as far as these things go, a famous SF pulp writer. In his book length study on women in science fiction, Eric Leif Davin calls Harris “the first woman to publish in a science fiction magazine.”²⁴⁴ The story was “The Fate of the Poseidonia,” and the magazine was *Amazing Stories*. Davin’s statement is true to an extent—“The Fate of the Poseidonia” is technically the first story written by a woman from an SF pulp— but Davin’s statement obscures more than it illuminates. Propping up Harris as the first female SF writer flattens the rich history of women in science fiction. Indeed, “The Fate of the Poseidonia” is the kind of story that is plagued by “firsts”: it has the distinction of being one of the first co-winners in the first contest ever held by a SF magazine. It’s also the first of Harris’s stories to be published in a SF magazine. But

²⁴⁴ Davin, *Partners in Wonder*, 29.

Harris was by no means a debut author. By the time Harris sent in “The Fate of the Poseidonia” for Gernsback’s contest, she was already a published author, having written a romance novel called *Persephone of Eleusis: A Romance of Ancient Greece* in 1923. She had also already begun pivoting to short science fiction stories; she wrote “A Runaway World” a science fiction story, for the pulp magazine *Weird Tales* in 1926. Not only, then, was “The Fate of the Poseidonia” not the first piece of fiction published by Harris, it was not even the first SF story published by Harris.²⁴⁵

Relegating “The Fate of the Poseidonia” to a first misses its larger achievements, most especially its inversion of the male-hero/female-alien romance. In brief, “The Fate of the Poseidonia” is a story about impending ecological disaster: the theft of the Earth’s water supply by Martians. *Poseidonia* is the name of an ocean liner that goes missing; its “fate” is to be brought to Mars. The story elaborates a love triangle. The male narrator, George Gregory, is emasculated by Martell, the Martian agent, who not only steals the Earth’s water supply, but also makes off with Gregory’s love interest Margaret. By turning Martell into a sexual competitor, the story codes eugenics through models of love and romance, and places it on equal grounds with ecological disaster. George’s inability to stop the Martian disaster is one and the same as his loss of Margaret to the Martian Martell.

Then again, when it comes to Margaret, George never really had a chance. An amateur scientist who attends scientific lectures at a social club, George has a pretense of

²⁴⁵ Nor was Harris the first woman Gernsback published in one of his science magazines. Gernsback’s *The Electrical Experimenter* (later, *Science and Invention*), begun in 1913, published articles written by women scientists, discussing their own careers, written by themselves. Indeed, Davin covers all of this, and lists their names: Isabel M. Lewis, Grace T. Hadley, Pauline Ginsberg, Dorothy Kant, Pauline Bergins, Esther Linder, and Nelly F. Gardner. All of which is to say, is that Davin’s statement tells us more about preconceptions held about the pulps than about the history of science fiction.

scientific objectivity which actually operates as a mask for his short-sightedness. Part of the appeal of “The Fate of the Poseidonia” is the general disdain shown toward George, which implies that he would have been a recognizable social type for the magazine’s audience. What happens to George is tragic, but he is not a tragic figure. Over the course of the story, George’s preference for observation, and his inability to act, causes him to lose his credibility, his girl, and his planet. He is also, importantly, a bachelor, and a rather bumbling one at that. He describes himself using the following terms:

At the time of my story in the winter of 1894-1895, I was still unmarried and was living in a private hotel on E. Ferguson Ave., where I enjoyed the comforts of well furnished bachelor quarters. To my neighbors I paid little or no attention, absorbed in my work during the day and paying court to Margaret Landon in the evenings.²⁴⁶

Preoccupied with his comfort and his courtship, George reveals himself to be a rather pedestrian narrator. The neighbor to which he “paid little or no attention,” being the Martian Martell, reveals the extent to which George’s narrowness of vision inhibits him from knowing much of anything. Mr. Martell, then, is not just George’s Martian neighbor. He is also George’s sexual competitor, competing for the affections of the same Margaret whom George spends his free time wooing. If George is to be rated as a sexual partner, readers would have to readily agree that he is outmatched in every way by Martell.

Even George’s eventual and feeble investigation into his mysterious neighbor only proves what we have already begun to suspect: that our narrator is incapable of action. During one scene, George finagles his way into Martell’s apartment by calling the front-desk boy for the key. “After an hour of mental pros and cons I called up the hotel

²⁴⁶ Clare Winger Harris, “The Fate of the Poseidonia,” *Amazing Stories* 2 no.3 (June 1927): 246.

office,” he recounts of his agonized decision.²⁴⁷ Racked by irresolution, it takes George a full hour to act. His habit of making mental pros and cons list underlines his tendency toward vacillation. After finally gaining access to the Martell’s apartment, George begins his investigation. He leaves no stone unturned, as it were, and he even humbly brags, “I worked on in the self-termed capacity of a Sherlock Holmes.”²⁴⁸ All evidence, however, points to the contrary. George misses much more than he sees. In his search of Martell’s quarters, George finds a contraption not unlike a radio, which has five dials on its surface. The radio-like machine is linked to the other devices of its kind on earth, so that when the dials are turned, the transmitter connects George to the other Martian spies, each dial corresponding to a different Earthly location. George recounts his findings as follows:

I determined to go through with my secret research though I died in the effort. Just before my hand dropped, the buzzing commenced, and I perceived for the first time a faint glow near the lever of No. 4. I dared not investigate it at this time, for I did not wish it known that another than Martell was at this station. I thought of going on to dial 5, but an innate love of system forced me to risk a loss of time rather than to take them out of order.

I had never been subject to heart attacks, but certainly the suffocating sensation that possessed me could be attributed to no other cause.²⁴⁹

With George as the only man standing in the way of Martian meddling, Earth doesn’t stand a chance. His nervous, hypochondriac tendencies completely incapacitate him. His determination “to go through with [his] secret research though [he] died in the effort” is quickly brought to heel by his “innate love of system” and heart palpitations, which keep him from his investigation. George Gregory has very little of the heroic John Carter in him; he is more scientific observer than manly adventurer. Which is all, of course, great fun to watch.

²⁴⁷ Harris, “The Fate of the Poseidonia,” 248.

²⁴⁸ Harris, “The Fate of the Poseidonia,” 249.

²⁴⁹ Harris, “The Fate of the Poseidonia,” 249.

Though we might assume that George's unmanly and effete personality is contrasted directly with Martell, his foil is in fact Margaret. Margaret is bold where George is timid. She is future-oriented where George is stuck in the present. Margaret is on the ocean liner the Poseidonia with her parents and hundreds of others. She, alone, is saved, and is brought to Mars with Martell. Through an interplanetary television instrument, Margaret asks George not to mourn for her,

“...for I shall take up the thread of life anew among these strange but beautiful surroundings. Mars is indeed lovely, but I will tell you of it later for I cannot talk long now... I only want to say,” she added hastily, “that Terra need fear Mars no more. There is a sufficiency of water now—and I will prevent any—“She was gone, and in her stead was the leering, malevolent face of Martell.”²⁵⁰

Margaret is a survivor and an interplanetary explorer, and she makes the ultimate sacrifice, leaving her home planet against her will. But the plucky Margaret does not lose hope, and she promises to meet her new life with courage. In leaving with Martell, she also promises to use her influence to save Earth's water supply from further theft, therefore achieving what George could not.

Sharp argues that “The Fate of the Poseidonia” is a captivity narrative, and that Margaret's sacrifice “is based on the stereotype of the menacing, hateful savage who kidnaps a white woman and forces her into bondage.”²⁵¹ He continues, “Margaret pays dearly for not fearing other races in the same way as the xenophobic George.” But if we change the lens to read “The Fate of the Poseidonia” through the lens of Darwinian evolution, we find that it is Margaret who is capable, adaptable, and able to survive. While the earth is in danger of losing its water supply, Margaret has found a way to thrive. Her fate is in no way simple, but to describe it as a captivity narrative misses the

²⁵⁰ Harris, “The Fate of the Poseidonia,” 267.

²⁵¹ Sharp, *Darwinian Feminism*, 108.

way that Harris inverts the female space alien romance. Margaret is the one capable of adapting, whereas George is incapacitated.

Indeed, there is a clear parallelism between the stealing of Earth's water and the winning of Earth's women—between, essentially, eugenics and ecology. In “A Rocket of One's Own,” Christopher Leslie draws a clever connection between the ocean liner, named *Poseidonia*, and Margaret, female lead of the story. The *Poseidonia* ocean liner uses a variant spelling of the marine plant *posidonia oceanica*, a genus of seagrass essential for oxygen, and therefore life, on earth. The alien Martell steals earth's life force, while at the same time running away with the human woman, another person essential for life on earth.²⁵² Harris's science fiction is easily understood to be eco-fiction, or cli-fi, as one sees in the “Fate of the Poseidonia” or the “Miracle of the Lily.” In both of these stories the masculine pursuit of technology comes into conflict with the earth's ecology, life force, biology. Leslie makes the argument that it is the ordinariness of Margaret and of water which make the parallel most effective—that George and Martell are two versions of a Darwinian “male type” and that Margaret should be plain and predictable, an “unglamorous—but hardworking” women like the *posidonia* plant from which the ocean liner got its name.²⁵³ Sharp expands on this idea, and argues that “The Fate of the Poseidonia” revises sexual selection by giving women the upper hand. For Sharp, the important thing is that masculinity was aligned with sexual selection and that femininity was aligned with reproduction. Taken together, Leslie's and Sharp's readings

²⁵² Christopher Leslie, “A Rocket of One's Own: Scientific Gender Bending by Isabel M. Lewis, Clare Winger Harris, and Leslie F. Stone in the Early U.S. Science Fiction Pulp” *Femspe* 18 no.2 (2018): 20.

²⁵³ Leslie, “A Rocket of One's Own,” 20.

suggest that Margaret actively selects Martell as a partner, while at the same time clearly symbolizing feminine reproduction by becoming aligned with Earth's water source.

In sum, then, Harris's "The Fate of the Poseidonia" directly challenges the anthropocentric or human-exceptionalist worldview that sometimes appears in interplanetary romance, by questioning the idea that humans are the most advanced life form in the universe. And yet, in so doing, it also makes a plea for romance. The Martian world is introduced as an equal competitor with Earth. The ecological catastrophe introduced at the start of the story is talked about as a problem of evolution. The scientist explains:

Water is becoming a very scarce commodity on our neighboring planet. Much of what is now land is merely the exposed portions of the one-time ocean bed; the precious life-giving fluid now occupying only the lowest depressions. We may conclude that the telescopic eye, when turned on Mars, sees a waning world; the habitat of a people struggling desperately and vainly for existence, with inevitable extermination facing them in the not far distant future. What will they do? If they are no farther advanced in the evolutionary stage than a carrot or a jelly-fish, they will ultimately succumb to fate, but if they are men and women such as you and I, they will fight for the continuity of their race. I am inclined to the opinion that the Martians will not die without putting up a brave struggle, which will result in the prolongation of their existence, but not in their complete salvation.²⁵⁴

Struggle, existence, extermination – these are the key words in the scientist's speech.

Whether Martians are jellyfish or carrots or whether they are men and women is the central issue under debate. As George discovers, the Martians are, to his dismay, like human men. They are competitors for resources and for sexual partners, and they are winning. Positioning aliens as an evolutionary threat, "The Fate of the Poseidonia" links survival to romance. It weaves together ecology and eugenics, and makes the argument

²⁵⁴ Harris, "The Fate of the Poseidonia," 246.

that domestic husbandry is required for the proper functioning of sex and ecosystem alike.

V. The Bright Illusion

What's key to understanding Irving and Harris's stories is their authors' narrative strategy of framing larger questions of evolution and conquest through the device of romance and courtship. Of all the texts discussed in this chapter, perhaps the text most deeply embedded in discourse of love is C.L. Moore's "The Bright Illusion," (*Astounding* 1934). In "The Bright Illusion," Moore mediates on what it means to be alien through a love story between a male human and a female alien. The love story in "The Bright Illusion" is noncorporeal, it removes love and desire from the plane of bodies and translates it to the realm of pure spirit. Even without bodies, though, the outlook is bleak. Love, as Moore later reminds us, truly is treacherous and can lead to death and disaster.

Here is the story in brief. "The Bright Illusion" follows the adventures of an explorer named Dixon who is sent to a faraway planet to assassinate an alien god named IL. The being who sends him on this mission is another golden, godlike creature—I'll call him the "golden god"—who wants to supplant his rival and take IL's place as the planet's deity. The golden god transports Dixon to the planet, but the world is so fundamentally foreign to him that the golden god must place a veil over his senses. To the aliens, Dixon will appear as one of them. To Dixon, the world transforms into something recognizable: a world out of medieval fantasy, complete with castles and turrets and a temple that Dixon must reach in order to assassinate IL. On the strange planet, Dixon meets a beautiful priestess of the temple. Though she is a priestess of IL,

the god that Dixon was sent to assassinate, Dixon tricks her into helping him infiltrate the sacred space. They should be at odds: they are alien creatures to each other, with opposing goals. Yet though Dixon has been sent to assassinate the priestess's god, he instead falls in love with the priestess. Even knowing that the priestess is not a human—and possibly not even female, since the alien genders are multiple and do not map easily onto “mankind's two”—Dixon forms a deep connection with her, and she forms one with him in return.²⁵⁵ In the end, the priestess chooses love over religion, and decides to help Dixon assassinate IL. However, the tables turn dramatically. In the temple, Dixon speaks the magic word that is supposed to open the cosmic door for the golden god to come. A terrible fight ensues, and when it's over, the outcome is not what Dixon expected. The golden god is dead, and IL has won. In anger at his betrayal, IL removes the spell that the golden god had placed over Dixon, and Dixon and the priestess are forced to see each other as alien.

Betrayed by the assassin and his own priestess, IL turns his terrible gaze to the two lovers. Dixon and the priestess decide that their only way to be together is to die and hope that they share an afterlife despite being of alien races. Dixon thinks to himself:

No; this love which linked them, two beings so alien, could not flicker out with their lives. It was too great – too splendid, far too strong. He was no longer uncertain, no longer afraid, and hope began to torment him exquisitely. What lay beyond? What vast existences? What starry adventures, together? Almost impatiently he poised on the brink of death.²⁵⁶

The treachery of love in this passage is that it leads to death. The crazy, impatient hope for release that takes over Dixon, his tormented need for death, his “impatience” in the

²⁵⁵ C.L. Moore, “The Bright Illusion,” *Amazing Stories* 14.02 (October 1934): 125.

²⁵⁶ Moore, “The Bright Illusion,” 137.

face of death, are directly caused by love. Was Dixon dead from the moment we saw him stumbling through a desert of corpses? Or did his meeting with the priestess mark his fate? Yet, Dixon and priestess cling together in the face of annihilation. They choose to die together rather than live apart.

The text is more invested than other interplanetary stories in what it means to be alien, and other. It is the otherness of the alien planet that is deadly. The hardboiled part of science fiction, which might say that scientific and environmental factors on the faraway planet could kill Dixon—the lack of oxygen or the change in atmospheric pressure or the distance from the sun—is peripheral to the overwhelming sense that it is otherness itself which is dangerous. The threat is not to the environment, but more fundamentally to his self-understanding as a human. When Dixon encounters the faraway planet for the first time, and sees its kaleidoscopic colors and unsettled forms, Moore writes:

He understood now that it was not in his own form that he was to go out into the crazy land. He was sure, even without that seeping knowledge, that his own body could never endure the colors of the place, nor could his own material feet tread the dizzy angles.²⁵⁷

The sight of these unthinkable colors and angles that “his own body could never endure” threaten to destroy Dixon’s body. Moore transposes deadly atmospheric effects to deadly ontological ones. The planet makes him alien to himself.

The alien landscape that is lethal to Dixon’s sense of self is only one part of a larger, alienating whole. The otherness of the alien landscape is replicated over and over again at multiple levels. Most significantly, it is not only the colors and angles of the city but the

²⁵⁷ Moore, “The Bright Illusion,” 125.

bodies of the aliens themselves. The priestess is no Dejah Thoris. Like all the inhabitants of this planet, she is “serpentine,” composed of vivid and dizzying colors.

There was one standing just below the great black pillar whereon burned the flame, and of this he had the clearest view. It was boneless and writhing, livid with creeping color. Its single great eye, lucid and expressionless, stared from an unfeatured, mouthless face...²⁵⁸

This is the face of the alien priestess that Dixon falls in love with. She is no “beauty among the savages.” She is absolutely and totally alien.

She is not even, literally speaking, a she. The substance of the creatures on this planet is alien: their emotions, their habits, and their sexes, which vary in kind and in number, have no similarities to human form. The multiple sexes of alien lifeform are especially important because they reflect both the strangeness of this world and the arbitrariness of our own. Any new planet must necessarily make us reconsider the normalness of our homeworld. As Dixon contemplates the lethal landscape, he also begins to see the alien lifeforms as themselves utterly foreign and incomprehensible:

And he was understanding, as the slow waves flowed on, how different these people were from his own kind. Not only in appearance; their very substance was different from flesh and blood, the atoms arranged in different patterns. They obtained nourishment in an incomprehensible way from some source he could not understand. Their emotions and habits and purposes were alien to all his experience, and among them even the sexes were not those he knew. They were more numerous than mankind’s two, and their functions were entirely different. Reproduction here was based on an utterly alien principle.²⁵⁹

Moore builds to the sexes and reproduction as a climax of this litany of difference. The “slow waves” of understanding building to a crescendo as Dixon learns that “[r]eproduction here was based on an utterly alien principle.” Despite the reinforced otherness of the alien creatures—“different” is repeated four times in the passage—the

²⁵⁸ Moore, “The Bright Illusion,” 125.

²⁵⁹ Moore, “The Bright Illusion,” 125.

scene is rendered in a way that specifies Dixon's experience of difference, and makes it clear that this is Dixon's standard of normal that is being measured. For example, the emotional life of the creatures are "alien to all his experience," the sexes "were not those he knew." By focusing on the limits of Dixon's knowledge, the passage not only expands but changes the conceptual range of what the "normal" might even be.

Whereas the female machine exaggerated and parodied femininity, thereby calling attention the artifice of gender, the female alien as a female inhuman is no longer concerned with femininity in the same way. The alienness of the world breaks open the assumption of a sexual binary, and invites speculation on humanness itself. The limits of what Dixon knows are especially important for the multitude of sexes available on the planet. By labeling the gender binary on earth as "mankind's two," Moore emphasizes the fact that two sexes is in fact an arbitrary number. The narrator notes that the functions of these genders are "entirely different" from earth's, and that reproduction on this planet "was based on an entirely alien principle." Tying sex to function, to its purpose or use, is reminiscent of the female machines from Chapter One, who were made female because they were made to be maids. If sex is tied to what one does, rather than what one is, then sexual characteristics are less innate than they are pragmatic, and, perhaps even changeable. Untying reproduction from sex, as Moore does here, is an even more profound destabilization of the gender binary.

What's most radical about "The Bright Illusion," though, is its insistence that alienness works in multiple ways. The complete otherness of the alien planet is always countered by Dixon's own understanding that, transported to this new world, he is the

alien. So for example, when the spell inevitably breaks, and Dixon and his beloved priestess see each other as what they truly are, we get the following narration:

He clasped a creature at which he could not bear to look directly, a thing whose wild-looped limbs and sinuous body rippled and crawled with the moving tints of madness. It was slippery and horrible to the touch, and from the midst of a shifting, featureless face a great lucid eye stared up at him with desperate horror, as if it was looking upon something so frightful that the very sight was enough to unseat its reason.²⁶⁰

Dixon's initial disgust upon seeing the alien as herself is directly mirrored in the priestess's great eye, which looks up in horror "as if it was looking upon something so frightful that the very sight was enough to unseat its reason." Dixon looks just as terrible to the priestess as she looks to him—yet they still choose to die together and hope that they will be reunited in some other life. The shift in sympathetic perspective, from Dixon's horror to the alien priestess's, relocates our own perspective and turns Dixon into the alien—which, after all, he is, an alien man on an alien planet, lightyears from home. We might call this the heteroglossia of alienness, and argue that many well-written SF texts routinely use shifts in perspective to destabilize the human. Contrary to humanistic belief, humans do not have a monopoly on either reason or disgust. The passage above, insisting that the alien also has reason which can be "unseated," makes it clear that these aliens—though different in every way from humans—could share a certain rationality. Though their bodies, movements, and genders are incomprehensible to humans, they share with humans a life of the mind, and a capacity for reason and love. This life of mind becomes important because Dixon and the priestess's love takes place almost entirely in this incorporeal realm.

²⁶⁰ Moore, "The Bright Illusion," 134.

Revelation is a key theme in Moore's texts. Her stories are deeply invested in the limits of knowing, and in what cannot be communicated. For example, the golden god in "The Bright Illusion" communicates with Dixon through "residues of knowledge" as opposed to language and words.²⁶¹ Even the assassination mission itself is not fully communicated—the golden god isn't able to tell Dixon why he wants what he wants. The passage goes as follows:

There was, in another part of space, a world which this being desired—or no, not desired. There was nothing so human or personal a thing as desire about it. A world which is meant to have; a very alien world, he gathered, from the sort he knew. Peopled by alien creatures and built in other dimensions than those which formed his own universe.

These people worshipped a powerful god. And it was this worship—this godhood—which the being that infolded him meant to possess. It tried to give him a glimpse of why, but the thought waves which flowed through his brain were incomprehensible and remote—not knowledge, but a jumble of unrelated impressions, without coherence. After a few vain attempts to instill the reason for its purpose into his mind, the being apparently dismissed the point as unnecessary and went on.²⁶²

What's communicated to Dixon is marked as "not knowledge" but rather a collection of "unrelated impressions." The thought waves up until this point had been comprehensible to Dixon. Not language—not words—but comprehensible all the same. But the rush and jumble of the "unrelated impressions" about the world that the golden god desires is incommunicable, and this seems to be because the golden god doesn't itself understand why it means to have this world. It is incomprehensible why the golden god wants that world and not this one. Moore even raises the question of whether a being can be a god if it doesn't have anyone to worship them. The inhuman being is not godlike without a planet. Dixon, although not saying this explicitly, feels all of this. The god can sense "the

²⁶¹ Moore, "The Bright Illusion," 122.

²⁶² Moore, "The Bright Illusion," 123.

growing rebellion” in Dixon’s mind, and lets him know—again, quite clearly, without the jumble—that refusal will mean death.

The unknowability of the alien is carried throughout Moore’s writing, most notably in “Shambleau,” (1933), the most important alien love story of the 1930s. Moore’s most well-known alien romance, part battle of the sexes, part battle between species, “Shambleau” a remarkable instance of the female inhuman. It tells the story of the encounter between Northwest Smith, a roguish, gunslinging hero, and a seemingly defenseless girl wearing a torn red dress and a turban that Smith rescues from a Martian lynch mob. What appears to Smith to be a girl turns out to be a Shambleau—underneath her turban, a bed of red snakes writhe and wait for their opportunity to feed on Smith’s unsuspecting soul. The Shambleau is a Gorgon, and the tale explicitly revises the Medusa myth. As Smith experiences alternating attraction and revulsion to the Shambleau, she seduces him into submission. Smith is only discovered three days later by his partner Yarol, who, remembering the myth of Perseus, uses a mirror and a ray gun to destroy the Shambleau.

Thomas A. Bredehoft argues that, just as Shelley’s *Frankenstein* is often viewed as the originator of science fiction, Moore’s “Shambleau” could be considered an “origin story for feminist science fiction.”²⁶³ As Bredehoft suggests, there are several reasons why “Shambleau” could be compared with *Frankenstein*. First, both stories feature a monster and a mob. In the case of “Shambleau,” the mob is the opening scene, and our first introduction to the alien Shambleau. Second, both stories draw from mythological origins. In the case of *Frankenstein*, by offering a retelling of the Prometheus myth, and

²⁶³ Claiming Mary Shelley as the originator of science fiction is a frequently made feminist move, see, for example, Robin Roberts “The Female Alien,” (35); also Donawerth’s *Frankenstein’s Daughters*.

in the case of “Shambleau,” by retelling the myth of Medusa. Like *Frankenstein*, “Shambleau” is imbricated in a history of retelling and reinterpretation; it both retells an origin story and has become its own origin story.²⁶⁴ As Moore writes at the opening of “Shambleau”: “Man has conquered space before. You may be sure of that.”²⁶⁵ Mixing the past and the future, anthropology and science fiction, the story explores a sort of time loop wherein space travel becomes both human’s past and their future. If this sounds at all like the popular space series set “a long time ago in a galaxy far far away,” the connections go further. Moore’s Northwest Smith, the hero of the tale, is a roguish smuggler: Han Solo would later perfect the type. “Shambleau” is also notably the only female authored SF story to have been discussed in mainstream feminist literary scholarship. Susan Gubar also argues that the monster Shambleau is a feminine revision of Frankenstein’s monster, and in their co-authored *No Man’s Land*, Sandra Gilbert and Gubar categorize Moore’s “Shambleau” as part of “women’s fictions of sexual struggle,” and contrast her perspective with male authors such as Faulkner, Miller, and Wylie.²⁶⁶ They see the alien as a metaphor for femaleness, and classify the action of “Shambleau” as the “quintessential battle between the sexes figured as two different species.”²⁶⁷ Unfortunately for Moore, Gilbert and Gubar have also established her legacy as an author alienated from her own body and her own desires. They conclude that “Shambleau” “...dramatizes not only the male imperative to murder the alien female but also the

²⁶⁴ Thomas A. Bredehoft, “Origin Stories: Feminist Science Fiction and C. L. Moore’s ‘Shambleau.’” *Science Fiction Studies* 24, no.3 (Nov. 1997): 369.

²⁶⁵ Bredehoft. “Origin Stories,” 371.

²⁶⁶ Susan Gubar, “C.L. Moore and the Conventions of Women’s Science Fiction” Gubar, Susan. “C.L. Moore and the Conventions of Women’s Science Fiction (C.L. Moore et Les Conventions de La Science-Fiction Féminine).” *Science Fiction Studies* 7, no.1, (1980):16.

²⁶⁷ Sandra Gilbert and Susan Gubar, *No Man’s Land*, 102.

female author's culturally conditioned self-loathing."²⁶⁸ Within the broader historical context I have been outlining, however, the story can be read as a much more complex consideration of the battle of the sexes because of its engagement with an established SF interest in the juxtaposition of women and nonhuman actors.

"Shamblau" sets the stage for sexual struggle by establishing a series of dualisms that form the backbone of every aspect of the story, starting with the sex stereotypes of its two main characters: the hypermasculine Northwest Smith and the hyperfeminine Shamblau. Northwest Smith, the gunslinging smuggler, is a man "whose name is known and respected in every dive and wild outpost on a dozen wild planets" (4). Gubar refers to his actions as "almost parodically male" and his person as "almost a caricature male hero," and it is these *almosts* that cause the trouble. Is Smith a caricature? Is Moore in earnest when she creates this character? The Shamblau, in contrast, is, in Smith's mind, "so like a woman—an Earth woman—sweet and submissive and demure, and softer than soft fur..."²⁶⁹ Smith experiences conflicting emotions of attraction and revulsion for the Shamblau. The two main characters establish the divided and opposing states that are so often employed in fictions of sexual struggle.

The text also highlights duality in the structure of the story, which takes place over three days and three nights, from when Smith first rescues the Shamblau from a lynch mob to when Smith's partner Yarol rescues Smith from the Shamblau. The days we barely see. The narrator repeatedly informs us that Smith's business during the day "does not concern us."²⁷⁰ His activity on the first day and "is better not spoken of," and

²⁶⁸ Gilbert and Gubar *No Man's Land*, 102.

²⁶⁹ Moore, "Shamblau," 16.

²⁷⁰ Moore, "Shamblau," 10.

on the second, we get this: “He passed the day quite profitably, for his own purposes, which do not concern us now...”²⁷¹ The nights, in contrast, are more fully fleshed out. In the evenings, Smith returns home from his daily business to find the Shambleau waiting in the dark. They spend the nights conversing together both awake and asleep: although Smith doesn’t yet know it, the Shambleau feeds on Smith’s dreams as he sleeps. The waking/dreaming dichotomy also contributes to the logic of dualism that runs throughout the story. By structuring the story in this way, Moore assigns feminine qualities to night and masculine qualities to day. The daytime is for man’s business, the evening for women’s. By weighting the action of the story toward the evenings, Moore also insists that though “Shambleau” is a Northwest Smith story, “Shambleau” is set firmly in the realm of the feminine.

But despite these elaborately constructed dualisms, the text repeatedly introduces a third term. The Shambleau is portrayed like a woman, and yet she is also consistently described and named as nonhuman. Her alienness is expressed through her similitude to the animal. She is equally feline and serpentine as she is female, and Smith calls her like one “half-animal.”²⁷² When Smith looks into her eyes, he sees that they are “green as young grass, with slit-like, feline pupils that pulsed unceasingly, and there was a look of dark, animal wisdom in their depths—that look of the beast which sees more than man.”²⁷³ Though Smith feels repulsed by the Shambleau’s proximity to the animal, he is

²⁷¹ C.L. Moore, “Shambleau,” rev. ed. (1933, repr. New York: the *Avon Fantasy Reader* no.7 1948), 10, 14. Citations refer to the *Avon Fantasy Reader* edition.
<https://archive.org/details/Shambleau19331948/>

²⁷² Moore, “Shambleau,” 11.

²⁷³ Moore, “Shambleau,” 7.

also aroused by it, “aware of a stirring excitement within him,” as he looks at the Shambleau’s womanly figure.²⁷⁴

And then he was looking down into her face, very near, and the green animal eyes met his with the pulsing pupils and the flicker of—something—deep behind their shallows—and through the rising clamor of his blood, even as he stooped his lips to hers, Smith felt something deep within him shudder away—inexplicable, instinctive, revolted.²⁷⁵

Smith’s desire for Shambleau is figured as contaminated by his desire for the animal, or at the very least at war with that other desire. Therefore, the dualism of male/female is ruptured by the introduction of the animal, so that Smith’s hetero-desire for the female exists in conflict with his deviant desire for the animal.

The binary of Smith and the Shambleau is further troubled by the introduction of Smith’s partner Yarol. Yarol has a series of traits which are both masculine and feminine. Hailing from the swamp planet of Venus, Yarol’s origins are feminine, and are shared with the Shambleau—though no one is sure where Shambleau came from, Yarol guesses that the Shambleau species of alien also are from Venus. He has a beardless, “cherubic” face, and his body is slim and fair. Yarol and Smith are themselves introduced as part of a trio, with their ship tellingly named the *Maid*. The text tells us: “Smith and Yarol and the *Maid* were a trinity that had caused the Patrol much worry and many gray hairs in the past...”²⁷⁶ Bredehoft argues that *The Maid*’s name emphasizes the homosociality of the initial bond between the two men. And, when Smith is in danger, caught treacherously in the life-sucking embrace of the predatory Shambleau, it is Yarol who saves the day. Smith is seduced by the Shambleau, and must be rescued by his friend, turning the

²⁷⁴ Moore, “Shambleau,” 11.

²⁷⁵ Moore, “Shambleau,” 11.

²⁷⁶ Moore, “Shambleau,” 10.

hypermasculine Smith into a sexual victim—a damsel in distress. Like the damsel in distress, Smith is explicitly sexualized as prey to a voracious predator. To read “Shamblau” as a story about a trio of characters complicates the heavy dualism of the text, and invites a closer look at the other trios established by the story. Rather than Smith/Shamblau, I would suggest that what Moore writes is Smith/Shamblau/Yarol triad. This pattern is repeated throughout. Smith and Yarol are partners, but Smith, Yarol, and the *Maid* are the troublesome smuggling trinity. The male/female binary is forced to accommodate the animal as a third term. The human/nonhuman dichotomy is stretched to include the half-human, as Smith guesses whether Shamblau is woman, human, or “one of the many half-human races peopling the planets.”²⁷⁷ Instead of either/or, Moore continually gives us a third term. Though this hybrid term sits between two extremes, it also invites us to reevaluate our assumptions that Moore’s dichotomies are in fact opposites.

In “Shamblau,” the heteronormative expectations of alien romance in the SF pulps is therefore less straightforward than it initially appeared. Patrick Sharp’s reading of “Shamblau” is the most recent revision of the accepted reading of “Shamblau” as established by Gilbert and Gubar, Robin Roberts, and to an extent Thomas A. Bredehoft. Sharp argues that the story “reverses heteronormative expectations, inverts the exotic female alien trope, and is altogether ambiguous about an essentialist formulation of gender.”²⁷⁸ Rather than read the Shamblau as an exaggeration of feminine qualities—as Smith does when he finds the Shamblau “sweet and submissive and demure”—Sharp

²⁷⁷ Moore, “Shamblau,” 12.

²⁷⁸ Sharp, *Darwinian Feminism*, 158.

argues that the Shambleau exists outside of the evolutionary economy of sex partner selection, and therefore challenges assumptions of sexual dimorphism. He writes:

The Shambleau species troubles the common assumption that sexual dimorphism is universal and that white men are superior. In this way, Moore uses an evolutionary idea to challenge Darwin's account of sexual selection, race and colonization that is accepted uncritically in many other SF stories of the period. Shambleau is a creature that is outside the heterosexual economy of sexual selection, and estranges gendered assumptions of masculine and feminine traits that were central to the work of Darwinian feminists.²⁷⁹

Key to Sharp's reading is the mid-narrative shift in Shambleau's pronouns, from she to it, noting that the "essence of the creature is androgynous."²⁸⁰ I think what's being emphasized in the Shambleau's pronoun switch is less about gender and more about the dehumanization of the alien Shambleau; the shift happens after Smith and Yarol discover that the Shambleau is a threat. It reinforces her close proximity to an animal, and even to a monster, rather than marking her androgyny.

Even more disturbing is the persistent racialization of the Shambleau, even after she has been shifted to an it. During Yarol's struggle and eventual slaying of the Shambleau, he notes the "human sweetness of its brown, curved body."²⁸¹ Sharp's insistence that the story challenges not only sexual dimorphism but also the universal assumption of the superiority of white men is especially interesting in this context, because Smith is not explicitly racialized. Smith's whiteness is unconsciously constructed in opposition to the explicit racialization of the Shambleau. The shade of the Shambleau's skin becomes yet another mark of otherness—she is nonhuman, she is alien, she is an it, and she's a brown woman. The Shambleau is perhaps some version of femininity—but an

²⁷⁹ Sharp, *Darwinian Feminism*, 160.

²⁸⁰ Sharp, *Darwinian Feminism*, 160.

²⁸¹ Moore, "Shambleau," 23.

exoticized one. Unlike the white steel priestess of “The Bright Illusion,” or the angelic Rosaria of “The Moon Woman,” Shambleau does not participate in the symbolic legacy of white femininity. She is also the only female alien depicted monstrously. The human/alien struggle depicted in “Shambleau,” beyond being a stand-in for sex struggle as described by Gilbert and Gubar, is further a representation of colonialism and racism.

To discuss how Shambleau is both a female subject and a brown subject, even as she is alternatively alien, animal, woman, and monster, goes back to why the alien love story matters. Since female characters are infrequently depicted outside of a romantic context in SF, the debates about including romance also become debates about who gets to be represented in science fiction. The proper place of romance in science fiction periodically surfaces in the fandom today, on weblogs, online forums, and conventions (cons). The outlines of this debate are circumscribed by questions of audience and identity. That is to say, these debates are important because the discourse around them seeks to define who science fiction is for and what kinds of texts that type of person consumes.

Something to consider in these debates is the rich history of women participating in SF through multiple modes of engagement: as part of the fandom, as writers, as editors, and, most importantly, as readers. From Justine Larbalestier’s scholarship, we know now that female readers were present in the SF pulp audience from the start, which is corroborated by John Cheng’s research into the interwar pulp period. Gernsback, who, as the main editor at the start of the SF pulp era, had a vested interest in broadening the audience for his magazines by widening the community of imagined readers. He wrote in 1929, “who are the readers of SCIENCE WONDER STORIES? Everybody. Bankers,

ministers, students, housewives, bricklayers, postal clerks, farmers, mechanics, dentists—every class you can think of—but only those with imagination.”²⁸² The gesture of inclusivity speaks to the way that SF is a group endeavor, jointly created by writers, editors, fans, and enthusiasts. Gernsback’s juxtaposition of the “imagination” and the everyday is key to understanding the early days of science fiction. These magazines were both extremely generic, middleclass, and predictable *and* a place where gender performativity, women’s collectives, and non-generative, non-familial, and non-binary romance could be explored. They were deeply tied to ideas about the nuclear family and heterosexual marriage at the same time that they were challenging these hegemonies by positing other worlds without “mankind’s two.” Like the female machine and the beehive, alien romance imagines femaleness as inhuman. In examining the recurring trope of the female inhuman in science fiction, I offer a new lens for understanding the influences of feminist thought in the genre’s infancy and evolution. Although the inhuman can have ambiguous valences, these texts unambiguously embrace the inhuman as a site for interrogating, exploring, mocking, and even celebrating the idea of femaleness.

²⁸² qtd. in Westfahl, *Mechanics of Wonder*, 43.

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