WOMEN WITH WINGS: GENDER AND REPRODUCTIVE POLITICS IN AMERICAN PULP SCIENCE FICTION BY WOMEN

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Women with Wings: Gender and Reproductive Politics in American Pulp Science Fiction by Women submitted by me for the award of the Degree of Doctor of Philosophy in Arts at Jadavpur University is based upon my work carried out under the Supervision of **Prof. Abhijit Gupta of the Department of English, Jadavpur University, Kolkata**; And that neither this thesis nor any part of it has been submitted before for any degree or diploma anywhere/elsewhere.

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CONTENTS

INTRODUCTION

The current version of women in science fiction before the 1960s (which I've heard several times lately) goes like this: There weren't any. Only men wrote science fiction because the field was completely closed to women. Then, in the late '60s and early '70s, a group of feminist writers led by Joanna Russ and Ursula Le Guin stormed the barricades, and women began writing (and sometimes even editing) science fiction. Before that, nada.

If there were any women in the field before that (which there weren't), they had to slink around using male pseudonyms and hoping they wouldn't get caught. And if they did write under their own names (which they didn't), it doesn't count anyway because they only wrote sweet little domestic stories. Babies. They wrote mostly stories about babies.

There's only one problem with this version of women in SF—it's not true.

— Connie Willis: "The Women SF Doesn't See" (1992)[1]

[1] Connie Willis, "Guest Editorial: The Women SF Doesn't See," *Isaac Asimov's Science Fiction Magazine* 16, no. 11 (October 1992): 4, https://archive.org/details/Asimovs_v16n11_1992-10/page/n5/mode/1up.

DEMARCATING THE FIELD

The history of women's participation in the genre of science fiction (SF) has long fascinated scholars and readers. Several versions of this history have been told: some tracing its origins back to Mary Shelley's 1818 novel *Frankenstein*; others foregrounding the tradition of women's utopian writing in the nineteenth and early twentieth centuries as a more suitable starting point; and still others contending that meaningful female participation did not occur at all before the late 1960s. The excerpt from Connie Willis's 1992 editorial, "The Women SF Doesn't See," categorically dismisses this third narrative as untrue and reminds readers of important yet largely forgotten mid-century female writers such as "Kit Reed and Mildred Clingerman and Zenna Henderson and Shirley Jackson and Margaret St. Clair and Judith Merril (and that's not counting C. L. Moore, who I still didn't know was a woman…)."[2] However, even in her attempt to set the record straight, Willis doesn't go back far enough along the tortuous yet continuous pathways of SF history. There is an important missing link between Mary Shelley's origin myth and the early female utopias on the one hand and the overtly feminist SF of the late twentieth century on the other. To locate this missing link, we have to look closely at a period of SF literary history that has long been subject to academic denigration and critical neglect: the era of the pulp SF magazines, roughly spanning the period from 1926, when Hugo Gernsback launched the first pulp magazine dedicated exclusively to science fiction, to approximately 1950, when the pulps began to be superseded by the digest format of magazine publishing.

Any study on pulp SF must commence with a consideration of the richness of the word 'pulp,' a richness that lies in its ability to convey multiple overlapping layers of

[2] Willis, "The Women SF Doesn't See," 5.

significance. At its most basic level, 'pulp' represents the material specificities of form, designating the cheap and coarse wood pulp paper with untrimmed edges on which the magazines were printed. Such paper was prone to rapid degeneration, thereby making the pulp magazines a fundamentally ephemeral form of publication, intended to be quickly consumed and then disposed of. 'Pulp' was also indicative of dimensions, as the magazines published in this format typically measured 10 x 7 inches. "Pulp" could point towards a certain kind of readership, for the pulp magazines generally tended to target a (predominantly male) mass audience. Over time, the word "pulp" became a pejorative referent for the nature of the fiction published in such magazines: sensational, lurid, focused on action and adventure, and of 'low' literary quality. As David M. Earle writes, "The pulps were the perfect offspring of the marriage between literature and the machine age, seen by modernists as a hideous progeny of unchecked and banal production for the ungoverned masses."[3] Earle also notes how such attitudes later percolated into academia, which treated the pulps as "the literary trash of the early twentieth century."[4] He proceeds to define the pulp form as "a type of subjugated knowledge, disregarded, excluded not only from the canon but from the institutional archives and academic accounts of twentieth-century literary history."[5] My thesis is part of a larger attempt in SF criticism to resurrect this "subjugated knowledge" and restore the pulps to their due place in SF history.

SF critic and historian Mike Ashley has comprehensively narrated the history of the pulp magazines from their origins in the general fiction magazines of the late nineteenth century to their apotheosis in the specialised genre magazines of the 1920s

[3] David M. Earle, *Re-Covering Modernism: Pulps, Paperbacks, and the Prejudice of Form* (Burlington: Ashgate, 2009), 100.
[4] Earle, *Re-Covering Modernism*, 6.
[5] Earle, 13.

and the 1930s and, finally, their "passing" in the mid-1950s.[6] I shall not repeat this history in my thesis, except to note a number of landmark events that are relevant to my study. The most important of these is undoubtedly the publication of the first issue of *Amazing Stories* in April 1926, announcing the arrival of the first specialist SF magazine in American literary history.[7] Its founder, Hugo Gernsback, was an entrepreneur and radio enthusiast whose vision of "scientifiction" involved stories that "extrapolated from existing known science to suggest future inventions and what they might achieve."[8] Gernsback's career as an editor would be fraught with financial difficulties and accusations of poor and untimely payment, but his impact on the early development of the genre cannot be overstated. *Amazing Stories* set the accepted standards for SF pulp publication: a magazine featuring a combination of short stories, novelettes, and serialised novels, along with editorials on scientific themes and a dedicated reader discussion column. Alongside *Amazing Stories*, Gernsback also launched several other SF pulps of varying duration and impact over the next few years, including *Amazing Stories Quarterly*; *Science Wonder Stories* and *Air Wonder Stories*, which combined to form *Wonder Stories*; and *Science Wonder Quarterly*. He would either discontinue or lose ownership of these publications by 1936, but by then he had already played an important role in consolidating the market and readership of pulp SF magazines.

January 1930 would also witness the arrival of *Amazing*'s most important competitor in SF publishing: *Astounding Stories of Super-Science*. The title of the magazine underwent several changes over the years, first dropping the "Super-Science"

[6] Mike Ashley, *The Time Machines: The Story of the Science-Fiction Pulp Magazines from the Beginning to 1950* (Liverpool: Liverpool University Press, 2000).
[7] In strictly technical/material terms, *Amazing Stories* was not a 'pulp' magazine—its dimensions were larger and its paper quality was better—but as already discussed above, pulp had a range of other connotations that were certainly applicable to *Amazing*. The magazine would switch to standard pulp format in the early 1930s.
[8] Ashley, *The Time Machines*, 34.

and then becoming *Astounding Science-Fiction* under the transformative editorship of John W. Campbell Jr. *Astounding* under Campbell became, in Michael R. Page's words, "the fulcrum of SF's Golden Age, as a host of new writers—including Isaac Asimov, Robert A. Heinlein, Theodore Sturgeon, and A. E. van Vogt—exploded upon the scene and dominated the field for the next fifty years."[9] Here was magazine SF "entering its teens."[10] Although there were a number of other editors who shaped the various stages of the genre from 1926 to 1950, including David Lasser, T O' Conor Sloane, Harry Bates, F. Orlin Tremaine, Mort Weisinger, and Samuel Merwin, throughout my thesis I refer to the period from 1926 to 1936 as the Gernsback era and the post-1938 period as the Campbell era, after the two most influential editors in the history of pulp magazine publishing.

PULP SF AS "CONTESTED TERRAIN"

My general overview of the pulp magazines brings me back to a specific set of questions surrounding women's participation in the SF field. The introductory excerpt from Willis's editorial is again a useful starting point, as it underlines many of the myths clouding women's SF from the first half of the twentieth century. The "version" of SF history recounted by Willis suggests three principal myths: that the pulp magazines were exclusively male territory and inhospitable to female involvement; that any women who wanted to publish stories in the pulps were obligated to hide their identity under male pseudonyms; and that women, when they did write SF, wrote only about bland and insignificant domestic subjects. Each of these myths has been decisively dismantled by

[9] Michael R. Page, "Astounding Stories: John W. Campbell and the Golden Age, 1938–1950," in *The Cambridge History of Science Fiction*, ed. Gerry Canavan and Eric Carl Link (Cambridge: Cambridge University Press, 2019), 149.
[10] Page, "Astounding Stories," 149.

the archival research of Eric Leif Davin, whose extensive study of pulp SF literature, editorial history, and fandom has revealed a rather different scenario: "*203 different women authors—identifiable as women—published almost 1,000 stories in the science fiction magazines* between April, 1926… and 1960."[11] Davin adds that most of the predominantly male editors and readers of the SF magazines welcomed women into the field, and that women writers of the pulps never had to resort to the use of male pseudonyms for acceptability. Pulp SF was thus, in Davin's words, "contested terrain," with the "dominant male paradigm" of the genre constantly being critiqued and challenged by "outsider groups" such as women.[12]

Davin's observations served as the starting point to my work on pulp SF by women by making me aware of a vast body of writing that had virtually been erased from SF history until very recently. My previous reading in American SF by women had focused largely on the authors who, in the false version of women's history in SF cited by Willis, were believed to have "stormed the barricades" in the 1960s. Incidentally, I had encountered and read stories by C. L. Moore, Leigh Brackett, and even Leslie F. Stone in SF anthologies, but such sporadic encounters were not conducive to in-depth contextual knowledge of their contributions to the field. The primary material, in the form of actual copies of the pulp SF magazines, was of course largely inaccessible to me in India. Fortunately, over the last decade, volunteers from different parts of the world have undertaken an extensive digital archiving project to make pulp SF magazines accessible to a wider readership. Online domains such as the Internet Archive and the Luminist League now host freely available digital copies of virtually every pulp SF issue published in the first half of the twentieth century, thereby unlocking an inexhaustible

[11] Eric Leif Davin, *Partners in Wonder: Women and the Birth of Science Fiction 1926–1965* (Lanham: Lexington Books, 2006), 5.
[12] Davin, *Partners in Wonder*, 17.

range of research possibilities. Davin's comprehensive bibliography of women writers in the SF magazines from 1926 to 1965 also helped me to locate specific texts by women in the digital archives, and through my readings I attempted to establish connections between texts and identify recurring themes and concerns. Other helpful resources were the Internet Speculative Fiction Database with its thorough author bibliographies and the online *Encyclopedia of Science Fiction* for its cogent introductions to most issues relevant to SF.

My research was driven by a number of core questions. Given that late-twentieth-century SF scholarship often attempted to promote a perception of the genre as 'serious' literature by distancing it from its disreputable pulp roots (one recalls, for instance, Brian Aldiss's charge that Gernsback's segregation of SF into specialist magazines was a kind of "ghetto"-ization that "guaranteed the setting up of various narrow orthodoxies inimical to any thriving literature"[13]), I asked how a reconsideration of those roots could modify our current understanding of the field. I focused on women writers in particular because they have long been regarded as aberrant outliers in the ostensibly chauvinistic world of the pulps. I explored how stories by women compared to those written by their male counterparts, and whether women were (as per the pervasive myth) merely ventriloquising male voices and reflecting male interests in their SF texts. I also examined the extent to which women deployed the familiar tropes of the pulp SF genre to address themes and concerns of specific interest to female readers. I attempted to trace reflections of contemporary socio-political movements in the texts in order to understand whether women of the pulp era, like their utopian predecessors and second-wave successors, actively used SF to engage critically with public issues and discourses and

[13] Brian W. Aldiss, with David Wingrove, *Trillion Year Spree: The History of Science Fiction* (London: Paladin, 1988), 251.

imagine radical alternatives to reality. In particular, I used the categories of gender and reproductive politics as analytical tools due to their well-documented prominence in the history of women's SF. A focus on similar discourses in pulp SF by women could help to locate the latter's relation to that history.

In this context, I must note that I use the term "reproductive politics" in the broadest possible sense to avoid imposing excessive limitations on the primary material. In my textual analyses, reproductive politics encompasses women, sexuality, and procreation; pregnancy and birth; contraception and abortion; child-rearing and motherhood; artificial reproductive technologies; racial anxiety, eugenic breeding, and sterilisation; and other, related subjects. Likewise, I do not restrict my readings to overly narrow definitions of what constitutes science fiction. Although the authors and editors of pulp SF defined and approached the genre in diverse ways, I have worked on the basic principle that any text published in a science-fiction-specific pulp magazine counts as a science-fiction text. I have, nevertheless, grounded my general understanding of the genre on Darko Suvin's famous definition of SF as a literature of "cognitive estrangement," which implies "not only a reflecting *of* but also *on* reality"—"a creative approach tending toward a dynamic transformation rather than toward a static mirroring of the author's environment."[14]

WOMEN IN THE PULP SF MAGAZINES

The entry of women writers into the world of the SF pulps has a clearly identifiable starting point. In the December 1926 issue of *Amazing Stories*, the editor

[14] Darko Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (London: Yale University Press, 1979), 10.

Hugo Gernsback announced a writing contest for which he invited stories "of the scientifiction type" based on the front cover illustration of the same issue. The three winning entries would be published in the magazine, and the writers would receive cash prizes ranging from $100–$250.[15] The magazine received approximately 360 submissions, and the three winners were announced in the June 1927 issue. The third prize was awarded to a woman named Clare Winger Harris for a story entitled "The Fate of the Poseidonia," revolving around a Martian named Martell who not only conspires successfully to siphon off water from Earth's oceans in order to replenish the severely parched environment of Mars, but also carries away other trophies from Earth, including the heroine Margaret Landon.[16] Gernsback introduced the story in the following words:

> That the third prize winner should prove to be a woman was one of the surprises of the contest, for, as a rule, women do not make good scientifiction writers, because their education and general tendencies on scientific matters are usually limited. But the exception, as usual, proves the rule, the exception in this case being extraordinarily impressive. … We hope to see more of Mrs. Harris's scientifiction in *Amazing Stories*.[17]

Gernsback's hope would be answered, for Harris would write eight other stories for the SF pulps between 1927 and 1930, stories that were warmly received by the readers and made her one of the most popular writers during that brief span. She also resurfaces in the Letters column of the August 1931 issue of *Wonder Stories*, where she lists "sixteen general classifications into which it seems to me all science fiction stories written to date

[15] Hugo Gernsback, Editorial, "$500.00 Prize Story Contest," *Amazing Stories* 1, no. 9 (December 1926): 773, https://archive.org/details/AmazingStoriesVolume01Number09/page/n5/mode/2up.
[16] Clare Winger Harris, "The Fate of the Poseidonia," *Amazing Stories* 2, no. 3 (June 1927): 245–52, 267, https://archive.org/details/AmazingStoriesVolume02Number03/page/n38/mode/1up.
[17] Hugo Gernsback, Editorial, "The $500 Cover Prize Contest," *Amazing Stories* 2, no. 3, (June 1927): 213, https://archive.org/details/AmazingStoriesVolume02Number03/page/n5/mode/2up.

can be placed."[18] The thoroughness of the list makes it clear that Harris was no casual reader of SF, and her letter testifies to the close links between the practices of reading and writing SF. Such links helped shape the evolution of a genre that is characterised by an inherent intertextuality, with individual texts developing diverse but interrelated extrapolative trajectories from a common repository of recurring tropes.

Harris was followed in quick succession by a series of women writers who ensured that women's participation in the SF pulps did not remain a one-off accident. Harris's most successful female contemporary was Leslie F. Stone, who had an early debut in the July 1929 issue of *Air Wonder Stories* with "Men with Wings" and who continued to experiment with the genre throughout the 1930s. The same time period also witnessed the publication of stories by Minna Irving, L. Taylor Hansen, Lilith Lorraine, Amelia Reynolds Long, M. F. Rupert, Kathleen Ludwick, Sophie Wenzel Ellis, Emma Vanne, and several others in the Gernsback-founded magazines as well as the early *Astounding Stories*. The latter also had the distinction of being the first of the SF pulps to feature a story by C. L. Moore, whose impact as an early female practitioner of the genre has long been acknowledged, studied, and celebrated as pathbreaking. With the exception of Hansen, who seems to have made a conscious effort to conceal her gender identity, all the aforementioned women wrote explicitly as women and were on the whole warmly received by the predominantly (though not exclusively) male readership.

With the start of the Campbell era in the late 1930s and its attendant boom in SF magazine publishing, new names were added to those already listed above—Helen Weinbaum, Leslie Perri, Edna Mayne Hull, Frances M. Deegan, and the wondrously

[18] Clare Winger Harris, Letter to the Editor, *Wonder Stories 3*, no. 3 (August 1931): 426, https://archive.org/details/Wonder_Stories_v03n03_1931-08/page/n139/mode/1up.

popular and prolific Queen of Space Opera, Leigh Brackett. Moore continued to be a steady presence in Campbell's *Astounding Science-Fiction* throughout the war years, often in collaboration with her husband and fellow SF author Henry Kuttner, while Brackett carved out her own niche in magazines better suited to her style of planetary romance, such as *Planet Stories*. The post-war period, in turn, brought Margaret St. Clair, Judith Merril, Wilmar Shiras, and Katherine MacLean to the world of SF authorship, and these writers would continue to publish SF well beyond the demise of the pulps. It is to be noted that the names listed above are far from exhaustive, and that the actual numerical output of individual authors is rather uneven, with some like Rupert publishing one story and then disappearing entirely from the pulp scene, and others like Brackett publishing multiple stories per month in different magazines. Nevertheless, what I wish to emphasise through this rudimentary overview is a sense of historical continuity. Women were not only present in the world of the SF pulps from 1926 to 1950; they were *consistently* and *numerously* present. Their relative invisibility in, and frequent erasure from, histories of women's SF writing is thus a product of critical oversight and neglect. The ephemeral nature of the pulp form is another significant contributing factor; until quite recently, stories from the pulp era were accessible only in late twentieth-century anthologies that could not feasibly provide a complete picture. In choosing texts for inclusion, editors of anthologies become unavoidably complicit in an exclusionary act that banishes certain authors and texts to the margins of obscurity. Moreover, selections for anthologies are governed not only by subjective editorial biases but also by the contingencies of material availability, with access to complete physical archives being limited and difficult. Nevertheless, editors such as Pamela Sargent played an important role in bringing SF texts by women in mid-century magazines back into

circulation, and subsequent editors would go further back in time to resurrect pulp SF stories by women hitherto languishing in obscurity.[19]

The past three decades of SF criticism have witnessed a resurgence and gradual expansion of interest in the women writers of the pulp era, and the scholarship that has emerged from this inquiry has played a pivotal role in shaping my research interests and methods. Jane Donawerth's extensive work in the field has been particularly influential in this regard. Her 1994 essay entitled "Science Fiction by Women in the Early Pulps, 1926–1930" was, to my knowledge, the earliest attempt to provide a concise but excellent overview of the eponymous subject area, demonstrating how these pulp pioneers formed "a bridge between the nineteenth-century technological utopias by women and the constraints on women writers in the new twentieth-century science fiction."[20] In particular, Donawerth highlights these authors' imaginative attempts to revise gender roles and reproductive arrangements and transform domestic spaces and duties through technology. She expands the scope of her inquiry in *Frankenstein's Daughters: Women Writing Science Fiction* (1997), where she argues that women writers, including those of the pulps, are concerned primarily with "making a science that does not exclude women, creating an identity for woman as alien, and finding a voice in a male world."[21] This intertwined network of thematic and narrative concerns

[19] See, for instance: Pamela Sargent, ed., *Women of Wonder: Science Fiction by Women about Women* (New York: Vintage Books, 1974); Pamela Sargent, ed., *Women of Wonder, the Classic Years: Science Fiction by Women from the 1940s to the 1970s* (New York: Harvest Books, 1995); Justine Larbalestier, ed., *Daughters of Earth: Feminist Science Fiction in the Twentieth Century* (Middletown, CT: Wesleyan University Press, 2006); Mike Ashley, ed., *The Feminine Future: Early Science Fiction by Women Writers* (New York: Dover Publications, 2015); Lisa Yaszek and Patrick B. Sharp, eds., *Sisters of Tomorrow: The First Women of Science Fiction* (Middletown, CT: Wesleyan University Press, 2016); and Lisa Yaszek, ed., *The Future Is Female!: 25 Classic Science Fiction Stories by Women, from Pulp Pioneers to Ursula K Le Guin* (New York: The Library of America, 2018).
[20] Jane L. Donawerth, "Science Fiction by Women in the Early Pulps, 1926–1930," in *Utopian and Science Fiction by Women: Worlds of Difference*, ed. Jane L. Donawerth and Carol A. Kolmerten (Syracuse, NY: Syracuse University Press, 1994), 137.
[21] Jane Donawerth, *Frankenstein's Daughters: Women Writing Science Fiction* (Syracuse, NY: Syracuse University Press, 1997), xviii.

has closely informed my reading of the primary texts in this thesis. Justine Larbalestier's *The Battle of the Sexes in Science Fiction* (2002) and Lisa Yaszek's *Galactic Suburbia: Recovering Women's Science Fiction* (2008) are two other seminal works that have contributed to my understanding of the separatist pulp utopia on the one hand and the domestic fiction of the post-war era on the other.[22] My chapters shall engage with their principal arguments in due course. I also refer extensively to Patrick B. Sharp's 2018 study of early SF texts by women in relation to the "scientific megatext" of evolution. Sharp's study usefully foregrounds the ubiquity of the evolutionary paradigm in the early twentieth century and the attempts made by Darwinian feminists to contest that paradigm—a contestation that provides an important foundation for pulp SF by women in the 1920s and 1930s.[23]

CHAPTER OVERVIEW

The four chapters that constitute this study are broadly structured at the intersection of chronology and theme. The first two chapters focus on a selection of stories published between 1930 and 1931 but representative of the general tenor of pulp SF by women during the Gernsback era, roughly spanning the period from 1926 to 1936. Even though this was not the most fertile period for women writers of SF in strictly quantitative terms, it must undoubtedly occupy a position of centrality in any feminist study of pulp SF literature and history, for the editorial policies in place at the time

[22] Justine Larbalestier, *The Battle of the Sexes in Science Fiction* (Middletown, CT: Wesleyan University Press, 2002); Lisa Yaszek, *Galactic Suburbia: Recovering Women's Science Fiction* (Columbus: Ohio State University Press, 2008).
[23] Patrick B. Sharp, *Darwinian Feminism and Early Science Fiction: Angels, Amazons and Women* (University of Wales Press, 2018).

allowed many women writers not only to find their footing in the world of the SF magazines but also to explicitly engage with the twin issues of gender and reproduction through a variety of scientific, technological, social, political, and ethical lenses. One may attribute this to the specific climate of the interwar period in America, with the recent success of the suffrage movement still alive in public memory, and with the campaigns for marriage reform and birth control unfolding in real time against a larger background of increasing sexual liberalism, paid employment for women, and relaxation of rigidly gender-segregated roles. My textual readings take these socio-historical contexts into account.

The third and fourth chapters move on to consider two distinct phases of the Campbell era of SF publishing, the first coinciding with the war years (1939–45), and the second covering the immediate post-war landscape (1946–50). During the war years, at the height of SF's Golden Age, reproductive speculation seems to have taken a backseat, appearing only tangentially in SF written by women, partially because other socio-political and scientific issues of greater urgency were at stake. In fact, there is a dominant perception that women writers of the time tended to 'write like men,' claiming for themselves an equal position within a niche market by deploying themes and techniques that would put them on a par with their male counterparts. My study of this period will trace the tangents that metaphorically reinscribe gender and reproduction as relevant, if peripheral, discursive contexts in works by notable women writers. The fourth chapter will proceed to the post-war period during which the pulp magazines were decisively in decline, on the verge of being fully supplanted by the emerging digest format that promised greater sophistication, respectability, and portability. Reproductive concerns prominently re-enter the domain of SF writing by women during this time, due in large part to the conservative post-war emphasis on domesticity, marriage, and

motherhood as the woman's principal arena of operation. My chapter will consider how women writers' handling of gender and reproductive concerns metamorphoses in response to the specific ideologies and anxieties of the Atomic Age.

In each of the chapters, I focus on distinct groups of authors in order to cover more ground and reflect a range of authorial approaches to the genre. However, due to the demands of the primary material, I have occasionally taken liberties in structuring and organisation. A case in point is C. L. Moore's "Shambleau," which does not fit neatly into the general framework outlined above for two reasons. Firstly, "Shambleau" was published in *Weird Tales*, a magazine that was firmly established in the pulp market before the arrival of the specialist SF pulps and that showcased more fantasy, horror, and supernatural fiction than science fiction. Although *Weird Tales* published many female writers over the years, I did not include the magazine within the scope of my study due to the generic ambiguity of its content. "Shambleau" is thus the only story from *Weird Tales* that features as a primary text in this thesis, and the decision to include it was dictated by the story's tremendous impact on the SF genre—an aspect that I discuss in greater detail in Chapter Three. Secondly, "Shambleau" was published in 1933 and therefore, in terms of strict chronology, should be categorised with the texts examined in the first two chapters. However, the war years were some of Moore's most productive and memorable years as a writer, which is why I deemed it more fitting to assess Moore's contributions against the background of the genre's Golden Age alongside the only other contemporary female writer who matched Moore's output in terms of sheer quantity—Leigh Brackett. In my analysis, "Shambleau" is therefore regarded as something of a precocious precursor standing alone in the 1930s landscape, boldly anticipating and in fact shaping future experimentations in the genre.

Chapter One: Filthy Creations: Illegitimate Reproduction and 'Mad' Science

In my first chapter, I study three stories published in 1930 that represent variations of the archetypal figure of the mad scientist—one who tampers with the forbidden mysteries of life and creation and engenders monstrous offspring by illegitimately appropriating the female role in reproduction. The central logic of these stories derives from the legacy of Mary Shelley's *Frankenstein*, and I argue that they offer a comparable feminist critique of the ethical transgressions and excesses of a masculinist science that forecloses female participation and fails to take female concerns into account. My arguments are based on Donawerth's view that the early female pulp pioneers are "Frankenstein's daughters" who return to Shelley's origin myth again and again in order to negotiate its thematic complexities and literary-cultural inheritance.[24] I also draw on Sharp's study of pulp SF by women in relation to the conceptual background of "Darwinian feminism," particularly its "reorganisation of sexual selection" and emphasis on female choice.[25] The specific stories selected for discussion in this chapter are Clare Winger Harris's "The Ape Cycle" (*Science Wonder Quarterly*, Spring 1930), Sophie Wenzel Ellis's "Creatures of the Light" (*Astounding Stories of Super-Science*, February 1930), and Kathleen Ludwick's "Dr. Immortelle" (*Amazing Stories Quarterly*, Fall 1930).

It is notable that the stories highlighted in this chapter deal with various branches of the biological sciences (particularly experimental biology) because of their overwhelming centrality and currency in the popular scientific discourses of the 1920s and 1930s, and due to their potential capacity to erode the presumed epistemological and ontological certainties of Western thought. In "The Ape Cycle," a scientist sets into

[24] Donawerth, *Frankenstein's Daughters*, xviii.
[25] Sharp, *Darwinian Feminism*, Introduction.

motion an elaborate, multi-generational simian breeding project in order to domesticate apes as trained servants and thereby release human beings from the bondage of labour. The mad scientist in "Creatures of the Light" isolates the Life Ray and uses it to accelerate the trajectory of human evolution and thereby create a race of godlike beings. Ludwick's Dr. Immortelle conducts a series of medical experiments and discovers that he can rejuvenate himself infinitely through blood transfusions from young boys, in an SF version of vampiric consumption. Each of these scientific projects involves acts of illegitimate births and rebirths, and all three narratives culminate in images of death and destruction. There is the suggestion that such male-directed acts of illicit creation via 'mad' science are inherently sterile, in stark contrast to the natural principle of female reproductivity.

My readings also underscore the fact that the feminist critique of science in these stories is not equivalent to an anti-rational or anti-science stance. Each text points towards a distinction between scientific principle and scientific practice, with the principle being potentially utopian (in the sense that it holds the promise of benefiting human civilization as a whole), but falling short of that ideal due to the faulty, misguided, or malevolent specificities of application. It is indicated that women may play an important role in tempering these selective biases and excesses by reinstating an emphasis on judicious and ethical balance. The stories are not, however, entirely successful in imagining how feminist scientific practice can engender viable alternatives to the hegemonic narrative of masculinist science. Furthermore, all three texts are steeped in the vocabulary of scientific racism and eugenics, the latter being repeatedly presented in positive, even aspirational, terms to underscore cultural notions of white supremacy.

Chapter Two: Utopian Elsewheres: Gender and Reproduction in the Pulp Herlands

If the first chapter highlights texts by women that critique the masculine-scientific project typically valorised in the pulps, the texts discussed in the second chapter retain this critical ethos while also providing utopian feminist alternatives. Typically, they stage a confrontation between two disparate spatiotemporal settings—one closer to the author's contemporary environment and the other a product of a radical imaginative dislocation or leap. Utopia has historically been a powerful political tool in the hands of feminist writers, who have envisioned other worlds to promote critical assessments of the here and now and advocate progressive change. However, the genre was beginning to wane in mainstream publishing during the 1920s after the successful conclusion of the suffrage movement. My chapter illustrates how female authors used the pulp magazines as a platform to continue their speculative explorations of utopian herlands well into the 1930s, thereby keeping the tradition alive and revivifying it with new SF tools. I investigate this pulp utopian strand through detailed readings of three primary texts: Lilith Lorraine's "Into the 28th Century" (*Science Wonder Quarterly*, Winter 1930), M. F. Rupert's "Via the Hewitt Ray" (*Science Wonder Quarterly*, Spring 1930), and Leslie F. Stone's "The Conquest of Gola" (*Wonder Stories*, April 1931). I also follow Lyman Tower Sargent's scholarly precedent in conceptualising utopianism not as a static blueprint of perfection but as a dynamic "process of social dreaming" that incorporates both the "eutopia" and the "dystopia" as variations of the utopian impulse rather than as oppositional categories.[26]

While my chapter analyses each of the chosen texts in relation to the heterogeneous contexts emerging from the respective narratives, it is alert to several

[26] Lyman Tower Sargent, "The Three Faces of Utopianism Revisited," *Utopian Studies* 5, no. 1 (1994): 3, 9. http://www.jstor.org/stable/20719246.

points of thematic convergence. For instance, the other worlds in the pulp utopian narratives, which range from future societies of gender equality to separatist enclaves of female supremacy, share a common commitment to a feminist vision of science that takes cognisance of the specific needs of women. This scientific vision is communicated to the readers through the strategic use of female narrative voices—a feature not noted significantly in the mad scientist texts of the first chapter. I also pay special attention to the alternative gender and reproductive arrangements in these imaginative elsewheres and relate them to contemporary social discourses and movements such as companionate marriage, birth control, and equal professional participation. Although the understanding of gender in the texts is founded on binary essentialist models, all three propose a radical separation of sexuality from reproductive functions. In the process, they not only destigmatise recreational sexual activity but also recognise the importance of female sexual pleasure. Furthermore, pregnancy, childbirth, and motherhood are reimagined in ways that minimise or eliminate harm and enhance networks of female community and solidarity. I also analyse another trope that the three texts have in common—that of telepathic communication—as a simultaneous affirmation of utopian communitarianism and female evolutionary superiority.

Chapter Three: Alien Hybrids: From Reproduction to Regeneration

In my third chapter, I move on to a consideration of one of the most enduring and complex figures in the SF corpus: the alien. It is now an accepted truism that the alien in SF is more metaphorical than literal, designating multiple forms of otherness that are unsettling because they are unclassifiable. Aliens are fundamentally hybrid creatures, defying the standard categories of the human, the animal, the vegetal, and the mechanical, and reflexively drawing attention to the constructed nature of these

categories. Of particular interest is the figure of the female (or feminised) alien, described by Robin Roberts as "pulp science fiction's legacy to feminists."[27] My chapter focuses on the manifold manifestations of this figure in short fiction by the two foremost female authors of the Golden Age: C. L. Moore and Leigh Brackett. I discuss "Shambleau" (*Weird Tales*, November 1933) and "No Woman Born" (*Astounding Science-Fiction*, December 1944) by Moore and "Terror Out of Space" (*Planet Stories*, Summer 1944) and "The Vanishing Venusians" (*Planet Stories*, Spring 1945) by Brackett to examine how the female alien thematises a range of masculine anxieties surrounding female difference, power, sexuality, and reproductive capacity. I borrow the categories of "woman as animal," "woman as machine," and "woman as humanoid alien" from Donawerth's *Frankenstein's Daughters* and supplement it with a fourth category of woman as plant or vegetal being.[28] I also emphasise the intrinsically ambiguous and overlapping nature of these categories of alien-ness or otherness, thereby locating my chosen texts within the framework of gothic hybridity and monstrosity.

My textual readings establish that works by Moore and Brackett moved away from the straightforward engagements with reproductive issues discernible in the early stages of pulp writing, choosing instead the metaphorical trope of the alien encounter to defamiliarise and denaturalise the anthropocentric hierarchies of evolution and the binary constructions of gender. Thus, even when reproductive politics is expunged from the surface of the text, it continues to linger as a gendered subtext. I also argue that while the female alien is frequently characterised by her untamed sexuality and her prodigious reproductive powers, Moore and Brackett tend to situate their aliens entirely outside the heterosexual reproductive matrix, which makes them resistant to easy assimilation. In

[27] Robin Roberts, *A New Species: Gender and Science in Science Fiction* (Urbana: University of Illinois Press, 1993), 40.
[28] Donawerth, *Frankenstein's Daughters*, 43.

my view, the texts discard the normative discourse of organic reproduction in favour of a Harawayan politics of regeneration that is polymorphous, multivalent, and potentially feminist, accommodating the possibility of *other* hybrid ways of being, knowing, and propagating.[29] However, the texts fail to fully realise the feminist potential of such regenerative practices as they end either with the annihilation or the isolation of the alien entity, precluding any possibility of mutual understanding between the masculine subject and the alien other or of lasting coalitions cutting across gender and species boundaries.

Chapter Four: Domestic Experiments: Post-War Reproductive Mutations

My fourth chapter proceeds to magazine SF in the years after World War II, where we witness further transformations in women's writing in response to sweeping changes in the socio-political order. If the space operas and planetary romances of the 1930s and 1940s expand the world of SF to a scale of cosmic vastness, post-war SF by women rescale it down to the microcosm of the domestic space and the nuclear family. This renewed spatial and thematic emphasis was a function of the large-scale cultural campaign in the late 1940s that urged American women to surrender the domain of professional work to returning veterans and resume their proper stations within the suburban household, recommitting themselves to the cult of female domesticity and its conservative heterosexual reproductive and parental imperatives. Within this worldview, women were associated with three idealised roles—the household manager, the devoted wife, and the sacrificial mother, and these roles combined to produce what Betty Friedan later termed the feminine mystique.[30]

[29] Donna Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," in *The Haraway Reader* (New York: Routledge, 2004).
[30] Betty Friedan, *The Feminine Mystique* (New York: Dell, 1974).

In my analysis of the post-war domestic turn in women's SF that frequently featured women as wives and mothers, I refer to two seminal critical works on the subject. The first is Joanna Russ's influential 1970 essay entitled "The Image of Women in Science Fiction," which defines a version of SF that Russ terms "galactic suburbia"—SF that may be set in the far future in a different galaxy, but that depicts a social order where gender relations merely reflect "the American middle-class with a little window dressing."[31] Lisa Yaszek reinterprets Russ's concept in her study of mid-century science fiction by women, arguing that when women depicted female characters as wives and mothers negotiating conservative sex and gender ideals, they were essentially using SF as a tool to critically evaluate and challenge those ideals.[32] My readings of Judith Merril's "That Only a Mother" (*Astounding Science-Fiction*, June 1948) and Katherine MacLean's "And Be Merry…" (*Astounding Science-Fiction*, February 1950) follow Yaszek's lead in examining how the texts reveal a complex grappling with the socially enforced ideology of domesticity and its attendant feminine reproductive roles. Merril's story presents a near-future America where prolonged atomic warfare has accelerated the birth of children with devastating mutations, and where infanticide perpetrated by fathers is not only rampant but largely excused. Merril thus questions the value of prescriptive domestic containment for women in a world where masculine militarism poses a constant and ubiquitous threat to the nuclear family unit and the procreative and maternal functions of its women. MacLean's story, in turn, tackles a different aspect of domestic ideology—the cultural propaganda that presented women's labour in the household and their professional pursuits outside the household as irreconcilable binaries. The protagonist is a devoted wife and an endocrinologist who conducts

[31] Joanna Russ, "The Image of Women in Science Fiction," in *The Country You Have Never Seen: Essays and Reviews* (Liverpool: Liverpool University Press, 2007), 207.
[32] Yaszek, *Galactic Suburbia*, 4–5.

groundbreaking experiments on cellular reproduction and regeneration not in the institutionalised space of the laboratory but in the intimately domestic space of her personalised laboratory kitchen. Both stories reflect a reconfiguration of reproduction through mutation—one of the major preoccupations of SF texts in the nuclear age.

My readings demonstrate how post-war women writers sought not to reject domestic roles but to reimagine and revise them through the lens of female subjectivity and aspiration. Both Merril and MacLean use narrative strategies that give their female protagonists an autonomous voice, although in their foregrounding of the domestic space, they leave no scope for the forging of female community. Both stories also illustrate how the burgeoning post-war terrain of psychiatry served the hegemonic order by silencing that voice and pathologising the minutest deviations from normative conceptions of femininity. Finally, I argue that these early stories by Merril and MacLean indicate the direction that women's SF would take in the new digest magazines of the 1950s and 1960s—less sensational and exuberant than the early pulps, but thoughtful and sensitive in their treatment of gender and reproductive relations.

CHAPTER ONE

FILTHY CREATIONS: ILLEGITIMATE REPRODUCTION AND 'MAD' SCIENCE

During the formative stages of the development of pulp science fiction in the 1920s, the specifications of the new genre had to be urgently defined. Hugo Gernsback played a pivotal role in shaping the initial contours of the genre, particularly by focusing on the *science* of science fiction—or 'scientifiction,' as he called it then. Gernsback defined the scientifiction story as "a charming romance intermingled with scientific fact and prophetic vision," and he appended to this definition the condition that such a story must play an instructive role by imparting scientific knowledge to its readers while also entertaining them with imaginatively stimulating content.[1] As examples and models, he cited the works of three pioneers—Edgar Allan Poe, Jules Verne, and H. G. Wells, whose works were reprinted extensively in the earliest issues of *Amazing Stories* before original contributions took over. Gernsback would be particularly insistent on the need for scientific accuracy; he expected his authors to base their stories on credible extrapolations from the established scientific knowledge of the time, failing which the stories would be relegated to the domain of fantasy. He would be forced to reconsider this stance in later years on account of the mixed submissions that his magazines actually received, the preferences of his readers, and the more relaxed standards set by competing

[1] Hugo Gernsback, Editorial, "A New Sort of Magazine," *Amazing Stories* 1, no. 1 (April 1926): 3, https://archive.org/details/AmazingStoriesVolume01Number01/page/n3/mode/2up.

publications such as *Astounding Stories*, but the question of scientific credibility remained a relevant one. The requirement that SF stories be based on empirical science and sound technological principles may have been a partial impediment for female writers, given the widespread cultural construction of scientific knowledge and practice as male preserves and the well-documented under-representation of women in the educational and professional domains of science and engineering. Moreover, the very idea of science often embodied a fundamentally masculinist worldview that did not adequately reflect women's concerns or centre them as subjects. The women writers of the early pulps adopted two distinct (but occasionally overlapping) strategies to tackle this problem. The first was to use their fiction to probe and critique the gendered assumptions of masculinist science as well as its ethical dimensions and consequences. The other went a little further in imagining "a major rupture with science as it exists in the twentieth century" and offering a potentially feminist, even utopian reformulation of scientific theory and praxis.[2] This chapter is concerned with stories that primarily adopt the former textual strategy.

Jane Donawerth argues that if male writers in the SF pulps looked to Poe, Verne, and Wells for inspiration, women writers "presented themselves as Frankenstein's daughters, alluding to Mary Shelley and *Frankenstein* in constituting their version of science fiction."[3] The reality was not quite so dichotomous, for women writers tended to amalgamate many distinct traditions in their thought experiments, but the legacy of *Frankenstein* is crucial to any understanding of the category of 'mad' science and its feminist critique. Critics have read Victor Frankenstein's hubris in terms of his attempts to transcend human limitations through science and penetrate the mysteries of life and

[2] Donawerth, *Frankenstein's Daughters*, 1–2.
[3] Donawerth, xviii.

creation, and this act of penetration carries all the disturbing implications of an illicit intercourse. In giving birth to his 'Monster,' Frankenstein, the masculine-scientific overreacher appropriating the role of divine Creator, also effectively appropriates woman's reproductive role without assuming its associated responsibilities of feminine/maternal nurturance. His self-interested, self-aggrandising, and myopic science is thus tinged with madness, leaving a trail of destruction and sterility in its wake because of Frankenstein's inability to grasp the moral and ethical imperatives that the creation of life entailed. Frankenstein's presentation also engendered the prototypical image of the mad scientist in literary and popular culture—unfeeling, isolated, indifferent to human relationships and affections, obsessive, maniacal, and invariably male. These unattractive stereotypes were compounded in the nineteenth century due to the close association of intellectual genius with somatic degeneration and moral deficiency in Victorian thought. In her study of the mad scientist in H. G. Wells's works, Anne Stiles has discussed how multiple Victorian thinkers situated all over the European continent—such as John Ferguson Nisbet, Jacques Moreau, Francis Galton, and Cesare Lombroso—pathologised genius as a deviation from the normative state of nervous equilibrium, akin to insanity, and this seemed to impart clinical substance to the enduring image of the mad scientist in Western cultural discourse.[4]

The stories discussed in this chapter are distinct in terms of the themes and discourses they engage with, but each has at its centre a story of a mad scientist and his "filthy creation," and each story independently works out the ideological implications and practical ramifications of that act of illegitimate creation from an arguably feminist lens. In the process, the stories also shed light on a variety of scientific, socio-cultural,

[4] Anne Stiles, *Popular Fiction and Brain Science in the Late Nineteenth Century* (New York: Cambridge University Press, 2012), 124–133.

and political issues that were of topical significance in America in the early decades of the twentieth century. While "The Ape Cycle" and "Creatures of the Light" explore the enigmatic and protean realms of animal and human evolution, "Dr. Immortelle" speculates scientifically on the arcane goals of rejuvenation and immortality. Each scientific quest is ostensibly driven by a forward-looking orientation and has the potential to improve human life, but this goal is repeatedly thwarted by the inability (or unwillingness) of the male scientists to fully consider the possible repercussions of their mad science. The sections that follow will analyse the chosen texts and their related contexts closely while maintaining a core focus on American gender and reproductive politics.

1.1. The Barbarity of Man: Reproduction and Evolutionary Discourse in Clare Winger Harris's "The Ape Cycle"

It is appropriate to begin a textual study of pulp science fiction by women with Clare Winger Harris, the first woman to publish a story in Gernsback's *Amazing Stories*. Her career as a pulp author was short-lived but impactful, and her nine stories in the Gernsback pulps made her a more prolific contributor than most of her female contemporaries (with the exception of Leslie F. Stone). Five of these stories were advertised on the covers of the magazines, indicating that her works were not only popular among the largely male readership but also greatly anticipated. However, she seems to have moved away from the world of SF publishing after 1930, presumably to focus on her domestic life. "The Ape Cycle," generally believed to have been her final story for the pulps, was published in the Spring 1930 issue of *Science Wonder Quarterly*, another (short-lived) venture by Gernsback. The following discussion will build on the

foundations laid in Donawerth's excellent reading of Harris's "The Fate of the Poseidonia" by analysing "The Ape Cycle" in relation to the contexts of illicit reproduction, evolutionary discourse, and American racial ideology.[5]

"The Ape Cycle" begins, as early SF stories often do, with a solitary male scientist who is driven by a vision and a mission. Daniel Stoddart, proprietor of a large farm in the American Midwest that requires intensive labour for its upkeep, dedicates his life to the selective breeding and training of non-human primates who will labour for human beings, so that the latter may be free to pursue their higher intellectual and artistic inclinations. From the very outset, this project is situated within a Darwinian evolutionary framework. Evolution had been a common trope in SF since the publication of Charles Darwin's *On the Origin of Species* (1859) and the even more contentious *Descent of Man* (1871), as multiple authors used the techniques of speculative extrapolation to grapple with the potential ramifications of a scientific approach that eroded hitherto rigid boundaries between the human and the animal. However, the theme of evolution often assumed special significance in the works of female authors because of the impact that Darwinian thought had on ideas of sexual difference, gender roles, and reproduction—an impact Darwin may not have entirely foreseen. Kimberly A. Hamlin has demonstrated the logical thought process that made evolutionary science "an unlikely and unwitting ally in the struggle for women's rights."[6] Prior to the formulation of Darwinian evolutionary theory, ideas on sexual difference, gender roles, marriage, family organisation, and reproduction were based on biblical prescription. The story of purposeful creation by God articulated in the Book of Genesis determined the proper

[5] Jane Donawerth, "Illicit Reproduction: Clare Winger Harris's 'The Fate of the Poseidonia,'" in *Daughters of Earth: Feminist Science Fiction in the Twentieth Century*, ed. Justine Larbalestier (Middletown, CT: Wesleyan University Press, 2006), 20–35.
[6] Kimberly A. Hamlin, *From Eve to Evolution: Darwin, Science, and Women's Rights in Gilded Age America* (Chicago: University of Chicago Press, 2014), 17.

place of woman as the 'helpmeet of man,' created as an afterthought from his rib. The gendered hierarchy in the marital relationship and the sexual division of labour were also justified through appeal to biblical injunction.[7] The legacy of Eve was an insuperable barrier that generations of women had to confront, especially when they sought to overcome socio-cultural, economic, and domestic constraints. Evolution served to provide an alternative creation story that shook the foundations of the biblical narrative of the Garden of Eden, and as a result it had far-reaching consequences for the emerging women's rights movements in the nineteenth century. As Hamlin writes:

> Evolution reframed the terms of gender debates from biblical ancestors to animal kin, from individual to species, and from piety to reproduction. Based more on women's bodies than on women's souls and more on women's biological function as mothers than on their religious faith, science, nevertheless, offered the promise of objectivity.[8]

Everything that seemed incontrovertible in the biblical realm could be re-examined and questioned in the scientific realm. Darwinism and feminism therefore became twin challenges to religious and scientific orthodoxy, emerging more or less contemporaneously and opening up a vista of new possibilities that could alternately affirm the belief in human progress and perfectibility or descend into existential uncertainty over man's place in the natural world. It is no wonder, then, that female SF authors from the early twentieth century found themselves in a position to explore some of these possibilities in the speculative realm.

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[7] Genesis 3:16: "Unto the woman he said, I will greatly multiply thy sorrow and thy conception; in sorrow thou shalt bring forth children; and thy desire shall be to thy husband, and he shall rule over thee." (KJV)

[8] Hamlin, *From Eve to Evolution*, 55.

Evolutionary thought was of course not inherently feminist; Darwin's own language, particularly in *The Descent of Man, and Selection in Relation to Sex*, was often rooted in Victorian gender codes and attempted to rationally justify the status quo. For example, in his discussion on sexual selection (through which he attempted to explain the complexities of sexual differentiation and reproductive behaviour in various species), Darwin posited that "the males of almost all animals hav[e] stronger passions than the females," the latter being "less eager," "coy," and requiring to "be courted."[9] Man, in particular, is characterised by "greater size and strength," "greater courage and pugnacity"[10]; he is more "energetic" and "has a more inventive genius,"[11] largely because he is the predominant force in the general struggle for life. Woman differs from man "in mental disposition, chiefly in her greater tenderness and less selfishness," both of which are expressions of her "maternal instincts."[12] She also has greater "powers of intuition," but this faculty is "characteristic of the lower races" and therefore decidedly inferior. Darwin finally contends:

> The chief distinction in the intellectual powers of the two sexes is shewn by man attaining to a higher eminence, in whatever he takes up, than woman can attain—whether requiring deep thought, reason, or imagination, or merely the use of the senses and hands. … Thus man has ultimately become superior to woman.[13]

[9] Charles Darwin, *The Descent of Man, and Selection in Relation to Sex* (Princeton: Princeton University Press, 1981), Volume I, 272–3.
[10] Darwin, *Descent of Man*, Volume II, 325.
[11] Darwin, 316.
[12] Darwin, 326.
[13] Darwin, 327–8.

Many contemporary Darwinian feminists[14] objected to these statements. Antoinette Brown Blackwell, for instance, adopted the approach of scientific empiricism to assert that Darwin had given undue prominence to male evolutionary modifications while overlooking "equally essential modifications which have arisen in the diverging female line" in order to ensure a mutually adjusted and complementary equilibrium between the sexes.[15] Nevertheless, Darwin also acknowledged that in the vast majority of species, while males typically compete with one another for sexual possession of the female, the latter, "though comparatively passive, generally exerts some choice and accepts one male in preference to others" in order to optimise reproductive success.[16] This was, in Hamlin's words, a "provocative and potentially radical concept" that many Darwinian feminists seized upon as offering a completely new perspective on gender roles in courtship and marriage.[17] If female reproductive choice was indeed the general norm for most species, then the role of man as primary selector in human marital and sexual relationships—with the woman being reduced to a passive, ornamental, and purely domestic role—stood out as aberrant or at least unusual. Darwinian feminists diagnosed this as the predominant cause underlying the contemporary challenges faced by women. According to them, a return to female choice was desirable, particularly because "unlike men, women were not governed by lustful desires and would, instead, rationally select mates based on health, fitness, and probity," thereby promoting the improvement of the race.[18] Moreover, since the animal kingdom displayed a huge variety of sexual and reproductive arrangements, existing human practices need not be accepted as the only

[14] Hamlin used this term to describe the American women who "forged an evolutionary feminism" in response to Darwin and other evolutionary theorists. She includes Antoinette Brown Blackwell, Helen Hamilton Gardener, Eliza Burt Gamble, and Charlotte Perkins Gilman in this category.
[15] Antoinette Brown Blackwell, *The Sexes Throughout Nature* (New York: G. P. Putnam's Sons, 1875), 20.
[16] Darwin, *Descent of Man*, Volume I, 273.
[17] Hamlin, *From Eve to Evolution*, 15.
[18] Hamlin, 134.

possible 'natural' system. A life of unmitigated domesticity and subordination for women, in particular, seemed distinctly unnatural because unprecedented in the animal kingdom.

Nineteenth- and early twentieth-century evolutionary discourse thus had profound implications for any understanding of reproductive politics. However, theories of evolution as well as their feminist interpretations were based on assumptions of white racial supremacy as the benchmark of civilisation. Even as Darwinian evolution emphasised the permeability of the species boundary between humans and other animals, it located the various races of 'savages' at the lower scale of the spectrum that encompassed humanity, and thereby more closely allied to the animal than the civilised white man. Darwin contended that the 'savage' lacked the power of "self-command" and was characterised by "utter licentiousness"[19]—an animalistic attribute that the civilised white man had evolved away from. In the "savage state," man kept women "in a far more abject state of bondage than does the male of any other animal."[20] Such presumptions (albeit qualified with caveats and exceptions by Darwin) remained largely uncontested by Darwinian feminists, who accepted white (middle- and upper-class) superiority as a given even as they objected to the corollary claim that women's superior powers of intuition and rapid perception were in reality inferior faculties characteristic of the lower races. The element of scientific racism in evolutionary thought also entered early twentieth-century science fiction focused on evolution in a prominent way. My reading of Clare Winger Harris's "The Ape Cycle" will attempt to chart the intersections between the allied themes of human-animal kinship, race, and gender within a broader evolutionary and reproductive framework. I will begin by focusing on the question of

[19] Darwin, *Descent of Man*, Volume I, 96.
[20] Darwin, *Descent of Man*, Volume II, 371.

labour as not only a gendered issue, due to the importance accorded to domestic and reproductive labour in the story, but also a racial issue, with the story making explicit links between animal labour and slave labour. This will allow me to draw attention to certain erasures in the story that reflect concomitant erasures in the American history of reproductive politics.

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The circumstances under which Daniel Stoddart conceives the idea of training simian servants to liberate human beings from the obligations of "eternal toil" are notable. In the first part of the story, we find Stoddart reminiscing about his early married life with his now-deceased wife, Stella:

> She had come from a family of professional men and was not accustomed to the work necessary for the upkeep of a typical Illinois farm. But she had done very well in spite of financial reverses and her naturally poor health.
>
> Conditions were hopeful, even promising, until Ray's birth, from which Stella was never able to recuperate. Hired help had proved undependable and unsatisfactory, and it seemed that in sheer desperation at her own helplessness, the fair woman, who was apparently born for better things, died, leaving with her husband the baby boy one and a half years old.[21]

This pre-history may be related to pressing questions regarding women's labour—both reproductive and non-reproductive, with intricate links between the two—in early twentieth-century America. Traditional constructions of middle-class womanhood

[21] Clare Winger Harris, "The Ape Cycle," in *Science Wonder Quarterly* 1, no. 3 (Spring 1930), 389, https://archive.org/details/Science_Wonder_Quarterly_v01n03_1930-Spring/page/n101/mode/1up.

inherited from the nineteenth century emphasised domestic and maternal duties, to the exclusion of outdoor exercise and physical labour (the latter being actively stigmatised). Many feminist writers of the time criticised the way in which delicacy of constitution had been normalised as a feminine attribute to support the idea of women's 'natural' physical inferiority. Evolutionary and biomedical discourses were often enlisted to buttress this idea, a ready reference being Herbert Spencer's contention that women's physiological development (and, by extension, their intellectual capacities) were necessarily arrested earlier than in men to facilitate "the reservation of vital power to meet the cost of reproduction."[22] It was argued that each organism had a finite amount of vital energy, and that women had an obligation to limit the expenditure of energy on non-reproductive activities to sustain the primacy of the procreative function, which demanded the bulk of women's energy. Reproductive capacity was thus a social resource that had to be protected and used judiciously. Female physiological functions such as menstruation, pregnancy, and lactation were construed as pathological conditions depleting women's health, vitality, and mental capacity. All of this led to the emergence (and even romanticising) of the Victorian image of the delicate, frail, and helplessly dependent middle-class woman, even though such an image of feminine fragility was distinctly at odds with the endurance required to confront the physically demanding realities of managing a household.[23] This icon of middle-class femininity is typified by Stella, born in a family of "professional men." No wonder, then, that she is deemed

[22] Herbert Spencer, "Psychology of the Sexes," *Popular Science Monthly* 4 (November 1873), https://en.wikisource.org/wiki/Popular_Science_Monthly/Volume_4/November_1873/Psychology_of_the_Sexes.

[23] Linda Gordon has also drawn attention to the way in which the conception of feminine fragility was "a class and a race phenomenon": "Women who worked at housework or on farms or in factories could not (and often would not) be delicate, fragile, pale, or soft. The Victorian normative emphasis on female respectability, accessible only to privileged women, expelled from "true" womanliness the majority of women, namely, slaves, peasants, farmers, the working class, and the colonized." See: Linda Gordon, *The Moral Property of Women: A History of Birth Control Politics in America* (Urbana: University of Illinois Press, 2002), 10.

singularly unequipped to handle the upkeep of a mid-western American farm, where reproductive duties would have to be complemented by productive labour (albeit unremunerated and essentially an extension of domestic work) in the field and the barn.[24] Finally unable to withstand the pressures of childbirth, she dies, ostensibly too noble for physical toil and 'born for better things.' This is an instance of "Eve's curse" in action, defined by Hamlin as "the idea that God intended for women to suffer, and maybe even die, during pregnancy and labor to atone for Eve's sin."[25] Nevertheless, the conscious evocation of a *labouring* imperative for which the idealised urban middle-class woman is unsuitable is essential to the logic of "The Ape Cycle," at the centre of which lies the project of liberating human beings from "the bondage of labor."

The simian discourse at the heart of "The Ape Cycle" is also inherently a racialised and gendered discourse, a recognisable product of the colonialist masculinist ideology of science that permeated early twentieth-century science fiction. The connection between the white, male Daniel Stoddart's scientific dream and the history of slavery in America is made explicit early in the story: "The enslavement of the blacks had been such an attempt to free the white man from the drudgeries of existence, yet at what a fearful price!"[26] Stoddart mollifies his conscience by resolving to conduct his experiment on apes and monkeys because they are conveniently *non-human*:

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[24] The contrast between the middle-class denunciation of physical labour and the rural-agrarian imperatives of outdoor work for women is evoked in an article published in the January 1923 issue of *The Farmer's Wife*, a monthly periodical dedicated exclusively to the eponymous demographic in America: "Few American women do regular work in the fields—there is a sort of national tradition against that—but many of them take care of the poultry and the vegetable garden and help with the lighter tasks in the field in a busy season. But why—the farm woman would ask—is useful labor considered so disgraceful? Outdoor work to one with courage and strength is uplifting, not degrading." See: Mary Meek Atkeson, "My Ideas on the 'Tired Farm Woman,'" *The Farmer's Wife* 25, no. 8 (January 1923): 259, 270. This is not to suggest that rural-agrarian ideologies of gender were intrinsically more progressive; the author also affirms that the woman's toil on the farm was ennobling because "it was a necessary service to her husband and children," an extension of the gendered roles associated with the household.

[25] Hamlin, 98.

[26] Harris, "The Ape Cycle," 390.

> Slave labor was quite satisfactory until man became awakened to the moral wrong. But here we will deal with monkeys, apes, baboons and all of that branch of primates that are not human, and the moral objection that rightly abolished human slavery could not be raised.[27]

However, one cannot forget that the new awareness of human-animal kinship established by nineteenth-century evolutionary paradigms had also solidified a notion of the higher primates as *almost human* and therefore a crucial key to the origins of the human. Stoddart's experiment therefore situates itself in the contested borderland territories between the traditional and hierarchical Western epistemological dualisms of culture/nature, human/animal, male/female, mind/body, and civilisation/savagery. As noted earlier, the non-white races occupied an intermediate position between these dualisms: more human than the non-human primates but also insubstantially differentiated from them. This closer kinship (relative to the white man) is suggested in the story when Stoddart departs for the near East with his son Ray and the wealthy English businessman Job Wilhoit in order to collect his monkey specimens. In the vicinity of the Red Sea, they witness natives and monkeys seamlessly working together to harvest produce for the market. The natives zealously guard their methods and refuse "the assistance of white labor," but the symbiotic human-animal relationships intrinsic to their daily practices are not explored in depth in the story because both native and primate are united in their feminised Oriental otherness and unknowability. Their mention is purely functional, culminating in Stoddart's and Wilhoit's departure from the East back to America with "six splendid, intelligent specimens of monkeys" in cages for

[27] Harris, 390.

targeted breeding.[28] Donna Haraway's definition of the western practice of primatology as "simian orientalism" is relevant in this context:

> Simian orientalism means that western primatology has been about the construction of the self from the raw material of the other, the appropriation of nature in the production of culture, the ripening of the human from the soil of the animal, the clarity of white from the obscurity of color, the issue of man from the body of woman, the elaboration of gender from the resource of sex, the emergence of mind by the activation of body… Traditionally associated with lewd meanings, sexual lust, and the unrestrained body, monkeys and apes mirror humans in a complex play of distortions over centuries of western commentary on these troubling doubles.[29]

This distorted mirroring manifests itself in "The Ape Cycle" as a doubling of the biblical creation story: Daniel Stoddart, the human creator/patriarch, returns to his secluded Illinois farm with two monkeys, Adam and Eve, destined to be the originators of "a future race of servant-slaves" who would "make man's existence upon Earth a paradise."[30] There is simultaneously a doubling of the scientific evolutionary narrative, albeit no longer left entirely to the principles of natural law but conducted under careful human supervision.

When the narrative returns to the Stoddart farm over a decade later, the breeding experiment is flourishing. Monkeys, apes, gorillas, and baboons are seen busily engaged in various kinds of mundane tasks with varying degrees of specialisation. Significantly,

[28] Harris, 390.
[29] Donna Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science* (New York: Routledge, 1989), 11.
[30] Harris, "The Ape Cycle," 390.

most of the tasks that they perform are geared towards the running of the household and the maintenance of the farm—the kind of tasks that would typically be relegated to servants/slaves or the women of the family. On the one hand, this has a utopian dimension; as Jane Donawerth has observed, many early SF texts imagined a "transformation of domestic spaces and duties" so that women would no longer be limited by the daily drudgery of household work.[31] On the other hand, the Stoddart family has no women, which is why the simians seem to take on that function in a grotesque distortion of the average American household (again pointing to the closer evolutionary kinship between women and savages/animals). The gendered hierarchy of the household is also replicated through the choice of two male simians, Alpha and Beta, as superintendents due to their extraordinary leadership qualities. However, trouble soon erupts, following the announcement that Job Wilhoit's wife Margaret and daughter Melva will soon pay a visit to the farm. (Wilhoit is said to have mysteriously disappeared during his last ape-hunting expedition in Africa—an ominous incident that is never explained.) The two women have been conducting a parallel experiment with simians on their own estate without success: "Melva and I do not seem to employ the type of discipline necessary to hold the animals in subjection."[32] Harris again seems to consciously cement the notion of the evolutionary experiment with its domination-subjection logic as predominantly a masculine-scientific enterprise, usurping the creative role of God and the procreative role of the woman in another reimagining of the Frankenstein myth.

This is further reinforced with the arrival of the female characters, who bring in an alternate perspective. This new perspective comes on the heels of a tragedy—Ray

[31] Donawerth, "Science Fiction by Women in the Early Pulps," 142.
[32] Harris, "The Ape Cycle," 392.

Stoddart meets the women at Chicago and escorts them to the farm only to discover that his father is inexplicably dead, with no obvious marks of violence on his body. Thus, both Wilhoit and Stoddart are punished for their over-reaching attempts to tamper with the natural order. Melva is also the first to perceive the ape Alpha's involvement in what she deems a murder. Ray Stoddart introduces Alpha as the most intelligent ape on the farm who "oversees the running of our household week in, week out, with scarcely any interference from either father or myself." He also reveals that Alpha can almost speak: "Only father and I can understand him, but to do so is no more a stretch of imagination, I am sure, than that exercised by many a fond mother over the first efforts of her babbling offspring."[33] The male appropriation of the maternal role here is telling, as is the uneasy permeability of the human-animal boundary—an anxiety that is strongly evoked when the women encounter the great ape for the first time:

> Standing in the doorway … stood the largest and ugliest ape upon which they had ever gazed. But, strange to say, its extreme unattractiveness resulted not so much from characteristic simian traits as from the fact that it just escaped being human in appearance.
>
> … This "missing link," for so both women unconsciously termed him, was possessed of prodigious strength; … From the massive trunk rose his thick, hairy neck, a pillar of strength, supporting the head that paleontologists might have easily constructed from the skull of the famous Piltdown man discovered in England.
>
> … he was gazing fixedly at Melva, and there was that in his too-intelligent bestial face that struck terror to the hearts of both women. Melva felt cold

[33] Harris, 392.

> chills running up and down her spine, and when she opened her mouth to scream, not a sound was forthcoming.[34]

Boundary-straddling figures such as Alpha proliferated in the popular imagination as a consequence of Darwinian science, as evinced by the uplifted animal species on Doctor Moreau's island. The same idea is reasserted here through the comparison with the Piltdown man—a fossil discovery in England announced in 1912 that purported to be the 'missing link' between ape and man on a vertical evolutionary ladder, characterised as it was by a human-like skull and an ape-like jaw. It was not before 1953 that the Piltdown man was conclusively proved to have been an elaborate hoax, but the discourses that this anomalous figure had generated by then were compelling and ideologically charged. Murray Goulden has discussed how the Piltdown figure was declared to be human despite its physically ambiguous status, thereby highlighting the arbitrary/socially constructed nature of such dichotomous classifications as human and animal. Goulden adds how similarities between the Piltdown figure and human 'primitive'/'savage' races were frequently highlighted in both academic and popular scientific literature, with the result that while Piltman was awarded with humanity, the humanity of non-white races was correspondingly diminished.[35] This animalisation of racial others is intrinsic to the subtext of Harris's story as it posits ape labour as a substitute for slave labour. Melva recognises the possibility of boundary-crossing between the two categories and its attendant ethical implications when she asserts: "… if they ever do become human we can't have them work for us anymore. That would be slavery."[36] Patrick B. Sharp identifies this moment as "the first of many instances in the

[34] Harris, 393.
[35] Murray Goulden, "Boundary-work and the Human-Animal Binary: Piltdown Man, Science and the Media," *Public Understanding of Science* 18, no. 3 (2009): 275–291, https://doi.org/10.1177/0963662507081239.
[36] Harris, "The Ape Cycle," 392.

story where women try to keep men on track morally by reminding them of the consequences of their science."[37]

The specific threat of sexual aggression implicit in the gaze that Alpha directs at Melva is also unmistakably aligned with contemporary stereotypes of 'savage' men as animalistic, licentious, and violent in their sexual behaviour—a stereotype solidified by Darwin in *The Descent of Man*. Such connotations of hyper-sexuality and 'unrestrained body'[38] are expressed through Alpha's prodigious physicality, akin to that of the black man in 1920s American racial discourse in terms of the repulsion and terror it provokes in the heart of the pure, unprotected white woman. The sexual threat materialises a few months later when Alpha brazenly snatches Melva in open defiance of Ray Stoddart's orders and carries her towards "the quarters of his mate" at the rear of the estate. This frightful episode reflects prevalent anxieties regarding the possibility of miscegenation or racial mixing, which could potentially relegate the white population to the status of a minority in America. The frequently articulated fear of "race suicide" owing to declining birth rates among 'pure-blooded' white upper- and middle-class Americans was perceived not only as a threat to white numerical superiority but also as a direct challenge to and undermining of white male virility. Alpha, as a metaphor for the animalised racial other, poses just such a challenge. In his single-minded pursuit of his carnal agenda, the "predatory ape" murders his second-in-command, Beta, and is on the verge of enacting the unthinkable deed when he is killed in turn by his female mate, Omega, who is jealous and irate at her abrupt sexual displacement. The worst is thereby averted, with Omega being taught a valuable moral lesson in the process—a confirmation, according to Sharp, of the perception of "the moral superiority of females in all species."[39] The episode

[37] Sharp, *Darwinian Feminism*, Chapter 4.
[38] Haraway, *Primate Visions*, 11.
[39] Sharp, *Darwinian Feminism*, Chapter 4

culminates with Ray taking up his rightful position as Melva's proper romantic and reproductive partner, uniting the Stoddart and Wilhoit names and birthing a new white (patri-)lineage of scientific innovators invested in the simian experiment. While the underlying racial implications are largely conservative, Harris upholds the spirit of Darwinian feminism in allowing Melva to exert some choice in the selection of her reproductive partner, rather than forcing her to submit to masculine lasciviousness through a primitive "marriage by capture."[40] Like most female science fiction writers of her generation, Harris also imagines a broader role for Melva in the marital relationship than the purely domestic labour previously assigned to Ray's mother. Melva and Ray will be "co-workers" and "co-rulers" in their scheme of moving to a more spacious desert location in order to hasten the day of man's emancipation, for the simians "must grow accustomed to the presence of a woman in their midst."[41] It is implied that this feminine presence will temper the excesses of scientific masculinity while also leaving the social order intact.

*

The narrative then jumps forward three centuries to the year 2216, by which time the transition to the new order of labour is complete. The male Stoddart descendants have successfully ushered in man's emancipation by breeding simian servants to perform manual labour and supplying them to "every civilized country on the globe."[42] They have also furthered the family tradition of scientific innovation by devising a method for accelerating the evolutionary development of the apes. This is done by collecting extracts from human glands and administering them to the apes in order to transmit desirable

[40] Sharp, Chapter 4.
[41] Harris, "The Ape Cycle," 395.
[42] Harris, 395.

characteristics and develop their capacity for speech. "Families of apes therefore became specialized and men made it a business to breed these specialized servants for sale to the general public."[43] Boundaries are further confused when, in the course of a conversation between Wilhoit Stoddart (direct descendant of Ray and Melva Stoddart) and his mother, it is asserted that while a number of apes have evolved to become more intelligent than some human beings, there are human beings who in turn should be reduced to performing manual labour like the apes due to their inferior capabilities and general indolence. Not only does this upliftment or 'humanisation' of the simians exacerbate ontological uncertainties revolving around the human-animal dichotomy, it also implicitly transforms the simian labour economy to a slave economy based on the same logic articulated by Melva earlier, and Wilhoit Stoddart recognises the ethical questions raised as a result:

> There is a moral question that has arisen as to whether we should keep the apes in servitude. … They are more than beasts. We have made them so. … If a lazy man has a soul, I believe an industrious ape has one, too.[44]

Wilhoit's belligerent neighbour Hayes Sulter is quick to dismiss these thoughts as the product of "a mistaken sense of philanthropy" and recommends corporal punishment as a tool to keep the apes in their place, but Wilhoit's ethical misgivings prove to be well-founded as we witness the stirrings of simian revolt in the story. Owing to increasing human detachment from practical matters, the simians have succeeded in developing independent systems of organisation to maximise efficiency and productivity in the true spirit of Taylorism. Organisation has also given birth to highly intelligent leaders capable of imagining alternatives to their present state of servitude. As the humans grow more

[43] Harris, 395.
[44] Harris, 395.

and more isolated in their sprawling estates, entirely reliant on communications technology to interact with the outside world, the apes routinely congregate in what they call Reclamation City, an area at the heart of the American desert that they have reclaimed both ecologically and ideologically.

Notably, there is a major aspect of the economy of slavery that the story almost entirely glosses over: what Adrienne Davis has called the "sexual economy of slavery." While there are multiple descriptions of apes and monkeys performing various kinds of productive and domestic labour (usually without significant differentiation of gender), there is little to no acknowledgement of the specifically reproductive labour performed by female simians in order to replenish and multiply the labour force, thereby facilitating its spread all over the world. It is fruitful to examine this significant absence in the light of existing scholarship on the gendered dimensions of American slavery, especially since the racially inflected links between the monkey farm and the slave plantation have already been established in the story.[45] In her essay on the sexual economy of slavery, Davis writes:

> Beyond the backbreaking, soul-savaging labor that all enslaved people performed, American slavery extracted from black women another form of "work" that remains inarticulable in its horror: reproducing the slave workforce through giving birth and serving as forced sexual labor[.][46]

[45] The story confirms this link but simultaneously distances itself from the worst brutalities of American slavery by using a number of strategies. The story is set in the Midwest and California rather than the Deep South. The Stoddarts are presented as indulgent and compassionate masters, in stark contrast to the image of the typical slaveowner. The only character who advocates corporal punishment for the slaves—Hayes Sulter—is an unambiguously despicable figure who is quickly (and deservedly) killed in the earliest stages of the ape rebellion. Other unsavoury aspects of the history of slavery are simple erased.
[46] Adrienne Davis, "'Don't Let Nobody Bother Yo' Principle': The Sexual Economy of American Slavery," in *Sister Circle: Black Women and Work*, eds. Sharon Harley and The Black Women and Work Collective (New Brunswick: Rutgers University Press, 2002), 105.

It is perhaps precisely because of this horrifying inarticulability that Harris evades this obvious corollary of the simian labour project. Recognisably female simians are rather sparse in "The Ape Cycle." The only reference to the reproductive labour that supports the targeted breeding experiment conducted by the Stoddarts is a brief mention of Omega giving birth to twins. As we have already noted, Omega is presented as Alpha's mate, but the particularities of their partnering practices are entirely disregarded,[47] apart from the stereotypical references to Alpha's animalistic lasciviousness and Omega's equally animalistic revenge. Even after the story shifts from its anthropocentric perspective in order to narrate the emergent rebellion of the simian "servant class," the question of the enslaved female simian's role in the reproduction of the labour force through childbearing remains in the murky zones beneath the textual surface, conspicuous in its absence.

Nevertheless, Harris's evident awareness of this otherwise unspeakable matter is implicitly suggested in her description of the new leader of the simian rebellion, an uncategorizable creature named Gunther whose first appearance generates a sensation among the apes gathered in Reclamation City:

> For a startled moment the apes thought they had been betrayed, so human was the second figure that came forward on the stage… Curiously erect and practically hairless, the being was a travesty on both man and ape. He appeared to be an animate reconstruction of the Neanderthal man…, and yet somehow his face gave evidence of more intelligence than is commonly

[47] As Adrienne Davis notes, marital relations between slaves were not recognised by law, and even their sexual relations were subject to regulation by white owners. Dorothy Roberts draws attention to the "slave-breeding" practised by certain slaveowners, who "compell[ed] slaves they considered 'prime stock' to mate in the hopes of producing children especially suited for labor or sale." See: Dorothy Roberts, *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* (New York: Pantheon Books, 1997), 27. Harris seems to consciously suppress these implications in order to delineate the Stoddarts as benevolent masters, so that the readers may be sympathetic to their project.

> accredited to those dawn men. He must not, however, be compared to the more advanced Cro-Magnon.[48]

Harris once again uses the language of contemporary evolutionary discourse to establish Gunther's indeterminate status as a hybrid creature—half-man, half-ape—whose very existence defies entrenched ideas of human exceptionalism. Undermining the absolutist categories of human and non-human, Gunther locates himself at the intersection of the two as another "missing link" (this time more 'evolved' or advanced than Alpha) whose role is "to bridge the gap that would prevent the apes from gaining world power."[49] How did such a creature come to be? We can speculate on this question by returning to the history of American slavery, owing to its metaphorical significance in the story. Harris does not give us the specifics of Gunther's parentage; we don't know if his human ancestry is attributable to his biological father or mother. However, Gunther claims that he is unwelcome in the ranks of mankind because of his unassimilable status, which is why he has resolved to become the emancipator of the apes. We may recall here that one of the fundamental doctrines that governed family lineage and racial inheritance under American slavery was *partus sequitur ventrem* ("the offspring follows the womb"), which dictated that every child would inherit their status as enslaved or free from their biological mother, irrespective of the father's position. This was a complete inversion of prevailing Anglo-American notions of patrilineal inheritance, but it was accepted as a rational proposition because it automatically transformed the mixed-race offspring of enslaved black women "from kin to property," thereby safely placing them outside the social networks of white family and community.[50] Male slaveowners could thus not only

[48] Harris, "The Ape Cycle," 397.
[49] Harris, 398.
[50] Jennifer L. Morgan, "*Partus sequitur ventrem*: Law, Race, and Reproduction in Colonial Slavery," *Small Axe* 22, no. 1 (55) (March 2018): 5, https://doi.org/10.1215/07990537-4378888.

sexually abuse enslaved women with impunity but also boost the enslaved work force in the process. Mixed-race children could potentially destabilise the racial hierarchy and therefore had to be regulated through this selective redefinition of maternity that would legally guarantee the heritability of bondage.

Closely intertwined with these legal discourses were a set of social discourses that established a stark difference between white motherhood and black motherhood. While the white woman was ennobled by her maternal role, which was celebrated as the apotheosis of feminine ideals, black mothers were "systematically denied the rights of motherhood" since they were either separated from their children at an early stage or simply not given the opportunity to nurture them because of their obligation to devote long hours to the gruelling physical labour that their white masters required of them.[51] This entire system condemned the children of black mothers to a "kinlessness" that, according to Jennifer L. Morgan, was ironically birthed in a woman's womb.[52] While the model of ape slavery in Harris's story is seen as relatively benevolent, it perpetuates this same kinlessness as none of the simians are situated within any identifiable family units. By his very presence, Gunther prompts us to notice and question these erasures in the story. Despite his undeniable qualities as a "first-rate overseer," he has been "bought and sold and changed hands many times purely because of the prejudice against his origin."[53] We may imagine him as the monstrous offspring of a human father and a simian mother—"a travesty on both man and ape"—who must remain outside human networks and consort with the ape-slaves because of the irrefutable logic of *partus sequitur ventrem*.

[51] Roberts, *Killing the Black Body*, 33–37.
[52] Morgan, *Partus sequitur ventrem*, 15.
[53] Harris, "The Ape Cycle," 398.

The alternate possibility—that Gunther is the offspring of a simian father and a human mother—yields equally compelling readings in the light of the history of American slavery. Although sexual liaisons, consensual or coercive, between white women and enslaved black men have not been extensively documented precisely because of the multiple layers of social transgression involved (against patriarchal authority, feminine purity, and racial hierarchy), they certainly took place more often than is generally acknowledged, as Martha Hodes's scholarship in the area has demonstrated.[54] The offspring of such liaisons also evaded the binaries of racial categorisation not only because they were mixed-race, but also because as children of white mothers they were legally free despite their (often visible) black ancestry on the paternal line. This confounded the equation of blackness with slavery and whiteness with freedom, which is why such liaisons had to be pre-empted through legal prohibitions on interracial marriage and social sanctions on "illicit sex." It was also not unheard of for the children of such unions to be abandoned, held illegally in bondage, or forced into the system of indentured servitude. Sometimes the children did not live to grow up at all, as the transgressors resorted to infanticide to protect themselves.[55] In any case, as Hodes has argued, illicit sex of this type provoked much more virulent reactions in the decades after the Civil War. With the advent of black freedom came the perceived need to reinforce racial segregation in the American South in order to preserve both race purity and white feminine purity, which is why collective hysteria over the threat of 'miscegenation' and violent retaliations against black men perceived as sexual offenders reached a crescendo in the 1890s and the early years of the twentieth century and were still very real at the time when Harris wrote the story.

[54] Martha Hodes, *White Women, Black Men: Illicit Sex in the Nineteenth-Century South* (New Haven: Yale University Press, 1997).
[55] Hodes, *White Women, Black Men*.

The miscegenation fear is clearly evoked in "The Ape Cycle" through the character of Carl Brunenkant who, despite his seemingly liberal advocacy of radio-televisor broadcasting facilities exclusively for the apes, simultaneously expresses the feeling that a "freak" like Gunther "should not be allowed to live."[56] Gunther has infringed a boundary even more sacrosanct than that of race—the boundary between the human and the animal, so intrinsic to the self-constructed identity and supremacy of the former. He "combines the cunning of the ape with the reason of the white man,"[57] and his mind is the "nucleus" around which the plan for insurrection evolves—a plan that involves the deliberate and systematic dismantling of all communications equipment so that human beings would have no way to mobilise. In his exhortation to the apes gathered in Reclamation City, Gunther articulates the most seductive possibilities:

> The men will know what it is to labor as we have labored; the women—well—you see in me the possibility of elevating the ape![58]

The chilling threat implicit in the final statement immediately plays into prevailing white anxieties and dilutes any sense of sympathy towards the ape underclass that the story may have espoused earlier. Soon afterwards, when Sylvia Danforth, Wilhoit Stoddart's love interest, returns to her paternal estate after a brief visit to the Stoddart home, she not only finds the body of her strangled father but also the body of her sister Inez with a revolver in her hand. This suicide is perplexing to the simian overseers Felix and Tony, and the now-captured Sylvia picks up their motives when they call Rex, overseer of the Stoddart estate, only to be asked: "Did you get girls? You know we need them for future race." Incidentally, Wilhoit Stoddart also hears this part of the conversation: "What did

[56] Harris, "The Ape Cycle," 398.
[57] Harris, 397.
[58] Harris, 398.

it mean? Wilhoit Stoddart after a flashing instant knew very well… No longer did the situation seem fatuous. It was one to be instantly reckoned with."[59] While the prospect of ape mastery in the socio-political arena is deemed bad enough, it is most threatening in the sexual/reproductive realm. Ape sexuality is inherently bestial, associated with repulsion and terror, and the possibility that the apes may seek to better their race by weaponising the rape of white women and reducing the latter to breeding vessels is enough to warrant decisive action. The correlation with American notions of race purity and miscegenation are again too self-evident to require explication.

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From this point onwards, the narrative descends into an us-versus-them dichotomy that moves inexorably towards the only conclusion it can have—the restoration of the 'natural' order with human beings at the apex of the evolutionary chain of being. Sylvia kills Felix to escape "a worse fate than death" and then rushes back to the Stoddart estate to rescue Wilhoit and prompt him to perform his masculine "duty" by killing Rex. Thus, much like her predecessor Melva, Sylvia "rejects male control of sexual selection and its attendant 'primitive' practice of marriage by capture."[60] The two then team up to orchestrate a daring project that culminates in the bombing of the Grand Auditorium located in the Ape Capitol. As a result of this targeted aerial strike, the menace of ape rebellion is decisively quelled: "The outstanding ape intellects of the continent were wiped out in one fell blow. The remaining terrified, disorganized monkeys can be either destroyed or properly subjugated as the world sees fit."[61] The final message is thus largely conservative, legitimising the entrenched racial hierarchies

[59] Harris, 400.
[60] Sharp, *Darwinian Feminism*, Chapter 4.
[61] Harris, "The Ape Cycle," 404.

of the time in the garb of human evolutionary superiority. However, Sherryl Vint has suggested that the conclusion may be read in two different ways:

> One way of reading the story is as a cautionary tale that insists that what is 'proper' to the human/elite—such as decision-making, managerial roles—should remain with the human/elite, a retrenchment of hierarchy both in terms of the division of labour and the human–animal boundary. At the same time, however, the story might also be read as a critique, not of these divisions but rather through the revelation that such roles must be jealously guarded for the human/elite, that the subordinated other is just as capable.[62]

This idea is indeed further illustrated through the presentation of another class of 'subordinated other' in the story—the (white) woman. Jane Donawerth has pointed out how several early female authors writing SF for the pulp magazines "envision[ed] revised roles for women along strict lines of equality between men and women, influenced perhaps by an early equal rights feminism emphasizing suffrage and education for women."[63] Sylvia Danforth embodies the utopian potential of these revised roles. She is not only capable of protecting herself from danger but also plays an active role in "saving" Wilhoit Stoddart and assisting him in his enterprise to reclaim human sovereignty. A model of feminine fitness rather than feminine fragility, she no longer has to reserve her energies exclusively for domestic and reproductive functions. She is dexterous with mechanical tools and a competent aeroplane pilot. She asserts that the older perception of technical knowledge as a masculine prerogative was socially constructed, "a matter of environment": "You know women finally came into

[62] Sherryl Vint, *Animal Alterity: Science Fiction and the Question of the Animal* (Liverpool: Liverpool University Press, 2010), 116.
[63] Donawerth, "Science Fiction by Women in the Early Pulps," 144.

professions that had been hitherto considered solely man's field, and they found they could do as well as their brothers."[64] Such an idea seemed to be scientifically legitimised by Darwin's claim that if adult women were "trained to energy and perseverance" and had their "reason and imagination exerted to the highest point," then they could not only reach the same standard as men but also transmit these improvements to their offspring.[65] Thus, the women in the story can attain a degree of equality with men even though the simians cannot be allowed to do the same, not least because the demonstration of (white) women's capabilities would not substantially ruffle the existing social order and its racial hierarchy in the way that the idea of the simian rebellion would. Rather, it would promote ideas of racial improvement and civilizational progress by ensuring the natural propagation of the most desirable qualities. Of course, one must remember that the rhetoric of women's rights in early twentieth-century America did not encompass all women. Sylvia also retains the feminine qualities that make her a desirable partner for Wilhoit Stoddart within a heteronormative evolutionary/patriarchal paradigm; it is asserted that "no amount of environment" can alter what is essentially feminine.[66] Nevertheless, as Sharp observes, Sylvia is Harris's "strongest feminist character, a woman who embodies a type of scientific femininity that enables her to work alongside her chosen mate and guide him in the pursuit of techno-scientific progress."[67] The story ends somewhat absurdly with Wilhoit Stoddart being elected the President of North America with Sylvia Danforth by his side as the First Lady, but it also validates the notion of civilizational progress through the union of the most 'evolved' and capable individuals.

[64] Harris, "The Ape Cycle," 402.
[65] Darwin, *Descent of Man*, Volume II, 329.
[66] Harris, "The Ape Cycle," 402.
[67] Sharp, *Darwinian Feminism*, Chapter 4.

1.2. Penetrating Nature's Hiding Places: Sophie Wenzel Ellis's "Creatures of the Light" and the Evolution of the *Homo Superior*

Another female author whose SF career was limited to a handful of short stories published in the pulp magazines in the early 1930s was Sophie Wenzel Ellis (born Sophie Louise Wenzel in 1894 in Memphis, Tennessee and later a resident of Arkansas). She was the first female writer to appear in the pages of *Astounding Stories of Super-Science* with "Creatures of the Light," published in the February 1930 issue. The "Readers' Corner" section of the June 1930 issue indicates that the story was very well-received, with several readers singling it out for praise in their letters to the editor. She followed it up with "Slaves of the Dust" (*Astounding Stories*, December 1930) and "The Shadow World" (*Amazing Stories*, December 1932). She also contributed to other pulp magazines such as *The Thrill Book*, *Weird Tales*, *Ghost Stories*, and *Strange Tales of Mystery and Terror*, but the latest of these stories are dated 1933, and not much is known of her activities thereafter. This section will deal with "Creatures of the Light," which has featured in multiple anthologies of science fiction by women writers—most notably in *The Feminine Future* edited by Mike Ashley. The discussion on the story will unfold around a number of intertwined elements: contemporary formulations of evolution as teleological and progressive; speculative literature on the possible future(s) of human evolution; the burgeoning and ambivalent concept of the superman; the notion of sexual selection and its gendered dimensions; and the novel possibilities generated by the use of artificial reproductive technologies. The ultimate message that emerges from the story is one similar to that seen in Harris's "The Ape Cycle"—a cautionary warning against the overreaching ambitions of masculinist science and a (potentially feminist) vision of

science working in harmony with the natural order of things rather than seeking to effect drastic changes.

While the evolutionary language of "The Ape Cycle" foregrounds missing links and atavistic throwbacks, Ellis examines the future-oriented narrative of evolution as a linear and progressive process purposively directed towards greater perfection. This is the belief articulated by Emil Mundson, another mad scientist whose evolutionary experiments set the events of the story in motion. In one of his scientific articles, Mundson eloquently argues:

> Man always has been, always will be a creature of the light. He is forever reaching for some future point of perfected evolution… It is this yearning for perfection which sets man apart from all other life, which made him man even in the rudimentary stages of his development. He was man when he wallowed in the slime of the new world and yearned for the air above. He will still be man when he has evolved into that glorious creature of the future whose body is deathless and whose mind rules the universe.[68]

The question of evolutionary progress—defined by Timothy Shanahan as "gradual directional change embodying improvement"—has been vigorously contested ever since Darwinian ideas began to gain widespread scientific acceptance.[69] It is in fact difficult to talk about evolution without resorting to the language of progress in some capacity, although the corresponding difficulty of establishing uniform epistemic standards against which progress may be reliably measured has been acknowledged. Darwin makes

[68] Sophie Wenzel Ellis, "Creatures of the Light," *Astounding Stories of Super-Science* 1, no. 2 (February 1930): 200, https://archive.org/details/Astounding_Stories_of_Super_Science_1930/asf1930-02/page/n53/mode/1up.
[69] Timothy Shanahan, "Evolutionary Progress?" *BioScience* 50, no. 5 (May 2000): 452, https://doi.org/10.1641/0006-3568(2000)050[0451:EP]2.0.CO;2.

direct reference to this problem in his *Origin of Species*: "I do not doubt that this process of improvement has affected in a marked and sensible manner the organisation of the more recent and victorious forms of life, in comparison with the ancient and beaten forms; but I can see no way of testing this sort of progress."[70] Darwin remained equivocal about progress in his writings: in certain sources, as in the concluding passages of the *Origin of Species*, he asserts that "all corporeal and mental endowments will tend to progress towards perfection"[71]; whereas in the *Descent of Man*, he qualifies this argument by suggesting that even though "progress has been much more general than retrogression,"[72] it is "no invariable rule."[73] Multifarious definitions of progress emerged concurrently in evolutionary biology—progress as a movement from simplicity to complexity, from homogeneity to heterogeneity, or as the manifestation of greater differentiation, specialisation, and adaptability. Attempts have also been made to distinguish between absolute and relative definitions of evolutionary progress. However, progress has never been merely a matter of biology; it has undeniable sociological, cultural, metaphysical, and theological connotations. This was particularly the case in early twentieth-century America, where the optimistic notion of individual and collective progress held considerable social currency and fuelled the ethos of the American Dream.

Michael Ruse has discussed how progress is a quintessentially modern notion, emerging in the Enlightenment era as a direct consequence of the intellectual and scientific advances of the sixteenth and seventeenth centuries that inspired "a belief in the possibility of ongoing moral and social improvement."[74] In fact, evolution came to

[70] Charles Darwin, *The Origin of Species* (Oxford: Oxford University Press, 1996), 272.
[71] Darwin, *Origin of Species*, 395.
[72] Darwin, *Descent of Man*, Volume I, 184.
[73] Darwin, *Descent of Man*, Volume I, 177.
[74] Michael Ruse, *Monad to Man: The Concept of Progress in Evolutionary Biology* (Cambridge, Mass.: Harvard University Press, 1996), 23.

be used by many as "a vehicle for thoughts of Progress."[75] Scientific advances also demanded "fundamental rethinkings of theology," as discussed already in the previous section.[76] Attempts were made to reconcile evolution with Christian theology by positing the former as a process governed by divine intelligence and purpose and directing species towards greater perfection. Even though the premise of random variation in Darwinian natural selection did not easily accommodate the idea of a grand purpose driving evolutionary change, older Lamarckian theories were revivified to validate the ideals of evolutionary progress and human perfectibility. This led to the formulation of theistic evolutionism that was endorsed by many scientists in Europe and America and that remained in popular currency in the late 19th and early 20th centuries. The biblical narrative could thereby be modified to de-emphasise the story of man's Fall and foreground the promise of a gradual incremental progress from the lower to the higher and, eventually, to the perfect. Those who did not subscribe to theistic ideas still championed human exceptionalism, speaking of evolutionary progress as driven by human agency and the human urge towards perfectibility. Progress could also be communally bolstered by concerted state-sanctioned efforts, such as through the large-scale implementation of eugenic policies aimed at promoting the propagation of 'desirable' qualities and the weeding out of 'undesirable' ones. Progressionist syntheses of this nature were possible because evolution remained, to a certain extent, "the science of the popular domain"[77] and was therefore constantly present in the public discourse.

It is notable that progress was conceptualised primarily in anthropocentric terms. As Ruse argues: "The theory or philosophy of Progress is a theory or philosophy about human beings: about their achievements and capacities and hopes for improvement. …

[75] Ruse, *Monad to Man*, 82.
[76] Ruse, 23.
[77] Ruse, 283.

Progress is about the sorts of things that humans value."[78] Anthropocentrism in Anglo-American theories of evolutionary progress came hand in hand with the entrenchment of scientific racism, as already established in the previous section. One of the major biology textbooks studied in early 20th-century America, George William Hunter's *A Civic Biology*, flatly distinguished between "five races or varieties of man," with "the highest type of all, the Caucasians, represented by the civilized white inhabitants of Europe and America."[79] This same textbook would be at the centre of the anti-evolution campaign that unfolded in America (specifically in Ellis's native Tennessee) in the 1920s under the leadership of fundamentalist Christian factions and that culminated in the widely publicised Scopes Trial of 1925 which upheld the Butler Act forbidding the teaching of evolutionary science in high schools. Ellis's story was thereby written at a critical juncture in the development of popular American attitudes towards evolution, and the synthesis of evolution with progress (whether theistic or otherwise) remained an uneasy one for decades to come. Nevertheless, progress was undeniably an attractive ideology to both SF writers and feminist thinkers, and both groups enlisted evolutionary theories in the defence of their respective goals. SF by women writers would bring these different worlds together to consider the function of science and technology in facilitating human progress, as well as the ways in which scientific/technological and evolutionary progress may affect or alter the lives of women. These questions have been explored differently by different writers, with some advocating radical change and others espousing a cautious ideology of slow upliftment. Above all, progress, despite being a future-oriented concept, is really about the present, for definitions of progress are shaped in the present moment and reflect the ideals and values that are held in high regard in a specific socio-

[78] Ruse, 38.
[79] George William Hunter, *A Civic Biology: Presented in Problems* (New York: American Book Company, 1914), 196.

cultural context. Ellis's story similarly illuminates the values held in high esteem in America in the early decades of the twentieth century.

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"Creatures of the Light" begins with an intriguing scene at a nightclub: John Northwood, an up-and-coming young scientist who is not only brilliant but also extraordinarily attractive, is disconcerted at being keenly observed simultaneously by two strangers who present a study in contrasts—one "singularly ugly," "deformed," and "hideous" but with an expression of visible excitement; the other even handsomer than Northwood, but with a chilling scowl of hate marring his "marble-perfect," "godlike" features. The mystery intensifies when the first stranger, identified at this stage as "the hunchback," deliberately drops his wallet as he gets into a taxi. As Northwood picks up the wallet and examines it, the second stranger approaches him, demanding possession of the wallet and shockingly vanishing into thin air when refused. The man, now effectively invisible, proceeds to assault Northwood and threatens him with the cryptic statement: "the thing inside never will be yours."[80] The befuddled Northwood returns home and finds two objects in the wallet: a photograph of "a gloriously beautiful girl" whose face intensely stirs his emotions (despite him being engaged to another young woman); and a card with the name of Emil Mundson and an address leading to a squalid alley in the city. Northwood is immediately able to identify Mundson as "the electrical wizard and distinguished scientific writer" whom he has long yearned to meet.[81] Animated by the suggestion of adventure, Northwood seeks out Mundson at the address mentioned on the card, and Mundson immediately inducts him into his plan "to populate

[80] Ellis, "Creatures of the Light," 199.
[81] Ellis, 199.

the earth with a new race of godlike people."[82] Northwood is particularly enticed by Mundson's statement that Athalia, the girl in the photograph, was waiting for him. The two eagerly set out in Mundson's unique solar-powered aircraft, headed at astonishing speed towards a previously unexplored part of the Antarctic enigmatically referred to by Mundson as "the new Garden of Eden." A number of unsettling events occur during the journey: the bunk in the cabin set aside for Northwood appears to have been slept in by an intruder; Athalia's photograph goes missing from the same cabin; and eventually the two men are left stranded on the polar ice when the sun-ship is flown away by invisible hands during a brief pause in their journey. Mundson then confesses that he has succeeded in his project to accelerate human evolution, and in the process he has created Adam: a creature snatched from the unborn future "who has reached the Light too soon."[83] This Adam, the same man Northwood had encountered at the nightclub, views ordinary human beings as "barbarians" and "worms of the Black Age" and seeks to annihilate them. As Northwood is grappling with his sense of horror, Adam unexpectedly returns in the sun-ship to pick up the two men. He divulges his intention to use Mundson as a specimen in his scientific experiments, now that he has superseded his creator in terms of his power and intelligence. He also admits that he has one human weakness, Athalia, and he intends to take Northwood to Athalia so that she may recognise Adam's evident superiority and reject Northwood. This sets into motion another Darwinian struggle between the two males with the objective of being chosen by the desired female.

Speculative extrapolations charting the possible future trajectories of human evolution were already common in SF by the time Ellis published "Creatures of the Light," and it may be worthwhile to consider a few relevant examples that predate Ellis's

[82] Ellis, 202.
[83] Ellis, 206.

story to identify recurring tropes. The most enduring image of the man of the future was famously established in H. G. Wells's satirical essay, "The Man of the Year Million" (1893). As man is "the creature of the brain," the essay reasons using the Lamarckian evolutionary logic of use and disuse rather than the Darwinian logic of natural selection, the man of the remote future would have a large, dome-like head and a significantly diminished body, owing to the over-development of intellectual capacities at the expense of the physical.[84] Wells probes the same eventuality through the Martians in *The War of the Worlds,* who are presented as an older species not dissimilar to human beings but higher up the evolutionary ladder. The narrator describes the Martians as "heads—merely heads" with tentacular appendages, and notes that "a certain speculative writer of quasi-scientific repute, writing long before the Martian invasion, did forecast for man a final structure not unlike the actual Martian condition"—a clear reference to his own 1893 essay.[85] The same image proliferated in numerous stories published in the pulp SF magazines in the 1920s and 1930s. Frank R. Paul's illustrations accompanying the 1927 reprint of *The War of the Worlds* in *Amazing Stories* rendered the image particularly memorable, and each of the stories alluded to in this section would be published alongside artwork featuring grotesquely large-headed and tentacled beings that are purportedly the humans of the future. The first original story that Hugo Gernsback purchased for *Amazing Stories* in 1926, G. Peyton Wertenbaker's "The Coming of the Ice," tells the story of a man who attains immortality by virtue of a surgical alteration made to his body and lives to see human beings evolve into creatures "with huge brains and tiny shriveled bodies, atrophied limbs, and slow, ponderous movements on their little

[84] H. G. Wells, "The Man of the Year Million," *Pall Mall Gazette*, November 6, 1893, 3. The essay was reprinted under the title "Of a Book Unwritten" in *Certain Personal Matters*. See: H. G. Wells, "Of a Book Unwritten," *Certain Personal Matters: A Collection of Material, Mainly Autobiographical* (London: Lawrence and Bullen, 1898), 161–71.
[85] H. G. Wells, *The War of the Worlds*, in *H. G. Wells: The Great Science Fiction* (London: Penguin UK, 2016), 495, 497.

conveyances." When the sun becomes cold and another ice age begins, these evolved men make desperate attempts to recover their physical abilities and increase their chances of survival, but these attempts end in failure and the entire species is ultimately obliterated.[86]

In Edmond Hamilton's "Evolution Island," the biologist Dr. Walton isolates a chemical ray that can accelerate human progress up the pathway of evolutionary change. With the help of his assistant Brilling, he procures an uninhabited island in the West Indies where he can observe "the future development of a myriad different species" right up to the point of their extinction. The island is a "biologist's paradise" until Brilling decides to turn the ray on himself, allowing the horrified Dr. Walton to see the shape of humanity in the future:

> His head had grown very much larger,... to almost twice its former size, and had become quite hairless… But the body!... there was no body, as we know it! Instead of a human body, the head was attached directly to a mass of flesh, round and squat, which was about half the size of a human trunk. And from this shapeless mass projected four supple, boneless arms of muscles, arms that were really long, powerful tentacles.[87]

This monstrous Brilling devises the nefarious plan of letting the ray wreak havoc on the entire world with the help of his army of plant-men—evolved humanoid plants that have acquired intelligence and developed the capacity for locomotion. The story ends with Dr. Walton and his physician friend Stuart Owen unleashing a reversing ray on the island

[86] G. Peyton Wertenbaker, "The Coming of the Ice," *Amazing Stories* 1, no. 3 (June 1926): 232–7, 288, https://archive.org/details/Amazing_Stories_v01n03_1926-06/page/n41/mode/1up.
[87] Edmond Hamilton, "Evolution Island," *Weird Tales* 9, no. 3 (March 1927): 346, https://archive.org/details/WeirdTalesV09N03192703.

that reduces all the evolved species, including Brilling, to protoplasmic slime. Clare Winger Harris presents a similar scenario in "The Evolutionary Monstrosity," where the brilliant Ted Marston discovers that a bacterial growth is responsible for evolutionary change and that the process can be expedited. His experiments in the laboratory begin with the uncanny metamorphosis of a house cat into a bipedal, talking creature and culminate in Marston's own transformation into "a phosphorescent tarantula":

> The circular, central part was not a body, but rather a head, for from its center glowed two unblinking eyes, and beneath them was the rudiment of a mouth. The appendages… were fine hair-like tentacles that were continually in motion… I sensed that the repulsive form housed an exceptional intelligence.[88]

As in the other stories discussed above, this evolved man is an aberrant monstrosity who has to be eliminated for the normal order of things to be restored. This narrative of evolution notably focuses exclusively on male subjects, as intellectual rationality has traditionally been considered a masculine principle. Hypertrophied brains, atrophied bodies, and phallic tentacles can only be the attributes of the evolved *man*. No explicit female evolutionary pathway is offered that would accommodate the conventional association of the feminine principle with the emotional faculties and the reproducing body. It follows that intellectual overdevelopment is invariably associated with loss of emotion and affect, like Wells's Martians who have "intellects vast and cool and unsympathetic."[89] The evolved man also invariably has a propensity to tyrannise, characterised as he is by an amplified but very human thirst for power and conquest. In

[88] Clare Winger Harris, "The Evolutionary Monstrosity," *Amazing Stories Quarterly* 2, no. 1 (Winter 1929): 76, https://archive.org/details/Amazing_Stories_Quarterly_v02n01_1929-Winter/mode/2up.
[89] Wells, *War of the Worlds*, 377.

each of these cases, the notion of evolutionary progress is thus undermined by the concomitant suggestion of retrogression and a movement from a socially embedded existence to ruthlessly unemotional, even malevolent, self-interest.

While Ellis's evolved man, Adam, is a splendid physical specimen and therefore does not conform to the large-headed stereotype presented in the aforementioned texts, the physical descriptions of the "mad scientist" Emil Mundson are striking in this regard. Mundson "ugliness" and physical "deformity" are repeatedly highlighted; his "squat, bunched-out body" is "unnatural," "twisted," and "gnomelike"; his hand is "monstrous." Northwood simultaneously makes note of Mundson's "huge, round, intelligent face," the "breadth of the man's massive brow," the "queer abnormality of his huge features," "his great, shaggy head." There is here the unmistakable (Lamarckian) suggestion that Mundson's prodigious intellectual gifts, represented quite literally through his large head (craniometric studies often associated brain size with intellectual capacity), have stunted his physical growth. Emil Mundson's portrayal has much in common with the description of the man of genius in Lombroso's eponymous work, testifying to the prevalence of such pseudo-scientific theories in the popular domain. Lombroso's man of genius is characterised by "smallness of the body,"[90] "weakness of sexual and muscular activity,"[91] and a host of "almost superhuman characters," including "elevation of the forehead," "notable development of the nose and of the head," and "great vivacity of the eyes."[92] In addition, Lombroso remarks that many historical men of genius were "either rachitic, lame, hunch-backed, or club-footed,"[93] and that most were sterile, either remaining bachelors or having no children despite being married.[94] Mundson is thus the

[90] Cesare Lombroso, *The Man of Genius* (London: Walter Scott, 1891), 6.
[91] Lombroso, *Man of Genius*, 7.
[92] Lombroso, 14–5.
[93] Lombroso, 7.
[94] Lombroso, 13.

representative man of genius, whose insanity stems particularly from the excessive delight that he takes in physical perfection. He refuses to cure his hump despite having the means to do so: "If I were perfect, I should cease to be so overwhelmingly conscious of the importance of perfection."[95] Like most other fictional mad scientists, Mundson also remains "sterile," eschewing romantic or sexual relationships while specifically seeking out eugenically superior individuals to perpetuate his perfect race. He approaches Northwood not only because the latter is exceptionally intelligent and attractive, but also because he is "virile" and therefore a suitable partner for Athalia.[96] Athalia's description also foregrounds her reproductive fitness: she is "tall, slender, round-bosomed, narrow-hipped" and in "splendid health."[97] Mundson dreams that the children from Northwood and Athalia's eugenic marriage will "help strengthen the New Race"[98] that he has illicitly engendered by "usurping both God's and woman's powers of creation" like his literary precursor, Victor Frankenstein.[99] (The fact that Mundson is "an electrical wizard" who views the human body mechanistically as a network of chemical and electrical processes in a material substrate helps to cement the literary kinship between the two characters.[100])

The New Garden of Eden is presented in the text as tangible evidence of Mundson's appropriation of the role of divine creator. This New Eden is a verdant tropical oasis situated in the Antarctic, its existence rendered possible by the extraction of the "Life Ray" from natural sunlight. The Life Ray, which forms a canopy of light over the entire valley, manifests Nature's powers of creation in concentrated form. The

[95] Ellis, "Creatures of the Light," 211.
[96] Ellis, 202.
[97] Ellis, 208.
[98] Ellis, 212.
[99] Donawerth, *Frankenstein's Daughters*, xx.
[100] Mundson's area of scientific specialisation, his physical features, and his "Teutonic" accent also suggest that he was modelled on the German-American electrical engineer, Charles Proteus Steinmetz.

triumphant language Mundson uses when speaking about his accomplishment underscores how he has successfully deployed the tools of masculinist science for the subjugation of feminine Nature:

> … Nature is often niggardly and paradoxical in her use of her powers. In New Eden, we have *forced* the powers of creation to take ascendancy over the powers of destruction. (italics mine)[101]

Mundson boasts that New Eden is an anomaly, where "so-called natural laws" do not apply. Natural laws are limiting and profligate, as "Nature, left alone, requires twenty years to make a man who begins to die in another ten years."[102] The Life Ray in isolated form can rectify the inefficiency of organic creation and evolution by promoting growth and development at a miraculous pace, producing four generations of human beings in a single year. Mundson describes how he has combed the entire world to bring together a number of "perfect couples" whose offspring have become the progenitors of a new race grown in the laboratory. The members of this new race are birthed not by human women but by "the Leyden jar mother"—"a marvelous improvement on Nature's bungling ways":

> The human mother's body does nothing but nourish and protect her unborn child, a job which science can do better. And so, in New Eden, we take the young embryo and place it in the Leyden jar mother, where the Life Ray, electricity, and chemical food shortens the period of gestation to a few days.[103]

[101] Ellis, "Creatures of the Light," 207.
[102] Ellis, 208.
[103] Ellis, 213.

Once "born," the infant grows rapidly under the continued impact of the Life Ray until (in a few months) it is ready to birth the next generation, provided it "tests out fit to pass its seed down."[104]

Fitness is a concept that is evoked repeatedly by Mundson, not in the relatively neutral sense of reproductive success (which is how it was often understood in evolutionary discourse), but in the eugenically charged sense of superior human stock.[105] In this, Mundson sees himself as promoting "Nature's plan that only the fit shall survive."[106] By usurping Nature's creative powers, he presumes to accomplish her objectives more efficiently than she can. Mundson's statements reflect the pervasive belief that if Darwinian natural selection could not ensure progress because of its random and gradual nature, then artificial selection through eugenic breeding must take its place, permitting human mastery over nature. This viewpoint was further reinforced by the obsessive fear of racial degeneration that plagued Anglo-American thought in the late-nineteenth and early-twentieth centuries, a fear that Mundson also articulates: "modern science is permitting the unfit to live and to mix their defective beings with the developing race."[107] Multiple studies document how the early decades of the twentieth century saw the introduction of legislative measures across American states that sought to promote the agenda of "race improvement," including immigration restrictions, marriage regulations, and the forced sterilisation of individuals deemed "unfit" for reproduction. Ellis's story imaginatively complements these forms of "negative

[104] Ellis, 212.
[105] Rickie Solinger explains how public images of "the unfit" in early twentieth-century America included "all nonwhite persons, mixed-race persons, many immigrants whose "race" was indeterminate, as well as many poor and working-class whites who produced "too many children." The "unfit" also included the blind, the deaf, the insane, the feebleminded, and criminals." See: Rickie Solinger, *Pregnancy and Power: A Short History of Reproductive Politics in America* (New York: New York University Press, 2005), 90.
[106] Ellis, "Creatures of the Light," 202.
[107] Ellis, 202.

eugenics" with Mundson's version of "positive eugenics"—encouraging the perpetuation of traits deemed superior or desirable. The prodigious rate at which the Leyden jar mother "births" human babies may also be read as a way of correcting the presumptive failures of white middle-class womanhood. The prevailing cultural anxiety surrounding race degeneration was partially prompted by falling birth rates among white middle-class families in the early decades of the twentieth century, primarily due to greater economic and professional independence for women, relatively liberal social and moral standards, and improved access to birth control. Mundson's Leyden jar mother can therefore perform the role that properly belonged to white women but had allegedly been forfeited by them—the role of being breeders of good stock—and it can do so far more rapidly and efficiently than human women, under the scientific supervision of a male patriarch.

In certain ways, the technological advancements depicted in "Creatures of the Light" fit the parameters of what Jane Donawerth has termed "utopian science." In fact, Donawerth cites the Leyden jar mother as an instance of "the radical revision, even abolishment of childbirth and its dangers," which she identifies as a common theme in pulp SF by women.[108] Several other elements in the story may be deemed utopian. For instance, human beings in Mundson's New Eden no longer require sleep, as three minutes spent under a Life Ray projector can heal, restore, and rejuvenate all damaged or diseased cells. Athalia informs Northwood that she was working in a New York sweatshop and dying of consumption when Mundson "discovered" her and restored her to health with the help of the Life Ray. The Life Ray is therefore not only a panacea but also a means to attaining immortality; the evolved members of Mundson's new race are

[108] Donawerth, "Science Fiction by Women in the Early Pulps," 140.

in fact immortal. The Life Ray has also simplified the process of raising the child; as growth is rapid, intensive parental (particularly maternal) care and supervision are no longer required. Education is attained through an astoundingly efficient system whereby the children, powered by the Life Ray, are able to go through entire books in minutes and retain the knowledge gained with perfect accuracy: "A page in a book, once seen, is indelibly retained by them, and understood."[109] The children developed under the Life Ray are also adept masters of the arts and sciences. Finally, eating is no longer a cumbersome process involving a host of domestic chores, as nourishment is obtained via chemical tablets. Thus, the Life Ray makes it possible to imagine a potentially utopian alternative reality where birth, childcare, and domestic duties are scientifically managed and no longer a biological and socio-cultural burden for women.

Yet the text belies these utopian prospects by having its central characters express deep ambivalence and scepticism regarding the operations of New Eden. While Northwood is periodically thrilled by the general sense of joyousness, ecstasy, and perfection that pervades in New Eden due to the effects of the Life Ray, and while he notes that the children in the laboratory "seemed as supremely happy as the birds and butterflies," he is deeply reluctant to commit himself to Mundson's vision:

> When I marry Athalia, I intend to have an old-fashioned home and a Black Age family. I don't relish having my children turned into—experiments.[110]

Athalia echoes the same sentiment in practically the same words:

[109] Ellis, "Creatures of the Light," 214.
[110] Ellis, 212.

> I want an old-fashioned home, a Black Age family. I want to grow old with you and leave the earth to my children.[111]

Early SF by women writers occasionally used this double-edged strategy of imagining radically feminist alternatives through far-ranging thought-experiments and then re-establishing a comforting sense of order and normalcy by orchestrating a return to familiar, "old-fashioned" values. This was a non-threatening way of exploring novel possibilities that may have been considered more palatable to conservative readers. There is also the familiar suggestion that the tools of science are beneficial only when used within judicious limits. The fact that Mundson turns childbirth into a system of mechanical reproduction akin to factory production is horrifying not because of the technology used but because the human lives being created in large numbers have no organic childhood and no mothers to mould their minds.[112] The text indicates that such rootless, alienated individuals are bound to channel their superior abilities in twisted, destructive directions. This perspective may be illustrated through a closer examination of Mundson's crown achievements in the New Eden—the tellingly named Adam and Eve.

*

Mundson's Adam is the creature who has reached the light. With his blond hair, blue eyes, and "godlike masculine beauty," he represents the Nordic model of physical perfection that was highly prized by Anglo-American eugenicists. With his advanced intelligence, he has figured out a way to render himself invisible by thrusting himself into the fourth dimension of time. He is also gifted with parapsychological powers that

[111] Ellis, 219.
[112] Ellis, 213.

allow him to communicate via "thought vibration." The narrative refers to him at multiple junctures as a "demigod" and a "superman," and he indeed fits the literary type of the '*homo superior*' that would become a prominent trope in SF in the Campbell era; that is, in the 1940s and 1950s.[113] However, in keeping with the broader themes of the text, the descriptions of Adam are simultaneously reminiscent of the gothic horror evoked by Frankenstein's 'monster' and his illicit literary progeny. Northwood observes how Adam resembles "a newly-made wax figure endowed with life."[114] His voice holds "a faint hint of the tremulous, birdlike notes heard in the voice of a young child who has not used his vocal chords long enough for them to have lost their exquisite newness."[115] He is also surrounded by an uncanny "aura of hate and horror" that is unsettling to those he interacts with.[116] Somewhat paradoxically, the superman and Frankenstein's 'monster' are not mutually exclusive categories, for as Brian Attebery observes:

> Dr. Frankenstein's Creature is intended to be a superior being, and despite a botched execution is nevertheless a sort of superman: smarter, faster, stronger, and bigger than the humans who reject him.[117]

The superman in early twentieth-century literature is a complex composite of Frankenstein's Creature, the Nietzschean *übermensch* (with all its notorious misreadings), and the popular evolutionary hypothesis that *homo sapiens* would eventually be supplanted by a more advanced species following a "survival of the fittest" styled contest. Attebery also notes how "the story of superman is always that of a super

[113] The term "homo superior" was coined by Olaf Stapledon in his novel *Odd John* (1935) to designate the next stage in human evolution.
[114] Ellis, "Creatures of the Light," 198.
[115] Ellis, 198.
[116] Ellis, 208.
[117] Brian Attebery, "Super Men," *Science Fiction Studies* 25, no. 1 (March 1998): 63, http://www.jstor.org/stable/4240674.

man,"[118] as the very concept stemmed from the Darwinian theory of sexual selection which contended that sexual competition between male members of a single species led to the development of secondary sexual characteristics or masculine attributes that were most attractive to female mates. Following this rationale, the superman typically manifests an enhanced masculinity, particularly in terms of greater physical and mental prowess (although a variant line of extrapolative speculation yielded the large-headed monstrous supermen discussed earlier in this section). More importantly, the superman of early SF is no heroic messiah; in Thomas Andrae's words, he is not "the bastion of establishment law and order" or "the avatar of Americanism" that he would later become.[119] He is unemotional and unsympathetic, has little or no regard for traditional human morality and values, and is therefore quite willing to do what it takes to obliterate the parent species that he seeks to replace. After all, the *homo superior* holds *homo sapiens* in the same contempt that the latter directs towards his simian relations. The superman of early SF is thus most often a malevolent force like Frankenstein's Creature, a menace rather than a messiah, "who is so obsessed with his power and so contemptuous of mankind that he threatens to dominate and enslave the world," thereby becoming "the evil genius of science fiction cliché."[120] Andrae also analyses how the narrative logic of such tales necessitated a common denouement, with the superman either dying or being robbed of his power for the looming threat to be eliminated and the 'natural' order to be reinstated.[121]

In his reading of Frankenstein's Creature as a proto-superman, Attebery remarks that there is in Mary Shelley's text "the implication that the Creature could have been

[118] Attebery, "Super Men," 62.
[119] Thomas Andrae, "From Menace to Messiah: The Prehistory of the Superman in Science Fiction Literature," *Discourse* 2, Mass Culture Issue (Summer 1980): 85, http://www.jstor.org/stable/41389055.
[120] Andrae, "Menace to Messiah," 88.
[121] Andrae, 88.

the progenitor of a new race, if only Victor Frankenstein had not destroyed the Creature's female counterpart. But the new Adam had no Eve, and so the race was aborted."[122] Mundson is a more benevolent creator than Frankenstein in that he does provide his Adam with an Eve, but this match turns out to be unsuccessful from a romantic as well as an evolutionary standpoint. Adam desires Athalia, and he likens himself to the "gods and archangels" who have, since the beginning of time, "looked upon the daughters of men and found them fair."[123] Likewise, Eve rejects her "made-to-measure lover" and focuses her attentions on John Northwood.[124] It is also revealed that the union of Adam and Eve would very likely be an evolutionary dead end, for the new race "would stop reproducing in another few generations without the injection of Black Age blood."[125] This too fits a general pattern in early SF by women writers, which seem to reiterate that overreaching scientific ambition involving experimentation with the mysteries of life and creation are doomed to culminate in sterility and/or death. This applies to "Creatures of the Light" in a more literal sense as well, for the mad scientist Mundson, in his attempt to unlock the workings of life and evolution, has merely engendered another mad scientist who seeks to destroy New Eden altogether and thereafter to conquer and rule the "worms of the Black Age." With his perfect brain, he has outrun his creator not only by discovering the secret of invisibility but also by isolating the Death Ray in his private laboratory, unbeknownst to Mundson. As Eve explains,

> Nature's forces of creation and destruction forever work in partnership. Never satisfied with her composition, she destroys and starts again, building, building towards the ultimate of perfection. Thus, it is natural that if Dr.

[122] Attebery, "Super Men," 63.
[123] Ellis, "Creatures of the Light," 209.
[124] Ellis, 215.
[125] Ellis, 210.

> Mundson isolated the Life Ray, Nature's supreme force of compensation, isolation of the Death Ray should closely follow. Adam, thirsting for power, has succeeded.[126]

Thus, despite Mundson's earlier claim that natural laws are suspended in New Eden, the text emphasises that natural laws are inescapable and must invariably reassert a sense of balance to moderate the profane extremes of masculinist science. This entire plotline unfolds with breathless pace in the last few pages of the text. Unable to win Athalia in the traditional, "old-fashioned" way, Adam abducts her into the fourth dimension, which is equivalent to one minute of future time. In that temporal space (described as a dream-like space mirroring reality), the two are rendered invisible, and Adam is free to make preparations for the execution of his sinister plan to unleash the Death Ray on New Eden. In a parallel sequence, Eve conducts Northwood into the fourth dimensional realm of invisibility but goes further than Adam (into five minutes of future time) in order to remain undiscoverable by him. The two visit Adam's laboratory, a section of which turns out to be a ghastly den of decay and rot owing to Adam's experiments with the Death Ray, which is described as "a loathsome, bituminous stream of putrefaction that reeked of the grave and the cesspool."[127] As soon as Eve divines Adam's plan to destroy New Eden and all its inhabitants (with the sole exception of Athalia), she is galvanised into action. She returns to present time and waits for Adam in his laboratory with the full intention of turning the Death Ray on him, completely indifferent to Northwood's pleas imploring her to save Athalia. This leads to a somewhat melodramatic climax where Eve releases the Death Ray but is accidentally killed by it following a physical struggle with Northwood. The Death Ray also consumes Adam and reduces the entirety of New Eden

[126] Ellis, 217.
[127] Ellis, 217.

to a pile of ruins. Not unsurprisingly, the only survivors at the end are Northwood, Athalia, and a somewhat chastened Mundson, all of whom have been spared due to sheer luck (and the obvious demands of the plot).

Although Eve's portrayal in the text is not as detailed as that of Adam, it merits special consideration as it illustrates Brian Attebery's account of the difficulties implicit in the depiction of the superwoman. Eve is in certain ways an extension of Adam and shares his qualities: both are divinely beautiful (Eve is described as "Junoesque"), brilliant, cruel, and intent on having their way with their chosen mates. However, key differences emerge in their presentation, for as Attebery observes: "the master evolutionary narrative which generates the notion of a super male offers no extrapolative path towards superwoman."[128] The superman in SF is typically characterised by an amplification of the features associated with masculinity in evolutionary as well as socio-cultural discourses: he is preternaturally strong, courageous, aggressive, ambitious, intelligent, inventive, and self-assertive. However, these same discourses associated femininity with delicacy, tenderness, submissiveness, sacrifice, and self-abnegation. The heightening of such feminine attributes would hardly yield a superwoman. Ellis resolves this predicament by returning to the age-old image of the biblical Eve as seductive temptress or femme fatale. The descriptions of Mundson's superwoman and her interactions with John Northwood are explicitly geared towards an intensification of the magnetic and the sensuous, and it is evident that Eve consciously performs this role with controlled mastery. While Adam exerts his masculine power to forcibly possess Athalia, Eve exercises her feminine arts to seduce Northwood. She explicitly (if not scandalously) articulates her desire for Northwood and promises him "amorous delight that your

[128] Brian Attebery, *Decoding Gender in Science Fiction* (New York: Routledge, 2002), 82.

Athalia never could offer."[129] A deliberate contrast between Athalia and Eve is also set up: while the latter speaks only of sexual gratification, the former speaks of love and promises to fulfil her proper reproductive function by producing Northwood's children. The amorous superwoman who threatens to unsettle social norms of respectable femininity must therefore be expunged from the narrative so that the very human and gender-normative hero and heroine may come together to pronounce perfection "the only hopeless state" and to commit themselves to a marital and procreative future. While Mundson is suitably humbled for the hubris that he exhibited in tampering with Nature's creative forces, he can derive satisfaction from having "furthered natural evolution" by bringing together "a perfect man and a perfect woman of what Adam called our Black Age."[130]

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As an example of early SF by a woman writer, "Creatures of the Light" offers much that is of interest to a feminist literary scholar. Its handling of its principal themes establishes a clear line of connection with Mary Shelley's originary myth, and the intertextual links are strengthened by the fact that Northwood, the only representative of balanced scientific rationality in the text, rebukes Mundson for having experimented with human life and expresses sympathy for Adam, despite the latter's hateful and destructive actions. The text also succeeds in probing the implications of evolutionary theory from a variety of angles. It examines the popular narrative of human evolution as a ceaseless quest for perfection and seeks to interrogate that notion of perfection by providing multiple models in the form of Adam/Eve and Northwood/Athalia. The conclusion conveys the impression that while scientific meddling in natural processes

[129] Ellis, "Creatures of the Light," 214–5.
[130] Ellis, 220.

(especially the masculine-scientific appropriation of childbirth) is inadvisable and potentially dangerous, marriages conducted on eugenic grounds with the goal of producing genetically superior offspring are a desirable goal and assist the natural progression towards perfection. Ellis also has Mundson develop one of the earliest and most complete models of artificial reproduction in pulp SF, the Leyden jar mother, which is designed as a mechanical replication of the female womb. Child-raising and education are simplified through a combination of intellectual evolution and the creative stimulus provided by the Life Ray. It may be argued that these fictional inventions fall short of being truly utopian science, for the very concept of utopia in fiction necessarily entails a communitarian emphasis, enabling a process of collective upliftment and progress. While the Leyden jar mother and the Life Ray are fictional inventions that have the potential to be beneficial on a larger scale, particularly for women, they are merely used as tools in Mundson's self-interested and short-sighted project of accelerated evolution until they are destroyed by what was ostensibly the greatest achievement of that project—Adam. The text suggests at least one type of alternative usage that is moderate and prudent, which is the use of the Life Ray to cure Athalia's tuberculosis. A comparison may be drawn with Clare Winger Harris's "The Evolutionary Monstrosity," where the same bacterial concoction that transforms the mad scientist Ted Marston into the monstrosity of the title is used in a smaller dose to convert the insipid and frivolous female character of Dorothy Irwin into a sober, articulate, and sensible woman.

Sophie Wenzel Ellis does, however, fail to expand or even question traditional gender roles in any substantial way, and in this she differs not only from Clare Winger Harris but also from many of the other women authors featured in this study. The only female character in the text who exhibits something of a scientific temper is Eve, who is able to offer a cogent explanation of the sixth sense of time perception shared by her and

Adam that allow them to slip into the fourth dimension and become invisible. She also displays considerable ingenuity and resourcefulness in foiling Adam's original plan by thinking ahead of him, anticipating his movements, and directing the Death Ray at him before he can react. Unfortunately, it is evident that there is no space for a superwoman like Eve in the world of everyday reality that the surviving characters return to at the end of the text. One must also consider the woman who is mentioned briefly at the beginning of the text and then unceremoniously forgotten: Mary Burns, whom Northwood was engaged to prior to his meeting with Mundson and, subsequently, Athalia. Mary Burns is described as "a young woman whose mind was as brilliant as her face was plain,"[131] and once Northwood is made aware of Athalia's existence and interest, he becomes indifferent to Mary Burns's "pale, over-intellectual face."[132] As Beryl Satter remarks, "An intellectual woman was by definition manlike, and even atavistic, since she erased a key sign of advanced civilization—the development of selfless reproductive women and passionate but rational and productive men."[133] The text thereby upholds contemporary socio-cultural preconceptions in defining scientific intellectualism as a masculine province, and the narrative's "perfect woman," Athalia, is perfect precisely because she is willing to perform the traditionally feminine roles of wife and mother. In the climactic sequence of the text, she is also the typical damsel in distress—she pleads desperately with her captor Adam and faints just as he steps into the laboratory to carry out his sinister design, so that the human hero Northwood may step up to save her life. The only point of similarity between Ellis's Athalia and a character like Harris's Sylvia Danforth is that both are able to evade coercive sexual relationships and exercise a degree of autonomy in their choice of a partner (although in Athalia's case the autonomy is

[131] Ellis, 199.
[132] Ellis, 204.
[133] Beryl Satter, *Each Mind a Kingdom: American Women, Sexual Purity, and the New Thought Movement, 1875–1920* (Berkeley: University of California Press, 1999), 11.

relatively limited by Mundson's intervention). The Darwinian feminist contention that women have the prerogative of choice in the selection of a male reproductive partner is thereby reaffirmed by Ellis.

1.3. The Elixir of Life: Reproduction and the 'Science' of Rejuvenation in Kathleen Ludwick's "Dr. Immortelle"

The Fall 1930 issue of *Amazing Stories Quarterly* published a curious story entitled "Dr. Immortelle," authored by Kathleen Ludwick. Virtually nothing definite is known of the author, except that she was a resident of Oakland, California.[134] She published several Western stories in the pulp magazines of the time, but "Dr. Immortelle" seems to have been her only SF work. Everett Bleiler's dismissive comment on the story in his encyclopaedic *Science Fiction: The Gernsback Years* is: "Pretty bad. Involuted and Confusing."[135] While this criticism is not entirely unwarranted, close examination of the story yields interesting perspectives on another chief obsession of the early twentieth century: rejuvenation. It is well known that the late nineteenth and early twentieth centuries witnessed an unprecedented degree of theoretical and practical interest in the life sciences, particularly with the steady rise of experimental biology and medicine. The same time period also saw the emergence of gerontology as a new discipline seeking scientific legitimacy.[136] The novel emphasis on the systematic study

[134] Everett F. Bleiler with Richard J. Bleiler, *Science Fiction: The Gernsback Years* (Kent: Kent State University Press, 1998), 266. Additional biographical details have been unearthed by the independent scholar Joshua Blu Buhs from a study of census records; see his blog post: "Kathleen Ludwick as a Fortean," *From an Oblique Angle*, February 2, 2017, https://www.joshuablubuhs.com/blog/kathleen-ludwick-as-a-fortean-updated-and-revised.
[135] Bleiler, *Science Fiction*, 266.
[136] The term 'gerontology' was coined by Élie Metchnikoff (a Russian zoologist who did pioneering work in the fields of bacteriology and immunology at the Pasteur Institute in Paris) in 1903 to describe the scientific study of old age. Incidentally, Metchnikoff posited that one of the primary reasons for ageing was the putrefying activity of intestinal microbes, and that life could be prolonged substantially

of senescence and the construction of old age as a medical problem to be addressed scientifically also led to questions on whether the process of ageing could be decelerated or even reversed, and many searched for suitable answers. As Carole Haber points out,

> According to prominent pathologists, almost all of the peculiarly senile illnesses were potentially fatal. The organic difficulties that increased with age made the hope of curative treatment illusory. Rather than minister to specific senile diseases, a few individuals attempted to eliminate old age altogether. Through scientific experiments, they searched for the magic elixir that would bring eternal youth.[137]

The dreams that had long been nurtured in myth and legend, history and fiction, now seemed realisable via *scientific* means through the promise of rejuvenation therapy that would ensure prolongevity for the aged.[138] It was a promise that offered hope for the future, a hope of active human intervention in natural processes that would offset the ostensible loss of control and certainty that Darwinian science had ushered in during the previous century.

Over several decades, multiple physicians and scientists across Europe and America experimented with various techniques of rejuvenating animals and humans and meticulously documented their findings. In the 1880s, the French physiologist of

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by replacing the toxic bacteria with healthy bacteria such as lactic acid bacteria (through the consumption of yoghurt or other fermented food items). See: Élie Metchnikoff, *The Prolongation of Life: Optimistic Studies*, translation edited by P. Chalmers Mitchell (New York: G. P. Putnam's Sons, 1908).

[137] Carole Haber, *Beyond Sixty-Five: The Dilemma of Old Age in America's Past* (Cambridge: Cambridge University Press, 1983), 72.

[138] The term 'prolongevity' was coined by Gerald J. Gruman, who defined it as "the significant extension of the length of life by human action." He also added: "nearly all prolongevitists have had in mind not merely an increase in time per se but an extension of the healthy and productive period of life. … For the most part, the search for long life has gone hand in hand with the quest for rejuvenation." See: Gerald J. Gruman, "A History of Ideas about the Prolongation of Life: The Evolution of Prolongevity Hypotheses to 1800," *Transactions of the American Philosophical Society* 56, no. 9 (1966): 6, 8, https://www.jstor.org/stable/1006096.

Mauritian origin Charles Éduoard Brown-Séquard proposed the theory that ageing was a consequence of "the gradually diminishing action of the spermatic glands," and that the problem could be redressed by supplying the necessary glandular secretions (hormones) from an outside source. Accordingly, he announced that he had injected himself multiple times—at the age of 72—with a concoction made of "blood of the testicular veins; … semen; and … juice extracted from a testicle, crushed immediately after it has been taken from a dog or a guinea-pig." He reported a consequent increase in strength, energy, and vitality that to him signalled a significant revival of his previous abilities.[139] A few decades later in Vienna, the quest for rejuvenation received new impetus through the work of Eugen Steinach. Steinach developed a treatment for rejuvenation in men whereby a vasoligation would be performed with the aim of stimulating senescent interstitial cells or the "puberty gland"; the corresponding treatment for women was to bombard the ovaries with X-rays.[140] Steinach's treatment was adopted by the endocrinologist Harry Benjamin, who performed the operation on his patients in New York.[141] More notoriously, Serge Voronoff, a surgeon of Russian extraction working in France in the 1920s and 1930s, grafted the testicles of chimpanzees and other higher primates into the testicles of aged men and claimed that the recipients had regained much of their youthful health and virility.[142] He is also known to have grafted chimpanzee ovaries into the bodies of postmenopausal women. Dubbed the "monkey-gland man," Voronoff became an international celebrity—albeit a contentious

[139] Charles Éduoard Brown-Séquard, "Note on the Effects Produced on Man by Subcutaneous Injections of a Liquid Obtained from the Testicles of Animals," *The Lancet* 134, no. 3438 (20 July 1889): 105–7, https://doi.org/10.1016/S0140-6736(00)64118-1.
[140] See: George F. Corners, *Rejuvenation: How Steinach Makes People Young* (New York: Thomas Seltzer, 1923).
[141] Laura Davidow Hirshbein, "The Glandular Solution: Sex, Masculinity, and Aging in the 1920s," *Journal of the History of Sexuality* 9, no. 3 (July 2000): 279.
[142] Chandak Sengoopta, "Rejuvenation and the Prolongation of Life: Science or Quackery?" *Perspectives in Biology and Medicine* 37, no. 1 (Autumn 1993): 55–63, https://doi.org/10.1353/pbm.1994.0024.

one—as a result of his experiments with xenotransplantation, with patients flocking to him to receive the invigorating treatment. This proliferation of methods engendered considerable optimism surrounding the prospect of defeating senility and regaining lost vitality (the idea of youth or 'juvenescence' being less literal and more a metonym for this experience). In a 1922 article entitled "Searching for the Elixir of Life," Julian Huxley wrote: "The speculative mind looks forward into the future and there sees great institutions for graft operations—human repair-shops. … [A]ging humanity will come in to have their bodily system reanimated as cars come in to a garage to be overhauled."[143] At the same time, most of the experiments cited above were controversial; their purported findings were disputed and even ridiculed. Regardless, the publicity that they received went far beyond the bounds of scientific volumes and journals. Articles on rejuvenation steadily seeped into journalistic reportages and popular media and in turn spawned innumerable fictional extrapolations in the late nineteenth and early twentieth centuries, which constitute a recognisable new category of 'rejuvenation fiction.'[144]

[143] Julian S. Huxley, "Searching for the Elixir of Life," *Century Magazine* 103, no. 4 (February 1922): 626, https://babel.hathitrust.org/cgi/pt?id=mdp.39015030934098&view=1up&seq=641.

[144] One of the most famous examples is Arthur Conan Doyle's "The Adventure of the Creeping Man" (*Strand Magazine*, March 1923), which tells the story of Professor Presbury who attempts to rejuvenate himself by periodically consuming a serum derived from the "black-faced langur." While the serum enhances his strength and vigour, it also imparts to him the behavioural characteristics of the langur, and Sherlock Holmes is called upon to investigate the strange changes in his personality. That Conan Doyle had Voronoff in mind when writing the story is evident in the description of "Lowenstein of Prague," the man responsible for creating the serum—"an obscure scientist who was striving in some unknown way for the secret of rejuvenescence and the elixir of life." See: https://gutenberg.net.au/ebooks01/0100291h.html#ref03. The pulps also published their own share of rejuvenation tales. A. Hyatt Verrill's "The Ultra-Elixir of Youth" recounts the story of a biologist who discovers a new element called Juvenum and uses it in conjunction with electromagnetic waves to restore youth to himself and a close circle of his acquaintances. However, tragedy strikes when this 'ultra-elixir' makes the characters grow younger and younger until they are reduced to their embryonic state and subsequently to an invisible existence. See: A. Hyatt Verrill, "The Ultra-Elixir of Youth," *Amazing Stories* 2, no. 5 (August 1927): 476–85, https://archive.org/details/ams_1927_08/page/n61/mode/1up.

In her rejuvenation story, Kathleen Ludwick acknowledges the contemporary obsession with gland grafting and animal-human hybridity, but she does so with distaste. "But—goats' glands! The thought that gives one a feeling of nausea. … How shocking to become the parent of such a being [half man and half goat]![145] The narrator of the story avows with relief that there is a better way, which he shall record for the benefit of posterity. This "better way," an ostensible product of Western scientific modernity and its technological advancements, is also paradoxically a throwback to an older, gothic trope that can be traced back to archaic belief systems—the trope of blood exchange. Ludwick's Dr. Immortelle, who seeks to keep himself alive indefinitely through regular blood transfusions, is said to have drawn his inspiration "from the writings of the ancient alchemists" (making him another variation of the Frankenstein figure). Indeed, blood has always had symbolic and ritualistic associations that went beyond its physiological properties and functions. As a vital fluid constantly flowing within the living organism, it is a marker of life; its loss signifies death. Its visible prominence in pivotal biological processes such as menstruation and childbirth make it practically synonymous with fertility and the reproductive cycle. It is metaphorically imbued with the ability to reflect identity, family, lineage, and race. In Hippocratic and Galenic humoral theory, blood and the sanguine temperament were considered to be predominant in youth and in the spring season, thereby aligning it with health, renewal, and regeneration. At the same time, blood has historically carried the negative connotations of pollution and disease, which explains why bloodletting became a common therapeutic measure, a form of purging deemed necessary for the body's restoration to health. Even as physicians and biologists gradually arrived at a greater scientific understanding of blood as a material fluid, its

[145] Kathleen Ludwick, "Dr. Immortelle," *Amazing Stories Quarterly* 3, no. 4 (Fall 1930): 560, https://archive.org/details/Amazing_Stories_Quarterly_v03n04_1930-Fall_Gorgon776Ufikus/page/n130/mode/1up.

cross-cultural symbolic associations (often bordering on the mystical or supernatural) proved to be potent and durable. The emergence of blood transfusions as scientific/medical practice must be understood in this context.

According to Susan E. Lederer, William Harvey's observations on blood circulation in the seventeenth century "offered a new rationale for systemic therapy and interest in moving blood between bodies, between animals, and even between animals and human beings."[146] Early experiments with xenotransfusion in Britain, Europe, and America involved the transference of lamb's blood into human subjects, with the assumption that both the vitality and the gentleness of the lamb would be transmitted to the recipient. After some of these experiments resulted in adverse effects and even fatalities, the practice became mired in controversy and was largely abandoned or suppressed until it saw a brief resurgence in the late nineteenth century.[147] In the 1820s, the English obstetrician James Blundell pioneered the use of human-to-human blood transfusions in cases of excessive blood loss, particularly during or in the immediate aftermath of parturition.[148] However, without an understanding of blood groups or effective transfusion methods, results were unpredictable and pre-empted widespread acceptance of the practice. With the discovery of ABO blood groups in 1900–1 by Karl Landsteiner, the gradual simplification of techniques and apparatuses, and the subsequent exigencies of World War I, blood transfusion increasingly became a safer

[146] Susan E. Lederer, *Flesh and Blood: Organ Transplantation and Blood Transfusion in Twentieth-Century America* (New York: Oxford University Press, 2008), 34.
[147] A detailed history of lamb blood transfusion may be found in: Boel Berner, *Strange Blood: The Rise and Fall of Lamb Blood Transfusion in 19th Century Medicine and Beyond* (Bielefeld: transcript Verlag, 2020).
[148] Gynaecologists and obstetricians were particularly invested in the potential benefits of transfusion due to the regularity of their encounters with postpartum haemorrhage. Lederer notes that "loss of blood during childbirth remained the most common indication for blood transfusion in the nineteenth century." See: Lederer, *Flesh and Blood*, 38.

and more prevalent clinical practice in Western nations, even though its sensational coverage in popular media continued to raise uncomfortable questions. Lederer writes:

> In the early twentieth century, transfusion was more than a surgical procedure. It was a dramatic spectacle. The sensational features of blood transfusion—near-death, sacrifice, and danger—quickly attracted newspaper reporters; in the first three decades of the twentieth century, hundreds of articles describing blood transfusions appeared in American newspapers. … This was especially true of surgical transfusion, which required much more from donors and recipients than transfusion mediated by syringes and stopcocks. The movement of blood between bodies called into question the conventional boundaries of the self in American society. Moving blood from men into women, Gentiles into Jews, Negroes into whites (and vice-versa) elicited speculation about the dissolution of the boundaries and the implications for the reintegrated person. It afforded the opportunity to speculate about whether someone would take on the character or nature of the donor, whether such dissolution transgressed sexual or species boundaries.[149]

The narrative of "Dr. Immortelle" engages with many of these anxieties, suggesting that its author was keenly aware of the discourses surrounding blood transfusion in her contemporary era. The text, despite its multiple callbacks to the ancient alchemists, is entirely a product of its time.

[149] Lederer, *Flesh and Blood*, ,51–54.

The potential usefulness of blood transfusions as a method of rejuvenation was neither a novel nor a unique idea. The editorial introduction to "Dr. Immortelle" states:

> All of us have heard of cases where almost completely shattered cells were rebuilt and strengthened by the successful transfusion of healthy, normal blood. It seems not unreasonable to suppose, therefore, that a method of blood transfusion might be developed some time in the future that would aid the continuous rebuilding of body and brain cells enough to materially increase the span of the individual life and avoid the seemingly inevitable advent of old age.[150]

In the 1920s, the Russian Marxist Alexander Bogdanov suggested that regular blood exchanges between individuals of the same species could facilitate the renewal of old cells and the transfer of vital characteristics, thereby leading to the overall enhancement of the "viability" of the organism.[151] When the Institute of Blood Transfusion was established in Russia in 1926, Bogdanov was appointed its director. Incidentally, Bogdanov had also written a science fiction novel entitled *Red Star* (1908), a socialist utopia set in Mars and depicting its inhabitants as rejuvenating themselves through "*mutual blood transfusions*… whereby each individual receives from the other a number of elements which can raise his life expectancy."[152] Bogdanov attempted to prove this hypothesis by participating in several experiments with blood exchange, and one such attempt finally precipitated his demise in 1928.[153] While Bogdanov's vision of "regular

[150] Ludwick, "Dr. Immortelle," 560.
[151] Bogdanov's ideas on the principle of "physiological collectivism" through blood exchange may be found in his 1927 book, the English translation of which is: Alexander Bogdanov, *The Struggle for Viability: Collectivism through Blood Exchange*, trans. Douglas W. Huestis (Philadelphia: Xlibris, 2002).
[152] Alexander Bogdanov, *Red Star: The First Bolshevik Utopia*, ed. Loren R. Graham and Richard Stites, trans. Charles Rougle (Bloomington: Indiana University Press, 1984), 85.
[153] Bogdanov's contribution to the science and discourse of blood transfusion and its speculated rejuvenating potential has been discussed at length by Nikolai Krementsov. See: Nikolai Krementsov, *A*

comradely exchanges of life"[154] was never widely implemented and essentially died with him due to justifiable reservations regarding the scientific rigour, practicality, and safety of the procedure, his ideas were a definite part of the contemporary zeitgeist: the experimental biology and medicine of the early twentieth century and the discourse on rejuvenation. Nikolai Krementsov also observes that Bogdanov was not the only person to entertain such a theory of blood transfusion: "Hélan Jaworski in France developed similar ideas, though different techniques, during exactly the same period."[155] This would explain why Ludwick's story mentions a recent "item in the papers" which implied that a "European scientist" had also "discovered the secret for himself," albeit a hundred and fifty years after the eponymous Dr. Immortelle.[156]

It is notable that Ludwick's Dr. Immortelle already had several other literary predecessors in the late Victorian gothic tradition. Catherine Oakley has identified a number of tales from the period that deploy the trope of blood rejuvenation. For instance, Robert Duncan Milne's "A Man Who Grew Young Again" (1887) tells the story of Mr. Wycherley, a 45-year-old man who gravely injures his right leg and runs the risk of fatal haemorrhage. His friend, "a physician and surgeon of high reputation," arranges to revive him with transfusions of "the youngest and richest human blood procurable." He persuades two "(f)ine, strong, clear-skinned, strapping lads of some twenty summers" to make their "pure life-fluid" available for the purpose in exchange for monetary recompense. Not only is Mr. Wycherley's life saved as a result of the transfusions (achieved by directly joining the circulatory systems of the donors and recipient), but the

Martian Stranded on Earth: Alexander Bogdanov, Blood Transfusions, and Proletarian Science (Chicago: University of Chicago Press, 2011).

[154] Bogdanov, *Red Star*, 86.

[155] Krementsov, *Martian Stranded on Earth*, 116. The author mentions an obscure work by Jaworski entitled *La régénération de l'organisme humain par les injections de sang*, published in 1925.

[156] Ludwick, "Dr. Immortelle," 560.

physician also observes that with every passing day "*Wycherley was indeed growing younger while his companions were growing proportionately older*." The process is deliberately continued until the effective ages of the three participants reach an equilibrium. Mr. Wycherley, now physically 28 years old, returns home to be mistaken for his own dead son, and even proceeds to marry his son's former betrothed.[157] In Mary Elizabeth Braddon's "Good Lady Ducayne" (1896), the impoverished 18-year-old Bella Rolleston, "fresh, blooming, a living image of youth and hope," moves to Italy to become a paid companion to the old and withered Lady Ducayne. After a few months, her health begins to deteriorate inexplicably and she notices wounds on her arm that she assumes are mosquito bites. These changes arouse the suspicions of Herbert Stafford, a young acquaintance of Bella who is also a doctor and is therefore able to correctly identify the wounds as lancet marks. A climactic confrontation with Lady Ducayne and her Italian physician Dr. Parravicini reveals that the former is over a hundred years old and has been kept alive by virtue of clandestine blood transfusions from Bella and other vulnerable young women who preceded her. At the end of the story, Bella is released from her position with a handsome bonus and is able to marry Stafford.[158] Both these stories evoke the spectre of what Ann Louise Kibbie calls "surgical vampirism"—"a form of predation made possible by the biotechnology of transfusion."[159] The trope is reiterated in the defining vampire tale of the *fin-de-siècle,* Bram Stoker's *Dracula* (1897). Oakley draws attention to the lurid episode in which Jonathan Harker finds Count Dracula in his coffin in the old chapel of the castle:

[157] Robert Duncan Milne, "A Man Who Grew Young Again," *The Argonaut*, February 19, 1887, https://freeread.com.au/@RGLibrary/RDMilne/Stories/AManWhoGrewYoungAgain.html.
[158] Mary Elizabeth Braddon, "Good Lady Ducayne," *The Strand Magazine*, February 1896, https://gutenberg.net.au/ebooks22/2200421h.html.
[159] Ann Louise Kibbie, *Transfusion: Blood and Sympathy in the Nineteenth-Century Literary Imagination* (Charlottesville: University of Virginia Press, 2019), 152.

> There lay the Count, but looking as if his youth had been half-renewed, for the white hair and moustache were changed to dark iron-grey; the cheeks were fuller, and the white skin seemed ruby-red underneath; the mouth was redder than ever, for on the lips were gouts of fresh blood, which trickled from the corners of the mouth and ran over the chin and neck. … It seemed as if the whole awful creature were simply gorged with blood; he lay like a filthy leech, exhausted with his repletion.[160]

The question of perspective here is to be noted: while rejuvenation is typically presented in aspirational terms in scientific literature, here it becomes unnatural and horrifying when viewed through the eyes of a non-consenting prospective victim. In fact, Oakley points out that a recurring feature in blood rejuvenation tales is a "dependence on the blood supply of disposable human subjects whose consent is either unsought, or circumscribed by their socioeconomic vulnerabilities."[161] This reinforces the predatory nature of the transaction, framing it through the lens of gothic horror and boundary transgression. It also explains why the stories often ended by advocating an acceptance of the 'natural' life cycle, implying that a refusal to do so could be dangerous overreaching.

Since this section seeks to analyse Ludwick's "Dr. Immortelle" in the light of early twentieth-century reproductive politics, it will take as its basis Susan Merrill Squier's observation that there are important scientific, cultural, and ideological linkages between rejuvenation therapy and reproductive technology, "that other major twentieth-

[160] Bram Stoker, *Dracula* (Oxford: Oxford University Press, 1983), 51.
[161] Catherine Oakley, "Towards Cultural Materialism in the Medical Humanities: The Case of Blood Rejuvenation," *Medical Humanities* 44, no. 1 (2018): 10, http://dx.doi.org/10.1136/medhum-2017-011209.

century intervention in human life."[162] Squier emphasises how both fields had a liminal character, blurring the notion of thresholds as they intervened in the beginnings or endings of human life. Both fields also demanded a redefinition of the notions of identity and subjectivity on account of the way in which they destabilised constructs such as gender, sexuality, race, class, and species. It is not a coincidence that most rejuvenation treatments of the time involved direct or indirect intervention in the reproductive processes of the body. Reproductive capacity was also an important factor in determining who would be suitable candidates for receiving rejuvenation treatments. Most rejuvenation stories centred around male sexuality, portraying ageing as an emasculating process and rejuvenation as a restoration of that masculinity, defined in terms of "sexual prowess and youthful energy."[163] The essence of masculinity could be biologically localised in vital fluids such as blood and semen as well as in other glandular secretions, which could therefore be used to replenish lost vigour. The rejuvenation of women was widely acknowledged to be more complicated both biologically and socially. Biologically, it was difficult to ascertain whether the process of female ageing began with menopause or at a later juncture, especially since menopause did not typically lead to the decline of other physical and cognitive faculties. Moreover, rejuvenation treatments for women could not restore lost fertility and therefore had limited viability in a social context that viewed childbirth as the principal marker of female (re)productivity.[164] Thus, female rejuvenation could be a significant threat to the patriarchal order, potentially imbuing the subject with (non-reproductive) sexual desire in excess and thereby jeopardising her spousal and maternal roles. Ludwick's story

[162] Susan Merrill Squier, "Incubabies and Rejuvenates: The Traffic between Technologies of Reproduction and Age Extension," in *Liminal Lives: Imagining the Human at the Frontiers of Biomedicine* (Durham: Duke University Press, 2004), Kindle edition.
[163] Hirshbein, "The Glandular Solution," 286.
[164] Hirshbein, 294–7.

seems to adhere to these basic assumptions, aligning her titular male character with vampiric consumption and presenting her chief female character as a morally upright and nurturing figure who acts valiantly to right the wrongs of masculinist science.

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The narration of "Dr. Immortelle" unfolds through multiple voices. The frame narrator identifies himself as "a plain mining engineer of mediocre ability" whose wife Linnie Chaumelle, a nurse, was killed in France during World War I. The narrator is also close to death, and in his last moments he offers to his readers the shocking deathbed confession of Victor de Lyle, assistant to Dr. Albert Immortelle, for he believes that "the world is ready for the wide and practical application of Dr. Immortelle's method of rejuvenation."[165] De Lyle therefore becomes the meta-narrator of the story within the story. Described by the frame narrator as a man with "soft, waving brown hair, … hazel eyes, … [and] skin that in health had been fairer than my own suntanned hide," it emerges that De Lyle was in reality born a 'mulatto' slave to the elder Immortelle (proprietor of a large plantation in North Carolina) in 1745, with a white overseer father and a black enslaved mother. Before this racial transition is explained, De Lyle provides his listener with a few details on Dr. Immortelle's early life and upbringing. His fascination with the ancient alchemists is highlighted, as is his scientific interest in animal breeding:

> Albert turned his earliest attention to the breeding of poultry, cats, dogs, sheep and other comparatively short-lived animals, that he might observe the results of certain experiments on several generations. He was especially impressed with the disastrous results of inbreeding in relation to fecundity, and this formed the very basis of the theory he was slowly evolving and

[165] Ludwick, "Dr. Immortelle," 562.

> which was to be fraught with such tragic and momentous results to himself and countless others.[166]

Two things are of special interest here, particularly when we look at Squier's discussion on the linkages between "the two RTs"—rejuvenation therapy and reproductive technology. The first is the propensity to use other animal species as "research reservoirs," which stems from a new scientific awareness of the biological and evolutionary links between humans and animals. The second is the eugenic discourse that emerges in the story through the early reference to animal breeding. The close association between the eugenics movement in America in the early twentieth century and organisations such as the American Breeders Association is well documented. Squier also observes that eugenic thought tended to value longevity as a desirable trait.[167] Both rejuvenation and eugenics therefore had a progressive, visionary appeal for hegemonic groups. Interestingly, the breeding experiments that Dr. Immortelle conducts at an early stage on his father's plantation to study animal fecundity become the basis for his theory on human rejuvenation. He reasons that cell reproduction in the human body closely resembles animal reproduction, and that the inbreeding of cells within a single body for years would have the same detrimental effects as the inbreeding of animals. Thus, he defines old age as a "loss in fecundity" and hypothesises that rejuvenation could be accomplished by introducing new and vigorous cells "from the vascular systems of youth" into the blood of the aged, much like animal breeds are strengthened through the introduction of fresh stock.[168]

[166] Ludwick, 563.
[167] Squier, "Incubabies and Rejuvenates."
[168] Ludwick, "Dr. Immortelle," 564.

De Lyle reports that Dr. Immortelle turned his attention from animal to human subjects at the age of 40, following the end of the American Revolutionary War. Notably, his first major human subject is not himself but rather De Lyle, who is manipulated and tempted with the promise that carefully regulated transfusions of 'white' blood would make him effectively "Caucasian," thereby liberating him from racialised scrutiny and contempt. Blood therefore becomes a metaphorical bearer and conduit of racial/ethnic traits—a metaphor that was common in eugenic discourse and that raised concerns over blood purity and admixture in post-Civil War America. Moreover, the explicitly hierarchical racial taxonomy that is foregrounded in Clare Winger Harris's "The Ape Cycle" and taken as a given in Sophie Wenzel Ellis's "Creatures of the Light" is also central to Ludwick's tale, presented as it is in an even more virulent and stereotypical fashion. De Lyle's racial transition proceeds incrementally, as described in a section of the text that warrants extensive quoting:

> … [T]o be more reasonably certain that the blood of the donor would assimilate with my own, in the beginning Immortelle chose donors amongst mulattoes, then quadroons, then octoroons, before he selected white donors. He has formulated a theory which is now a well-established fact, that to introduce the blood of a higher animal into the veins of a lower is to cause the death of the lower. The negroid race being predominant in my blood, and the negro race being inferior to the Caucasian, he logically reasoned that the introduction of pure white blood into my veins might result fatally to me. Always he bled me freely before a transfusion.[169]

[169] Ludwick, 565.

De Lyle here becomes a liminal subject, positioned as he is between the animalesque black man and the superior white Caucasian. That is precisely why Dr. Immortelle's experiments begin with animals, proceed to the 'mulatto' man, and only thereafter focus on himself. The racial ideology of early twentieth-century America is reinforced in the description of De Lyle after the transformation:

> … I had emerged, a radiant Caucasian, from my somber and repellent negroid chrysalis. … No one who had known me as a kinky-haired mulatto youth, were he in existence still, would ever recognize that colored boy in the cultured, refined Caucasian with the waving brown hair, hazel eyes and complexion as fair as your own, with the rosy hue of health in his cheeks. From a selfish and brutal young savage with a violent temper, I had been transformed into an amiable and tractable individual, vastly useful to my master, but more conscientious than was conducive to my peace of mind or his.[170]

This passage explicitly asserts the physical, temperamental, cultural, and moral superiority of the white Caucasian over the black man without any indication of self-reflexive irony. At the same time, De Lyle is a living testament to the unsettling permeability of racial boundaries, and Dr. Immortelle is evidently aware of the danger that this transformation poses to his nefarious plans. He therefore takes care to preserve De Lyle's position as a subordinate and docile subject by transfusing him with blood drawn exclusively from donors of "most amiable disposition."[171]

[170] Ludwick, 564.
[171] Ludwick, 564.

The crux of the story's engagement with the gothic trope of vampirism lies in the gruesome descriptions of multiple incidents where helpless donors are sacrificed to enable the rejuvenation of De Lyle and subsequently Dr. Immortelle. While the plot of the story gets rather convoluted at this stage, it is possible to infer that the two malefactors spend over a century moving from place to place in America and Europe, setting up orphanages to maintain a charitable facade while simultaneously ensuring a steady supply of young and vulnerable blood donors, and escaping when confronted with significant risk of exposure. In the absence of reliable anaesthetic techniques, Dr. Immortelle uses mesmerism to mitigate the pain of the process for the donors, with limited success. The conscience-stricken De Lyle recounts how he continues to "waken from nightmares with the agonized screams of those little victims ringing in my ears."[172] The non-availability of accurate methods to measure the amount of blood drawn from the young victims also results in many fatalities, but nothing deters "the vampires who had waxed young and strong on their suffering and the sacrifice of their young lives."[173] It must be noted that this too can be read as a monstrous inversion of childbirth. In her cross-cultural ethnographic study of blood symbolism, Melissa L. Meyer observes how women's blood has traditionally signified "fertility and creating and bringing forth new life," whereas men's blood carried associations of "the hunt and sacrifice."[174] Dr. Immortelle's vampiric consumption of blood is thus a grotesque inversion of the fertility principle, taking young life instead of nurturing it. Meyer also argues that the prevalence of bloodletting in male social initiation rites mimics "menarche or menstruation" and connotes "male appropriation of the life-giving power inherent in women's blood and ability to give birth, while simultaneously purging boys of the influence of their mothers'

[172] Ludwick, 564.
[173] Ludwick, 567.
[174] Melissa L. Meyer, *Thicker than Water: The Origins of Blood as Symbol and Ritual* (New York: Routledge, 2005), 17.

blood."[175] The same distorted appropriation of the power of birth is visible in De Lyle's racial transition—he is quite literally 'purged' of his mother's black blood (De Lyle mentions how he was "bled freely" before every transfusion) and rebirthed with a new identity conferred on him by his male master. Ultimately though, Dr. Immortelle's version of vampirism remains sterile, unlike the vampiric reproduction that Stoker's supernatural Count Dracula can engage in by birthing more of his kind. As Kibbie points out, "surgical vampirism gradually uses its victims up, only to dispose of them as dead matter."[176]

The linked discourses of vampirism and transfusion can also convey suggestions of illicit sexual transactions. Karen Chase's idea of the "Vampiric Complex" is germane to this context. Chase argues that "senile sexuality" was pathologised in the nineteenth century as a form of desire that exceeded acceptable social norms, and that this fear of excess is worked out in the gothic vampire narrative:

> Sexually desiring old people are redrawn as fearsome creatures who possess vast or supernatural powers, the source of which is precisely erotic desire. What are witches and vampires but old men and women who are starved for the life force of others, for whom "youth" is the elixir of life, the semen which produces, or reproduces life in aged or decrepit individuals? … This Vampiric Complex… reflects the fear among the youth that the old are rapacious in their determination to cling to life even though the extension of their lives strips youth of their own.[177]

[175] Meyer, *Thicker than Water*, 83.
[176] Kibbie, *Transfusion*, 184.
[177] Karen Chase, "'Senile' Sexuality," in *Interdisciplinary Perspectives on Aging in Nineteenth-Century Culture*, eds. Katharina Boehm, Anna Farkas, and Anne-Julia Zwierlein (New York: Routledge, 2014), 134.

In the light of this reading, Dr. Immortelle's act of extending his life span beyond normative limits by preying on children takes on disturbing connotations of pedophilic sexual violation. This is particularly relevant when we consider the nature of direct transfusion in the nineteenth century, which demanded a certain degree of physical intimacy between the participants. An incision would be made on the body of the donor to expose an artery, through which blood would pass directly into the similarly exposed veins of the recipient, with nothing other than cannulas to mediate the transfer. The sensational immediacy of the process is depicted vividly in the section of the story where De Lyle recalls their stay in Idaho, during which the two "human vampires" find a "childish victim" in the person of Vernon Chaumelle, the five-year-old brother of Linnie Chaumelle, then merely three years old. A minor injury acquired during play allows Dr. Immortelle to lure the children into his house, and Linnie is kept distracted while her brother is carried to a "subterranean operating-room," the symbolic locus of all that is repressed and transgressive. However, a door accidentally left unlocked allows Linnie to walk in unexpectedly on the scene of "her little brother strapped securely to one table …, his pale face becoming ever paler as the life stream flowed from his little artery through the glass tube into the vein of the sinister-looking man reclining on the other table beside the child's couch."[178] The description here quite literally upholds Chase's theorisation of the nineteenth-century vampire as reflecting "the face of age imagined by those who worry that persistent and unsatisfied sexual energy would produce a monster that outlives his time by stealing libido from youths."[179] Vernon Chaumelle develops an infection and dies shortly after this episode, as a result of which Dr. Immortelle and De Lyle are compelled to flee the area hastily. Another related aspect of the story is Dr.

[178] Ludwick, "Dr. Immortelle," 566.
[179] Chase, "'Senile' Sexuality," 134.

Immortelle's insistence on the impossibility of marriage or offspring for either himself or De Lyle. His considerations are pragmatic—it would not be viable for them to rejuvenate their wives or children without risking exposure, nor would it be desirable for them to watch their family members age and eventually die. The essential sterility of Dr. Immortelle's vampiric sexuality is again emphasised here, for it consumes life instead of generating or nurturing it. At the same time, De Lyle reveals that Dr. Immortelle's chief object was "to live as long as possible, in order to gratify his sensual appetites, however Epicurean they might have been termed."[180] The precise nature of these sensual appetites is never made clear, which casts a dark gloss on the narrative by hinting at unspeakable sexual perversions.

In a story governed largely by reproductive sterility, the secondary role played by Dr. Immortelle to support his vampiric operations is rather appropriately chosen. De Lyle reveals that female attendants were required to assist with transfusion procedures at the orphanages initially set up by Dr. Immortelle, in the decades prior to the professionalisation of nursing in the 1870s. To maintain the secrecy of his operations, Dr. Immortelle recruits the services of "young women who had committed indiscretions and whose reputations had been saved by Immortelle and [De Lyle]."[181] This euphemistic statement enables us to identify Dr. Immortelle as a practising abortionist at a time when states across America were introducing legislation to criminalise abortion and prosecute its illegal practitioners.[182] The public movement against abortion was incidentally spearheaded by physicians (formally represented by the American Medical Association founded in 1847) who saw it as a professional, social, and moral menace

[180] Ludwick, "Dr. Immortelle," 565.
[181] Ludwick, 565.
[182] Until the 1820s, abortion prior to the "quickening" of the foetus was not considered a crime in America, following the precedent of English common law.

dominated by "irregulars" such as quacks and midwives. This anti-abortion crusade of the medical establishment overlapped with moral reform campaigns that culminated in the passing of the federal Comstock Law in 1873, an anti-obscenity act that prohibited the usage of the U.S. postal service to circulate articles/instruments/drugs, advertisements, or even information aimed at "preventing conception or producing abortion."[183] However, as most historians of birth control and abortion in America have noted, the existing laws were not always enforced rigorously or consistently, and many physicians continued to perform abortions discreetly throughout the nineteenth and early twentieth centuries in violation of federal and state laws.[184]

The socio-economic position of the women seeking such services was an important factor in determining the nature of access to both contraception and abortion. Generally, white women from the middle and the upper classes had the resources to resolve their reproductive predicaments privately. Poorer working-class women did not typically enjoy the privileges of dignity and privacy and often had to resort to self-induced abortions that could potentially lead to medical crises and attract unwanted official attention. This explains the story's ambivalent attitude to Dr. Immortelle's activities as an abortionist. On the one hand, it seems to strengthen his association with all that is socially and morally objectionable. On the other hand, his efforts "to save the reputations of the erring" are described as "philanthropic" particularly because they offer his evidently working-class clients the invaluable service of abortion accompanied by privacy. De Lyle reports: "Usually they covered their tracks in coming to us and always

[183] For the full text of the original act, see: "A Century of Lawmaking for a New Nation: U.S. Congressional Documents and Debates, 1774–1875," Statutes at Large, 42nd Congress, 3rd Session, 598, American Memory, Library of Congress, https://memory.loc.gov/cgi-bin/ampage?collId=llsl&fileName=017/llsl017.db&recNum=639.
[184] See: Leslie J. Reagan, *When Abortion Was a Crime: Women, Medicine, and Law in the United States, 1867–1973* (Berkeley: University of California Press, 1997); Rickie Solinger, *Pregnancy and Power: A Short History of Reproductive Politics in America* (New York: New York University Press, 2005).

bore an assumed name. When they departed, only Immortelle and I knew how, or when, or what their destination was."[185] Ludwick touches upon another aspect of the abortion question in the section of the story involving the death of Vernon Chaumelle in Idaho. While the story does not track the passage of time in any very precise fashion, the hints embedded in the narrative suggest that the events of this section unfold in the last decade of the nineteenth century, at which point abortions were banned at both the federal and state levels in America. De Lyle reveals that the house which served as residence and laboratory for the two rejuvenators in Idaho was situated in a strategic location that permitted access to "a certain disreputable quarter" of a nearby mining camp: "It was always possible in case of urgent necessity to secure assistance from this quarter, for there are always some nurses amongst these unfortunates. Dr. Immortelle never passed up anything."[186] These "unfortunates" are undoubtedly sex workers—a demographic for whom unintended pregnancies would have been an obvious occupational hazard, thereby making Dr. Immortelle's discreet services particularly valuable. These women are later described in stereotypical terms as "hardened creatures" who repay Dr. Immortelle for his "professional services" by assisting at his transfusion operations without asking uncomfortable questions. The professional services mentioned here seem to go beyond abortion, for the death of Vernon Chaumelle occurs at the same time as the discovery of the grave of a newborn infant in close proximity to Dr. Immortelle's laboratory. This horrific collusion in what is evidently a case of infanticide—the last resort of the most desperate women—once again paints Dr. Immortelle as an unscrupulous destroyer of new life in the rapacious interest of extending his own.

[185] Ludwick, "Dr. Immortelle," 565.
[186] Ludwick, 566.

While it is difficult to extract a clear political position on female reproductive autonomy from the scattered and veiled references available in the text, a passage in the opening section of the story offers important clues on the subject. The narrator speculates:

> Perhaps in time, longevity… will become so universal as to be taken for granted. The process of rejuvenation will become as common as that of vaccination or the injection of the various serums and anti-toxins that are now the fad of the hour. It may even become compulsory by due process of law! It will follow naturally that the Mrs. Sangsters of that day will be heard with respect and no doubt Malthus will have many statues erected to his memory.[187]

The passage links several discourses that were intensely topical in the early decades of the twentieth century. The first is the optimistic discourse of rejuvenation therapy, which has already been discussed at length. Another discourse of relevance is that of the birth control movement, which is evoked through the mention of "Mrs. Sangster"—a name that Donawerth reads as a misspelt reference to Margaret Sanger who was "in the middle of her campaign to legalize birth control in all states" at the time of the story's publication.[188] Certain patterns in the story undoubtedly mirror Sanger's ideas on birth control, particularly when we consider her ambivalent attitude to abortion. In many of her writings, Sanger carefully distinguished abortion from birth control, frequently categorising the former alongside such practices as infanticide and child abandonment, and promoting wider, safer access to contraception as a civilized solution to these social ills. Sanger also tended to portray abortion as the desperate recourse of working-class

[187] Ludwick, 560.
[188] Donawerth, "Science Fiction by Women in the Early Pulps," 143.

women who did not have accurate or reliable knowledge of contraceptives, unlike middle- and upper-class women who had access to effective contraceptive measures and could therefore reasonably practise "voluntary motherhood." Sanger articulated this position most explicitly in an article entitled "Birth Control or Abortion?," first published in the December 1918 issue of *Birth Control Review* and thereafter incorporated in a revised form in *Woman and the New Race* (1920). The article distances "normal, scientific" birth control methods from "abnormal, often dangerous, surgical" abortion and cautions the reader: "The knowledge of Birth Control methods may for a time be denied to the woman of the working class, but those who are responsible for denying it to her, and she herself, should understand clearly the dangers to which she is exposed by the dark age laws which force her into the hands of the abortionist."[189] Similar ideas emerge in Ludwick's story, as the women seeking Dr. Immortelle's services as an abortionist are unequivocally identifiable with the working poor. (It is notable that the sex workers who assist Immortelle in Idaho are part of a mining community and would have been particularly disenfranchised as a result.) It logically follows that the narrator of the text looks forward to a future where pioneers like Margaret Sanger "will be heard with respect," for the implementation of her birth control programmes would presumably eliminate the need for insidious abortionists such as Immortelle by extending the knowledge of contraceptive methods to working-class women. Like Sanger, Ludwick also highlights that many of Dr. Immortelle's "philanthropic efforts" did not meet with success; De Lyle darkly speaks of "mysterious disappearances of young women," and one of these "disastrous terminations" finally precipitates the climactic crisis in the story.

[189] Margaret Sanger, "Birth Control or Abortion?" *Birth Control Review* 2, no. 11 (December 1918): 3, https://babel.hathitrust.org/cgi/pt?id=hvd.hnp3k3&seq=233.

The mention of "Mrs. Sangster" is also accompanied by an acknowledgement of Thomas Malthus, which recalls the nascent stages of the neo-Malthusian movement in early twentieth-century America and its close alliance with the ideology of birth control. The Malthusian League in England and similar organisations in continental Europe had already been advocating birth control as a means of limiting the size of (primarily) working-class families and thereby mitigating poverty. Sanger played a pivotal role in transmitting these neo-Malthusian currents to America in order to bolster the homegrown birth control movement, and the association culminated in the Sixth International Neo-Malthusian and Birth Control Conference in March 1925, hosted by the American Birth Control League in New York. In addition, both neo-Malthusians and birth control activists were favourably inclined towards the prospect of qualitatively 'improving' human populations through reproductive intervention—an idea that took shape in the discourse of eugenics which also occupies an important position in Ludwick's story. Betsy Hartmann effectively sums up how these radically different but fundamentally interlinked scripts became "strange bedfellows" in the development of the birth control movement: "The early neo-Malthusians supported birth control as a means of improving the condition of the poor by limiting population growth; feminists and socialists believed it was a fundamental woman's right; eugenicists embraced it as a way of influencing genetic quality."[190] Ludwick's contribution in "Dr. Immortelle" was to connect this network of overlapping scripts with the burgeoning discourse of rejuvenation (pseudo-)science. It may be argued that despite the sordid tone of the story, Ludwick, like many of her contemporaries, viewed the prospect of rejuvenation in essentially positive terms, associating it with a progressive future characterised by increased female autonomy

[190] Betsy Hartmann, "Population Control I: Birth of an Ideology," *International Journal of Health Services* 27, no. 3 (1997):524, https://www.jstor.org/stable/45130847.

(reproductive and otherwise) and a healthier and 'improved' race (with even the 'inferior' races being transformed into white "Caucasians"). In sharing his narrative, De Lyle asserts his conviction that "in proper hands, under scientific supervision, transfusion might prove of tremendous value to humanity; that it might be employed, not only to rejuvenate, but to repair and remedy both physical and mental defects."[191] Moreover, a future where rejuvenation is a reality would presumably require careful quantitative and qualitative regulation of the population to maintain an ideal state of equilibrium, for which birth control would be an essential tool.

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The climax of the story occurs in San Francisco and is situated during the time of the influenza epidemic in 1918. Dr. Immortelle and De Lyle perpetuate their usual patterns by establishing an orphanage-cum-sanitarium to continue their operations under the mask of philanthropy. When the exigencies of the epidemic lead to a nursing crisis in this establishment, a solution is presented in the person of Linnie Chaumelle, now an adult and a trained nurse. The presentation of Linnie, like that of Athalia, lacks the overt feminist edge of Harris's Sylvia; our impression of her is filtered through the perspectives of the male narrators who are both in love with her and view her as a model of idealised femininity. The frame narrator who eventually marries her speaks of her "beauty and womanly grace" and her "dignity and nobility of character."[192] De Lyle describes her in hyperbolic terms as angelic, pure, maternal, and incorruptible and regards her with exalted reverence. Her femininity is also racialised; De Lyle contrasts her "lily-white soul" with his soul that was "as black as my face once was."[193] He casts

[191] Ludwick, "Dr. Immortelle," 569.
[192] Ludwick, 562.
[193] Ludwick, 569.

himself in the role of her protector, particularly when he perceives Dr. Immortelle's interest in her: "with Dr. Immortelle, the selfish, cynical, absolutely conscienceless man of the world, it was a case of love at first sight!"[194] Linnie here seems more a type or an idea rather than a rounded individual, but her primary role in the story is to serve as a paradigm of moral integrity and heroism, and in this she resembles many of her counterparts in pulp SF by women. Donawerth argues that while certain early female SF writers envisioned "revised roles for women along strict lines of equality between men and women," others "imagined revised gender roles along the lines of Victorian feminism and the theory of women's work." Donawerth places Ludwick in this second category: "Ludwick pictures women as equally heroic to men, but contained in separate careers."[195] Linnie's decision to pursue the career of a trained nurse evinces this ideology of separate spheres, and De Lyle affirms this when he states that "[t]here is no finer or nobler [career] under heaven."[196] Linnie's reappearance in the story also occasions Dr. Immortelle's final downfall, for it is during her stay that "a young and beautiful unfortunate" meets her death at the sanitarium (presumably as a result of a botched attempt at abortion). Immortelle and De Lyle hastily dispose of the body at some distance from the sanitarium but the remains are discovered a day later, leading to sensational press coverage. On recognising the woman from a photo in the newspaper, Linnie instantly confronts Immortelle—a testimony to her integrity and courage. Her moral superiority also elevates those around her, for when Dr. Immortelle resolves that Linnie must be "silenced" for knowing too much, De Lyle is finally provoked to act in her defence. The extent of Dr. Immortelle's depravity demands this decisive action, for his plan is to drug Linnie until she is "at his mercy" and can be "kept at the pleasure of his

[194] Ludwick, 567.
[195] Donawerth, "Science Fiction by Women in the Early Pulps," 143–4.
[196] Ludwick, "Dr. Immortelle," 567.

will as long as suited his purpose."[197] The tension culminates in a dramatically heightened sequence that intertwines multiple tropes: Linnie recognises Dr. Immortelle from her childhood as the man who killed her brother; Immortelle retaliates by attempting to murder her; De Lyle intervenes and escorts Linnie to safety while leaving Immortelle bound and gagged, and then finally returns to drive Immortelle and himself over the edge of a precipice. While Immortelle dies instantly, De Lyle survives long enough to share his story with the frame narrator, who is able to corroborate the details from Linnie following a chance encounter on the day of the 'accident.'

Although De Lyle's narrative concludes with an optimistic assessment of the potential scientific benefits of transfusion, the story does not offer any concomitantly optimistic alternative to the sterility and death that dominate its general atmosphere. Linnie and the unnamed narrator move to France after their wedding, but Linnie is killed shortly afterwards when German forces bomb the Red Cross tent in which she is ministering to the wounded. The narrator "escapes alive from the hell of the Argonne" but anticipates his death in the last line of the story.[198] It is perhaps both ironic and appropriate that a text that evokes the theme of immortality in its very title should end by claiming the lives of all its principal characters. Like her contemporaries, Ludwick cautions her readers against the overreaching excesses of the self-serving masculinist science practised by Dr. Immortelle—a form of science that can only lead to total destruction. Female characters like Linnie provide the checks and balances that are necessary for the judicious and socially responsible application of scientific knowledge. This affirmative ideology of science may be construed as a feminist goal, despite the

[197] Ludwick, 568.
[198] Ludwick, 574.

troubling baggage that it is saddled with; namely, the racial hierarchy and eugenic discourse that is uncritically upheld in the text.

CHAPTER TWO

UTOPIAN ELSEWHERES: GENDER AND REPRODUCTION IN THE PULP HERLANDS

If Mary Shelley's *Frankenstein* and its fictional offspring constituted one tradition of influence on pulp science fiction by women, the other dominant tradition that played a commensurate role in shaping their thought experiments was the literary utopia. This was a genre that female authors of earlier generations had already decisively co-opted as a literary and political tool because it allowed them to propose viable alternatives to the oppressive social structures that had reduced women to positions of subordination in the real world. In America, notable utopian works such as Mary Griffith's *Three Hundred Years Hence* (1846), Mary E. Bradley Lane's *Mizora: A Prophecy* (1880–1), Inez Haynes Gillmore's *Angel Island* (1911), and Charlotte Perkins Gilman's *Herland* (1915) had explored the intersections between science, gender, and power with a keen eye towards sexual and reproductive relationships and an earnestly articulated desire for social change. This literary tradition also corresponded with the development of the American women's rights movement in the late-nineteenth and early-twentieth centuries, which culminated in the Nineteenth Amendment to the US Constitution in 1920 that granted women the right to vote. While Carol Farley Kessler has demonstrated that explicitly utopian writing by women became relatively sparse in mainstream publishing platforms after 1920 until the resurgence of the genre in 1960, it survived for at least another decade in the SF pulps due to the contributions of writers

such as Lilith Lorraine, M. F. Rupert, and Leslie F. Stone.[1] This chapter will focus on selected short stories by the aforementioned authors that deploy established SF conventions to infuse new life into the declining genre of the feminist utopia. I also hope to demonstrate how each story responds in different ways to a variety of socio-cultural discourses current during the 1920s and early 1930s, especially those that related science and technology to issues of gender, sexuality, marriage, and reproduction. In this sense, the stories offer a vision of what Donawerth calls utopian science, which serves as a feminist alternative to the masculinist ideologies of science discussed in the first chapter.

It is notable that all the three stories discussed in this chapter were published in the Gernsback magazines at a time when David Lasser was playing a central role in the editing of the magazines and the selection of stories. Mike Ashley has described Lasser as "a much neglected revolutionary in science fiction" whose early efforts to promote realism and literary quality in the pulps were pivotal to the evolution of the genre.[2] Lasser was also a member of the Socialist Party and a committed workers' rights activist, and his political sympathies may have influenced the kinds of stories he picked for the SF magazines. Ashley observes how many of the stories published under Lasser's editorship developed themes that had hitherto been considered taboo in SF, such as "sex, feminism and religion,"[3] and he "willingly explored not just the equality of women, but their supremacy."[4] While Lorraine's "Into the 28th Century" proposes a future in which socialist revolution will lead to the creation of a world-state where men and women are equal, Rupert's "Via the Hewitt Ray" and Stone's "The Conquest of Gola" offer bold

[1] Carol Farley Kessler, ed., *Daring to Dream: Utopian Stories by United States Women: 1836–1919* (Boston: Pandora Press, 1984), 14–6.
[2] Ashley, *The Time Machines*, 66.
[3] Ashley, 73.
[4] Mike Ashley and Robert A. W. Lowndes, *The Gernsback Days: A Study of the Evolution of Modern Science Fiction from 1911 to 1936* (Holicong, PA: Wildside Press, 2004), 195.

visions of female superiority that upend traditional practices and values. As with all utopias, the ultimate objective of these pulp authors is to encourage a critical assessment of the status quo through an appraisal of worlds that represent "radical difference, radical otherness."[5]

In his theoretical work on "the desire called utopia," Fredric Jameson defines utopian space as an "imaginary enclave" that demands a process of "radical secession" for its formation. This "spatial and social differentiation" is necessary for the utopia to operate as an autonomous and self-sufficient "totality," a closed system.[6] In Thomas More's originary text, closure is achieved through the digging of a vast trench that separates the island of Utopia from the mainland, and subsequent utopian narratives offer a range of geographical enclaves that facilitate a similar separation. The female pulp authors discussed in this chapter achieve the same effect by drawing on a number of popular SF tropes, thereby innovatively blending the already overlapping genres of utopia and science fiction. Lorraine uses the familiar device of time travel, while Rupert and Stone resort to interdimensional and interplanetary travel respectively. As a result, all the utopian worlds are able to retain their integrity and totality at the end of the texts, despite the temporary troubles that beset them during the course of the narrative. All three authors are also careful to foreground female voices and worldviews. "The Conquest of Gola" goes furthest in this regard by telling its story through the narrative voice of the matriarch of an alien culture, but Rupert's "Via the Hewitt Ray" also presents a cast of primarily female characters who introduce us to the workings of an alternative social order. Although the visitor to Lorraine's utopia of the future is male, he is similarly guided by a female character whose lengthy and thoughtful discourses on the social

[5] Fredric Jameson, *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions* (London: Verso, 2005), xii.
[6] Jameson, *Archaeologies of the Future*, 5, 15.

arrangements in 28th-century America form a major part of the narrative. Such narrative strategies are worthy of attention because they are rare in the pulp SF landscape, with many stories featuring no female characters at all, and others relegating women to the domain of subordination and marginality.

It must be noted that the following analysis does not rely on popular conceptualisations of utopia in terms of static perfection or social blueprint. Following scholars of utopian studies such as Lyman Tower Sargent, Ruth Levitas, Tom Moylan, Raffaella Baccolini, and Lucy Sargisson, this chapter is based on an understanding of utopianism as a process rather than a state, located on a spectrum of human desire, hope, and possibility. As such, both the eutopia (what Sargent terms the "positive utopia") and the dystopia (Sargent's "negative utopia") are contained within the umbrella term 'utopianism,' and the relationship/distinction between the two can only be understood in relativistic terms within the larger "process of social dreaming" that utopianism entails.[7] The pulp form and medium of the tales discussed in this chapter also demanded a reinvigorated approach to utopian writing: one that would retain the political and discursive elements of the genre while fashioning an entertaining story for a popular audience. Lorraine's success in this regard is only partial as much of her story is devoted to the detailing of a comprehensive utopian-socialist programme, but all three authors demonstrate a conscious awareness of their chosen medium as they engage colourful pulp conventions to tell their tales of utopian elsewheres. In the process, they transcend pulp stereotypes by placing women at the centre of their narratives, and by presenting radical imaginative alternatives that make it possible to envision new roles and opportunities for women.

[7] Sargent, "The Three Faces of Utopianism Revisited," 9.

2.1. Journey to a Golden Age: The Utopia of Future Time in Lilith Lorraine's "Into the 28th Century"

"Into the 28th Century" appeared in the Winter 1930 issue of *Science Wonder Quarterly* along with a sketch of the author and the following introductory comment by the editor: "...it speaks well of the times in which we are living, when women authors such as Lilith Lorraine have the vision to take science fiction seriously enough to make extended studies of it."[8] This story was not Lorraine's first foray into the field of SF publishing. "The Brain of the Planet" had appeared a year earlier as part of the Science Fiction Series—a set of original chapbooks published by Gernsback between 1929 and 1932.[9] She had also already published "The Jovian Jest" in the May 1930 issue of *Astounding Stories*. Lilith Lorraine was of course a pseudonym; the woman behind the adopted name was Mary Maud Dunn Wright, born in Corpus Christi, Texas in 1894. Steve Sneyd's biographical articles on Lorraine in *Fantasy Commentator* piece together details of a fascinating life, albeit one that remains tantalisingly obscure.[10] She seems to have worked as a reporter, a columnist, a radio announcer, and a teacher at various points in her life, in addition to being a writer of fiction and (more prolifically) poetry. Sneyd also directs his readers to an article by editor Walter Gillings in the British SF fanzine, *The New Futurian*, where Gillings (who edited the first British SF professional

[8] Introductory note to Lilith Lorraine, "Into the 28th Century," *Science Wonder Quarterly* 1, no. 2 (Winter 1930): 251. Since Gernsback was the official editor of the magazine, the introductory note may be attributed to him. However, Eric Leif Davin has suggested that the note may have been written by David Lasser. See: Eric Leif Davin and Jane Donawerth, "Gernsback, His Editors, and Women Writers," *Science Fiction Studies* 17, no. 3 (November 1990): 418–21, http://www.jstor.org/stable/4240023.

[9] Mike Ashley comments that the stories published in these chapbooks were mostly of poor quality, "suggesting that Gernsback did not consider them fit for his magazines but, because of the interest in sf, felt there might still be a lucrative market." The sales were probably not impressive. See: Ashley, *The Time Machines*, 65.

[10] Steve Sneyd, "Empress of the Stars: A Reassessment of Lilith Lorraine, Pioneering Fantasy Poetess," *Fantasy Commentator* (#43) 7, no. 3 (Spring 1992): 206–29, https://fanac.org/fanzines/Fantasy_Comment/fantasy_commentator_43_v7n3_searles_1992-sp_fapa_219r.pdf; Steve Sneyd, "Lilith Lorraine: A Postscript," *Fantasy Commentator* (#51) 9, no. 3 (Fall 1998): 194–9, https://fanac.org/fanzines/Fantasy_Comment/fantasy_commentator_51_v9n3_searles_1998-fa.pdf.

magazine, *Tales of Wonder*) recalls his 1931 correspondence with Lorraine, whom he refers to as "one of s-f's three woman writers."

> At that time Miss Lorraine still lived at Corpus Christi, in Texas, … and she was interested in launching her own s-f magazine—in England, if she could be assured of its success in a country to which, it appeared, she intended to come very soon. Her object in writing to me, in fact, was to ascertain if there was any existing market for s-f here and what I thought of the chances of such a venture. …
>
> The resultant correspondence did not last long, however. To a woman of 37… my earnest affirmations must have sounded much too eager. Anyway, after pronouncing her views on the standardisation of American s-f and declaring her more expansive policy for any magazine she might establish, she postponed the whole business for two years, while soliciting from me contributions for a poetry magazine she was editing; whereupon my enthusiasm, and my hopes, waned.[11]

While Lorraine's stated intentions indicate a serious and thoughtful investment in the genre, her actual SF output remained rather limited: she enjoyed a brief pulp resurgence in 1935 with the publication of "The Celestial Visitor" and "The Isle of Madness" in *Wonder Stories* before turning away largely to a career in poetry.[12] In a message

[11] Walter Gillings, "The Clamorous Dreamers: The Story of British Science-Fiction Fandom," *The New Futurian*, no. 2 (Summer 1954): 8, https://fanac.org/fanzines/New_Futurian/New_Futurian02.pdf. The correspondence cited here unfolded in response to a letter by Gillings that was published in the March 1931 issue of *Wonder Stories*, where Gillings sought support for his movement to promote science fiction in Great Britain.

[12] Sneyd quotes a 1934 letter by Lorraine where she claims: "I still like to do science fiction and have over twenty-five thrilling yarns laid away for future attempts at marketing." Qtd. in Sneyd, "Empress of the Stars," 210. However, the Internet Speculative Fiction Database mentions only two other stories published by Lorraine in 1952. Sneyd also states that some of Lorraine's SF appeared in the pages of *Different*, a periodical that she founded in 1945. I was unable to gain access to these later texts.

published in the Spring 1943 issue of the fanzine *Acolyte*, she states: "I may still return to science-fiction some day, whenever the market ceases to be so stereotyped and standardized that it kills out all new ideas and original manner of expressing them."[13] She went on to receive greater recognition for her verse than her fiction, publishing several volumes of poetry and founding and editing a number of poetry magazines. In 1940, she founded Avalon, described in the *Handbook of Texas* as "an international association of poets designed to encourage new talent and to promote the work of both new and established poets."[14] She continued to be passionately involved with this organisation and its many publications till her death in 1967.

Much of Lorraine's SF is characterised by its overt utopianism that espouses what Jane Donawerth has identified as a "feminist socialist" politics.[15] This is remarkable in an SF tradition that, in the words of Ursula K. Le Guin, has tended towards "authoritarianism," and in which "(s)ocialism is never considered as an alternative."[16] Lorraine's first SF work, "The Brain of the Planet," presents Harry Maxwell, professor of psychology and a socialist dreamer, who erects a broadcasting station at a remote mountainous location in Mexico. This broadcasting station is really a centralised intelligence, a super-brain controlled by Maxwell that is designed to instil a socialist consciousness in the minds of all individuals on the planet through a telepathic "bombardment of ideas." This is deemed necessary because individual brains have hitherto been conditioned, by an unscrupulous oligarchy and by sheer force of habit and inertia, to perpetuate fossilised institutions that ignore the common good and promote

[13] Lilith Lorraine, Letter to *The Acolyte* 1, no. 3 (Spring 1943): 28, https://www.fanac.org/fanzines/Acolyte/acolyte_3_laney_1943-sp.pdf.
[14] Frank Wagner, "Mary Maud Dunn Wright (1894–1967)," *Handbook of Texas Online*, published September 1, 1995, https://www.tshaonline.org/handbook/entries/wright-mary-maud-dunn.
[15] Jane Donawerth, "Lilith Lorraine: Feminist Socialist Writer in the Pulps," *Science Fiction Studies* 17, no. 2 (July 1990): 252-8, http://www.jstor.org/stable/4239995.
[16] Ursula K. Le Guin, "American SF and the Other," *Science Fiction Studies* 2, no. 3 (November 1975): 210, http://www.jstor.org/stable/4238969.

the interests of the ruling capitalist class. While mass psychological control through the "brain of the planet" does entail a loss of individual free will, this is presented as an acceptable temporary measure until the problem of collective mental stagnation is overcome and socialism becomes the new worldwide norm. The text portrays Maxwell as a Christ-like visionary assuming a noble responsibility of immense import. Once his machine becomes operational, sweeping changes are wrought in the socio-economic fabric—individuals situated at both extremes of the political spectrum lose their sanity and die after failing to resolve their mental conflicts, following which there are progressive reforms and wonderful new techno-scientific inventions for the benefit of humanity. The process culminates in the end of capitalism and religious superstition and the formation of the World-State. Maxwell, now an old man, surveys this "well-nigh perfect world" and proceeds to deactivate the machine. There is another brief phase of uncertainty after the silencing of the brain when atavistic individualist impulses are reawakened and threaten to destabilise the new order, but the socialist consciousness is now too deeply ingrained in the mass psyche to be defeated. Significantly, for Lorraine, a socialist utopia is simultaneously a feminist utopia; in her fictional World-State, "The relations between the sexes became perfect, for with both sexual jealousy and economic pressure removed at a single stroke, all marriages were based on real love, on affinity of tastes; and such marriages were, of course, impregnable."[17]

While "The Brain of the Planet" has a didactic and programmatic quality and does not create much room for the development of a story, "Into the 28th Century" offers a greater sense of immediacy through the narrator Anthony, a young man who has recently retired from the Navy and is visiting family in Corpus Christi in the summer of

[17] Lilith Lorraine, "The Brain of the Planet," Science Fiction Series, No. 5 (New York: Stellar Publishing Corporation, 1929), 19.

1932. He purchases a second-hand motor boat so that he may occasionally cruise around the Corpus Christi Bay, but during one of his nocturnal journeys there is a strange mishap, following which he finds himself floating in the middle of the bay with no boat in the vicinity, and with the night having inexplicably transformed into bright daylight. (The movement from darkness to light has undeniable symbolic connotations.) He is even more puzzled when he sees a great golden battleship approaching him. On being hauled aboard, he finds himself surrounded by a group of fifty young men and women sporting hair in a variety of colours and dressed in classically inspired Greek and Roman styles. The ensuing conversations reveal that the narrator has journeyed 800 years into the future through a "time flyer" controlled by thought waves. Time travel was of course a common device used in utopian SF as a substitute for the geographically enclosed enclaves predominant in the early phases of the literary utopian tradition. As H. G. Wells notes in *A Modern Utopia*:

> No less than a planet will serve the purpose of a modern Utopia. Time was when a mountain valley or an island seemed to promise sufficient isolation for a polity to maintain itself intact from outward force… But the whole trend of modern thought is against the permanence of any such enclosures. … World-state, therefore, it must be.[18]

A temporal shift allows the utopian location to exist as a radically different alternative to the traveller's empirical environment, while also generating the scope for a transitional narrative as the guide representing utopia explains to the traveller how this novel societal structure came to fruition. In "Into the 28th Century," there are two guides, Therius and Iris, the former male and the latter female, who explain the operations of the World-State

[18] H. G. Wells, *A Modern Utopia* (New York: Charles Scribner's Sons, 1905), 11–2, https://www.google.co.in/books/edition/A_Modern_Utopia/UG_keF7E_boC?hl=en&gbpv=1.

of the future as well as the revolutionary events that led to the realisation of that socialist-utopian dream. The following discussion will foreground the social, economic, and political characteristics of Lorraine's utopian future, with a special emphasis on the gender relations, marital practices, and reproductive arrangements suggested as desirable alternatives in the text.

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As Anthony converses with Therius and Iris, he learns that the battleship is a floating university—an offshoot of the University of Nirvania (the new name for Corpus Christi). Iris is a student of history who has specialised in the events of the twentieth century, and she is assigned the task of recounting the chief occurrences that led to the formation of the utopian World-State. Anthony's time is characterised as the Age of the Great Unrest, during which the conflict between the Powers of Light ("all the innumerable agencies, visible and invisible, that have impelled man to broader freedom, greater happiness and more perfect unfoldment of the latent powers within him") and the Powers of Darkness ("everything that impels the soul to limitation, the mind to intolerance, the heart to selfishness and the body to imperfection") reached its apex.[19] Capitalism is aligned squarely with the Powers of Darkness. The system of private ownership prevailing in the early twentieth century was eventually succeeded by the World-Trust which sought to centralise the means of production and distribution and absorb the powers of government. This turned out to be "a travesty of Socialism," dictatorial and merciless. The dictators issued "The Unspeakable Manifesto" that authorised them to perform "vocational operations" on all individuals seeking employment. People were forced to undergo cerebral surgeries that killed creative

[19] Lorraine, "Into the 28th Century," 255.

thinking and engendered "a race of human robots," with individuals becoming specialised machines dedicated exclusively to the performance of their designated roles. The section articulates many of the same anxieties delineated more famously by Aldous Huxley two years later in *Brave New World*. Change was finally spearheaded by the youth, who set their minds to "consistent, organized revolt" against "the elders" and their ossified institutions with the assistance of reformers, scientists, and radicals. A terrible war ensued, a "revolution, bloody and horrible beyond the dreams of Hell." Diabolic inventions were deployed by both sides, but the most devastating weapon used was the Disintegrating Ray, discovered by a young scientist of the Rebellion and controlled by thought power. The aftermath is described in terms of a Darwinian struggle for existence:

> It all culminated with that ghastly midnight carnage known as the Slaughter of the Ancients. Horrible and unnatural as it may seem, this annihilation of one generation by its offspring; it was a thing that had to be. … Nature herself had entered the lists on the side of progress and the fittest had survived.[20]

The Revolt of the Youth created the conditions necessary for the establishment of true socialism, and its corollary was the discovery of the thought-powered Reintegrating Ray that led to the formation of the World-State.

As noted earlier, for Lorraine, socialist revolution and feminist revolution are ideologically inseparable. Iris emphasises how the Great Revolt unfolded concurrently with a change in the status of women—a process that she describes as having begun in the early twentieth century, presumably with the successful conclusion of the suffrage movement and the subsequent agitation for equal opportunity in the economic sphere. However, Lorraine asserts that political and economic gains are insufficient unless they

[20] Lorraine, 257.

are supported by a concomitant socio-cultural transformation founded on "a single code of morals" for men and women. The narrative notes how the same men who had spearheaded the socialist revolution were deeply reluctant to embrace any changes in the gendered status quo, and they retaliated against feminist demands with a lessening of their chivalry—an act that nearly precipitated a battle of the sexes. Lorraine describes chivalric practices as merely a compensatory gesture intended to sweeten the bitter pill of patriarchal tyranny, "an opiate to lull the reason into submission to a sex whose last claim to superiority had been undermined."[21] What followed was an unprecedented form of female mobilisation whereby women threatened to stop performing their reproductive role rather than continue to accept their secondary status: "it were better for humanity to die painlessly through the ceasing of birth than to commit suicide through the continuance of man-made institutions."[22] The men were consequently forced to mend their ways, and over time a "new chivalry" came into being that was predicated on honour and mutual respect. Thus, the reproductive power that is traditionally cited as the rationale behind female subordination is weaponised in the fight for gender equality, and the result is a system where women are in control of reproduction biologically, socially, and spiritually. Lorraine's presentation of gender is largely essentialist and her utopia preserves the ideology of separate spheres, but these spheres are no longer in accordance with the traditional dichotomy of the masculine public and the feminine domestic. While man preserves his physical supremacy and his pre-eminence in "invention, mechanics, mathematics and the more strenuous sports," woman exercises her "finer sensibilities" in her patronage of art, science, and literature and in the "beautification and spiritualization of all life." The President of the World-State is typically a woman, who

[21] Lorraine, 257.
[22] Lorraine, 257.

is responsible for "the spiritual and intellectual guidance of our planet, the home of the human race."[23] Lorraine also de-stigmatises and de-feminises domestic labour by having all citizens of her utopia take turns at performing essential household tasks. As in most pulp SF by women, domestic labour is greatly simplified with technology, and the routine drudgery of the kitchen is dispensed with entirely as the essence of food is inhaled rather than consumed.

As in "The Brain of the Planet," it is evident that thought transference or telepathy assumes a position of central importance in Lorraine's imagined 28th century, and the text takes this principle even further to imagine a world where science and metaphysics have joined forces to enable "the so-called 'creation of matter' through the materialization of thought."[24] Lorraine's firm belief in the virtually unlimited power of thought can be ascribed to her lifelong interest in the occult 'sciences,' and investigative biographies have unearthed evidence of her close association with the Theosophical movement which upheld that the harmonising of minds could unlock latent human potencies and make thought transmission possible.[25] However, telepathic communication as a utopian aspiration is not specific to Lorraine's works; it appears regularly in SF texts by women, as evinced by all three stories discussed in this chapter. The recurrence of this trope can once again be explained by popular understandings of evolutionary theory in the late nineteenth and early twentieth centuries. Patrick B. Sharp

[23] Lorraine, 257.
[24] Lorraine, 253.
[25] See: Joshua Blu Buhs, "Lilith Lorraine as a Fortean," *From an Oblique Angle*, 10 February 2015, http://www.joshuablubuhs.com/blog/lilith-lorraine-as-a-fortean. The 'scientific' explanation for telepathy that Lorraine offers in her short stories is strikingly similar to that provided by Helena Petrovna Blavatsky in *The Key to Theosophy*: "The time is not far distant when the World of Science will be forced to acknowledge that there exists as much interaction between one mind and another, no matter at what distance, as between one body and another in closest contact. When two minds are sympathetically related, and the instruments through which they function are tuned to respond magnetically and electrically to one another, there is nothing which will prevent the transmission of thoughts from one to the other at will…" H. P. Blavatsky, *The Key to Theosophy* (Point Loma, California: Aryan Theosophical Press, 1907), 279.

notes that telepathy was commonly associated with evolutionary sophistication in pulp SF because Darwin linked "effective communication to an evolutionary hierarchy" by attributing "human superiority over 'lower animals' to intelligence and language."[26] Telepathy was thus deemed the logical next step to articulation through spoken language in that it could be more seamless, efficient, and transparent.

Roger Luckhurst has also drawn attention to the "persistent association of occult and telepathic sensitivity with femininity" and has rationalised this connection in evolutionary terms.[27] Luckhurst cites multiple sources from the turn of the century which argued that women were less evolved than men, especially when it came to their physical and intellectual capacities, because their primary task was to conserve energy for their reproductive functions. At the same time, women were seen as naturally aligned with the emotional and moral planes and were believed to have a greater capacity for sympathy and altruism. It is to be remembered that Darwin's account of human evolution in *The Descent of Man* presented human social instincts and moral qualities as highly complex products of natural selection that were rooted in the elements of love and sympathy. According to Darwin, sympathy was "one of the most important elements of the social instincts" that indicated a high level of evolutionary complexity and that could be further "strengthened by exercise or habit."[28] In terms of their greater capacity for sympathy, women could thus be regarded as having an evolutionary advantage over men. Luckhurst summarises these two strands of thought in the following words:

[26] Sharp, *Darwinian Feminism*, Chapter 4.
[27] Roger Luckhurst, *The Invention of Telepathy: 1870–1901* (Oxford: Oxford University Press, 2002), 214.
[28] Darwin, *Descent of Man*, Volume II, 393.

> (W)omen were at once behind and in advance of men, as conservative bearers of the instinct to reproduce, but improving on merely physical factors of survival by advancing the bounds of sympathetic community."[29]

Telepathy or the communication of minds was thus an extension of this feminine principle of sympathetic attunement and sensitivity; in fact, both sympathy and telepathy have their etymological roots in the Greek *pathos*. Female SF writers could therefore present thought transmission as a desirable evolutionary goal and utopian ideal that could complement the more traditionally valued (because traditionally masculine) attributes of physical robustness and intelligence. In this narrative, women are centred as active agents of evolutionary change, and Therius evokes the evolutionary language of progress in his statement: "We are not fallen gods … we are risen beasts."[30] While Emil Mundson articulates a similar sentiment in "Creatures of the Light," the quest for perfection is Lorraine's text is a collective and authentically utopian effort rather than the isolated enterprise of one mad scientist that is doomed to failure.

Emphasis on the powers of the mind also fits into the context of an era that witnessed the development and consolidation of psychoanalysis as a discipline. Therius notes how psychoanalytic investigation "delved down into the musty catacombs of our twisted brains" and unlocked the innate ability of the mind to conquer ageing and death by eternally renewing itself and rejuvenating the body.[31] Moreover, any "mental twists" causing temporary disharmony can be "straightened out" through psychoanalytic therapy, whereby individuals are "taken apart and re-assembled" by qualified specialists.[32] War, poverty, greed, bigotry, crime and other products of mental and

[29] Luckhurst, *The Invention of Telepathy*, 217.
[30] Lorraine, "Into the 28th Century," 253.
[31] Lorraine, 253.
[32] Lorraine, 254.

emotional perversion are thus relegated to the pre-utopian past, as are contagious disease and hereditary disorders, which have been eliminated by the tools of science. Institutional religion has also been discarded in favour of a belief in the benevolent and immanent presence of an eternal spirit. Government is minimal, with a hierarchy of elected officers supervising their respective domains and an elected monarch as a nominal figurehead to keep "the spirit of romance and the glamor of pageantry" alive.[33] Like other utopian thinkers, Lorraine also pays special attention to the education of the citizens of utopia. In her vision, education is the primary responsibility of the government, and it is carried out through a combination of athletic training, scholarly instruction, and technical skill development. Knowledge is imprinted on the mind during sleep through radiographic and phonographic lectures, and in waking hours every individual is trained by a psychologist to retrieve details of this passively acquired knowledge at will. Technical training entails the cultivation of "thought control and direction" skills that can then be used to run industries and create art. Practical awareness and "world brotherhood" is enhanced through a compulsory college curriculum that requires a year of travel during which students visit all the important centres of the World-State. Education is a lifelong enterprise for Lorraine's immortal population: "after every five years of service to the State, each citizen again enters school for the purpose of adding to his education such branches of learning as he may have neglected, and such new wisdom as may have been added to our racial store."[34]

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The system of marriage imagined in this textual version of 28th-century America bears examination in the light of the idea of 'companionate marriage' that was being

[33] Lorraine, 258.
[34] Lorraine, 258.

widely debated in the 1920s. An early definition of the specific sense of the emergent 'companionate' as opposed to the traditional 'family' is provided by Malcolm M. Knight in an article in the May 1924 issue of *Journal of Social Hygiene*. While the family is here understood in functional socio-economic terms as "the institution for regulating reproduction, early education, property inheritance, and some other things," the companionate is presented in more individualistic terms as "the state of lawful wedlock, entered into solely for companionship, and not contributing children to society."[35] Knight argues that while the institution of the family had remained largely unchallenged for centuries, new socio-economic and cultural developments had begun to facilitate prolonged or even permanent companionate arrangements not involving children. Among the causative factors identified by Knight, the entry of large numbers of women into the workforce and access to reasonably reliable birth control methods are notable. Knight also concedes that the creation and maintenance of the family had become a "heavy pecuniary burden" in modern times, thereby making it common for "the ablest strains of people" to prioritise individual goals over the social duty of reproduction.[36] Knight concludes his article by emphasising the need to recognise the companionate as a distinct institution and by calling for greater regulation of the companionate to prevent the decline of Western civilisation. He notes that while eugenics could be a partial solution, there was a greater need to incentivise the right kind of parenthood (white, middle-class) through economic measures such as reduced taxations.

[35] Malcolm M. Knight, "The Companionate and the Family: The Unobserved Division of an Historical Institution," *Journal of Social Hygiene* 10, no. 5 (May 1924): 258, http://reader.library.cornell.edu/docviewer/digital?id=hearth4732756_192_005#page/2/mode/1up.
[36] Knight, "The Companionate and the Family," 260.

Discussions on companionate marriage continued in the pages of the *Journal of Social Hygiene*[37] in the following years but veritably exploded in the public sphere through the contentious writings and statements of Denver reformer Judge Benjamin Barr Lindsey. Lindsey first spoke of the need to legally recognise companionate marriage in an article published in the February 1927 issue of *The Red Book Magazine*.[38] He proceeded to expand his ideas in his book *The Companionate Marriage*, published in collaboration with Wainwright Evans in 1927. The Preface of this book defines companionate marriage in the following terms:

> Companionate Marriage is legal marriage, with legalized Birth Control, and with the right to divorce by mutual consent for childless couples, usually without payment of alimony.[39]

While the basic elements in the definitions proffered by Knight and Lindsey are largely common, their emphases are different. While Knight speaks of an urgent need to institute measures favouring the family over the companionate, Lindsey insists on the need to legalise the companionate and make it openly available to all. He notes that modern marriages had already become companionate in that they involved the use of scientific contraception and could be terminated with mutually collusive divorces. Modern marriages were also already companionate in that they were founded on love, sexual intimacy, and emotional fulfilment, especially for couples who were not immediately

[37] See, for instance: E. A. Kirkpatrick, "Render unto Caesar," *Journal of Social Hygiene* 10, no. 8 (November 1924): 461–73, https://digital.library.cornell.edu/catalog/hearth4732756_192_008 and Paul Popenoe, "Family or Companionate?" *Journal of Social Hygiene* 11, no. 3 (March 1925): 129–38, https://digital.library.cornell.edu/catalog/hearth4732756_193_003.
[38] Ben B. Lindsey, "The Moral Revolt [Part 5]," *The Red Book Magazine* 48, no. 4 (February 1927): 40–5, 154–7. https://archive.org/details/sim_redbook_1927-02_48_4. The article was part of a series entitled "The Moral Revolt," published in 9 instalments from October 1926 to June 1927 and dealing with evolving changes in marital and sexual relationships. It is significant that the series was published in a magazine intended primarily for female readers.
[39] Ben B. Lindsey and Wainwright Evans, *The Companionate Marriage* (1927; Garden City: Garden City Publishing, 1929), xxiii, https://archive.org/details/companionatemarri032183mbp.

prepared to support a family (for reasons of "health, finances, temperament, etc.").[40] The only obstacle was that under the prevailing system, companionate marriages—despite being an evident and pervasive reality—were illegal on paper due to federal and state laws that forbade access to birth control and divorce by mutual consent (the latter being prohibited even in cases where there were no children to assume responsibility for). Lindsey sought to rectify this social hypocrisy. His unorthodox opinions were not palatable to reactionary factions, who criticised companionate marriage as an attack on the foundations and morals of the American family. Despite Lindsey's spirited protestations, companionate marriage frequently came to be conflated with trial marriage and free love, which in the popular consciousness notoriously suggested licensed promiscuity. Lindsey countered these puritanical critiques by pointing out how repressive systems often encouraged illicit "sexual lawlessness," and how companionate marriage with birth control could effectively discourage risky liaisons by creating a socially recognised and secure channel for the legitimate expression of sexual desire. Moreover, companionate marriages that proved to be stable and durable could eventually turn into procreative unions or "Family Marriage," but only after "the groundwork of a home had been laid."[41]

Lindsey's ideas on companionate marriage provoked strong public reactions, and soon there was a fictional response in the world of the SF pulps. The June 1928 issue of *Amazing Stories* published "A Biological Experiment" by David H. Keller. Keller was a practising psychiatrist whose works featured regularly in the Gernsback magazines and consistently revealed staunchly conservative ideological positions, particularly on issues such as gender and race. In "A Biological Experiment," Keller depicts companionate

[40] Lindsey, *Companionate Marriage*, 175.
[41] Lindsey, 153.

marriage as the norm in America in the year 3928, undertaken by partners who have the ability to support themselves individually and who consent to "an immediate and complete divorce" if they are unhappy living together.[42] The origins of this system are traced back to "just about two thousand years ago," when "a Judge, in what was then the United States, wrote a book about companionate marriage."[43] From this basic premise, the narrative extrapolates a social order where all individuals undergo compulsory sterilisation prior to marriage and are permitted to apply for a baby only after they are sure of the stability of their marriage. Moreover, babies are no longer born but are synthetically manufactured in special laboratories where human ovaries are maintained in artificial conditions to create the perfect atmosphere for the development of the embryo. These ovaries are extracted from young women who are deemed "nearly perfect in every way," and while the women are compensated for their contribution, they are not really given a choice. Keller's thoughts on such a system are depicted through his presentation of Dr. Hardener Gowers and Dr. Helen Sellers Gowers—both celebrated biologists who are in a companionate marriage and who apply for a baby at the age of 40 after having securely established their scientific reputations. They have the resources to hire three competent nurses to supervise the care of the four-year-old child they have applied for in order to avoid the trouble of raising an infant. Dr. Helen Gowers states that she is "willing to give as much as an hour a day to the child" and will "arrange a perfect program" to keep the nurses busy. The narrative makes a passing note of the "far-a-way look" and "sad eyes" of her husband.[44]

[42] David H. Keller, "A Biological Experiment," *Amazing Stories* 3, no. 3 (June 1928): 234, https://archive.org/details/Amazing_Stories_v03n03_1928-06_-ifcibc_cape1736/mode/2up.
[43] Keller, "A Biological Experiment," 235.
[44] Keller, 234.

In multiple ways, the future society that Keller portrays is strikingly similar to the utopian worlds created by female writers for the early SF pulps.[45] The previous chapter has already made note of Jane Donawerth's observation that women writers of SF repeatedly engaged in the radical revision or even abolition of childbirth and, by extension, its associated physical dangers. They often did so by displacing the function of birth from the female body to the scientifically managed laboratory, as evinced in many of the stories studied in this thesis. These writers also imagined a reduction and corresponding professionalisation of childrearing, following the model of the early feminist utopias. Another common feature was the transformation of domestic duties through technology, liberating women to pursue professions and public responsibilities outside the home and even to enter the masculine domain of science.[46] In "A Biological Experiment," artificial reproduction and professionalised childcare have created a world of equal opportunity for men and women. Dr. Helen Gowers is extremely committed to her scientific career and research and is just as accomplished as her husband. The pressure of the 'biological clock' no longer exists for her as the creation of the family can be comfortably deferred to middle age. The availability of synthetic food has also freed women from the daily drudgery of the kitchen. Poverty and disease have been eliminated, and all individuals are perfect specimens. Yet, the narrative insists, no one in this 'Golden Age' is happy. The two central characters of the story, Leuson Hubler and Elizabeth Sellers, are an "atavistic" younger couple who romanticise the ways of the past and idealise the traditional notion of love as sacrifice. They flee from modern civilization to avoid the imminent oophorectomy procedure threatening Elizabeth and retreat to a

[45] The editorial commentary makes note of the story's potential appeal to a female readership: "We urge our male readers to let their female friends read the story. They will not regret having read it." *Amazing Stories* 3, no. 3 (June 1928): 232.
[46] For Donawerth's discussions on SF by female writers in the pulps, refer to: Donawerth, "Science Fiction by Women in the Early Pulps," 137–52; and Donawerth, *Frankenstein's Daughters*, 13–5.

pastoral landscape where they can live as "savages," restoring the sexual division of labour that prevailed twenty centuries ago. Elizabeth eventually has a "natural" pregnancy and gives birth to a daughter. The fact that she dies in childbirth seems to be only a minor inconvenience as Leuson returns to the city with his new-'born' baby, presenting her triumphantly at an annual meeting of female leaders. The story ends with the women unanimously accepting their traditional sex roles as they reject companionate marriage and artificial reproduction and proclaim in unison: "Give us back our homes, our husbands, and our babies!"[47]

The reason for this lengthy detour is to highlight by contrast the progressive perspectives offered specifically by female writers in their thought experiments. In Lorraine's "Into the 28th Century," there is no trace of the alarm that Keller's protagonists express at the erosion of the traditional family unit. Iris, who offers a detailed exposition of the institution of marriage in Nirvania, describes a largely monogamous heterosexual system based on mutual love and companionship—a system that works with perfection in a world where thought discernment and transmission are in practice, precluding all forms of misunderstanding and deception. This may be regarded as companionate marriage in its most idealised form. Although Iris acknowledges the existence of atypical minds that do not adapt well to monogamy, she also states: "you will find our world a world of homes and our marriages enduring."[48] Her statements are reminiscent of Judge Lindsey's contention that while companionate marriages involve a consciousness of the possibility of failure, they are nevertheless based on a "vision of permanence", with divorce reserved only for situations of irremediable incompatibility.[49] Lorraine does not mention divorce, presumably because it is deemed unnecessary in a

[47] Keller, "A Biological Experiment," 241.
[48] Lorraine, "Into the 28th Century," 258.
[49] Lindsey, *Companionate Marriage*, 177.

eutopian society where perfect interpersonal harmony and "comradeship" prevail. It is also to be noted that most marriages in Nirvania are non-procreative, as the numbers of an immortal population must be tightly regulated to avoid overcrowding. Lorraine thereby moves away from the traditional idea that the creation of a family through reproduction is the primary goal of a marital relationship, and this too is in tune with Lindsey's vision of companionate marriage.

Lorraine's attitude towards non-reproductive sex is, however, more ambiguous. The decision to retain monogamous marriage, for instance, is a guard against uninhibited sexual permissiveness (a fear that companionate marriage was frequently associated with). Moreover, in Lorraine's eutopia, procreation is prevented not with the purposeful usage of scientific birth control methods but with the avoidance of sexual intercourse and the conscious mental redirection of sexual and reproductive energies towards rejuvenation. Iris notes that the "old relations of the sexes" have "practically ceased," and that "sex attraction" has been "transmuted to the higher planes of soul expression."[50] What this implies is not abstinence, repression, or self-denial but rather a spiritual sublimation of the sexual impulse and the active channelling of that impulse in non-procreative directions. On the one hand, this seems to be an idealistic actualisation of the "spiritualized discourse on sexuality" frequently used by progressive reformers and advocates of birth control.[51] Lindsey, for instance, argues that "sex emotion… is an exalted and spiritual thing,"[52] while Sanger consistently places the physical and spiritual aspects of sex in tandem in works such as *Woman and the New Race* and *Happiness in Marriage*. On the other hand, the transmutation of sexual intimacy to the spiritual plane

[50] Lorraine, "Into the 28th Century," 258.
[51] Layne Parish Craig, *When Sex Changed: Birth Control Politics and Literature between the World Wars* (New Brunswick, NJ: Rutgers University Press, 2013), 16.
[52] Lindsey, *Companionate Marriage*, 156.

and the avoidance of any explicit mention of scientific contraception is remarkable in the context of a historical era when birth control information had reached unprecedented levels of public circulation and acceptance, especially in feminist and socialist circles. Lorraine's position here is reminiscent of the ambiguous position on birth control adopted by the likes of Charlotte Perkins Gilman in earlier decades—a position that conflicted with the more radical, sex-positive ideas of Emma Goldman and Margaret Sanger (although Sanger would shift to a more conservative position in subsequent decades). While Gilman was an ardent proponent of voluntary motherhood, she steadfastly upheld traditional sexual morality in her insistence that "the normal purpose of sex-union is reproduction," and that the "free and unlimited indulgence" of the sex function was "an abnormal condition." In Gilman's opinion, birth control was acceptable only as a temporary measure while the human race gradually and consciously transformed itself "in physical inclination, in emotion, and in idea" to achieve the highest state of individual and collective development. In the process, they would "breed out the tendency to excessive indulgence" until the sexual impulse would be experienced only for "a brief annual period," thereby ostensibly making the need for contraception redundant. (One may note the logical fallacy implicit in this argument, since an annual manifestation of sexual desire would not solve the problem of frequent and involuntary pregnancies.) The result, according to Gilman, would not be an "emasculate or e-feminate race," nor one "violently repressing its desires," but "a race whose entire standard has changed"—"the element of sex-desire greatly reduced in proportion to the higher development of parental activities worthy of our race."[53] Lorraine seems to echo a similar stance by making non-procreative sex redundant and by providing a

[53] Charlotte Perkins Gilman, "Birth Control," *The Forerunner* 6, no. 7 (July 1915): 180, https://babel.hathitrust.org/cgi/pt?id=mdp.39015029837609&seq=187&q1=birth+control.

compensatory substitute for motherhood. Iris notes that motherhood has not been eliminated but rather enlarged by according supremacy to women in the realm of public government: "Woman has found her compensation for motherhood as the mother of the World-State."[54]

In stark contrast to the idealisation of 'natural' motherhood in Keller's "A Biological Experiment," Lorraine's literary utopias (including "Into the 28th Century" and "A Celestial Visitor") embrace artificial reproductive technology for its ability to liberate women from the dangers of childbirth—a grim reality that Keller's story brushes off as a necessary sacrifice. As Iris explains, "Birth is entirely different from the horror that it was in your day. The embryo is removed from the womb shortly after conception and brought to perfect maturity in an incubator."[55] However, as in most early feminist utopias, reproduction is inextricably intertwined with eugenics, beginning with negative eugenics in the form of the sterilisation of the 'unfit,' and culminating in positive eugenics through the deliberate preservation and multiplication of exceptionally "superior strains" in each race to form a super-race. Patrick B. Sharp observes how "Lorraine's story engages in a type of evolutionary essentialism, where each… race has an essence that can be modified into a more utopian form," with "the best of each race melded to form a kind of rainbow eugenics that attempts to reject the idea of white supremacy."[56] The attempt remains suspect, as indicated by the description of the mayor of Nirvania, whose features combine "the noblest qualities of the ancient Greek, the North American Indian, the Oriental, and the Anglo-Saxon."[57] Africans are pointedly excluded from this account, implying, in Sharp's words, "that there was nothing in their

[54] Lorraine, "Into the 28th Century," 257.
[55] Lorraine, 258.
[56] Sharp, *Darwinian Feminism*, Chapter 4.
[57] Lorraine, "Into the 28th Century," 261.

race worth preserving."[58] Lorraine therefore shares the inherent racial biases of her male and female contemporaries in the world of pulp SF, and the utopian vision is one of racial homogeneity rather than racial equality.

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Among other utopian conventions that Lorraine incorporates in her story, Anthony's guided tour through the physical space of utopia and the romantic relationship that develops between him and the utopian citizen Iris are worthy of mention. Lorraine's spatial description of Nirvania is exuberantly idealised—she imagines it as an idyllic paradise amalgamating luxurious classical, Oriental, and modern elements, with "beauty and utility… harmonized into one synthetic whole."[59] Anthony spends his first night in a "sleeping porch" situated amidst lush woodlands constructed artificially on the rooftop of a building. He bathes in a "crystal pool" with other locals of both sexes who are unashamed of their nudity, and he subsequently adopts their silken garments until there is "not so much difference between my appearance and that of the other young people of this paradise."[60] However, the euphoric process of assimilation is obstructed by a twist in the tale: in the course of their tour of inspection across the city, they stumble upon a foreboding medieval-esque castle crowning an old geographical landmark tellingly named "The Hill of the Mad Inventor." It is revealed that the man who owned the castle, a brilliant scientist named Peter Holden, was from Anthony's time and was ostracised by the scientific academy for his experiments with the fourth dimension. Anthony recognises the name and resolves to examine the ruins of Holden's laboratory despite Iris's evident reluctance. As they enter the laboratory that is akin to "the den of a

[58] Sharp, Darwinian Feminism, Chapter 4.
[59] Lorraine, 265.
[60] Lorraine, 263.

medieval alchemist," Anthony's attention is arrested by a sinister-looking box, and his curiosity propels him to force open the box and inhale the "glittering yellow powder" contained within. Immediately he finds himself back in his time, faced with the questioning of an irate Peter Holden. The narrative ends on an uncertain note with Holden promising to refashion the powder so that Anthony may be transported again to the Nirvania of Iris's time. While this final section is largely unremarkable and does not add significantly to Lorraine's utopian vision beyond its element of plot intrigue, it is perhaps a reminder that utopia remains just a little out of reach to the contemporary reader, remote but potentially attainable. It also stands testament to the enduring popularity of the mad scientist trope in early pulp SF by women, so much so that even a utopian narrative is deemed incomplete without it.

The chief interest of Lorraine's story lies not in its time-travel twists, scientific marvels, and mad scientists, but in its ability to comprehensively map the contours of a feminist utopia without obfuscating the profoundly political transitional process that may lead to the concretisation of such a utopia. Despite its imaginative extravagance and metaphysically oriented account of scientific progress, Lorraine's utopian thought is firmly rooted in socialist and feminist discourses and outlines a programme of intentional and concerted political action. Such an approach is uncommon in the world of the SF pulp magazines and would become increasingly rare as stories of super-science and space opera took centre stage in the 1930s and 40s. The dialogic structure of the text encourages the reader to critically examine socio-political issues, and the idea of utopia as a work in progress is acknowledged through the presentation of education as a lifelong process of self-development. Lorraine also precludes any association of her utopia with stagnation, bland perfection, and imminent decadence—a common anti-utopian critique. Iris directs Anthony's gaze outwards to "the Infinite—worlds innumerable, space

illimitable" that lies beyond, waiting to be explored. Communication has already been established with the civilizations of Mars and Venus, and the utopians are determined to continue until they have grasped "all life, all time and all being"—an impossibly vast prospect.[61] Lorraine's Golden Age is thus Wells's Modern Utopia, not static but kinetic, not "a permanent state" but "a hopeful stage, leading to a long ascent of stages."[62]

2.2. Parallel Dimensions: Feminist Utopia and the Battle of the Sexes in M. F. Rupert's "Via the Hewitt Ray"

"Via the Hewitt Ray," which appeared in the Spring 1930 issue of *Science Wonder Quarterly,* was accompanied by a facial sketch of the ambiguously named author M. F. Rupert. The sketch identifies Rupert as another enigmatic female writer of pulp SF who published one story and then practically disappeared from the scene, barring a brief reappearance in the Letters section of the July 1930 issue of *Wonder Stories* where she is revealed to have been a resident of Chicago, Illinois. The paucity of biographical information or literary output does not, however, detract from the interest of "Via the Hewitt Ray," which falls within the scope of this study for multiple reasons. To begin with, the story throws light on certain historical developments in the American feminist movement in the crucial decade following the enfranchisement of women in 1920. Secondly, it engages in active feminist utopian world building and is therefore fruitfully studied alongside similar contemporary texts by Lilith Lorraine, Leslie F. Stone, and Minna Irving. Thirdly, in the course of this world building, the story provides alternative models of sexual and reproductive behaviour that challenge existing practices and

[61] Lorraine, 259.
[62] Wells, *A Modern Utopia*, 5.

assumptions regarding gender-specific roles. Finally, the story contributes to the popular SF trope of what Joanna Russ has called "the battle of the sexes," even as it does so with a distinctly feminist edge.[63]

"Via the Hewitt Ray" is set in the near future, and the scientific premise on which the plot is constructed is fairly conventional in the pulp SF arena. Shortly after inventing a light-wave receiving machine, the physician John J. Hewitt begins to notice an unusual arrangement of spectral lines on the screen at a set time every day. A series of subsequent experiments lead him to the conclusion that the spectral lines are messages transmitted by intelligent beings dwelling in the fourth dimension. In his determination to establish physical contact with the senders, he deploys a previous discovery of his called the Hewitt Ray that has the ability to transfer matter across long distances at nearly the speed of light. He also leaves behind a letter for his daughter, Lucile Hewitt, explaining the circumstances of his departure and instructing her to publish the manuscript containing details of the experiment should he fail to return within a year. Interestingly, Lucile is depicted as a college-educated and "self-supporting" young woman who, at the age of 26, is the pilot of a huge commercial airliner. In an inversion of the typical SF adventure plot that involves a male hero rescuing a hapless heroine, Lucile proceeds to venture into the unknown world of the fourth dimension at great personal risk in order to bring her father back. Although she openly confesses that she is not "scientifically inclined," she enlists the aid of her former classmate Marion Wells, "who was already successful in a scientific career," having invented "clean, easy, and never-failing atomic household heaters."[64] Marion meticulously studies John Hewitt's laboratory notes and soon

[63] Joanna Russ, "*Amor Vincit Foeminam*: The Battle of the Sexes in Science Fiction," *Science Fiction Studies* 7, no. 1 (March 1980): 2–15, https://www.jstor.org/stable/4239306.
[64] M. F. Rupert, "Via the Hewitt Ray," *Science Wonder Quarterly* 1, no. 3 (Spring 1930): 373, https://archive.org/details/Science_Wonder_Quarterly_v01n03_1930-Spring/page/n83/mode/1up.

succeeds in creating a replica of the Hewitt Ray projector, which enables Lucile to undertake her daring journey. In the process, she emerges as one of the earliest models of female independence and heroism in pulp SF. In fact, both Lucile and Marion are representatives of a future social order that has dismantled gender-segregated roles in favour of a policy of equal opportunity in the professional sphere.

Lucile Hewitt's occupation as a pilot acquires special resonance when considered in relation to the spirit of "airmindedness" that was thought to characterise America in the 1920s and 1930s. As Joseph J. Corn explains, "To be "airminded," as contemporaries used the word, meant having enthusiasm for airplanes, believing in their potential to better human life, and supporting aviation development."[65] Aviation in this worldview was inherently aspirational and potentially utopian, even messianic; by physically transcending the earthbound realities of social turmoil, the phenomenon of flight symbolically ushered in the promise of a better future. In his book, *The Winged Gospel*, Corn discusses at length how aviation was not merely a technology; it represented the machine as messiah, carrying social, cultural, political, moral, and spiritual connotations. This airmindedness was coupled with the conviction that the airplane would be a perfectly democratic vehicle—that in the future, everyone would fly. The sky was the domain of absolute equality and freedom. Through an extension of this logic, aviation came to have significant implications for women's rights, especially as increasing numbers of women took up flying and became highly visible in mass media platforms. As Corn explains,

[65] Joseph J. Corn, *The Winged Gospel: America's Romance with Aviation, 1900–1950* (New York: Oxford University Press, 1983), 12. Charles A. Lindbergh's solo New York to Paris flight in 1927 was a watershed event that fuelled the airmindedness of the American populace.

> The attraction of women to aviation was a strong one, for no activity better symbolized the freedom and power which was lacking in their daily lives. As pilots women experienced feelings of strength, mastery, and confidence which… seemed delicious indeed. It was this giddy sense of liberation they found in the sky which prompted so many women to predict that the new field of aviation promised great opportunities to their sex in the future.[66]

By the late 1920s and early 1930s, female pilots such as Amelia Earhart, Louise Thaden, Ruth Nichols, and Pancho Barnes had become household names (despite the sexist prejudices about the "lady flier" that continued to prevail), and in 1928 Earhart famously became the first woman to fly across the Atlantic Ocean, albeit as logkeeper rather than pilot. In 1929, a group of licensed female pilots came together to form the Ninety-Nines, an all-female organisation that sought to support and promote the female presence in aviation and protest gender discrimination of all forms. The First National Women's Air Derby was organised in the same year, generating widespread public interest and enthusiasm. It is no wonder, then, that the dream of the flying woman that captured the popular imagination in the 1920s appears regularly in the pulp utopias authored by women, sometimes taking the form of the woman with wings,[67] and, at other times, of the woman operating a machine with mechanical wings. Lucile Hewitt with her "flying togs," her adventure-seeking spirit, and her stylish bravado is strikingly reminiscent of contemporary images of Earhart in popular media, which in turn engendered the most

[66] Corn, *The Winged Gospel*, 73.

[67] Such examples abound in early pulp SF by women. Minna Irving's "The Moon Woman" presents a dream vision depicting a future race of women who have developed "wings like the angels," vastly superior to the "clumsy airplane" of the author's time, and have created their own utopian world by uniting the civilizations of the Earth and the Moon. See: Minna Irving, "The Moon Woman: A Tale of the Future," *Amazing Stories* 4, no. 8 (November 1929): 754. Lilith Lorraine's "Into the 28th Century" has "numbers of people who actually flew through the air, equipped with artificial wings of gorgeous plumage that gave them the appearance of great birds." See: Lorraine, "Into the 28th Century," 261. Leslie F. Stone's "Men with Wings" and "Women with Wings" are other notable instances that will be discussed in the next section.

recognisable image of the aviatrix in Western history. The previous chapter has also already discussed another female pilot who invites comparison with Lucile—Sylvia Danforth in Harris's "The Ape Cycle," a character who appears in the same issue of *Science Wonder Quarterly*.

In her study of Amelia Earhart's life through the lens of modern feminism, Susan Ware writes:

> In the 1920s and 1930s Amelia Earhart helped sustain the momentum of the women's movement in a period without active feminism. By her widely publicized individual accomplishments and clearly articulated feminist ideology, Amelia Earhart demonstrated that women could be autonomous human beings, could live life on their own terms, and could overcome conventional barriers. This message, while not always specifically labeled "feminism," provided a highly individualistic route for exceptional women to excel. This model of female independence drawn from popular culture kept feminism alive in the interwar period, a time in which it is often assumed to have been dormant, off course, or irrelevant.[68]

Much has been written on the putative decline of organised feminism in America in the 1920s after the political goal of women's suffrage had been achieved. Estelle Freedman has argued that during the nineteenth century, the creation and sustenance of a separate female public sphere through "female institution building" (rooted in the separate-spheres ideology of gender) was an important strategy for the American women's movement that facilitated the mobilisation of women from diverse backgrounds and

[68] Susan Ware, *Still Missing: Amelia Earhart and the Search for Modern Feminism* (New York: Norton, 1993), 24–5.

enabled them to work collectively towards political activism and social reform. However, in the 1920s, these diverse groups of women who had hitherto found common ground in the suffrage movement were unable to form a strong political block due to the lack of any consensus regarding political goals. As a result, the strategy of separatist activism was replaced by individualist efforts at assimilation, with the "new women" of the era increasingly attempting to achieve socio-political, professional, and sexual equality with men by "adopting men's values and integrating into their institutions."[69] This new strategy had the advantage of acknowledging women's heterogeneity and challenging restrictive gender roles, but it had limited success because existing male-dominated institutions continued to be resistant to equal and meaningful female inclusion that went beyond token representation. In addition, it had the effect of weakening the feminist political networks and ideological solidarity that had made the suffrage movement successful. Nancy F. Cott describes individualism as "a progressive but partial demand for women" that "produced outstanding models of individual accomplishment" but "could not engender a program for change in the position of women as a group."[70] The domain of aviation was no exception to this rule. If figures like Earhart were exceptional female achievers who proved that women could enter and acquire professional competence in traditionally masculine domains, they also had to accept the culturally feminine responsibility of "domesticating the sky" and nurturing public confidence in the safety and ease of aviation.[71] Even the fictional Lucile Hewitt seems to share this responsibility when she cites statistics demonstrating that "a plane is ten percent safer with a woman pilot than with a man."[72] Another chief contributor to the

[69] Estelle Freedman, "Separatism as Strategy: Female Institution Building and American Feminism, 1870–1930," *Feminist Studies* 5, no. 3 (Autumn 1979): 514, https://www.jstor.org/stable/3177511.
[70] Nancy F. Cott, *The Grounding of Modern Feminism* (New Haven: Yale University Press, 1987), 281.
[71] Corn, *The Winged Gospel*, 88.
[72] Rupert, "Via the Hewitt Ray," 373.

individualist, lifestyle ideal of feminism was, in Lisa Duggan's words, "the reinterpretation of the meaning of female freedom by advertisers and commercial interests."[73] The flapper, the "new icon of womanhood" in the 1920s who was a product of and an enthusiastic participant in consumer culture, was "free" to dress as she pleased, to smoke and drink, to drive automobiles, to pursue pleasure, and to look for fulfilment in heterosexual courtship and marriage. At the same time, she "eschewed serious political involvement, female company, and 'old maids.'"[74]

It is my contention that "Via the Hewitt Ray" stages a confrontation between the two approaches to feminism discussed above. Lucile Hewitt, on the one hand, typifies the individualist ethos of the 1920s (albeit extrapolated into the future) with its emphasis on female autonomy and equal rights. As an aviator who steps into the fourth dimension with a pistol and cartridges strapped to her waist, she blurs the distinction between masculine and feminine roles, affirming the contemporary belief that there was nothing that a woman could not do. Rupert takes care to mention that Lucile is armed not only with her phallic weapon but also with packets of cigarettes—a reminder of the Torches of Freedom campaign that unfolded in 1929 to encourage female smoking, which became a symbol of taboo-defying independence. On the other hand, however, is the female civilization that Lucile stumbles upon after reaching the fourth dimension, a civilization based on the principles of exclusively female community and collective (even militant) action, and therefore reminiscent of the older separatist model of women's political activism. In the process, the text encourages a comparative critical assessment of these two different ideological stances on the women's movement and

[73] Lisa Duggan, "The Social Enforcement of Heterosexuality and Lesbian Resistance in the 1920s," in *Class, Race, and Sex: The Dynamics of Control*, ed. Amy Swerdlow and Hanna Lessinger (Boston, Mass.: Barnard College Women's Center, 1983), 78.
[74] Duggan, "The Social Enforcement of Heterosexuality," 79.

their relative merits, particularly in terms of their implications for women as individuals and as a group. The exploration occurs through a "battle of the sexes" plot that unfolds as the narrative progresses and that sheds light on the "two opposing yet coexistent caricatures" that feminists had to contend with in the 1920s: "the one, that feminism tried to make women over into men, the other, that feminism set women against men in deadly sex antagonism."[75]

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The world of the fourth dimension turns out to be a "veritable fairyland" with its red sun, pink sky, and scarlet trees, but its lived reality is marked by conflict and warfare between the creatures of the First, Second, and Third Evolutionary Planes (once again evidence of the strong Darwinian influence in pulp SF). While Lucile's initial encounter is with the "monstrous" creatures of the first plane who lie at the intersection of man and animal and who are pronounced to be "rank savages," she soon meets Mavia, the impressive chief of the civilization of the second plane that is composed almost entirely of women. It is also revealed that the women of the second plane are on the cusp of waging a war of extermination against their deadly enemies—the "horrible grotesque creatures" of the third plane, whose intellectual and technological superiority are evinced by their "enormous heads" and "tiny weak bodies" that have to be carried around by clever machines.[76] We are again reminded of Wells's large-headed Martians and their many fictional progeny in the pulp magazines—a subject already discussed at length in the first chapter. It is therefore suggested that the women of the second plane are exemplars of evolutionary fitness and balance, and the civilization they have built shares many similarities with those found in the textual tradition of the single-gender feminist

[75] Cott, *The Grounding of Modern Feminism*, 271.
[76] Rupert, "Via the Hewitt Ray," 378.

utopia. Mavia seems to confirm this when she asserts: "we are quite content to remain on our present evolutionary plane with which we are very well satisfied. Nevertheless, we shall probably have to exterminate them for the safety of our own race."[77] Mavia also becomes the SF counterpart of the utopian guide as she introduces Lucile to the society of the second plane, although the utopia we encounter in the text is admittedly an ambiguous one (a statement that can justifiably be applied to most fictional utopias).

In her influential analysis of battle-of-the-sexes narratives in SF (primarily by male authors), Joanna Russ identifies certain recurring patterns. Most such stories start out with the actuality or the imminent threat of female rule, which comes into being as a result of mass male extinction, female withdrawal, or active female rebellion. In "Via the Hewitt Ray," it is the last scenario, as explained by Mavia:

> A very long time ago, many centuries in fact, the men were the ruling sex of this plane, but gradually the women demanded equal rights and once we gained a footing, it wasn't long before we were ruling the men. Those were bitter and bloody days. We call them in history 'The Sex War Epoch.'
>
> Eventually the women won, and we destroyed millions of the despised masculine sex. For untold centuries they had kept women subjugated and we finally got our revenge.[78]

The open tone of hostility and contempt in these lines and the violence of the takeover are reflections of the contemporary patriarchal fear that women would not be satisfied with equality but would in time desire supremacy, gradually reducing men to redundancy. It is this fear that drives Wallace G. West's "The Last Man," which predates

[77] Rupert, 378.
[78] Rupert, 377.

"Via the Hewitt Ray" by a year and where the establishment of a mono-sexual world takes place in a similar manner:

> The enormous release of feminine energy in the twentieth to thirtieth centuries, due to the increased life span and the fact that the world had been populated to such an extent that women no longer were required to spend most of their time bearing children, had resulted in more and more usurpation by women of what had been considered purely masculine endeavors and the proper occupations of the male sex.
>
> Gradually, and without organized resistance from the "stronger" sex, women, with their unused, super-abundant energy, had taken over the work of the world. … Having lost the mastery of the world, the men found themselves helpless and in the way. Slowly but steadily they were exterminated by the ambitious females.[79]

The same fear resurfaces in David H. Keller's "The Feminine Metamorphosis" where five thousand of the world's most brilliant women, indignant at a socio-economic structure that systematically and unfairly excludes them from professional opportunities, decide to transition into men by injecting themselves with a sex-change serum extracted from the gonads of Chinese men. They gradually assume control of most major corporations, start selling a maternity food that enhances the female birth rate while decreasing male births, and fund parthenogenesis research as part of their comprehensive project to realise the "dream of a manless world."[80]

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[79] Wallace G. West, "The Last Man," *Amazing Stories* 3, no. 11 (February 1929): 1032, https://archive.org/details/Amazing_Stories_v03n11_1929-02_cape1736-David_V/page/n71/mode/1up.
[80] David H. Keller, "The Feminine Metamorphosis," *Science Wonder Stories* 1, no. 3 (August 1929): 260, https://archive.org/details/Science_Wonder_Stories_v01n03_1929-08.Stellar/page/n55/mode/1up.

It goes without saying that most such stories, when handled by male authors, culminate in the inevitability of male victory. Justine Larbalestier writes that the very objective of such narratives is to demonstrate that "female rule is misrule" and to set things right by "restor[ing] male rule."[81] West's story concludes with an atavistic heterosexual couple blowing up the birth factory and surviving as the Adam and Eve of a new age who will naturally beget "a new and finer race."[82] Likewise, in "The Feminine Metamorphosis," not only are the plans of female dominion decisively thwarted, but the women-turned-men are also punished for their unnatural transgressions by being irremediably infected with the syphilitic bacteria that lay dormant in the Chinese population from which they obtained the androgens—a climax that is undoubtedly intended to be read as a form of divine retribution. At the same time, the metamorphosed women are paternalistically berated for their revolt against the natural gendered order and reminded of their proper roles as wives, mothers, and daughters. To quote Russ, "Although women in these stories constantly plan to do away with men, men (it seems) are not willing to do away with women—that is, do without women."[83] Another common insinuation in the stories is that women without men lose their feminine charms, becoming either sexless like the "angular, narrow-hipped, flat-breasted and un-beautiful" women in West's story, or becoming female men like the characters in Keller's story.[84] There is perhaps an important point to be made here about the socially constructed nature of conventional gendered behaviour, but the stories largely miss or gloss over this point, presenting their 'unfeminine' women as 'unnatural' aberrations.

[81] Justine Larbalestier, *The Battle of the Sexes in Science Fiction* (Middletown, CT: Wesleyan University Press, 2002), 40.
[82] West, "The Last Man," 1040.
[83] Russ, "*Amor Vincit Foeminam*," 3.
[84] West, "The Last Man," 1032.

Towards the end of "*Amor Vincit Foeminam*," Russ contrasts the old-fashioned battle-of-the-sexes texts with a genre that she identifies as a more recent (that is, late-twentieth-century) phenomenon—the "feminist utopias" by primarily female authors. She describes this genre of writing in some detail to highlight the contrasts:

> The feminist utopias, to the degree that they are concerned with the "battle of the sexes" (and most are) see it as a long, one-sided massacre whose cause (not cure) is male supremacy. They are explicit about economics and politics, sexually permissive, demystifying about biology, emphatic about the necessity for female bonding, concerned with children…, non-urban, classless, communal, relatively peaceful while allowing room for female rage and female self-defense, and serious about the emotional and physical consequences of violence.[85]

No doubt Russ has in mind the resurgence of the feminist utopia during the 1960s and 1970s in the hands of authors such as Ursula K. Le Guin, James Tiptree Jr., Marge Piercy, Suzy McKee Charnas, and herself. However, in making this statement, Russ neglects the contributions of female pulp authors such as Rupert, whose story offers a strikingly different and ambivalent take on the predominant battle-of-the-sexes narrative. Most of the features that Russ associates with the late-twentieth-century feminist utopia are already partially observable in "Via the Hewitt Ray," which both resembles and departs from the texts published by Rupert's male counterparts while drawing from the long tradition of single-gender utopias.[86] The civilization of the second evolutionary plane in Rupert's story displays a high degree of technical, scientific, and medical

[85] Russ, "*Amor Vincit Foeminam*," 14.
[86] Larbalestier's study of the field also fails to take these pulp feminist experimentations into account; "Via the Hewitt Ray" is mentioned only in an appendix.

accomplishment. The women travel in airplanes and have specialised machines designed for thought communication. As in most fictional matriarchies, their forms of social organisation are highly regimented and strongly communitarian, prioritising the common good over individual interests. The 79 underground cities of the second plane are part of "one great whole," and each city has a tiered structure accommodating a variety of functions, including agriculture, food production, scientific research, healthcare, and manufacturing. Living quarters are utilitarian and efficient, with concealed fittings in the walls for meals and sanitation. Labour is primarily performed by a race of giant insect servants that have been domesticated by centuries of selective breeding and are perfectly trained for their designated tasks. The women do display some of the stereotypical deficiencies associated with the citizens of all-female worlds in pulp SF in that they are curiously unemotional, homogeneous, and ruthless in the pursuit of their collective goals, but they simultaneous defy the stereotypes of stasis and civilizational decline that were commonly regarded as the pitfalls of any all-female fictional society.

The most fascinating aspect of "Via the Hewitt Ray" lies in its delineation of the sexual and reproductive customs of the inhabitants of the second plane. In Mavia's exposition, it is explained that after their victory in the sex war, many women were keen on eliminating men altogether because they were "tired of child-bearing and child-rearing."[87] However, more judicious minds ultimately prevailed, and the surviving men were subjected to rigorous mental and physical tests in an attempt to assess their potential utility to the race. The end result is a categorisation of men into two groups based on functional distinction. The reproducing males are those who pass all the relevant tests and provide the genetic material for the perpetuation of the race. The men who have

[87] Rupert, "Via the Hewitt Ray," 378.

physical beauty but fail the intelligence exams are sterilised and made to perform recreational sexual functions. The second role is deemed necessary because the women in this society are allowed to bear only two children, after which they require an outlet for the channelling of their sexual desires. Both groups of men are divested of any real power and are merely "kept in luxury and idleness."[88] This kind of arrangement is highly unusual for two principal reasons. Firstly, most all-female utopias tend to imagine alternatives to heterosexual reproduction, either through technological interventions or by biological modifications that facilitate parthenogenesis (the latter option being memorably explored in utopian texts such as *Mizora* and *Herland*). While Mavia in "Via the Hewitt Ray" mentions that improved scientific methods have made it possible for women to reproduce "with a minimum of pain and time," Rupert chooses not to dispense with the biological imperative of heterosexual procreation. Parthenogenesis in any case is rarely portrayed in pulp SF authored by women, perhaps because the principle of evolutionary progress endorsed in such tales is incompatible with the prospect of human devolution to a form of reproduction observed primarily in the lower animals. This explains Mavia's statement that all attempts to procreate without male involvement resulted in "perfect monstrosities": "We did not want our race to deteriorate, so we went back to the age-old method."[89] Secondly, early twentieth-century single-gender worlds often discard the (hetero)sexual instinct entirely, either by sublimating the sexual impulse or by portraying a sexless population. The third alternative offered by same-sex relationships is almost never explored, primarily owing to the socio-cultural re-entrenchment of compulsory heterosexuality during this period and the concomitant suppression of female homosociality and "lesbianism" as "deviant, pathological,

[88] Rupert, 377.
[89] Rupert, 378.

misguided, and/or pathetic."[90] Rupert chooses a different path, albeit a controversial one, in having her utopian society cater to female sexual fulfilment and pleasure by reserving a class of men, suitably "curled and perfumed and elaborately dressed," purely for the function of non-procreative sex.[91] On the one hand, such strategies of sex-role reversal or inversion serve the purpose of defamiliarising normative sexual expectations and thereby challenging the sexist prescription that providing sexual pleasure was a wife's primary duty. On the other hand, the acknowledgement of female sexuality is reflective of a social context in which burgeoning disciplines such as psychology and sexology generated a new discourse that constructed women as "sexual beings" and defined orgasm as "a natural imperative for both sexes."[92] Notably, Rupert's utopia also does away with the institutional obligations of marriage, and family is replaced by female community. Birth control is rendered superfluous as the non-reproducing males are sterilised.

Rupert's presentation of such a singular sexual/reproductive structure is not dogmatic or uncritical; in fact, the text permits a juxtaposition of opposing viewpoints through the characters of Lucile and Mavia, without clearly endorsing any one side. Lucile is repulsed and morally outraged by the women's indulgence in casual recreational sex purely for the satisfaction of physical needs, without any scope for romantic or affective attachments, but the very mention of such a practice in the text is evidence of the permissive sexual mores of the 1920s that allowed women to engage in petting and premarital sex in flagrant defiance of repressive Victorian norms. Lucile's objections are reminiscent of the 1920s conservative backlash against this sexual

[90] Duggan, "Social Enforcement of Heterosexuality," 80.
[91] Rupert, 378.
[92] Rayna Rapp and Ellen Ross, "The Twenties' Backlash: Compulsory Heterosexuality, the Consumer Family and the Waning of Feminism," in *Class, Race, and Sex: The Dynamics of Control*, ed. Amy Swerdlow and Hanna Lessinger (Boston, Mass.: Barnard College Women's Center, 1983), 100.

liberalism and the perceived decline of moral standards, but Mavia calmly counters this perspective by pointing out that morality is inherently relative: "Well, to you with your present standard of morals it isn't right, but to us it is a highly efficient manner of settling our difficulties."[93] At the same time, Lucile's dismay at the plight of the "unfortunate" men and her sympathetic responsiveness to their state of enforced subjection is part of a strategy of cognitive estrangement that encourages a reconsideration of similarly oppressive gender relations in the real world, while suggesting that the women of the fourth dimension have merely inverted dominance-submission structures without meaningfully revising existing power structures. Another arena where this disjunction is at work is in the domain of child-rearing. As in most feminist utopias, children are raised communally in the city nurseries, but their care is entrusted to the giant insect servants in a system that severs the traditional emotional bonds of motherhood in favour of mechanical efficiency. Lucile's description of the children in the nurseries is illuminating:

> Poor little mites! They simply walked gravely around or played sedately with educational toys. There did not seem to be that spontaneous joy of living, characteristic of the children of our own world. The older children were grouped into classrooms where they were being educated for the particular career in life for which they were destined.[94]

According to Tom Moylan, communal representations of this nature in SF negotiate "anxieties in modern Western society about socialism, communism, and their ideologically dreaded collectivity that is considered destructive of that unstable

[93] Rupert, "Via the Hewitt Ray," 378.
[94] Rupert, 379.

conjunction in the modern subject, the individual entrepreneur and citizen."[95] What Lucile sees as joyless uniformity is to the women of the second dimension a commitment to the communitarian ideal over narrow individual desires and family ties, and the text accommodates this ideological difference.

The text reaches its climax in the final war between the inhabitants of the second and third evolutionary dimensions that takes place shortly after Lucile's reunion with her father. The "Thirds" lack clear signs of gender differentiation presumably due to their high degree of evolutionary complexity, but they are aligned squarely with a masculine scientific ethos that is turned to destructive ends. The text explicitly justifies the women's violent, virtually genocidal war as a necessary measure of self-defence. Among the many technologies used by the women (including the Hewitt Ray machine), the chief weapon is a destructive ray that is evidently extrapolated from contemporary research on radiation and that is similar to the kind of rays we have encountered in "Creatures of the Light" and "Into the 28th Century." Notably, not only does Lucile *not* baulk at the total annihilation of the Thirds, but she also wholeheartedly participates in their extermination, cheering wildly at each victory. Although John Hewitt describes her actions as those of a "blood-thirsty savage," she has no ethical qualms about the destruction of such "inhuman-looking creatures."[96] Hewitt's culturally preconditioned perception of the women as "a group of pretty ladies playing at politics" is also definitively disproved.[97] To me, the text seems to suggest that even though Lucile and her contemporaries subscribe to the ideology of equal rights and harmonious male-female relationships, women may, if necessary, act as a political collective and even

[95] Tom Moylan, *Scraps of the Untainted Sky: Science Fiction, Utopia, Dystopia* (Boulder, Colorado: Westview Press, 2000), 19.
[96] Rupert, "Via the Hewitt Ray," 383.
[97] Rupert, 381.

adopt militant expedients to attain their rightful ends or to defend themselves against masculine aggression. Unlike other battle-of-the-sexes texts, Rupert's narrative does not end with female defeat or the demonisation of female rule; rather, the utopian female society of the fourth dimension is allowed to exist as a viable alternative to the seemingly egalitarian world that Lucile belongs to, although the two dimensions are kept separate. The general import of the text is summed up in Marion's final statement: "I always thought we were emancipated… but this Mavia and her crowd are emancipated-plus."[98]

*

I will conclude the discussion of Rupert's text with a brief consideration of a sub-plot that revolves around the character of Joburza, an insubordinate reproducing male who rebels against the degrading role imposed on him and is consequently charged with sedition. Lucile finds herself attracted to this young man and, to protect him from the cruel punishments awaiting him, she acquires permission to take him back to the third dimension. In this context, Lucile elucidates her own outlook towards romantic relationships in terms that recall 1920s gender discourse:

> Back home I had had no time for the usual run of men, though I was by no means a man hater. Some day, if I ever met the right man, I knew I would marry. But somehow or other the men with whom I came into contact either left me cold or, if they did appeal to me, they usually aroused my antagonism by their airs of superiority. We women knew we were the equal of the men, but it was taking a long time and much hard work to convince men of our

[98] Rupert, 383.

> equality. I intended to marry no man who did not look upon me as his equal, mentally and physically.[99]

Even as she defends herself against the charge of man-hating that was frequently levied against feminists, she insists on new standards of equality in relations between the sexes. However, this creates something of a contradiction at the very end of the narrative when Lucile, back in the third dimension and exasperated at Joburza's continued timidity around women, urges him to claim his masculinity: "Why, don't you know that you are in every way superior to a woman?... Just say to yourself—'I am a *man*,' and *be* one! If a woman doesn't agree with you, bully her. She will like it."[100] Joburza, now John, responds to this flattering exhortation with a kiss that takes Lucile by surprise.

In her book *The Battle of the Sexes in Science Fiction*, Larbalestier observes that "the discourse of romance is a crucial shaping force in many of the battle of the sexes texts."[101] If single-gendered or sex-segregated worlds are deemed unnatural, then the restoration of the natural order demands a reinforcement of compulsory heterosexuality and a reincorporation of aberrant men and women into this heterosexual economy. This is intrinsic to the process of becoming a 'real' man or a 'real' woman. Larbalestier also follows Russ in noting that in such texts, a kiss—usually initiated by the male hero and serving as a prelude to the penetration of sexual intercourse—often marks "the turning point in the conversion from matriarchy to patriarchy," demonstrating that the pull of heterosexual love, and the ideology of female submission that it entails, is irresistible.[102] Such is the principle that Russ terms *amor vincit foeminam*—love conquers the woman. This explains why, in order to cement their relationship, Lucile has to convince Joburza

[99] Rupert, 380.
[100] Rupert, 420.
[101] Larbalestier, *Battle of the Sexes*, 10.
[102] Larbalestier, *Battle of the Sexes*, 60.

that he is innately superior, for that is an essential component of the myth of romantic love. However, Rupert qualifies this myth by making her readers aware that Lucile's profession of male superiority is merely a performance, for it is she who has to initiate Joburza into an awareness of his gender identity and his difference from the gendered other. (In a humorous aside, Lucile even calls upon her "sisters in feminism" to forgive the lies.) There is here an implicit consciousness that the ideology of romantic love is a culturally constructed discourse that requires men and women to assume certain predefined roles, even if these roles are not strictly egalitarian. In the process, Rupert also exposes the fundamental inadequacy of a purely individualist approach to feminism and the impossibility of truly equal partnership within a system that by definition enforces a particular gender hierarchy.

2.3. Defending the Matriarchy: Colonial Ideology and Anti-Colonial Resistance in Leslie F. Stone's "The Conquest of Gola"

If Clare Winger Harris was the pioneer who carved out a niche for women in the world of the SF pulps, Leslie F. Stone (1905–91) must be credited for having consolidated that position with her regular contributions to the Gernsback magazines in the late 1920s and 1930s. Brian Attebery appropriately describes her as "one of the genre's first female stars," and the letters columns of the magazines indicate that her stories were highly sought after.[103] She was the most prolific of the women SF writers before the advent of C. L. Moore and Leigh Brackett on the scene, and her fiction is notable for its consistent engagement with gender issues. Leslie F. Stone was a *nom de*

[103] Brian Attebery, "The Conquest of Gernsback: Leslie F. Stone and the Subversion of Science Fiction Tropes," in *Daughters of Earth: Feminist Science Fiction in the Twentieth Century*, ed. Justine Larbalestier (Middletown, CT: Wesleyan University Press, 2006), 50.

plume—she was really Leslie Frances Silberberg, née Rubenstein—but her first name was equivocal enough to put her, at least initially, "on the masculine side of the ledger."[104] Nevertheless, inspection of the magazines in which she published her stories makes it evident that her gender identity was no secret; she is frequently referred to as "Miss Stone" in editorial blurbs as well as fan letters. In her retrospective account of her career published posthumously in *Fantasy Commentator*, she states: "On his discovery of my gender, Hugo Gernsback accepted it quite amiably. In fact, I'm sure he liked the idea of a woman invading the field he had opened."[105] She did, however, allege that John W. Campbell Jr. rejected her story "Death Dallies Awhile" in 1937/8 with the remark: "I do not believe that women are capable of writing science-fiction—nor do I approve of it!"[106] Campbell would of course proceed to publish many female authors in *Astounding* so this comment may have been indicative of his early prejudices, but Stone testifies that she never submitted anything to him after that initial experience, and she would not publish anything significant after 1940.[107] By then, her legacy as a pulp author had already been firmly established, and she is now particularly remembered for her works of feminist fabulation such as "Men with Wings," "Women with Wings," and "Out of the Void," the last one being noteworthy for its presentation of a female astronaut masquerading as a man. Stone's best-known story, "The Conquest of Gola," has received more critical attention than most SF texts by women from the pulp era by virtue of its having been reprinted in at least ten different anthologies since its original publication in the April 1931 issue of *Wonder Stories*. As an early sex-war and gender-role-reversal

[104] Leslie F. Stone, "Day of the Pulps," *Fantasy Commentator* (#50) 9, no. 2 (Fall 1997): 101, https://fanac.org/fanzines/Fantasy_Comment/fantasy_commentator_50_v9n2_searles_1997-fa.pdf. The article is an adaptation of a speech delivered by Stone at the Balticon in 1974.
[105] Stone, "Day of the Pulps," 101.
[106] Stone, 101.
[107] The only story by Stone that was published in *Astounding* was "The Great Ones" (July 1937), at a time when F. Orlin Tremaine was still the editor.

story inventively narrated from the point of view of the matriarch of an alien civilization, it has earned its place in the history of utopian literature and is recognised as an important text for feminist critics.

Two elements of the text warrant attention at the outset—its setting and its narrative strategy. The opening line of the text amalgamates these two concerns:

> Hola, my daughters (sighed the Matriarch) it is true indeed, I am the only living one upon Gola who remembers the invasion of Detaxal, I alone of all my generation survive to recall vividly the sights and scenes of that past era.[108]

This statement is a prime example of cognitive estrangement at work, with its unfamiliar names and its allusion to a matriarchy that immediately establishes a sense of difference from the author's empirical environment, constituting "a strange newness, a *novum*."[109] A number of key facts are encapsulated in this one line: the setting is a planet named Gola; the narrator is Gola's matriarch addressing her "daughters"; the invaders are from a planet named Detaxal; and the invasion is situated firmly in the past, allowing the narrative to be ensconced within a storytelling framework. The first-person narrative voice also encourages us to develop a sense of identification with the teller at the outset, an identification that is difficult to shake off even after we learn that Detaxal is the Golans' name for "the third planet of the sun," while Gola "enwrapped by the cloud mists" is evidently intended to represent Venus.[110] Venus was of course a popular setting in planetary romances written in the tradition of Edgar Rice Burroughs's Martian

[108] Leslie F. Stone, "The Conquest of Gola," *Wonder Stories* 2, no. 11 (April 1931): 1278, https://archive.org/details/Wonder_Stories_v02n11_1931-04/page/n79/mode/1up.
[109] Suvin, *Metamorphoses of Science Fiction*, 4.
[110] Stone, "The Conquest of Gola," 1279, 1278.

adventures; its cloud-shrouded atmosphere precluded telescopic observation of its surface conditions but also fostered a 'what you will' approach by SF authors, who imagined the planet as housing a wide variety of complex ecologies and civilizations. The culturally pervasive association of Venus with femininity is also well-documented and a fundamental assumption in Stone's story, one that was possibly strengthened by the fact that the planet remained a veritable enigma until the 1960s, resolutely eluding the masculine-scientific gaze. This presumed unknowability was at the heart of the pulp SF urge to penetrate the mysteries of the feminised planet, but Stone subverts our conventional expectations by filtering the readers' point of view through that of the female/alien Golan, and by directing that overlapping gaze at the Earthmen who become the defamiliarised Detaxalans. The result is a confusion of the categories of self/other and male/female that thwarts all attempts at penetration (a strategy that sets a precedent for comparable experimentations by C. L. Moore, to be examined in the next chapter). Attebery notes that the narrative structure momentarily inducts the readers of the text into the group identity indicated by the phrase "we Golans," and Bedford and Silberberg extend this observation by pointing out how the readers "constitute an implied rhetorical audience that from start to finish is explicitly gendered female and identified as 'my daughters.'"[111] As a result, when the Golans succeed in preserving their cultural autonomy and sovereignty at the end of the story by destroying the Detaxalan invaders, the (Detaxalan) readers paradoxically share the Golan experience of victory.

It is interesting that a story entitled "The Conquest of Gola" proceeds to tell the tale of a failed attempt at a conquest. This subversion of the readers' expectations is also a subversion of generic conventions, and this becomes evident when one scans the

[111] Attebery, "The Conquest of Gernsback," 52; Anna Louise Bedford and Donald Silberberg, "A Woman of the Pulps: Leslie F. Stone," *Science Fiction Studies* 47, no. 2 (July 2020): 165, https://doi.org/10.1353/sfs.2020.0023.

landscape of pulp SF around the time of the story's publication. The 1920s and 1930s have gained notoriety in SF history for the ascendancy of the space opera, modelled on the westerns but expanded to a cosmic scale, extravagantly spanning galactic worlds and civilizations but containing little credible science, and replete with hackneyed plots and poor writing. The genre also took for granted an ideology of territorial expansion and conquest that, according to Brian Stableford, was regarded as an irrefutable "matter of destiny":

> American science fiction developed alongside the genre that provided the United States with its ''creation mythology'': the western. It had the same ideological roots, and it is not surprising that its own guiding myth—the myth of the Space Age—was a futuristic transformation of the western's image of history, which extrapolated an imperative process of colonisation from the last available terrestrial frontier to the ''final frontier'' of space, regarding the entire universe as territory ripe for conquest and civilisation.[112]

With the white male subject at the centre of this narrative of colonisation and conquest, the woman is relegated to the passive role of damsel in distress waiting to be rescued from the clutches of the alien other by the male hero, whose virility is affirmed by the phallic ray-gun he usually carries as a weapon. Stone's "The Conquest of Gola" was a feminist revision of this mythology at a time when the mighty space adventure genre was "dragg[ing] science fiction down to its nadir."[113] Through the character of the matriarch, Stone is able to powerfully critique the imperialist politics of a genre that pushes men "to conquer, to lay waste, to struggle and fight as the animals do over a morsel of

[112] Brian Stableford, *Science Fact and Science Fiction: An Encyclopedia* (New York: Routledge, 2006), 93.
[113] Ashley, *The Time Machines*, 61.

worthless territory."[114] This is not a one-off experiment in Stone's works but an evolving political stance; although the concluding line of "Women with Wings" asks, "cannot the empire of mankind be extended the Universe over?,"[115] she would later illustrate the terrible consequences of "Man's damnable desire to conquer, to nose in where he don't belong" again in "The Hell Planet," published in the June 1932 issue of *Wonder Stories*.[116] Stone also deflates popular convictions surrounding American exceptionalism and civilisational superiority by having her Golans dismiss the male invaders as "barbarians" possessing "a very low grade of intelligence," who are not worthy of their time and attention and who can be vanquished with a minimum of effort.[117]

The thrust of the story lies not so much in its interplanetary battle as in its representation of how the Golans see the Detaxalans/Earthmen, which in turn prompts the reader to revalue the latter in relation to the former. The inversion of the colonial gaze informs the narrative. According to John Rieder, "The colonial gaze distributes knowledge and power to the subject who looks, while denying or minimizing access to power for its object, the one looked at."[118] However, in "The Conquest of Gola," the attempted colonisers become the objects of the gaze, and in the process they lose both their power and their control over the invasion script. This inverted gaze operates at multiple levels. The Golans first see the great cylindrical spaceships of the Detaxalans pushing through their cloud mantle. As the visitors emerge from these machines, the Golans scan their external anatomy with a keen scientific eye and dismiss their bodies as

[114] Stone, "The Conquest of Gola," 1279.
[115] Leslie F. Stone, "Women with Wings," *Air Wonder Stories* 1, no. 11 (May 1930): 1003, https://archive.org/details/aws_1930_05/page/n25/mode/1up.
[116] Leslie F. Stone, "The Hell Planet," *Wonder Stories* 4, no. 1 (June 1932): 27, https://archive.org/details/Wonder_Stories_v04n01_1932-06/page/n15/mode/1up.
[117] Stone, "The Conquest of Gola," 1280, 1283.
[118] John Rieder, *Colonialism and the Emergence of Science Fiction* (Middletown, CT: Wesleyan University Press, 2008), 7.

"poorly organized" in comparison to their own.[119] Later, some of the dead Detaxalans are quite literally reduced to objects of scientific study as the Golans dissect them in their laboratory "for the advancement of Golan knowledge" and disapprovingly observe their "strange" skeletal structure.[120] The telepathic Golans are also able to look directly into the minds of the Detaxalans and read their thoughts, unbeknownst to them. The invaders thereby end up being invaded in turn, their corporeal and mental integrity violated repeatedly by the Golan gaze. Attebery terms this technique "the Martian astronomer's perspective": "Stone's Golans are a variety of Martian astronomer; that is, they are distant and detached observers of human life."[121] The inversion of the colonial gaze is also simultaneously an inversion of the gendered gaze: to the female Golans, the Detaxalan invaders are "ignoble male creatures," "the despicable males of the species," "simple-minded males," and "mere man-things."[122] On Gola, "women are supreme."[123]

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In her 1970 essay on "The Image of Women in Science Fiction," Joanna Russ describes the dominant representation of matriarchy in SF authored by men:

> Into a world of cold, cruel, domineering women who are openly contemptuous of their cringing, servile men… arrive(s) men (a man) from our present world. With a minimum of trouble, these normal men succeed in overthrowing the matriarchy, which although strong and warlike, is also completely inefficient. At this point the now dominant men experience a

[119] Stone, "The Conquest of Gola," 1281.
[120] Stone, 1286.
[121] Attebery, "The Conquest of Gernsback," 53.
[122] Stone, "The Conquest of Gola," 1279, 1281, 1282, 1283.
[123] Stone, 1278.

> joyful return of victorious manhood and the women (after initial reluctance) declare that they too are much happier.[124]

Stone retains the initial scenario but alters the narrative trajectory, cleverly rearranging the all-too-familiar formulas of planetary romance. Like the female inhabitants of the second evolutionary plane in "Via the Hewitt Ray," the women on Gola enjoy complete authority in matters of governance, science, philosophy, and social relations. The "sweet gentle males" are merely consorts, "ineffectual weaklings" whose only functions are to perform their reproductive role and provide pleasure to the women in their moments of leisure.[125] Marriage is not mentioned in the story and sexual relationships are not monogamous; the narrator speaks of being assigned two male consorts on reaching maturity, so that she may "go about the business of bringing my daughters into the world."[126] The "daughters" are specified here because they are responsible for upholding and perpetuating the socio-cultural, political, and moral order of Gola, with virtually no contribution from the men, who are reduced to the status of child-like non-entities. Any attempt on the part of the men to express their opinions on matters of public importance is dismissed with condescending laughter and compensatory gestures of affection. Stone's attack on conservative definitions of gender roles that required women to be passive reproductive vessels and silent accessories to men is too heavy-handed to be misconstrued. She also validates the importance of female sexual pleasure—a topical concern in the 1920s and 1930s—while depriving the Golan men of any sexual agency. Romantic relationships have no place in this world as its gender relations do not support the traditional discourse of romance that mandates male control and female loss of physical and emotional power and autonomy. Thus, "The Conquest of Gola" supports

[124] Russ, "The Image of Women in Science Fiction," 212.
[125] Stone, "The Conquest of Gola," 1280, 1287.
[126] Stone, 1286.

Larbalestier's contention that any imaginary representation of a world where women are dominant renders visible the processes of power that work to keep women subordinate in the real world.[127]

The arrangement on Gola is quite similar to that of the Venusian society imagined in Stone's earlier work "Women with Wings," where the planet is named Zolda: "The strangest feature of the Zoldans is that from the very beginning of time the female has always been the dominant sex, the male being accepted by them only as a biological necessity."[128] A comparative study of the matriarchies depicted in these two texts yield fascinating points of convergence and departure, but their primary difference lies in the fact that the battle between the Earthmen and the Zoldans in "Women with Wings" culminates in a mutually beneficial contract between the parties that paves the way for a unified civilization. This agreement is founded on a biological imperative: while Earth is rapidly being depopulated of its women due to the high incidence of death during childbirth (an unanticipated consequence of the masculinist science that has imbued men with wings), the Zoldans are in a similar predicament due to their drastically low male birth rate. Stone's solution of inter-species breeding between the alated Earthlings and the amphibious Zoldans is surprisingly radical given the American cultural taboos surrounding miscegenation and the contemporary prominence of eugenic science and its discourse of racial hygiene, but she succeeds in presenting a utopian picture of harmonious multi-generational coexistence to the point where "there was scarcely any difference to be noted between the two races."[129] However, if "Women with Wings" is a partial revision of the standard plot of matriarchy in SF in that it substitutes male

[127] Larbalestier, *The Battle of the Sexes in Science Fiction*, 8.
[128] Leslie F. Stone, "Women with Wings," 999.
[129] Stone, 1003.

superiority with gender equality, "The Conquest of Gola" turns the plot entirely on its head with its insistent championing of female supremacy.

It may be recalled that the late 1920s and early 1930s was characterised by a burgeoning public interest in the domain of cultural anthropology, much of which was in response to the publication and widespread coverage (both academic and popular) of Margaret Mead's foundational work, *Coming of Age in Samoa*, in 1928. Although Mead's work has generated extensive controversy from a disciplinary standpoint, its impact on American public discourse on 'other' cultures remains significant. In her discussion on Mead's feminist legacy, Louise Michele Newman highlights the role she played "in prompting Westerners to question their sense of cultural superiority, using so-called primitive societies to critique patriarchal gender relations in the United States."[130] Newman discusses early-twentieth-century evolutionist approaches to anthropology that posited "primitive" or non-Western societies as representing an earlier stage of human evolution, with Anglo-American civilization representing the pinnacle of that progressive evolutionary process. Such studies also held that the degree of civilizational superiority could be determined on the basis of the extent of sex-role differentiation and the status of women in a culture. Non-Western societies were deemed "primitive" and "lowly" partly due to the notion that their women were more oppressed than white women in the West, and this helped to justify Western imperialism as a civilising mission uplifting and "protecting primitive women from various forms of social, economic, and sexual mistreatment."[131] However, anthropologists such as Margaret Mead and Ruth Benedict challenged such beliefs through their championing of cultural relativism and their recognition that gender, sexual, and reproductive relationships in different cultures

[130] Louise Michele Newman, *White Women's Rights: The Racial Origins of Feminism in the United States* (New York: Oxford University Press, 1999), 158.
[131] Newman, *White Women's Rights*, 160.

varied widely and could neither be situated on a hierarchical continuum nor explained in terms of essentialist ideas of innate masculinity and femininity. Rather, non-Western societies could provide Americans with a repertoire of "conceptual alternatives" to reflect on, and could even have "something valuable to teach "civilized" society about reforming its present institutions."[132] Irrespective of whether Stone was aware of Mead's work or not, her matriarchy in "The Conquest of Gola" certainly presents one such conceptual alternative that prompts readers to re-evaluate gender roles and relationships in America.

Many pulp SF authors writing in the Burroughsian planetary adventure tradition imported the premises of evolutionary anthropology into their stories of hapless women enslaved by primitive aliens, setting the stage for Stone's logical counterpoint to the subject—if the subjugation of women indicates evolutionary backwardness, female supremacy must be regarded as an indicator of evolutionary superiority. Like most of her female contemporaries, Stone does use the language of evolution repeatedly in "The Conquest of Gola," primarily for subversive purposes. For instance, the initial colonial encounter is marked by humorous absurdity as the Golans compare the hardness and inflexibility of human anatomy with their own rubbery, malleable, circular, and furry bodies and conclude that the human need to carry around their organs at all times instead of merely summoning the required organ at will like the Golans is "proof of the lowliness of their origin."[133] Batya Weinbaum observes how Stone "exaggerates the conventional contrast between masculine (hard) and feminine (soft)" for satirical effect—the women are both thoroughly feminine and thoroughly alien, a far cry from the seductive and

[132] Newman, 160.
[133] Stone, "The Conquest of Gola," 1281.

exotic damsels in the planetary romances of the era.[134] The Golans are also a far more ancient civilization who have long transcended the clumsy physical technology of the Detaxalans in order to perfect their mastery over the power of the mind. The association of thought communication with evolutionary sophistication and the gendered dimensions of this link have already been discussed earlier in this chapter, but they are confirmed by the Golans' revulsion at the "excruciatingly ugly sounds" of the Detaxalans' language.[135]

This implicit critique of Western phallogocentrism is accompanied by a presentation of the mind as a greater frontier than land or space, with "mental processes" carrying the Golans "further and beyond the conquest of mere terrestrial exploitation."[136] Stone here departs from another typical convention of planetary romance: that of "high-tech men" stranded among "pretechnological natives."[137] The Golans are far from pre-technological; their cities are equipped with beam stations that perform a variety of functions in war and peace—broadcasting planet-wide messages, transmitting matter, locating and summoning objects, creating a protective shield over cities, and disintegrating adversaries with force rays. They are in fact so advanced that they view space flyers as an ancient technology that is of no relevance to their present pursuits. To them, the Detaxalans with their spacefaring ships, their expansionist agenda, and their narrow commercial concerns are both savage barbarians and truant children running amok instead of deferring to the authority of their mothers and female consorts. This comprehensive deflation and infantilisation of the masculine scientific and imperialist enterprise is quite unusual in the landscape of pulp SF, and a response to the story

[134] Batya Weinbaum, "Sex-Role Reversal in the Thirties: Leslie F. Stone's "The Conquest of Gola,"" *Science Fiction Studies* 24, no. 3 (November 1997): 472, https://www.jstor.org/stable/4240648.
[135] Stone, "The Conquest of Gola," 1281.
[136] Stone, 1279.
[137] John Clute and David Langford, "Planetary Romance," in *The Encyclopedia of Science Fiction*, ed. John Clute and David Langford, updated December 4, 2013, https://sf-encyclopedia.com/entry/planetary_romance.

published in "The Reader Speaks" section of the June 1931 issue of *Wonder Stories* suggests that Stone had succeeded in unsettling at least a section of her audience:

> Leslie Stone's story might have been splendid. … But somehow it is unsatisfying. Perhaps I find it so because it violates two fundamental emotions in me, pride of race and pride of sex. We humans may be just crawling bugs on an infinitesimal rock in an immensity of space. But we like to think of ourselves as the noblest works of Nature. We resent any aspersions on this conception of our own worth.[138]

Another letter writer in the July 1931 issue protested that Stone had "overdone" her attempt to "uphold the importance of women" in presenting the men of the story as ineffectual creatures and weaklings, because women in the real world were not treated like that despite being deemed the weaker sex.[139]

Despite the exaggerated reversal of conventional gender roles, Stone does not present her matriarchal society as a straightforward mirror image of patriarchy. Instead, she foregrounds a series of fundamental ideological differences that enable us to look at Golan society through a utopian and feminist lens. The most important of these is the Golans' unequivocal rejection of the project of colonial exploitation that was, in Christopher Leslie's words, "the hidden cost" of the technoscientific optimism and the triumphant visions of space travel and conquest promoted in pulp SF magazines.[140] Rieder makes a similar point when he asserts that colonial invasion is "the dark counter-

[138] Maxwell Patterson, Letter to the Editor, *Wonder Stories* 3, no. 1 (June 1931): 137, https://archive.org/details/Wonder_Stories_v03n01_1931-06/page/n138/mode/1up.
[139] Harry R. Pancoast, Letter to the Editor, *Wonder Stories* 3, no. 2 (July 1931): 281, https://archive.org/details/Wonder_Stories_v03n02_1931-07/page/n138/mode/1up.
[140] Christopher Leslie, *From Hyperspace to Hypertext: Masculinity, Globalization, and their Discontents* (Singapore: Palgrave Macmillan, 2023), 138.

image of technological revolution."[141] The insidious intentions of the Detaxalans are reflected in their leader's self-contradicting statement: "We came to Gola… with the express purpose of exploration and exploitation. We come as friends."[142] The statement frames "exploration and exploitation" as two sides of the same coin, symptomatic of the white man's relationship with the female other as well as the colonial other. The fact that the invaders are exclusively male is not incidental but essential to the logic of a story that portrays the invasion as "a kind of imperialist rape."[143] As the Detaxalans announce their plans of inducting Gola into their interplanetary federation, establishing commerce and trade, and transforming Gola into a tourists' paradise, they effectively reduce the living planet to a passive but fertile resource waiting to be harnessed, and they seek masculine support for this capitalist enterprise: "Women are all right in their place, but it takes the men to see the profit of a thing like this…"[144] When the Golans refuse to cooperate or negotiate, the Detaxalans make their intentions clear in language that points towards a thinly veiled sexual threat: "I will have to take you forcibly, for we are determined that Gola become one of us, if you like it or not."[145] This rapacious expansionism and implied sexual aggression is starkly contrasted with the Golan worldview of communitarian contentment, which Patrick B. Sharp terms an "anti-colonial scientific femininity"[146]:

> Long ago we, too, might have gone on exploring expeditions to other worlds, other universes, but for what? Are we not happy here? We who have attained the greatest of civilizations within the confines of our own silvery world.

[141] Rieder, *Colonialism and the Emergence of Science Fiction*, 33.
[142] Stone, "The Conquest of Gola," 1284.
[143] Weinbaum, "Sex-Role Reversal," 473.
[144] Stone, "The Conquest of Gola," 1284.
[145] Stone, 1284.
[146] Sharp, *Darwinian Feminism*, Chapter 4.

> Powerfully strong with our mighty force rays, we could subjugate all the universe, but why?
>
> Are we not content with life as it is, with our lovely cities, our homes, our daughters, our gentle consorts?[147]

At one level this may seem like a reinforcement of the traditional feminine-domestic ideal that restricts women within the confines of the familial home, but "The Conquest of Gola" offers a greatly expanded utopian vision of home that encompasses the entire planet and unites all citizens through the bonds of female community. As in Lorraine's "Into the 28th Century," communication via thought transference ensures complete interpersonal transparency, harmony, and cooperation, so that there is no internal war or conflict.

Although many of Stone's male readers reacted against the sex-role reversal in the story on account of the extreme subjugation of the Golan consorts, it is evident that the radical defamiliarisation of gender roles was a strategy deliberately adopted by Stone to jolt the reader away from ideological complacency, and to cultivate the critical distance necessary for the reader to be receptive to the text's intertwined appraisal of colonialism, capitalism, and patriarchy. Stone also refuses to subscribe to the standard battle-of-the-sexes tropes in pulp SF. When the first Detaxalan invasion is soundly defeated and the remaining prisoners are either dissected or enslaved, the narrator, who is at this point a young woman reaching adulthood, is granted two Golan consorts and a Detaxalan slave named Jon. The latter soon learns the Golan language and befriends the consorts, while also colluding with other Detaxalan prisoners in a revenge plot involving radio communication with the home planet. The Golan consorts are also instigated to

[147] Stone, 1279.

join the rebellion, which takes the form of a second Detaxalan invasion and a nocturnal attack on all Golan women sleeping in their beds. At this juncture, Stone presents a significant interaction between the narrator and Jon that initially recalls a standard cliché of the planetary romance and the sex-war narrative:

> … when awakening I found the ugly form of Jon bending over me. Surprised, for it was not his habit to arouse me, I started up only to find his arms about me, embracing me. And how strong he was! For the moment a new emotion swept me, for the first time I knew the pleasure to be had in the arms of a strong man…[148]

Under ordinary circumstances, such an encounter would mark the moment of heterosexual awakening and female submission that would pave the way for the conversion of matriarchy to patriarchy, but Stone resists the anticipated outcome by stating that the narrator's instinctive emotional response is short-lived. As the narrator looks into the blue eyes of her slave, she detects in them an expression of pity that infuriates her and jolts her out of her momentary temptation. Larbalestier's brief reading of the story notes how the allure of "the romance discourse" is "dispelled almost immediately,"[149] and the Golans proceed to collectively channel their mental power to bring back the renegade consorts to their chambers, force the Detaxalan invaders into their flyers, and then "disintegrate completely every ship and man into nothingness!"[150] Through the finality of this inflicted defeat, the integrity of the self-contained, separatist, feminist utopia is preserved, and the text upholds it as a thought-provoking alternative to the aggressive masculinist ideology of colonial expansion and domination.

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[148] Stone, 1286.
[149] Larbalestier, *The Battle of the Sexes in Science Fiction*, 11.
[150] Stone, "The Conquest of Gola," 1287.

CHAPTER THREE

ALIEN HYBRIDS: FROM REPRODUCTION TO REGENERATION

As the pulp SF magazines evolved from the uncertainty of new beginnings and progressed towards the experimental variety and maturity of the genre's Golden Age, the contributions of female authors also demonstrated a concomitant transformation of techniques and concerns. Overt reproductive speculation rarely features in works published after 1939 (the year marking the beginning of the Golden Age as well as the Second World War), largely on account of the general movement away from the tradition of utopian writing during this period.[1] Moreover, most of the female authors who had actively contributed to the early SF pulps were no longer associated with the field, and those who remained or began publishing in the late 1930s and early 1940s were working with a new arsenal of editors, the most celebrated of whom was John W. Campbell Jr. of the newly re-christened *Astounding Science-Fiction*. This chapter will focus on two

[1] Two texts from the 1930s that approximate this earlier form but focus on dystopian possibilities are Leslie F. Stone's "The Great Ones" (*Astounding Stories*, July 1937) and C. L. Moore's "Greater than Gods" (*Astounding Science-Fiction*, July 1939). In Stone's story, centuries of eugenic breeding and mechanisation in the quest for absolute perfection and control leads in the long run not only to stagnation but to a degenerative nightmare—the humans of the distant future are creatures with giant bodies and small, atrophied brains who only understand the biological imperative of incessant cannibalistic feeding. Moore, in turn, presents a text where prenatal sex determination opens up two contrasted alternatives for the future—a masculine society that takes science and technology to new heights but is authoritarian, militaristic, and unfeeling, and a feminine society that is peaceful, plentiful, and devoted to the arts but indolent and decadent. Moore's male protagonist rejects both options in favour of a third ideology of balance. See: Leslie F. Stone, "The Great Ones," *Astounding Stories* 19, no. 5 (July 1937): 75–89, https://archive.org/details/astoundingv019n05193707/page/n76/mode/1up; and C. L. Moore, "Greater than Gods," *Astounding Science-Fiction* 23, no. 5 (July 1939): 135–62, https://archive.org/details/Astounding_v23n05_1939-07_dtsg0318/page/n134/mode/1up. See also: Alice E. Waters, "Hoping for the Best, Imagining the Worst: Dystopian Anxieties in Women's SF Pulp Stories of the 1930s," *Extrapolation* 50, no. 1 (2009): 61–79, https://doi.org/10.3828/extr.2009.50.1.6. Waters' essay critically discusses both the aforementioned texts.

women who dominated the SF landscape during the war years and who are now unanimously identified as the foremost female exponents of the pulp era's Golden Age—C. L. Moore and Leigh Brackett. Moore and Brackett occupied different niches of the SF market; while the former was aligned primarily with *Astounding* and Campbell, Brackett wrote chiefly for the space pulps such as *Planet Stories* and *Thrilling Wonder Stories*. Nevertheless, a study of their works reveals a shared preoccupation with the figure of the alien, particularly the idea of the woman as alien. Patrick Parrinder has noted that aliens in literature "invariably possess a metaphorical dimension," and this metaphor (which may sometimes go beyond the author's conscious intentions) serves the function of defamiliarising "some aspect of human behaviour or human culture," often revealing it to be an "artificial" or "ideological" construct rather than a "natural necessity."[2] In the following discussion, I will explore how Moore and Brackett use the metaphor of the alien to defamiliarise the category of gender as well as other parameters of inclusion, exclusion, and hierarchy such as race and species.

The stories of Moore and Brackett do not follow those of their predecessors in imagining alternative reproductive technologies that may liberate women from the dangers of pregnancy and childbirth, nor do they explore the politically charged ideas of female community and solidarity or the utopian transformation of gender roles. In Patrick B. Sharp's opinion, their stories have "no feminist impulse or feminine perspective," and they "simply engaged in the same discourses and story types as their male contemporaries."[3] While this charge has an element of partial truth, it is my contention that both Moore and Brackett use their stories of alien encounters to denaturalise and challenge binary notions of gender difference. If the fundamental premise of the alien

[2] Patrick Parrinder, "The Alien Encounter: Or, Ms Brown and Mrs Le Guin," *Science Fiction Studies* 6, no. 1 (March 1979): 52, https://www.jstor.org/stable/4239223.
[3] Sharp, *Darwinian Feminism*, Chapter 5.

narrative is a confrontation with radical otherness, then Moore and Brackett deploy this confrontation to turn the gendered gaze back towards the masculine 'self,' thereby unsettling its claims to 'natural' superiority. Both writers achieve this objective by placing male protagonists at the centre of their narratives and emphasising their growing unease as the feminised aliens threaten their presumptions of power, control, and subjective wholeness. The fact that the encounters are implicitly or explicitly sexual also allows us to read the texts as symbolic explorations of the masculine fear of unbridled female sexuality and autonomy, and this places the aliens within the uncanny register of gothic monstrosity.

My analysis of the chosen texts by Moore and Brackett draws upon Jane Donawerth's categorisation of alien women in SF into four principal groups: "woman as humanoid alien, woman as machine, woman as animal, and minority women as aliens among us."[4] The last category does not feature prominently in the stories discussed in this chapter, primarily because there were few compelling representations of non-white women in pulp SF; as already noted earlier, the magazines catered largely to the interests of a white male middle-class audience and featured stories involving characters belonging to this core demographic. I therefore substitute this category with that of the woman as plant or the vegetal alien, a figure that surfaces repeatedly in Brackett's stories and is comparable to the other alien forms outlined by Donawerth. The boundaries between these multiple forms of alien-ness are endlessly porous, due to which most pulp aliens are monstrous hybrids defying anthropocentric classification and functioning as virtual palimpsests that encode different and overlapping layers of significance.

[4] Donawerth, *Frankenstein's Daughters*, 43.

The thematic preoccupations of the stories also demand a movement away from the standard heteronormative reproductive matrix, as most of the aliens imagined by Moore and Brackett resist assimilation within this framework. I have found a useful and appropriate discursive alternative in Donna Haraway's cyborg theory, where she underscores the need for a conceptual shift from reproduction to regeneration. While organisms in the traditional sense depend on "the resources of reproductive sex," boundary-straddling entities such as cyborgs "have more to do with regeneration and are suspicious of the reproductive matrix and of most birthing."[5] Reproduction, Haraway says, "need not be imagined in the stodgy bipolar terms of hominids," particularly because "very rarely does anything really get *reproduced*: what's going on is much more polymorphous than that."[6] Moreover, as the hegemonic discourses of reproductive sexuality play a central role in producing the binary categories of gender, the shift to a cyborgian politics of regeneration can also accommodate "the utopian dream of the hope for a monstrous world without gender."[7] In my reading, Moore and Brackett's alien narratives contain the seeds of a Harawayan regenerative politics, even though they fail to realise the full potential of that political stance. Their aliens are often isolated or expunged from the narrative in order to facilitate a return to the normative status quo, but the return is never a complete or exact restoration of the previous order; the alien's presence (whether current or belated) has irrevocably closed that possibility. The world of the text is thus permanently, if imperceptibly, altered by the alien encounter, and the open-ended nature of the narratives leaves the reader with the task of contemplating the implications of the forms of regenerative otherness that have effected that alteration.

[5] Donna Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," in *The Haraway Reader* (New York: Routledge, 2004), 38.
[6] Donna Haraway, "The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others," in *The Haraway Reader* (New York: Routledge, 2004), 69.
[7] Haraway, "A Manifesto for Cyborgs," 39.

3.1. Woman, Animal, Machine: Gendered Embodiment and Alien Subjectivity in C. L. Moore's "Shambleau" and "No Woman Born"

Among all the early female pulp SF authors discussed in this work, perhaps the one writer who is unanimously believed to have had a monumental impact on the development of the SF genre as a whole was Catherine Lucille Moore, better known as C. L. Moore (1911–87). Moore was a 22-year-old woman working as a typist in an Indianapolis bank when she wrote the story that would be her first professional sale to the pulps—the intriguingly named "Shambleau," which appeared in the November 1933 issue of *Weird Tales*. While it is often assumed that Moore published her stories under her initials to preclude prejudicial responses to her work on account of her gender, multiple sources affirm that she initially sought to disguise her identity to protect her job at the height of the Great Depression, as writing for magazines to generate a supplementary income (especially magazines that were publicly adjudged to be 'trashy') could jeopardise a respectable professional career.[8] Eric Leif Davin has also convincingly established that the use of initials was a popular stylistic convention at the time for both male and female authors, and that editors and (soon afterwards) readers of the pulps were fully aware of Moore's female identity.[9] In any case, Moore continued to publish her stories in *Weird Tales* throughout the 1930s, creating two recurring characters of enduring popularity: the swashbuckling space traveller, Northwest Smith (introduced in "Shambleau"), and one of the earliest heroines of sword-and-sorcery fantasy, Jirel of Joiry (introduced in "Black God's Kiss").

[8] See, for instance, Marion Zimmer Bradley, "One Woman's Experience in Science Fiction," in *Women of Vision: Essays by Women Writing Science Fiction*, ed. Denise Du Pont (New York: St. Martin's Press, 1988), 86.
[9] Davin, *Partners in Wonder*, 97, 111–114.

Moore's prodigious talents would simultaneously be harnessed by the SF pulps, beginning with the publication of "The Bright Illusion" in the October 1934 issue of *Astounding Stories* and followed by stories such as "Greater Glories," "Tryst in Time," and "Greater than Gods." In 1940, Moore married fellow SF author Henry Kuttner, whom she met through H. P. Lovecraft's circle, and she left her job as a bank secretary to join him in New York. The marriage led to a longstanding and extremely productive creative collaboration as Moore and Kuttner published a large number of jointly written stories in the pulps, sometimes under their own individual names and sometimes using pseudonyms (the most common ones being Lawrence O'Donnell and Lewis Padgett). Their collaborations were so seamless that it is almost impossible to conclusively determine the extent of their respective contributions in any given story. They wrote prolifically in order to make a decent living as full-time SF writers (a fact that distinguishes Moore from the previous group of female writers who wrote sparsely and largely on a part-time basis) and were intrinsic parts of SF's putative Golden Age. Kuttner's untimely death in 1958 effectively marked the end of Moore's career as an author; she briefly wrote scripts for television before retiring from writing altogether. The subsequent decades witnessed a renewal of interest in Moore's works, particularly with the publication of *The Best of C. L. Moore*, edited by Lester del Rey, in 1975. Her stories have not only generated a considerable body of academic criticism but have also cemented her position as one of the most important "foremothers" of the genre who paved the way for future generations of female/feminist SF authors.

By all metrics, "Shambleau" was a sensational debut and continues to be Moore's most highly regarded work; the enthusiasm with which editors and readers received the story can hardly be overstated. In his introduction to *The Best of C. L. Moore,* del Rey recalls a moment from a World Science Fiction Convention organised almost 40 years

after the publication of "Shambleau," when Forrest J. Ackerman was on the verge of announcing a special award:

> As is customary, Ackerman was saving the name of the recipient for the climax. But he mentioned a story called "Shambleau" and never got to finish his speech. As one, the 2,000 people in the audience came instantly to their feet in unanimous tribute—clapping, shouting, and craning to see a gracious and lovely lady blushingly accept the applause.[10]

For del Rey, "Shambleau" represented a major turning point for SF, a movement away from the "mechanistic and unemotional stories of other worlds and future times" that had proliferated in the pulps until then. Del Rey identifies many firsts in "Shambleau": its portrayal of "rounded and well-developed characters," its complex engagement with "the sexual drive of humanity," and its depiction of "an alien who is truly *alien*."[11] This third assertion is particularly relevant to this chapter, and I shall begin with a brief discussion of "Shambleau" that will lay the groundwork for my reading of Moore's later work, "No Woman Born." In both stories, the alien stands literally and metaphorically for the female but is characterised by a gothic excess that goes beyond this simple equation. Moreover, the woman as alien is situated within a framework that permits an investigation of the social constructedness of gendered identity and subjectivity; as a result, the female alien becomes a paradoxical entity as the alien is neither unequivocally female nor unequivocally feminine. This is a significant departure from the earlier pulp stories studied in the first two chapters, which either preserve normative gender roles

[10] Lester del Rey, "Introduction: Forty Years of C. L. Moore," in *The Best of C. L. Moore*, ed. Lester del Rey (New York: Doubleday, 1975), 1.
[11] del Rey, "Forty Years of C. L. Moore," 1–2.

(occasionally with partial modifications) or simply invert male and female roles to achieve the effect of defamiliarisation.

"Shambleau" is an extraordinary retelling, revision, and subversion of the myth of Medusa. The story is set in the Martian town of Lakkdarol where the daring and thoroughly masculine hero, Northwest Smith, encounters a seemingly vulnerable and terrified girl who is being pursued by a clamouring, bloodthirsty mob.[12] The mob identifies the girl by a single, incomprehensible word—"Shambleau"—which means little even to a "linguist of repute" like Smith. He nevertheless steps up to the occasion, staving off the mob by claiming the girl as his own and offering her shelter in his room. However, the story takes a horrifying turn as the distressed damsel turns out to be an ancient and powerful creature who uses her tentacular tresses to entrap Smith and draw out his life force—a grotesque feeding that continues for three days until Smith's Venusian friend and partner, Yarol, intervenes and kills her with a heat-gun.[13] While this summary may fit the standard pulp trope of heroic men threatened by monstrous alien women who must be eliminated for the normative patriarchal order to be reassuringly restored, closer exploration of the text unveils a complex set of thematic and semiotic possibilities.

Most readings of the story associate Shambleau's serpentine locks with the idea of a female sexuality that is rapacious and thereby threatening to masculine autonomy. Susan Gubar, for instance, reads her as an embodiment of the "fear of the insatiability of unleashed female sexual desire."[14] However, the alienness of Shambleau (a name that,

[12] Although Lakkdarol has a motley population including Earthmen, Martians, and Venusians, they seem to agree on certain common definitions of humanness from which Shambleau is/are excluded.
[13] C. L. Moore, "Shambleau," *Weird Tales* 22, no. 5 (November 1933): 531–50, https://archive.org/details/Weird_Tales_v22n05_1933-11_ELPM-SliV/page/n4/mode/1up.
[14] Susan Gubar, "C. L. Moore and the Conventions of Women's Science Fiction," *Science Fiction Studies* 7, no. 1 (March 1980): 19, https://www.jstor.org/stable/4239307.

in the words of Brian Attebery, "designates both individual and species"[15]) does not lie merely in her ostensible femaleness; it is rather constituted by a network of multivalent suggestions that encapsulate various forms of otherness. Her "berry-brown" skin and the turban that initially conceals her hair mark her as the exotic racial/ethnic other. She is repeatedly described through animal imagery: she flees from the mob "like a hunted hare," her gaze and demeanour are "feline," and Smith sees her as half-human, half-animal. She even seems to blur the boundary between animate subject and inanimate object; at multiple junctures in the text, the mob and Yarol refer to her as a "thing." Her femaleness, too, is characterised by contradictions; to Smith, she appears to be "like a woman—an Earth woman—sweet and submissive and demure," but he is unsettled by an uncanny awareness of her "strangeness beyond words."[16] Her strikingly scarlet garments and hair carry strong overtones of blood and menstruation, and her wet, warm, and slimy embrace convey sensations associated with the female genitalia, but the writhing worms on her head are unmistakably phallic as they pierce through Smith's garments "as if he stood naked to their embrace" and breach the integrity of his closed male body.[17] As Sarah Gamble notes, "Smith is ironically forced to take the role traditionally assigned to the female within the text—victimised, powerless and sexually threatened."[18] Moreover, although Gubar draws attention to Shambleau's "unredeemable physicality,"[19] the embrace in which the creature and Smith are locked for three days has a powerful mental dimension. As the tentacles coil around his body, Smith feels assailed by "the voiceless voice of her mind" and experiences a confused mixture of revulsion

[15] Brian Attebery, "C[atherine] L[ucille] Moore (1911–87)," in *Fifty Key Figures in Science Fiction*, ed. Mark Bould, Andrew M. Butler, Adam Roberts, and Sherryl Vint (London: Routledge, 2009), 173.
[16] Moore, "Shambleau," 541.
[17] Moore, 544.
[18] Sarah Gamble, "'Shambleau… and others': The Role of the Female in the Fiction of C. L. Moore," in *Where No Man Has Gone Before: Women and Science Fiction*, ed. Lucie Armitt (London: Routledge, 1991, 2012), 37.
[19] Gubar, "C. L. Moore and the Conventions of Women's Science Fiction," 18.

and ecstasy at both the physiological and psychological levels. Later he vaguely recalls a form of psychic oneness with the creature: "I saw things—and knew things—horrible, wild things I can't quite remember—visited unbelievable places, looked backward through the memory of that—creature—I was one with…"[20] Shambleau thereby is a hybrid boundary dweller who eludes classification. She is not explicable through the standard dualisms of male/female, human/non-human, or mind/body, and she is monstrous precisely because she breaks down these binaries. Even as the male characters speak about her, their statements are halting and tentative as they acknowledge their lack of knowledge and understanding.

Although this discussion follows textual and critical precedent in using the feminine pronoun to refer to Shambleau, at no point in the story does 'she' identify herself as female, or human, or animal; she simply states: "I am Shambleau."[21] The initial impression of her femininity is constructed through Smith's masculine perspective—he ascribes a gendered dynamic where none really exists, and the instability of this enforced gender identity is prominent in the final section of the narrative where she is utterly dehumanised, with both Smith and Yarol having switched from 'she' to 'it' in referring to her. Yarol suggests that Shambleau's "human" and "woman" form is only an illusion. The structure of the narrative does not permit direct access to Shambleau's subjectivity as she seems to exist in a largely non-linguistic domain. Prior to the moment when she enfolds Smith with her living tresses, she whispers: "I shall—speak to you now—in my own tongue—oh, beloved!"[22] Critics have read Shambleau's embrace as a form of

[20] Moore, "Shambleau," 550.
[21] Moore, 541. As Patrick B. Sharp notes, "the Shambleau species troubles the common assumption that sexual dimorphism is universal." In the process, Moore "queers the standard heterosexual narrative of evolutionary science." See: Sharp, *Darwinian Feminism,* Chapter 5.
[22] Moore, "Shambleau," 543.

écriture féminine[23] (despite the contested nature of this femininity); her "phallic tresses… both writhe and write,"[24] inscribing her self through a communicative strategy that is decidedly non-logocentric. According to Gubar, "Moore implies that Shambleau might represent a separate *female* culture that is beyond our known words and worlds." (emphasis mine)[25] The argument holds validity only if one substitutes the word other for female, for the reasons already elaborated above. The story reveals little about this other culture, although Yarol speculates that they are "an older race than man, spawned from ancient seed in times before ours" and have "been in existence for countless ages."[26] Their origins are uncertain: "Nobody knows just where they come from. … No one knows when or where they first appeared."[27] There is no indication that they reproduce, but they seem to regenerate themselves by drawing nourishment from "the life-forces of men."[28] The process of feeding is a curious reversal of gestation and birthing: Smith remembers "a smothering odor as the wetness shut around him,"[29] and Yarol later enters the room to find "a mound like a mass of entails"[30]—both descriptions connoting a return to the primordial womb that symbolically emasculates the protagonist by robbing him of his individual sense of self. This is an interesting challenge to the hegemonic correlation of female embodiment with the reproductive and the maternal.

It is possible to interpret Shambleau as an ambiguously gendered or even non-gendered creature who exists outside the "heterosexual matrix"[31] and to whom standard

[23] The essay by Gamble cited earlier is one such example.
[24] Thomas A. Bredehoft, "Origin Stories: Feminist Science Fiction and C. L. Moore's 'Shambleau,'" *Science Fiction Studies* 24, no. 3 (November 1997): 374, https://www.jstor.org/stable/4240642.
[25] Gubar, "C. L. Moore and the Conventions of Women's Science Fiction," 19.
[26] Moore, "Shambleau," 548–9.
[27] Moore, 548.
[28] Moore, 548.
[29] Moore, 544.
[30] Moore, 545.
[31] Judith Butler defines the "heterosexual matrix" as "that grid of cultural intelligibility through which bodies, genders, and desires are naturalized." It is "a hegemonic discursive/epistemic model of gender intelligibility that assumes that for bodies to cohere and make sense there must be a stable sex expressed

human reproductive practices are irrelevant. Rather, Shambleau's embrace may be an attempt at authentic interspecies communication that can potentially facilitate a form of Harawayan regeneration for both participants. Shambleau's sexually charged act is divorced from traditional reproduction and imbued with such regenerative possibilities precisely because it permits "the interpenetration of boundaries between problematic selves and unexpected others."[32] Even after Shambleau is killed, it is evident that Smith has been somehow changed—potentially 'regenerated'—by the encounter. In response to Yarol's request that he immediately destroy any Shambleau he may happen to encounter in the future, Smith can only hesitantly say: "I'll try—"[33] Bredehoft has noted how the indeterminate ending of the text and the fractured quality of Smith's language in the final section (which mimics the way Shambleau speaks English) undermine interpretations of the text as an expression of the inevitability of "female defeat" or as a dramatisation of "the female author's culturally conditioned self-loathing."[34] (Sandra Gilbert, Susan Gubar, and Sarah Gamble offer variations of this simplistic battle-of-the-sexes reading that is predicated on essentialist understandings of gender.) Such interpretations can hardly explain Smith's subliminal desire to replicate the encounter at the end of the text despite the conjoined threat of self-oblivion: "You say—they don't turn up again? No way of finding—another?"[35]

"Shambleau" offers an appropriate starting point for studying Moore's remarkably nuanced representations of gendered identity that foreground its

through a stable gender (masculine expresses male, feminine expresses female) that is oppositionally and hierarchically defined through the compulsory practice of heterosexuality." See: Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (1990; New York: Routledge, 1999), 194.

[32] Haraway, "The Promises of Monsters," 70.

[33] Moore, "Shambleau," 550.

[34] Sandra M. Gilbert and Susan Gubar, *No Man's Land: The Place of the Woman Writer in the Twentieth Century*, Volume 1: *The War of the Words* (New Haven: Yale University Press, 1988), 101–2.

[35] Moore, "Shambleau," 550.

fundamentally provisional and constructed nature. Many of her female(-coded) characters are situated outside the typical frameworks of culturally defined femininity, reproductive sexuality, heteronormativity, and obligatory maternity, and in creating such characters, Moore goes further than most of her predecessors and peers in the SF domain. This can be further demonstrated through a consideration of Moore's later work, "No Woman Born," that was published in the Campbell-edited *Astounding Science-Fiction* in December 1944. (Although Moore was married to Kuttner at the time of the story's publication, she is believed to have been the sole author of the text.) "No Woman Born" presents the character of Deirdre, a celebrated dancer whose body is entirely destroyed in a theatre fire, with only her brain surviving the conflagration. The scientist/designer Maltzer constructs a humanoid body fashioned out of golden metal in which her brain is encased. As Deirdre learns to navigate her new corporeal form, presumptions about the links between sex, gender, and embodiment are profoundly unsettled. The story has garnered substantial critical attention for being one of the earliest literary treatments of the female cyborg in fiction, which is why it has most often been read in conjunction with Haraway's theory. My discussion will retain that emphasis as it establishes thematic links between Deirdre and Shambleau and attempts to explore the reproductive/regenerative implications of cyborg embodiment.

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The relationship between the human and the technological was an established subject of imaginative inquiry in SF by the time Moore wrote "No Woman Born." Most standard treatments of the theme tended to resort to a binary framework, with the human on one side of the scale representing all that is natural and authentic, and the technological on the other side, standing for the mechanical and artificial. Several

strategies were used by SF authors to valorise the former over the latter. Certain texts depicted technological inventions as neutral tools that merely served the purposes of their human creators and/or users without destabilising the category of the human in any way. Veronica Hollinger has studied explorations of this "instrumental theory" of technology in early SF.[36] Instrumental approaches to technology in SF often conveyed a strident sense of technoscientific optimism and a belief that technology could be perfectly controlled and used by man to further the project of human progress. An alternative strategy, also discussed in Hollinger's article, was based on "substantive theories" of technology, which asserted that technology is not a neutral tool but an all-encompassing system or "way of life" that restructures the entire socio-cultural order including human beings, and that sometimes has dystopian consequences.[37] This view of technology generally translated to exaggerated SF representations of machine domination coupled with human enslavement or drastic alteration of the standards of the human—both in ways that were inimical to the values of 'natural' humanity. Even though this second approach occasionally involved an awareness that the boundaries between humanity and technology could be blurred (for instance, the idea of intelligent machines taking over human functions, or the idea of human beings degrading to mere automatons in a machine age), the prospect of this blurring was a source of considerable anxiety. Stories deploying this approach also frequently articulated the desire for a return to the purely and authentically human, uncorrupted by technological intervention. This desire was strongly evinced in the pulp stories of mad scientists constructing monstrous humanoid machines (androids) or human-machine hybrids (cyborgs), leading to disastrous

[36] See: Veronica Hollinger, "'Something Like a Fiction': Speculative Intersections of Sexuality and Technology," in *Queer Universes: Sexualities in Science Fiction*, eds. Wendy Gay Pearson, Veronica Hollinger, and Joan Gordon (Liverpool: Liverpool University Press, 2008), 141–2. Hollinger borrows the concepts of instrumental and substantive theories of technology from Andrew Feenberg, *Transforming Technology: A Critical Theory Revisited* (New York: Oxford University Press, 2002), 5–8.
[37] Hollinger, "'Something Like a Fiction,'" 143–4.

consequences for all involved, sometimes with the mechanical creations turning against their creators.[38]

Female pulp authors sometimes wrote stories of medical cyborgs—a particularly topical idea in the 1920s and 1930s due to the devastating effects of World War I and the resultant increase in the demand for prosthetic body parts—and interrogated the nature of the mind-body and human-machine dichotomies in the process. In "The Artificial Man," Clare Winger Harris presents George Gregory, an exceptionally talented athlete and scholar who loses a leg and an arm in consecutive accidents and believes that his physical loss has also degraded his soul. He proceeds to make himself the subject of a living experiment by replacing most of his limbs and organs with artificial parts. In reconstructing himself piece by piece, he wishes to find out "how much of this mortal coil [he] can shuffle off and still maintain [his] personal identity as a piece of humanity." By the end of the story, his obsession has turned him into a "monstrosity" and "a menace to mankind," but his murderous plans are thwarted by the other characters who disable his controlling mechanism.[39] A related scenario is presented by Amelia Reynolds Long in "The Mechanical Man," where a zoologist, Professor Rayburn, extracts the brain of a paralysed war veteran named MacDougal and implants it in a mechanical body created by his scientist-colleague, Chilton (surreptitiously and evidently against MacDougal's will). He then attempts to create a female counterpart of the mechanical man using the brain of Chilton's able-bodied sister Brenda, but his experiment is foiled when MacDougal uses his new steel frame to kill and mutilate Rayburn and then destroys

[38] Examples include stories such as "The Metal Giants" by Edmond Hamilton, "The Cerebral Library" by David H. Keller, and "The Chemical Brain" by Francis Flagg.
[39] Clare Winger Harris, "The Artificial Man," *Science Wonder Quarterly* 1, no. 1 (Fall 1929): 78–83, https://archive.org/details/Science_Wonder_Quarterly_v01n01_1929-Fall/mode/2up.

himself in a fire, implying that his new hybrid embodiment is lesser than life.[40] The echoes of *Frankenstein* in both the aforementioned stories are of course unmistakable, as is the deeply ambivalent attitude towards disabled bodies. Donawerth contends that when female pulp writers represented man as machine, they did so to critique "the powers of (masculine) reason and the inhumanity of modern science."[41] Following the same gendered logic, the female characters in these stories stand in stark contrast to machines and are made to champion 'natural' human values.

If technology is to be regarded as an extension of masculine scientific rationality while women are aligned with nature, then female machines present a fresh set of complications. Female automatons or gynoids began to feature with increasing frequency in SF from the nineteenth century onwards, prompting the question: why the need for female machines at all? And how did the female come to be amalgamated with the machine if the latter was thought to be situated in firmly masculine territory? Several critics have sought to answer these questions. Mary Ann Doane points out that "when technology intersects with the body in the realm of representation, the question of sexual difference is inevitably involved."[42] Helen Merrick argues that "'technology' in sf can be read as both a signifier of masculinity, and also as a site of cultural anxieties about gender."[43] Andreas Huyssen traces the appearance of the machine-woman back to the

[40] Amelia Reynolds Long, "The Mechanical Man," Science Fiction Series, No. 7 (New York: Stellar Publishing Corporation, 1930), https://archive.org/details/the-mechanical-man-by-amelia-reynolds-long-1930/mode/2up.
[41] Donawerth, *Frankenstein's Daughters*, 60. In a separate discussion on Harris's "The Artificial Man," Donawerth notes how the story registers an "ambivalent social response: astonishment at the scientific achievement, dismay at the social consequences, fear of the effects on human identity." The same reading may be applied to Long's story as well. See: Jane Donawerth, "Body Parts: Twentieth-Century Science Fiction Short Stories by Women," *PMLA* 119, no. 3 (May 2004): 475, https://www.jstor.org/stable/25486062.
[42] Mary Ann Doane, "Technophilia: Technology, Representation, and the Feminine," in *Body/Politics: Women and the Discourses of Science*, eds. Mary Jacobus, Evelyn Fox Keller, and Sally Shuttleworth (New York: Routledge, 1990), 163.
[43] Helen Merrick, "Gender in Science Fiction," in *The Cambridge Companion to Science Fiction*, eds. Edward James and Farah Mendlesohn (New York: Cambridge University Press, 2003), 245–6.

fear of the machine that developed in the context of rapid industrial and technological development in the nineteenth century, particularly the anxiety that machines would replace human beings in the realm of production:

> … [A]s soon as the machine came to be perceived as a demonic, inexplicable threat and as harbinger of chaos and destruction… writers began to imagine the *Maschinenmensch* as woman. The fears and perceptual anxieties emanating from ever more powerful machines are recast and reconstructed in terms of the male fear of female sexuality, reflecting, in the Freudian account, the male's castration anxiety. This projection was relatively easy to make; although woman had traditionally been seen as standing in a closer relationship to nature than man, nature itself, since the 18th century, had come to be interpreted as a gigantic machine. Woman, nature, machine had become a mesh of significations which all had one thing in common: otherness; by their very existence they raised fears and threatened male authority and control.[44]

This common sense of otherness or alienness precipitated an 'unnatural' kinship between women and machines, especially in a socio-cultural context where the roles performed by women were also rapidly transforming. The implications of this kinship are worked out in a variety of fictional thought-experiments by male and female authors in the nineteenth and early twentieth centuries.

In humorous stories such as M. L. Campbell's "The Automatic Maid-of-All-Work" (1893) and Elizabeth Whitfield Bellamy's "Ely's Automatic Household" (1899),

[44] Andreas Huyssen, "The Vamp and the Machine: Technology and Sexuality in Fritz Lang's *Metropolis*," *New German Critique*, no. 24/25 (Autumn 1981–Winter 1982): 226, http://www.jstor.org/stable/488052.

female robots programmed to perform domestic chores take the place of household servants but unthinkingly carry out their functions with such mechanical efficiency that they nearly wreck the household.[45] A variation of this formula is observed in David H. Keller's "The Psychophonic Nurse" (1928), in which a man buys a customised mechanical nurse-maid (tellingly designed to resemble a "black Mammy") to take care of his newborn baby after his wife complains about how the demands of childcare are damaging her career. The story ends predictably with the suitably chastened wife setting her career aside to focus on her domestic responsibilities—a conclusion that marks "the end of the Psychophonic Nurse."[46] Other stories have men expressing dissatisfaction with women as sexual and marital partners and seeking to replace them with physically perfect and pliant female automatons, in what is effectively a modern technological revision of the Pygmalion myth. This idea is worked out in Alice W. Fuller's "A Wife Manufactured to Order" (1895) and W. K. Mashburn's "Sola" (1930), but both stories end by foregrounding the inadequacy of the machine-woman as a substitute for real women.[47] An exception is Lester del Rey's much-anthologised "Helen O' Loy" (1938), where the male creator marries his female creation, and the eponymous Helen becomes an ideal, devoted wife who leaves instructions for her mechanical body to be destroyed after her husband's death.[48]

[45] M. L. Campbell, "The Automatic Maid-of-All-Work," *The Canadian Magazine of Politics, Science, Art and Literature* (July 1893), https://www.gutenberg.org/files/59053/59053-h/59053-h.htm; Elizabeth W. Bellamy, "Ely's Automatic Household," *The Black Cat* (December 1899), https://www.gutenberg.org/cache/epub/59486/pg59486-images.html.
[46] David H. Keller, "The Psychophonic Nurse," *Amazing Stories* 3, no. 8 (November 1928): 710–17, 737, https://archive.org/details/Amazing_Stories_v03n08_1928-11_bd-sas/mode/2up.
[47] Alice W. Fuller, "A Wife Manufactured to Order," *The Arena* 13, no. 68 (July 1895): 305–12, https://babel.hathitrust.org/cgi/pt?id=mdp.39015033845093&seq=325; W. K. Mashburn Jr., "Sola," *Weird Tales* 15, no. 4 (April 1930): 552–9, https://archive.org/details/WeirdTalesV15N04193004jvhSas/mode/2up.
[48] Lester del Rey, "Helen O' Loy," *Astounding Science-Fiction* 22, no. 4 (December 1938): 118–25, https://archive.org/details/Astounding_v22n04_1938-12/mode/2up.

It is interesting to note how all these representations reproduce dominant socio-cultural preconceptions by situating the female machine within the domestic, (hetero)sexual, erotic, and maternal domains. Stories of automatic housemaids and nursemaids replicate the gendered ideology of separate spheres by coding domestic labour as a feminine obligation. Stories about creating artificial women likewise reflect "the male desire to construct a woman ideal in body and personality, and to maintain total control over her."[49] The machines are also imbued with exaggerated versions of traditional feminine qualities: beauty and sexual allure complemented by perfect subservience and docility. However, more often than not, the wish-fulfilment fantasy of perfect control over the female machine/other is foiled by the latter running amok or rebelling against the creator in a display of what Kathleen Richardson terms "technological animism" or "uncanny personhood."[50] Minsoo Kang notes how, in most texts featuring female robots, "artificial women turn into dangerous creatures, both literally and conceptually, and must be destroyed in order to maintain the political, social, and sexual status quo." Yet, an element of tacit subversion remains, whether intentional or unintentional on the part of the author—one that points to "the constructed nature of the arbitrary dichotomies of natural/artificial, master/slave, man/woman, that are at the heart of what is imposed on us all as nature, tradition, and reality."[51]

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This last statement leads us back to "No Woman Born," which complicates the natural/artificial dichotomy by presenting a female cyborg (by definition a hybrid

[49] Minsoo Kang, "Building the Sex Machine: The Subversive Potential of the Female Robot," *Intertexts* 9, no. 1 (Spring 2005): 5, https://doi.org/10.1353/itx.2005.0012.
[50] Kathleen Richardson, "Technological Animism: The Uncanny Personhood of Humanoid Machines," *Social Analysis* 60, no. 1 (Spring 2016): 110–28, http://dx.doi.org/10.3167/sa.2016.600108.
[51] Kang, "Building the Sex Machine," 17.

creature) rather than a gynoid. The structure of the narrative is similar to that already observed in "Shambleau" in that our perceptions of the central female character are mediated through the thoughts, motivations, and subjective biases of two male characters. In "No Woman Born," the members of this triad are Deirdre, reanimated in a metallic form; Maltzer, the designer of Deirdre's metallic form; and John Harris, Deirdre's erstwhile manager who is evidently besotted with her. Much of the story revolves around the question of whether Deirdre with her mechanical body is still Deirdre, still human, still woman. The narrative alternates between seemingly contradictory perspectives, complicating the notion of otherness in ways again comparable to "Shambleau." At certain points in the narrative, Deirdre is essentially human, not merely due to her organic brain but also due to the sense of continuity in relation to the 'original' Deirdre, down to her "sweet, husky voice," her golden warmth, and even her graceful mannerisms. At other points, she is all automaton—"nothing but metal coils," "only machinery heaped in a flowered chair," entirely without facial expression. Sometimes she is traditionally feminine—Harris makes note of her "smallness and exquisite proportions"; her fluid movements; her act of "preening" in front of the mirror; her "delicate" being; her throaty, rippling laughter. At other times, she is like a knight in armour, "with her delicately plated limbs and her featureless head like a helmet with a visor of glass, and her robe of chain-mail." She is also occasionally animalesque: Harris repeatedly perceives her physical motions as "serpentine," a word that is also used to describe the movement of Shambleau's locks and one that culturally connotes both female sexuality and female deception.[52] Most often, however, Deirdre is an uncanny aberration who, like Shambleau, does not neatly fit into any of the dualistic

[52] C. L. Moore, "No Woman Born," *Astounding Science-Fiction* 34, no. 4 (December 1944): 134–77, https://archive.org/details/Astounding_v34n04_1944-12_AK/page/n133/mode/1up.

categories listed above. Her cyborg ontology is fundamentally alien, positioned at the uneasy intersection of human, animal, and machine.

The key issue that emerges at the centre of Moore's story is that of embodiment, specifically female embodiment. The concept of feminine identity has typically been closely aligned with the female body (particularly its genital and reproductive functions) in Western thought, in sharp contrast to the traditional equation of man with mind, intellect, and reason. Elizabeth Grosz points out how women have been regarded as "*more* biological, *more* corporeal, and *more* natural than men."[53] Deirdre's mechanical body confuses this culturally enforced perception of the exact equivalence between female corporeality and feminine identity. Deirdre as cyborg performs her femininity through a series of calculated gestures directed at her audience, thereby foreshadowing Judith Butler's influential theoretical contention that gender is not something one is, but something one does—a "repeated stylization of the body"[54] in conformity with the hegemonic socio-cultural scripts of masculinity and femininity. The narrative also makes it clear that Deirdre was no more 'naturally' feminine prior to her accident than she is in her metal body; the perception of her feminine beauty and grace was always the product of technologically mediated performance. The opening paragraphs of "No Woman Born" repeatedly emphasise how Deirdre's "image" had previously flashed across the television screens of every home in the civilized world."[55] When Harris remembers and idealises the old Deirdre, he does so primarily in terms of that "image"—a compellingly seductive simulation of femininity that borders on the erotic—which is why he responds with a shock of recognition when he sees her as cyborg for the first time. Deirdre seems

[53] Elizabeth A. Grosz, *Volatile Bodies: Toward a Corporeal Feminism* (Indiana: Indiana University Press, 1994), 14.
[54] Butler, *Gender Trouble*, 43.
[55] Moore, "No Woman Born," 135.

to be a self-aware performer in this regard; although Harris sees her beauty as her defining feature, Deidre's assessment of the matter is strikingly different: "I never was beautiful. It was all—well, vivacity, I suppose, and muscular co-ordination. Years and years of training…"[56] This is not merely her training as an actress and a dancer, but also her training as a woman, which enables her to simulate the trappings of femininity to perfection, even with a metal body.

Unlike Harris, who 'reads' Deidre with a certain degree of flexibility and openness that accommodates multiple possible interpretations, Maltzer sees her only as the technological artefact he has created: "All I can see is my own work."[57] Having fashioned Deirdre's mechanical body, he fancies himself her creator and is frustrated at his inability to establish full control over her, especially when she announces her decision to return to the stage against his will. Maltzer's misgivings about Deirdre's cyborg embodiment centre primarily around his assumptions about her gender and sexuality, both of which have historically been defined in relation to the organic, biological body and its material attributes—physiology, anatomy, chromosomes, hormones, etc. Technological embodiment disturbs this simplistic correlation, leading to Maltzer's perception of Deirdre as an "abstraction" and a "freak" who will be summarily rejected by her previously adoring audience because she has "lost everything that made her essentially what the public wanted."[58] To him, she is "pitifully handicapped," and this 'handicap' lies in her presumed lack of gendered identity: "She hasn't any sex. She isn't female anymore. She doesn't know that yet, but she'll learn."[59] He even contends that Deirdre's magnetism as a performer lay in her "knowledge of sex competition": "You

[56] Moore, 143.
[57] Moore, 136.
[58] Moore, 152.
[59] Moore, 152.

know how she sparkled when a man came into the room? All that's gone, and it was an essential."[60] Even after Deirdre's astonishing comeback performance is greeted with exuberant applause, Maltzer is convinced that the audience will turn on her when the novelty wears off, and he continues to underline her "inadequacy," her loss of femininity and humanity.

The language of lack used by Maltzer throughout the story has much to do with the precise structure of Deirdre's metal body, which, in contrast to the 'biologically female' body, is closed, hard, and impenetrable. Harris makes special note of her face "that had no mouth," and the absence of other anatomical 'receptacles' is strongly implied. One may contrast this with del Rey's Helen O'Loy, who declares: "I'm a woman. And you know how perfectly I'm made to imitate a real woman… in all ways. I couldn't give [Dave] sons, but in every other way… I'd try so hard, I know I'd make a good wife."[61] Maltzer's 'creation' falls short of this wish-fulfilling male fantasy, prompting his statement: "Do you know how… how wrong I've made you?"[62] In fact, although at one level Maltzer places himself in the role of Deirdre's progenitor/father, at another level he comes across as an insecure romantic and sexual partner who is unable to bend her to his will. (Most stories portraying male scientists creating female robots assign this dual role to the creators.) Harris even experiences bouts of jealousy when he thinks about "that year's long intimacy so like marriage" that Maltzer and Deirdre had shared during the process of her reconstruction, even though the marriage is "strange, cold, passionless."[63] The James Stephens poem quoted in the text, a poem that relates to the Deirdre of Irish mythology, assumes fresh significance in this context:

[60] Moore, 152
[61] del Rey, "Helen O'Loy," 123–4.
[62] Moore, "No Woman Born," 167.
[63] Moore, 160, 137.

Let all men go apart and mourn together;

No man can ever love her; not a man

Can ever be her lover.[64]

According to Debra Benita Shaw, Maltzer's despair stems not only from his anxiety about Deidre's reception as a performer but also from his inability to "consummate the relationship" with her because he has failed to give her the organ necessary for heteronormative sexual and reproductive coupling.[65] He even compares Deirdre to Abelard, which is curiously paradoxical in that Abelard was a castrated man, not a woman. Perhaps this is an inadvertent revelation of his own feelings of emasculation; literalised in his tremulousness and rapid physical degeneration. Shaw also draws attention to Maltzer's belief that Deirdre's prior popularity was due to her image as a "sexually available but unattainable" woman. With her impermeable metal body, she is "no longer sexually available" and therefore "no longer desirable, either as a woman or as a performer."[66] There is even the implication that a woman who is undesirable should not exist; Maltzer wonders if it would have been better to let Deirdre die. His self-aggrandising guilt induces him to see himself as another Frankenstein, who has illegitimately produced (and lost control of) a monster that will never be accepted by humanity.

[64] Moore, 135.
[65] Debra Benita Shaw, "'No Woman Born': C. L. Moore's Dancing Cyborg," *Women, Science and Fiction Revisited*, 2nd ed. (Cham: Palgrave Macmillan, 2023), 83.
[66] Shaw, "C. L. Moore's Dancing Cyborg," 79.

It would have been easy for Moore to adapt her story to the mould of "filthy creation" discussed in the first chapter, and indeed Maltzer seems to suggest the same pattern when he builds on the Frankenstein analogy:

> I know now that there's only one legitimate way a human being can create life. When he tries another way, as I did, he has a lesson to learn. Remember the lesson of the student Frankenstein? He learned, too. … We who bring life into the world unlawfully… must make room for it by withdrawing our own. … The thing we create makes living unbearable.[67]

These ruminations culminate in the climactic moment when Maltzer positions himself precariously against the open window, evidently with suicidal intent. There is a tinge of manipulation in his words and gestures as he attempts to exploit the situation to make Deirdre admit that she is less than human, perhaps in a final attempt to gain control over her. However, she resists the Frankenstein association and insists on forging her own narrative path:

> There's a flaw in your argument, and I resent it. I'm not a Frankenstein monster made out of dead flesh. I'm myself—alive. You didn't create my life, you only preserved it. I'm not a robot, with compulsions built into me that I have to obey. I'm free-willed and independent, and, Maltzer—I'm human.[68]

By the end of the narrative, it emerges that Deirdre, far from being sub-human, is actually superhuman. While Maltzer and (to an extent) Harris project their culturally constructed expectations of femininity onto her and see her as delicate, vulnerable, and in need of

[67] Moore, "No Woman Born," 166.
[68] Moore, 168.

protection, Deirdre demonstrates perfect control and self-possession as she blazes across the room in "a sort of tesseract of human motion, a parable of fourth-dimensional activity" to prevent Maltzer's suicide attempt and carry him back to safety.[69] In addition to her superhuman speed, she is extraordinarily strong, supple, and powerful. Ironically, the movements of her techno-body make the human body appear "jointed and mechanical" in comparison.[70] Deirdre seems to have undergone a process akin to what Haraway terms regeneration, explained in "A Manifesto for Cyborgs" as being comparable to the way in which salamanders regenerate injured limbs. Notably, the regenerated limb is not necessarily identical to the lost part; it is "monstrous, duplicated, potent" and full of possibility.[71] The text may occasionally use the language of reproduction—Maltzer talks about how Deirdre was "in a very literal sense… reborn" out of her profoundly injured condition, and Deirdre acknowledges how the making of a machine is "a sort of mental conception and gestation"—but the sense here is more regenerative than reproductive in the organic sense.[72] Her technologically constructed body has liberated her from the constraints of biological reproduction (or what Haraway has termed the "reproductive matrix.") She differs from Frankenstein's Creature in that she neither expects her "father" to "save" her "through the fabrication of a heterosexual mate," nor does she "dream of community on the model of the organic family."[73] She stands alone like a phoenix that has risen "perfect and renewed from its own ashes."[74] In Shaw's words, "Deirdre… is a promising monster who not only escapes the control of her creator but appropriates the tools of his trade to re-make herself."[75]

[69] Moore, 172.
[70] Moore, 156.
[71] Haraway, "A Manifesto for Cyborgs," 38.
[72] Moore, "No Woman Born," 159, 145.
[73] Haraway, "A Manifesto for Cyborgs," 9.
[74] Moore, "No Woman Born," 176.
[75] Shaw, "C. L. Moore's Dancing Cyborg," 75.

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"Shambleau" and "No Woman Born" stand starkly apart from other stories in the pulp magazines in their mature interrogations of the assumptions underlying gendered identity and embodiment. Moore is able to create compelling characters who appear female but challenge the constructs of femininity and resist the patriarchal narratives imposed on them. They are also positioned entirely outside the heterosexual/reproductive matrix and in fact subvert its associated expectations through a form of queer excess that cannot be reduced to a binary framework. Perhaps the one area where they fall short of similar late-twentieth-century explorations is in their inability to propose any form of transformative feminist politics that extends beyond the individual to forge meaningful alliances and coalitions. While the term "Shambleau" implies plurality, the creature who appears in the text remains isolated and is destroyed at the end despite her attempt to communicate with Smith in her own tongue. Likewise, Deidre believes that the only way for her to remain in touch with humanity is to perform on stage. Without that contact, it is too easy for her to "draw … far away from the human race," for she is sure that her specific ontological status is non-replicable.[76] Maltzer may have initially devoted himself to her reconstruction because he intended the knowledge to benefit "others who suffer injuries that once might have ruined them," but Deirdre increasingly believes that she was "an accident," "a sort of mutation halfway between flesh and metal": "Another brain in a body like this might die or go mad. … I don't think a… a baroque like me could happen again."[77] She is regenerated like the mythical phoenix, but the phoenix reproduces that way because there is only one in the whole world. The liberated woman

[76] Moore, "No Woman Born," 176.
[77] Moore, 149, 176.

is thus exuberantly free but precariously alone and irremediably alien, for the possibility of meaningful interpersonal communication cannot be fruitfully realised.

3.2. Woman as Vegetal Alien: The Gothic Registers of Planetary Romance in Leigh Brackett's "Terror Out of Space" and "The Vanishing Venusians"

Despite publishing a large body of SF and being Moore's most noted and prolific female contemporary, Leigh Brackett (1915–78) is yet to receive her due in the field of SF criticism.[78] There is a dearth of serious scholarship on her work, and this may be partially attributed to the specific nature of her fiction as well as the magazines in which most of her work appeared. Although Brackett published her first story, "Martian Quest," in the February 1940 issue of *Astounding Stories*, her chief talents lay in the Burroughsian traditions of space opera and planetary romance, and most of her subsequent works would appear in the magazines catering primarily to that sub-genre of SF writing: *Planet Stories*, *Thrilling Wonder Stories*, and *Startling Stories*. Her imaginative and intensely visual explorations of the pulp landscapes of Mars and Venus, particularly in the stories featuring the recurring character of Eric John Stark (comparable to Moore's Northwest Smith), earned her a formidable reputation as the "Queen" of space opera. In a 1976 interview, Brackett cogently explains that *Astounding Science-Fiction* did not suit her creative skills and authorial interests even though it was the most respected genre magazine of the time that paid the best rates. She clarifies that Campbell not only expected his writers to work within a specific set of ideas and

[78] Like Moore, Brackett was also married to another prominent SF star who had been part of the pulp scene since its very inception and had evolved with the genre, Edmond Hamilton. However, unlike Moore and Kuttner, Brackett and Hamilton did not produce much collaborative work. Hamilton did edit the 1977 collection of Brackett's stories entitled *The Best of Leigh Brackett*, just as Brackett edited *The Best of Edmond Hamilton* in the same year.

techniques but also insisted on solid scientific and engineering foundations in all SF plots—a technical training that Brackett did not have.[79] Moreover, she frankly declares her affinity towards "escape fiction" that evoked a sense of wonder rather than "the heavy-thinking types of science-fiction," and she turned to the magazines that would allow this variety of speculation to flourish.[80] This explains why her work, despite its wide popularity, eventually became subject to critical neglect, for as Dianne Newell and Victoria Lamont have noted, "sf critics have long deployed space opera and science fantasy as the "other" of sf, constructing a canon purportedly based on scientific accuracy" in an attempt to distance the genre from its disreputable pulp origins.[81]

Brackett's status as a "woman writer" is another contentious issue that has shaped her critical legacy. In multiple interviews, she testified that she never had to confront any prejudice or discrimination due to her gender: "They all welcomed me with open arms."[82] However, she was not fond of the label "woman writer," which she perceived as limiting, and exhibited a general indifference towards emerging feminist concerns in SF during the New Wave of the 1960s and 1970s: "I despise the term "woman writer." I am not a woman writer. I am a writer, period. That I happen also to be a woman is beside the point."[83] There was in fact a widespread perception, particularly among feminist critics of SF, that Brackett wrote like a man, telling tales of space travel and larger-than-

[79] Christopher Leslie points out that the suggestion that Brackett "lacked scientific training is something of a red herring, given the lack of scientific accuracy in many of the stories Campbell published." He adds that Campbell may have "used people's scientific credentials to evaluate their stories." See: Leslie, *From Hyperspace to Hypertext*, 316.
[80] Dave Truesdale and Paul McGuire III, "An Interview with Leigh Brackett & Edmond Hamilton," *Tangent* 5 (Summer 1976), republished on *Tangent Online*, December 12, 2009, https://tangentonline.com/interviews-columnsmenu-166/interviews-columnsmenu-166-interviews-columnsmenu-166/classic-leigh-brackett-a-edmond-hamilton-interview/.
[81] Dianne Newell and Victoria Lamont, "Leigh [Douglass] Brackett (1915–78)," in *Fifty Key Figures in Science Fiction*, ed. Mark Bould, Andrew M. Butler, Adam Roberts, and Sherryl Vint (London: Routledge, 2009), 39.
[82] Truesdale and McGuire, "An Interview with Leigh Brackett & Edmond Hamilton."
[83] Paul Walker, "Leigh Brackett: An Interview," *Luna Monthly* 61 (January 1976): 8, https://archive.org/details/LunaMonthly61197601/mode/1up.

life adventures on alien planets in ways that centred masculine subjectivity and experience. Pamela Sargent, for instance, wrote in the Preface to her 1974 collection *Women of Wonder* that Brackett "writes exactly like a man steeped in *machismo*," presenting stories with "plenty of action, he-man protagonists and toughness."[84] Marion Zimmer Bradley, in turn, defended Brackett against such charges by noting that Brackett was not only writing in response to the market demands of her time but also occasionally included "independent, self-determined" female characters in her stories.[85] While my discussion does not seek to proscribe Brackett's work on the basis of the standard expectations imposed by a gendered label that she firmly disavowed, I do use gender as an analytical lens for the interpretation of her work, a method that yields illuminating results.

I focus on two stories published during the war years that are set on Venus, a planet whose enigmatic otherness and cultural associations with femininity have already been underlined in the previous chapter and are suggestively conveyed in Brackett's own descriptions of the planet:

> Nobody knew an awful lot about Venus yet. It was a young, tough, be-damned-to-you planet, and it was apt to give the snoopy scientific guys a good swift boot in their store teeth.[86]

Both "Terror Out of Space" (*Planet Stories*, Summer 1944) and "The Vanishing Venusians" (*Planet Stories*, Spring 1945) combine the dominant images of Venus as "a planet of vast oceans… or of primeval swamps and jungles."[87] SF authors also imagined

[84] Sargent, ed., *Women of Wonder*, xx-xxi. Sargent's collection did not feature any stories by Brackett.
[85] Bradley, "One Woman's Experience in Science Fiction," 87–8.
[86] Leigh Brackett, "Terror Out of Space," *Planet Stories* 2, no. 7 (Summer 1944): 40, https://archive.org/details/Planet_Stories_v02n07_1944-Summer/page/n34/mode/1up.
[87] Stableford, *Science Fact and Science Fiction*, 547.

Venus as teeming with lush vegetation and exotic life forms, and this made the planet a prime target for human colonisation and the locus for a range of fascinating human-alien encounters. Aliens of all sorts abound in Brackett's writing, facilitating complex experimentations with different categories of otherness. My engagement with Brackett's stories confirms Newell and Lamont's contention that Brackett "capitalizes upon the classic identification between the categories of the alien, the primitive, and the land, which in Western culture have a long tradition of identification with the feminine, to create alien beings and landscapes that function as less obvious, yet potent, sites of identity subversion."[88] Brackett affirms a similar perspective in simpler terms in an interview where she states: "[O]ne of the main fascinations of science fiction to me has always been the aliens. What other fields can you get into a totally alien mind, and play with all of these different worlds and social setups."[89] This fascination is effectively captured in the two stories I have selected for my reading, which vividly delineate several distinct alien life forms. In the following discussion, I will supplement Donawerth's concepts of the female alien as humanoid other, as animal, and as machine with the relatively underexplored figure of the vegetal alien or plant other, who combines ontological difference with a range of human significations. I will also argue that Brackett's male protagonists do not necessarily demonstrate the aggressive machismo that Sargent identifies them with; in fact, they often exhibit an emotional sensitivity and vulnerability that point towards Brackett's nuanced take on pulp masculinity.

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[88] Newell and Lamont, "Leigh [Douglass] Brackett (1915–78)," 40.
[89] Truesdale and McGuire, "An Interview with Leigh Brackett & Edmond Hamilton."

The early SF, fantasy, and weird fiction pulps were rife with stories of monstrous plants that are variously sentient, humanoid, ambulatory, and man-eating.[90] Charles Darwin's often neglected botanical work was an important influence in this regard; in fact, T. S. Miller has argued that the monstrous plant is most often "a specifically Darwinian monster."[91] In the course of his voyage on the Beagle, Darwin painstakingly collected and studied a large number of plant specimens, and after his return he conducted several experiments with plants at his residence in Down House, Kent. Between 1862 and 1881, he published a series of works on plant physiology and morphology, pollination and fertilisation, plant movement and tropism, domesticated plants, and insectivorous plants, and his botanical research would help him to formulate many of his theories on evolution and universal common descent. Jagadish Chandra Bose's work on plant physiology and function in the early twentieth century also suggested that plants were capable of responding to a wide range of external stimuli. The scientific ideas emerging from such burgeoning studies readily segued into popular theories of plant sentience or plant consciousness, which in turn vivified the literary terrain of plant horror. In numerous stories published in the pulp magazines in the 1920s and 1930s, the development of plant intelligence is simultaneously seen as an evolutionary inevitability and a source of ineffable terror. Dawn Keetley locates the horror of plants "both in their absolute strangeness *and* in their uncanny likeness."[92] In

[90] G. W. Thomas has compiled extensive lists of pulp plant monsters for the website *Dark Worlds Quarterly*. The sheer number and variety of works featuring such monsters testifies to the immense popularity of the theme. See: https://darkworldsquarterly.gwthomas.org/?s=plant+monsters. Clare Winger Harris also includes "gigantic man-eating plants" in her list of possible SF plots; see: Clare Winger Harris, Letter to the Editor, *Wonder Stories* 3, no. 3 (August 1931): 426–7, https://archive.org/details/Wonder_Stories_v03n03_1931-08/page/n139/mode/1up.

[91] T. S. Miller, "Lives of the Monster Plants: The Revenge of the Vegetable in the Age of Animal Studies," *Journal of the Fantastic in the Arts* 23, no. 3 (2012): 464, https://www.jstor.org/stable/24353087.

[92] Dawn Keetley, "Introduction: Six Theses on Plant Horror; or, Why Are Plants Horrifying?" in *Plant Horror: Approaches to the Monstrous Vegetal in Fiction and Film*, ed. Dawn Keetley and Angela Tenga (London: Palgrave Macmillan, 2016), 5.

stark contrast to evolving ideas of human-animal kinship, plants continue to embody "absolute alterity" in that they seem to blend entirely with the inorganic landscape of nature and remain closed, inscrutable, and indifferent to human existence, precluding communication or comprehension. They are also characterised by a monstrous reproductivity that is excessive and uncontrolled, imbuing them with the ability to engulf human and animal life. The proliferation of carnivorous plants in pulp fiction is testament to the inherent horror in the idea of humans being displaced from their position at the top of the evolutionary chain and reduced to sources of nourishment by vegetal entities who are indifferent to anthropocentric definitions of species hierarchy. Such texts also equate monstrous vegetal forms with hybridity; monstrous plants refuse to fit neatly into established taxonomic categories, being part-human, part-animal, part-vegetal, and part-thing.

The protagonist of Brackett's "Terror Out of Space" is Lundy, an officer of the Tri-World Police, Special Branch, who is headed towards the Venusian city of Vhia with two other men and an unusual captive identified merely as "It." We soon learn that "It" is a mysterious alien life form—"a Thing from outer space"—that has landed on Venus and caused "a wave of strange madness" among its male inhabitants, using its powers of hypnosis and mind-control to create the illusion "that they had met the ultimate Dream Woman of all women and all dreams."[93] "It" is not a vegetal being, but its presentation is strikingly reminiscent of Moore's Shambleau in that it conveys a similar impression of monstrous and threatening hybridity. On the surface, "It" resembles inanimate matter and is vaguely technological—described as cylindrical, crystalline, and "supplied with some odd little gadgets"—but it is at the same time "terribly alive," both "Thing" and

[93] Brackett, "Terror Out of Space," 37.

"Life."[94] The men who are under the creature's telepathic sway see "It" as "She" and are willing to perform outrageous acts of violence and self-destruction in order to protect "her," even as it makes them less than human. Brackett here literalises the association of alien otherness with femininity but also underscores how this association is a masculine construction. Through the masculine gaze, the otherwise ungendered alien creature becomes the monstrous "She" and is aligned with gothic transgression and madness. Like Moore, Brackett also draws on various mythologies of monstrosity to sketch her alien: "It"/"She" is "The Vampire Lure" and another manifestation of Medusa, with "hair you could smother yourself in, and die happy."[95] One cannot look at her eyes without succumbing to the illusory madness leading to death. In fact, by the time Lundy's spaceship crashes into the black waters of the Venusian ocean, both his male co-passengers have fallen under the creature's spell and destroyed themselves in gruesome ways to facilitate "her" escape. Their madness designates the process of becoming what Kelly Hurley has called "the abhuman subject" in gothic fiction—"a not-quite human subject… continually in danger of becoming not-itself, becoming other," and this danger threatens Lundy's physical and psychic integrity throughout the text.[96]

What follows is a journey undertaken by Lundy through a strange underwater landscape replete with forests of hungry weeds and carnivorous flowers that are horrifyingly alive and mobile, almost human. Lundy perceives them as watching him in the darkness of the ocean floor and waiting, and eventually they reach out and grab at his vacuum suit in a horrible travesty of human motion, "like hands grasping and slipping and grasping again."[97] They are constantly described in terms of verbs of action:

[94] Brackett, 37.
[95] Brackett, 37, 49.
[96] Kelly Hurley, *The Gothic Body: Sexuality, Materialism, and Degeneration at the fin de siècle* (Cambridge: Cambridge University Press, 1996), 3–4.
[97] Brackett, "Terror Out of Space," 41.

"moving lazily," "gr[owing] in thicker and closer," "opening their bright hungry mouths."[98] Their petals are "fleshy"; their colours have personalities and emotions ("[s]ullen reds and angry yellows, and coldly vicious blues"); and Lundy can sense their hurt and anger as he starts using his blaster to rebuff their uncanny advances.[99] He is soon reduced to a position of complete abjection as he falls and lies motionless on the ocean floor while the flowers start chewing on his suit, "smother[ing] him, crush[ing] him down, wrapp[ing] him in lovely burning petals of destruction."[100] Brackett describes the "mouths" of the vegetal aliens in terms that clearly recall the primaeval masculine fear of the *vagina dentata*, usually read by theorists of psychoanalysis as a manifestation of "Freudian castration anxiety and birth trauma"[101]: "They reached out and opened round mouths full of spines and sucked at him hungrily."[102] The language used in this section evokes irresistible connotations of a rapacious and devouring female sexuality "grasping" and "closing [Lundy] in," but the gendered association is troubled and hybridised by the image of the "bulging" plants growing and reaching, much like the phallic tentacles on Moore's Shambleau. This is typical of the plant horror narrative, reflecting, in Keetley's words, the ways in which plants refuse "a binarized either/or gender and sex" and revel in "a wild both/and sexual power" that makes them both "terrifying and alluring."[103] There is also a profound reproductive anxiety implicit in the wanton profusion of the weeds ("he seared a lot of them, but there were always more"[104]) as they threaten not only to consume Lundy but also to appropriate and colonise his

[98] Brackett, 41.
[99] Brackett, 41.
[100] Brackett, 42.
[101] Michelle Ashley Gohr, "Do I Have Something in My Teeth? Vagina Dentata and its Manifestations within Popular Culture," in *The Moral Panics of Sexuality*, ed. Breanne Fahs, Mary L. Dudy and Sarah Stage (New York: Palgrave Macmillan, 2013), 29.
[102] Brackett, 40.
[103] Keetley, "Introduction," 16.
[104] Brackett, 42.

body—first growing towards him, then growing in and through him—displaying a regenerative excess that is relentless and insatiable.

The plant monsters in the text also fundamentally disrupt evolutionary hierarchies that place human beings above animals and animals above plants, striking at the root of what Miller calls "the instrumentalist perception of plants" as resource rather than living being.[105] By the time Lundy is crawling on his belly on the ocean floor with the carnivorous weeds closing in around him, the only sound he can make is "a hoarse animal whimper," and his struggle against the encroaching flowers is compared to "the last blind struggle of an animal that didn't want to die."[106] This demotion down the standard evolutionary hierarchy is reinscribed as we realise that Lundy has been effectively reduced from human to animal to the status of a plant, becoming food for the vegetal predators. This may be read as a gothic version of evolutionism, manifesting the potential of the gothic to "map out alternate trajectories of evolution than the one set forth by Darwin, imagining monstrous modifications of known species, or the emergence of horrific new ones, in accordance with the logics of specific ecosystems."[107] Lundy's presentation in this sequence is also starkly distinguished from the conventionally rugged and heroic tropes of pulp masculinity—he is exhausted, unable to move, "sobbing without tears," and "half dead already" until he is rescued from this hopeless situation by another race of alien beings who, in an inversion of the gendered formula of the pulps, turn out to be female. Through her depiction of this new race that embodies an alternative evolutionary trajectory and a hybrid ontology of sameness and difference, Brackett complicates notions of plant alterity and collectivity. Lundy's rescuers are cloud-like

[105] Miller, "Lives of the Monster Plants," 463.
[106] Brackett, 41–2.
[107] Hurley, *The Gothic Body*, 10.

kelp beings who are "kin" to the monstrous weed but are at the same time intelligent, mobile, telepathic, and benign.

> Kin, thought Lundy. Yeah. About like we are to the animals. Plants. Living plants were no novelty on Venus. Why not plants with thinking minds? Plants that carried their roots along with them, and watched you with sad soft eyes. … Little bits of kelp that could talk to you.[108]

While Lundy is able to acknowledge human kinship with animals in this passage, he continues to conceptualise plants in terms of absolute otherness, even as he looks at vegetal beings that are uncannily other *and* human. Brackett describes them as delicate membranous creatures with humanoid "arm- and leg-members," slender and supple bodies, small pixie faces, and "huge round golden eyes" that "made Lundy feel like crying, and so scared that it made him mad."[109] Unlike the ambiguously gendered monstrous weeds, the kelp-beings are also "definitely feminine without having any of the usual human characteristics."[110]

The story momentarily shifts away from the trope of plant horror as Brackett offers a more sympathetic view of an alien civilization that is different but non-threatening. The plant-women instruct the monstrous weed to withdraw (in a singularly strange display of vegetal communication and collectivism) and guide Lundy towards their old underwater city. Lundy learns that their lives have been ravaged by the recent arrival of "She":

[108] Brackett, "Terror Out of Space," 43.
[109] Brackett, 42.
[110] Brackett, 42.

> We haven't seen her. But our mates have. She came a little while ago and walked through the streets, and all our mates left us to follow her. They say she's beautiful beyond any of us, and… And her eyes are hidden, and they have to see them. They have to look into her eyes or go crazy, so they follow her.[111]

The creatures implore Lundy to rescue their mates before they are destroyed by the Others—cannibalistic kelp-beasts with "round mouth-holes full of sharp hair-spines" and "stinging deadly cups on the undersides of their huge tentacles" who periodically attack and consume the cloud-like plant-people.[112] A reproductive issue is at the heart of the crisis: the "little woman-things" reveal that although they can hide in the buildings and keep the Others "away from our seed and the little new ones," their mates are entirely unprotected and likely to be killed in the event of an attack: "We'll be left alone, and there'll be no more seed for us, and no more little new ones."[113] The grief caused by the contemplation of this eventuality is so intense that the plant-women keep their colours dim and their blossoms hidden, in what is effectively a temporary suspension of reproductivity. In a standard pulp plot, the hero's masculine virility would be the typical solution to any such reproductive crisis entailing imminent extinction of a human/humanoid species, but the plant-people are situated entirely outside the human reproductive framework by virtue of their radical otherness, much like the characters in the stories by Moore discussed in the previous section.

[111] Brackett, 43.
[112] Brackett, 46. The Others display the same amalgamation of phallic and vaginal morphic characteristics that signify alien monstrosity in Brackett's texts.
[113] Brackett, 44.

Brackett also points towards vegetal practices of conception, gestation, and motherhood that undermine the presumed centrality and 'natural'-ness of human reproductive behaviours:

> In some of the buildings the lower floor had been covered with sand. Plant-women hovered protectively over them, brushing the sand smooth where the water disturbed it. Lundy guessed that these were seed beds.
>
> In other places there were whole colonies of tiny flower-things still rooted in the sand; a pale spring haze of green in the dimness. They sat in placid rows, nodding their pastel baby coronals and playing solemnly with bits of bright weed and colored stones. Here, too, the plant-women watched and guarded lovingly.
>
> Several times, Lundy saw groups of young plantlings, grown free of the sand, being taught to swim by the woman-creatures, tumbling in the black water like bright petals on a spring wind.[114]

The human male role in procreation again becomes irrelevant in this context, and Brackett reminds us that the natural world is marked by a profusion of *other* regenerative pathways and possibilities. The collective nature of plant regeneration and nurturance reflected in the passage quoted above, where the woman-creatures work together to tend to the unborn and the young, is also contrasted with the individualist frameworks within which human reproductive practices tend to operate, and this foregrounding of a communitarian alternative is in the spirit of the feminist utopian tradition.

[114] Brackett, 44.

In a rare gesture towards human-vegetal interdependence that is at odds with the conventional pulp SF narrative of plant otherness and horror, Lundy sets out on a mission to bring back the plant-men and recapture "It"/"She" in the process. The ruined city through which he passes contributes suitably to the gothic atmosphere of dread and doom, but he eventually spots "the mates of the little seaweed women." Brackett takes an unusual route in presenting her vegetal aliens as a species exhibiting a human-like sexual dimorphism—the males of the species are "bigger" and "coarser," with "strong tough dark-green bodies" as opposed to the dainty, soft green bodies of the females.[115] The subsequent sections of the narrative are action-packed as Lundy locates and entraps the creature from outer space in his net, prompting her to release her hold on the plant-men, and then unexpectedly proceeds to join forces with her through telepathic communication in order to fend off the monstrous Others.[116] Brackett also qualifies dominant notions of alien/female monstrosity by subverting our expectations in the final sequence where Lundy finally looks at the creature and speaks to her. The text goes further than "Shambleau" in giving the monstrous feminine other a (telepathic) voice and shedding light on her motivations. It emerges that the creature is wholly unaware of the terror that she inflicts on men: "Torture? Crazy? Kill? I don't understand. They worship me. It is pleasant to be worshiped."[117] There is no hostility or malevolence in this statement, only an uncomprehending and unbridgeable difference. The terrible beauty and monstrosity of the feminised alien are thus merely products of masculine perception and paranoia and not inherent qualities of her being.

[115] Brackett, 45.
[116] I switch exclusively to the feminine pronoun to describe the "terror from outer space" in this section because the creature is "She" to all those who can see her, and the readers are finally allowed to see her here through Lundy's eyes.
[117] Brackett, 49.

In her discussion on the cinematic figure of the femme fatale, Mary Ann Doane argues that the power of the femme fatale is "of a peculiar sort insofar as it is usually not subject to her conscious will":

> The power accorded to the femme fatale is a function of fears linked to the notions of uncontrollable drives, the fading of subjectivity, and the loss of conscious agency… But the femme fatale is situated as evil and is frequently punished or killed. Her textual eradication involves a desperate reassertion of control on the part of the threatened male subject.[118]

Likewise, the alien creature in Brackett's tale whose illusory feminine beauty drives men to madness does not seem to consciously exert this power at all. That her power is a function of masculine desires and fears is reinforced by the fact that the plant-women are entirely immune to it. Moreover, if the plant-women are characterised by their maternal solicitude, the creature as femme fatale represents gothic aberration in being "the antithesis of the maternal—sterile or barren."[119] Her "textual eradication" is thus inevitable, and the creature confesses that she is in the last throes of her life, likely to be crushed soon by the planet's gravity. The story ends with Lundy looking into the creature's eyes (which have significantly remained veiled throughout the narrative) and realising why "men had died or gone mad forever"—"Because, behind those shadowed, perfect lids, there was—*Nothing*."[120] The text thus circles back to the register of the monstrous-feminine that defines femininity in Freudian terms as the emasculating terror of absence, lack, nothingness.

[118] Mary Ann Doane, *Femme Fatales: Feminism, Film Theory, Psychoanalysis* (New York: Routledge, 1991), 2.
[119] Doane, *Femme Fatales*, 1991.
[120] Brackett, "Terror Out of Space," 50.

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If "Terror Out of Space" dramatises the male fear of female non-reproductive sexuality and hybridity through a series of interspecies encounters, "The Vanishing Venusians" explores a complex human-vegetal confrontation within an archetypal colonial context. The story begins with 3800 "exiles from Earth" (whom the text alternatively refers to as "colonists") who sail the endless black seas of Venus in an increasingly despairing search for their "Promised Land."[121] The foetid, disease-infested swamps of the planet present an inhospitable environment to human life, and all their previous attempts to form settlements have been foiled by deadly fevers and hostile natives. The story focuses on the efforts of three male characters—Matt Harker, Rory McLaren, and Sim—to explore a stretch of potentially habitable land on the high cliffs of Venus in the hope that it may be suitable for a permanent human settlement. However, as in most narratives of planetary colonisation, this land turns out to be already inhabited by two segregated groups of "plannies"—plant-animal hybrids—who share a mutually antagonistic history. Brackett again emphasises the singular trajectories of plant evolution that have made the Venus of her imagination an uncanny *other* of Earth:

> Venus is one vast hothouse, and the plants have developed into species as varied and marvelous as the reptiles or the mammals, crawling out of the pre-Cambrian seas as primitive flagellates and growing wills of their own, with appetites and motive power to match. The children of the colony learned at an early age not to pick flowers. The blossoms too often bit back.[122]

[121] Leigh Brackett, "The Vanishing Venusians," *Planet Stories* 2, no. 10 (Spring 1945): 26, https://archive.org/details/Planet_Stories_v02n10_1945-Sp_sas/page/n25/mode/1up.
[122] Brackett, "The Vanishing Venusians," 28.

It is ironic that the human colonists are looking to establish their roots on a planet where the plant life is mobile, and Sim's statement that "[a] man was meant to have roots some place" drives home this paradox.[123]

The question of reproduction occupies a peripheral position in the narrative but is in another sense its driving force, for Rory McLaren's Venusian wife Viki is pregnant, and McLaren is afraid that his wife and unborn child will be killed by fever before the group can find a permanent home. It is this personal investment that prompts McLaren to join the expedition to the Venusian highlands, but one may also identify a subliminal and collective investment in the reproducing woman and the foetus by a dwindling human population facing conditions of grave existential threat. In *The Child to Come: Life After the Human Catastrophe*, Rebekah Sheldon builds on Lee Edelman's concept of reproductive futurity to observe how "the child as cipher for the future of the adult and the child as cipher for the future of the species intertwined and engendered the vulnerable, innocent child whose rescue from harm appears tantamount to the future safety of us all."[124] Sheldon adds that this equation of the child with the promise of the future "is a deeply and inextricably gendered discourse," as women have the primary responsibility of producing that future through childbirth.[125] Viki's pregnancy therefore metonymically represents the future of the exiled community, and this association (coupled with the general precarity of a rootless, disease-ridden existence) imparts a sense of urgency to the task of finding a location with clean air, good soil, and no fever. Until the task is accomplished, the exiles remain "trapped in the interval between birth and death," with no reliable prospect of a reproductive future.[126] We also learn that

[123] Brackett, 27.
[124] Rebekah Sheldon, *The Child to Come: Life after the Human Catastrophe* (Minneapolis: University of Minnesota Press, 2016), 4.
[125] Sheldon, *The Child to Come*, 56.
[126] Brackett, "The Vanishing Venusians," 26.

Harker's wife and child have already succumbed to fever, which explains the character's attitude of cruel cynicism as he tells McLaren: "Your wife and kid would be better off to die now, while Viki's still young and has hope, and before the child ever opens its eyes."[127] However, Brackett qualifies this impression of tough and weathered masculinity by incorporating a sequence that depicts Harker sobbing in his sleep at night, unconsciously expressing a repressed male vulnerability that is only very rarely acknowledged in pulp space opera.

The chief movement of the story is structured around the men's encounters with the two alien races of plannies: the "Swimmers" who are aggressive amphibious creatures (part-flower, part-animal, part-fish, and unsettlingly human-like) confined within an underground riverine cavern ascending along the slope of the cliff, and the plant-people of the forest who dwell on the broad plain at the top. The first race is overly hostile, attacking the men and brutally claiming Sim's life. It is to be noted that Sim is one of the very few examples of a black character in the pulps who is not depicted in terms of explicitly racist stereotypes, but his brief narrative trajectory concludes with this moment of heroic sacrifice. As McLaren is also injured during the journey through the tunnel, the most significant section in the narrative unfolds as an interaction between Harker and a native inhabitant of the plateau who is described as a girl, "more like a child than a woman," "naked, small and slender and exquisite," with green-tinged white skin, hair like blue petals, and "strange" eyes.[128] She communicates with Harker via telepathy and responds to his question "Animal, mineral, or vegetable?" by directing the same question back at him.[129] Once again we observe a denial of anthropocentric classification, and Harker switches between referring to the Venusian alien as a girl and

[127] Brackett, 26.
[128] Brackett, 32.
[129] Brackett, 33.

as a thing—an unresolvable dichotomy that defines all the female aliens discussed in this chapter. However, in a curious reversal of the human-nonhuman hierarchy, the alien—whom Harker christens Button, after the bachelor's button—has no understanding of the category of the human and refers to the injured McLaren by the pronoun "it." Under her piercing gaze, Harker is uncomfortably conscious of his inherent bestiality. Alessandra Calanchi writes that while the meeting between Harker and Button "mirrors the encounters between Europeans and natives in colonial times," it also "points at the breaking point between the individual and his/her darker side, the human and the not-human, that characterizes Gothic fiction."[130]

In *Frankenstein's Daughters*, Donawerth distinguishes between SF by male and female writers on the basis of their approach to the subject of woman as alien. She writes:

> In men's science fiction, the plot of the alien woman engenders sadomasochistic erotics—the alien woman falls in love with a human man as his reward for conquering the planet. Women writers, in contrast, … resist the sadomasochistic scenario by insisting on the alien woman's subjectivity, by moving her to the center of the story, and by giving her a voice—often a telepathic voice.[131]

Brackett initially seems to plant the seeds of a romantic/erotic plot as she focalizes Harker's experience of intense desire for the alien woman, a desire that he expresses through a kiss. However, the text again resists the usual pattern of subjection through initiation into the heterosexual matrix and its hegemonic discourse of love. Harker asks

[130] Alessandra Calanchi, "Alien Gothic and Gothic Aliens: Leigh Brackett's 'Respectful Distance,'" in *Gothic Metamorphoses across the Centuries*, ed. Maurizio Ascari, Serena Baiesi, and David Levente Palatinus (Bern: Peter Lang, 2020), 141.
[131] Donawerth, *Frankenstein's Daughters*, 46.

Button, "Do you love me?," but he is troubled by her response: "Love? What is that?" She proceeds to spell out an alternative philosophy of non-human life that is irreconcilable with human romantic and reproductive politics, or even Donawerth's "sadomasochistic erotics":

> I grow. I take from the soil and the light, I play with the others, with the birds and the wind and the flowers. When the time comes I am ripe with seed, and after that I go to the finish-place and wait. That's all I understand. That's all there is.[132]

Through her vegetal alien, Brackett succeeds in articulating an ecofeminist ethics of kinship across species distinctions that takes the form of a shared and rooted existence in a shared natural world. Even "the finish-place" is essentially "an incredible compost pile," full of flower-bodies that are colourless and withered and grey—"the aged, the faded and worn out, the imperfect and injured."[133] This composting practice translates to a politics of ecological recycling and regeneration that eschews narrowly genealogical notions of human biological reproduction.[134]

However, Brackett seems to suggest that a vegetal ethics of regeneration cannot coexist harmoniously with human values, reproductive or otherwise. This is confirmed when the plant-beings unhesitatingly deposit the injured McLaren inside the finish-place for, in their worldview, he (or "it") is broken, finished, useless, ugly. In anticipation of the arrival of the human colonisers, the plant-beings have also devised a plan that is horrifying to Harker because it threatens to penetrate the borders of human corporeality

[132] Brackett, 37.
[133] Brackett, 37.
[134] Donna Haraway builds on this triad of kinship, composting, and regeneration in her Camille Stories, published in: Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016).

and implant the seeds of regenerative germination and radical growth in the human body, precipitating a monstrous conception and gestation. Button telepathically conveys to Harker an image of his people covered with thistledown that sprouts in them, covering their bodies "with countless tiny green shoots, sucking the chemicals from the living flesh and already beginning to grow."[135] This profound plant logic that is fundamentally indifferent to the humanity of human life, that threatens to transform the human to humus (to borrow Haraway's terminology), and that responds to the human idea of love with incomprehension leads Harker to the conclusion that the vegetal aliens have no souls. While one may interpret Harker's conclusion as a confirmation of the visceral reality of plant horror, it also becomes a convenient justification for the final (and ironically very human) act of genocide that wipes out both the races of Venusian natives to pave the way for the formation of a human settler colony on the plateau. The story ends with Harker's death and McLaren's journey down the cliff with the promise of a new home and a reproductive future for his people.

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As in the case of Moore, Brackett's planetary romances do not offer the reassurance of closed endings. Both "Terror Out of Space" and "The Vanishing Venusians" leave readers with unsettling questions about the permeability of boundaries between genders, races, and species. Each of the alien beings imagined by Brackett escapes the familiar dichotomous configurations of the human/non-human and the male/female, and the narratives seem to suggest the possibility of conceptualising all forms of life as existing on a continuum rather than a hierarchy, and as capable of following a plurality of evolutionary paths. Brackett also situates her alien beings outside

[135] Brackett, 36.

the human heterosexual and reproductive matrices by identifying them with alternative practices of regeneration, and in doing so she diverges from the established formulas of the pulp plot. However, Brackett denies most of her alien creatures any meaningful afterlives, thereby replicating the ineffable logic of pulp SF articulated by Le Guin—that the only good alien is a dead alien. The stories conclude with the female aliens being annihilated or relegated back to the periphery, and the potential for coalitions across differences is never fully realised. Brackett was undoubtedly well-versed with the demands of her chosen form and her market, and she plotted her stories in accordance with an established set of expectations. She does, nevertheless, uncover many of the conflicts and fractures that lay under the surface of the conventional space opera and planetary romance narratives, and her richly imaginative and complex ways of delineating otherness and hybridity provide the scope for nuanced critiques of human exceptionalism, imperialism, and rigid definitions of gendered identity.

CHAPTER FOUR

DOMESTIC EXPERIMENTS: POST-WAR REPRODUCTIVE MUTATIONS

Magazine science fiction in the years after World War II was a genre in transition. The large-circulation pulps that had survived the restrictions of wartime paper rationing and other exigencies were now faced with the decisive dawn of the Atomic Age, and cautionary stories exploring the ramifications of nuclear war proliferated in magazines such as *Astounding Science-Fiction*, *Thrilling Wonder Stories*, and *Startling Stories*. This was also the age during which SF underwent a change of image and became "respectable," thereby attracting larger numbers of 'mainstream' readers than ever before and precipitating a boom in SF magazine publishing. This transformation was due not only to the higher quality of stories being published in the pulps under the supervision of editors such as John Campbell and Samuel Merwin, but also to the fact that the seemingly outlandish technologies and scenarios associated with SF stories in the popular imagination were rapidly merging with post-war realities. By the end of the decade, two new and significant players had entered the field. The appearance of *Magazine of Fantasy and Science Fiction* in 1949 and *Galaxy Science Fiction* in 1950 would pave the way for the "passing of the pulps" and the consolidation of the digest format as the standard for SF publishing in the 1950s.[1] In this chapter, I examine the period immediately preceding this transition with a focus on two major female authors who debuted in *Astounding* in the critical years after the war and continued their writing

[1] See: Ashley, *The Time Machines*, 220–32; and Ashley, *Transformations*, 1–20.

careers in the digests—Judith Merril and Katherine MacLean. The two stories selected for close study, Merril's "That Only a Mother" (June 1948) and MacLean's "And Be Merry…" (February 1950) not only engage closely with post-war gender relations and reproductive politics but also throw light on the kinds of literary, socio-political, and scientific themes and concerns that women writers would carry with them into the digests of the 1950s, thereby playing a formative role in their development.

Any study of women's writing in America in the immediate aftermath of the war must take into account the domestic turn in American life during the period, one that was closely linked with the burgeoning space of suburbia. In an era marked by the looming fear of nuclear warfare and communist infiltration, the middle-class suburban home came to be constructed as an enclave of safety and security, reassuringly insulated from the danger and chaos of the outside world. Cold War propaganda enthusiastically promoted "the American way of life," which, in the words of Elaine Tyler May, was "characterized by affluence, located in suburbia, and epitomized by white middle-class nuclear families."[2] This new emphasis on the suburban home and the nuclear family as the foundation of American society came hand in hand with the re-entrenchment of a conservative ideology of domesticity that defined men as providers and women as homemakers within the context of heterosexual marriage. Thus, women who had tasted a modicum of social and financial independence during the war years on account of their entry into various professional domains now became the targets of a mass campaign that urged them to resume their proper places within the domestic realm. As May notes, "In the wake of World War II, … the short-lived affirmation of women's independence gave way to the pervasive endorsement of female subordination and domesticity."[3] The post-

[2] Elaine Tyler May, *Homeward Bound: American Families in the Cold War Era* (New York: Basic Books, 2008), 8.
[3] May, *Homeward Bound*, 86.

war domestic ideal also demanded a commitment to the imperatives of reproductive futurism. In a dramatic shift from the delayed marriages and falling birth rates of the 1930s, young men and women of the post-war era conformed to socio-cultural expectations by marrying early and having multiple children in quick succession, contributing to the phenomenon known as the baby boom. Women were also warned that any deviation from the norms of appropriate social, sexual, and familial conduct could undermine the American way of life and render the nation vulnerable to foreign threats. Women therefore became the custodians of integrity, harmony, and security at the national, social, and familial levels. If post-war Americans were "homeward bound," the women of the era were simultaneously "bound to the home."[4]

The theme of domesticity is not new to women's SF; in fact, Jane Donawerth has drawn attention to the ways in which women writers in the early pulps imagined domestic spaces transformed by technology that would reduce the burden of women's labour in the household. Post-war SF by women partially retains this emphasis on technological interventions (particularly with women being targeted as consumers in a thriving capitalist economy), but its specificity lies in its construction of the post-war model of domesticity as a terrain of ideological contestation. Lisa Yaszek has examined this phenomenon through the lens of Joanna Russ's concept of "galactic suburbia." Russ introduces the idea in her essay, "The Image of Women in Science Fiction," where she notes how even the most sophisticated authors of the genre, whether male or female, tended to replicate the gender roles and relations of "present-day, white, middle-class suburbia" in the galactic worlds of their texts, defaulting to the normative assumption that men make the money and women raise the children.[5] Indeed, women writers such

[4] May, 18.
[5] Russ, "The Image of Women in Science Fiction," 206.

as Margaret St. Clair built SF stories around the figure of the 'housewife of the future' (based on the 'housewife heroine' in post-war ladies' magazine fiction) who is armed with the latest housekeeping gadgets and uses them in tandem with her feminine inventiveness to resolve a range of domestic and galactic crises.[6] Yet, the focalisation of domestic spaces and contexts in much post-war SF by women did not necessarily imply an unquestioning acceptance of the cult of domesticity and all its ideological implications. Rather, women writers of the period used the imaginative tools of SF to critically examine, negotiate, challenge, and reformulate the domestic paradigm from a female point of view. As Yaszek argues, such SF "depicted futures extrapolated from the scientific and technological arrangements of postwar America" but did so "from the perspective of women who defined themselves primarily (although not exclusively) as lovers, wives, and mothers."[7] The foregrounding of these seemingly limited identities in a defamiliarised SF framework permitted an interrogation of the corollary concepts of "romance, marriage, and motherhood."[8] The following discussion on the stories by Merril and MacLean will investigate the ways in which the authors revise the premises of mid-century domesticity through their female protagonists, whose subjective voices are accorded central importance in the texts through a variety of narrative strategies. In the process, the stories also become contemplations on gender and reproductive ideology and its implications for women in an era marked by forced conformity and the pervasive logic of containment.

[6] I refer here to a series of eight humorous stories featuring the characters of Oona and Jick, a married couple inhabiting a galactic future, that were published by St. Clair in *Startling Stories* and *Thrilling Wonder Stories* in the late 1940s.
[7] Yaszek, *Galactic Suburbia*, 16.
[8] Yaszek, 4.

4.1. Motherhood and Madness: Nuclear War and Mutant Offspring in Judith Merril's "That Only a Mother"

Josephine Juliet Grossman (1923–1997), who adopted the pen-name Judith Merril in 1947, is undoubtedly the most influential woman writer to have emerged from the transitional mid-century world of SF magazine publishing. Her earliest writing, now largely forgotten, was in the mystery, western, and sports pulps, but her first and most celebrated SF story, "That Only a Mother," was published by John Campbell in *Astounding* after being rejected by most of the mainstream slick magazines. Her considerably large body of short fiction would grace the pages of the surviving pulps and new digests throughout the 1950s, although a detailed consideration of these works is beyond the scope of this study. Merril's career as a writer would, however, be overshadowed by her activities as an editor of the Year's Best SF anthologies and as a reviewer of SF in the latter half of the twentieth century. In Christopher Leslie's assessment, she "championed the transformation of golden-age science fiction into what has come to be known as the new wave" of the late 1960s and 1970s.[9] Her posthumously published memoir, edited by her granddaughter Emily Pohl-Weary, would win a Hugo Award for Best Related Book in 2003. The book records scattered details from a life that was marked by its cumulative entanglement in a variety of progressive, even subversive movements—including the Trotskyism of the 1930s and 1940s, which she saw as "the only political stance that was both anti-U.S.-imperialism and anti-Soviet-Communism."[10] Merril also discusses her experience as a member of the Futurians, "a group of determinedly rebellious, mostly left-wing, science fiction fans just in the process of becoming professionals," including Isaac Asimov, Frederik Pohl (whom

[9] Leslie, *From Hyperspace to Hypertext*, 341.
[10] Judith Merril and Emily Pohl-Weary, *Better to Have Loved: The Life of Judith Merril* (Toronto: Between the Lines, 2002), 11.

Merril would marry and later divorce), Cyril Kornbluth, Robert A. W. Lowndes, and Donald A. Wollheim.[11] Merril shared with many of these fellow writers and editors the conviction that science fiction was fundamentally a tool for the exploration of revolutionary ideas, "'virtual realities' of social change," for "no radical change can ever occur until a believable and seductive new vision is made public."[12]

Merril's emphasis on the home space in her fiction was not based on hegemonic and oppressive conceptualisations of female domesticity, a fact affirmed by her personal experiences of living in unusual domestic arrangements. For instance, in her memoir, she recounts how she and her friend (later her literary agent) Virginia Kidd had adjoining "railroad apartments" during the war years when their husbands were deployed overseas, prompting them to dismantle the wall separating their closets in order to form one large U-shaped apartment, which they called Parallax. Such a living situation allowed Merril and Kidd to share housekeeping and maternal duties while pursuing their careers as professional writers, and the apartment would eventually become a regular meeting place for the Futurians during the 1940s. Merril was also deeply critical of the ideology of "sacrificial motherhood" that emerged as "the dominant view of good mothering in the post-war period," dictating that mothers should be "the central caregiver of their biological children," and that "children require full-time mothering."[13] Merril speaks of her past self as "struggling with the conflict between writing and mothering" and acknowledging that sometimes, "the child couldn't win," for "the child's desire to have all of the mother all of the time is not a reasonable one."[14] Thus, her fictional presentation

[11] Merril and Pohl-Weary, *Better to Have Loved*, 42.
[12] Merril and Pohl-Weary, 42.
[13] Andrea O'Reilly, "Maternal Theory: Patriarchal Motherhood and Empowered Mothering," in *The Routledge Companion to Motherhood*, ed. Lynn O'Brien Hallstein, Andrea O' Reilly, and Melinda Vandenbeld Giles (New York: Routledge, 2020), 23–4.
[14] Merril and Pohl-Weary, *Better to Have Loved*, 57.

of female characters as wives and mothers in domestic settings cannot be construed as an uncritical personal endorsement of traditional values. Nevertheless, her very choice of domestic and maternal themes seems to have provoked a certain section of SF readers and critics. Algis Budrys accused Merril of having "found[ed] and aggrandiz[ed] the steaming-wet-diaper school of SF,"[15] while Damon Knight distinguished between two categories of Merril stories: "the sweat-tears-and-baby-urine variety, which Judy apparently writes simply because some editors expect nothing else from a woman, and one paragraph of which is sufficient to make me feel unclean," and "the cerebral, quietly competent game of wits with her readers, at which she works equally hard, often with brilliant results."[16] Knight undoubtedly intended to class "That Only a Mother" with the former category, but a reading of the story evinces that it equally falls within the scope of the latter, demanding a high degree of intellectual attention and "cerebral" engagement from its readers due to the unconventional narrative technique.

In "That Only a Mother," Merril imagines a near-future America that is on the brink of winning "a comparatively 'clean' controlled atomic war," and proceeds to explore the impact of the war on a suburban nuclear family.[17] The narrative focuses on Margaret, a young mother who dotes on her infant daughter Henrietta and sees her as perfect and precociously brilliant, until Margaret's husband Hank returns from his wartime deployment and discovers that the child has no limbs—a fact that Margaret fails, or refuses, to recognise. At the end, Hank's fingers horrifyingly tighten around the child in what is presumably an act of infanticide. The story was of course one of many mutation narratives published after the war, and Merril makes note of the era's pervasive

[15] Algis Budrys, *Benchmarks Continued: F&SF "Books" Columns*, Volume 1: 1975–1982 (Reading: Ansible Editions, 2012), 18.
[16] Damon Knight, *In Search of Wonder: Essays on Modern Science Fiction* (Chicago: Advent Publishers, 1967), 120.
[17] Merril and Pohl-Weary, *Better to Have Loved*, 154.

anxiety regarding mounting evidence of the insidious after-effects of atomic warfare, such as cancers, mutations, and potential sterility.[18] In the following discussion, I will attempt to briefly assess the history of pulp SF's engagement with the trope of atomic power and atomic warfare and examine how Merril's story may be situated within that broader context. I will also study a set of interlinked narrative and thematic issues emerging from the story, particularly the questions of female domesticity, post-war psychoanalytic discourse, and the distinction between institutional and experiential approaches towards the reproductive politics of motherhood.

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The possibility of harnessing the power of the atom for both beneficent and destructive purposes had provided fodder for pulp SF yarns long before the detonation of the first atomic bombs in Hiroshima and Nagasaki. The trope was recurrent enough in the early pulps for Gernsback to have written an editorial on the "Wonders of Atomic Power" in the May 1932 issue of *Wonder Stories*.[19] John W. Campbell, Jr. was, however, the indubitable visionary in this regard. His early stories present a variety of scenarios involving the use of atomic energy, and *Astounding Science-Fiction* became the leading site for interwar and post-war meditations on atomic power under his editorship and, more often than not, as a result of his ideas and active suggestions to his writers. Even when wartime censorship forbade the publication of writing pertaining to atomic energy and other scientific concepts of potential military significance, Campbell and his arsenal of writers were not deterred. As Mike Ashley notes, "Campbell had earlier written in

[18] Merril and Pohl-Weary, 154. Notably, the *Collier's* editor who rejected the story before its publication in *Astounding* registered "revulsion toward the plot," stating: "I cannot return [the manuscript] fast enough for my own satisfaction." See: Merril and Pohl-Weary, 95.
[19] Hugo Gernsback, Editorial, "Wonders of Atomic Power," *Wonder Stories* 3, no. 12 (May 1932): 1301, https://archive.org/details/Wonder_Stories_v03n12_1932-05_-bc/page/n6/mode/1up.

Astounding that it was *Astounding*'s patriotic duty not to provide scientific details in stories for the potential use of the enemy, but in practice he was more than happy to print stories using state of the art concepts that were demonstrably available to the public."[20] Notable early examples of stories examining the possibility of nuclear reactor disasters are Robert Heinlein's "Blowups Happen" (September 1940) and Lester del Rey's "Nerves" (September 1942). Another remarkably prescient story working out the ramifications of using atomic power as a weapon of war was Heinlein's "Solution Unsatisfactory" (as by Anson MacDonald, May 1941), in which the bombing of Berlin using radioactive dust brings the war to a close, leaving American authorities to contemplate pathways for the future after the unleashing of this Pandora's box.[21] Steve Cartmill's "Deadline" (March 1944) has also earned a permanent position in pulp SF legend as its detailed exposition on the science of building an atomic bomb and its engagement with the problem of isotope separation prompted questioning of Cartmill and Campbell by military intelligence agents deployed in the Manhattan Project's Security Division, who suspected a possible leak of classified research.[22]

Campbell's first reaction to the bombing of Hiroshima and Nagasaki and the disclosure of information about the Manhattan Project appeared in his *Astounding* editorial dated November 1945, where he wrote: "People do not realize civilization, the civilization we have been born into, lived in, and been indoctrinated with, died on July

[20] Ashley, *The Time Machines*, 167. The earlier piece that Ashley refers to is: John W. Campbell Jr., Editorial, "Too Good at Guessing," *Astounding Science-Fiction* 29, no. 2 (April 1942): 6.
[21] Anson MacDonald, "Solution Unsatisfactory," *Astounding Science-Fiction* 27, no. 3 (May 1941): 56–86, https://archive.org/details/Astounding_v27n03_1941-05/page/n55/mode/1up.
[22] The technical matter in Cartmill's story had been furnished entirely by Campbell, who had trained as a physicist in MIT and Duke University. See: Albert I. Berger, "The *Astounding* Investigation: The Manhattan Project's Confrontation with Science Fiction," *Analog Science Fiction/Science Fact* 104, no. 9 (September 1984): 125–37, https://gwern.net/doc/radiance/1984-berger.pdf. Other atomic power stories published in Campbell-edited *Astounding* during the war years before the bombing of Hiroshima and Nagasaki include A. E. Van Vogt's "The Great Engine" (July 1943), Clifford D. Simak's "Lobby" (April 1944), Henry Kuttner and C. L. Moore's "The Piper's Son" (as Lewis Padgett, February 1945), and Robert Abernathy's "When the Rockets Come." (March 1945).

16, 1945, and that the Death Notice was published to the world on August 6, 1945."[23] The editorial effectively captures the SF's community's ambivalent response to the bomb. On the one hand, it validated their speculative prognostications and raised them to the status of veritable prophets, conferring a sudden new respectability on the genre and its practitioners. On the other hand, however, it generated serious apprehension about the potential of atomic power to cause mass destruction on a scale that had precedent only in the imaginative realm of SF.[24] In the years immediately succeeding the end of World War II, *Astounding* "flowered into its moment of absolute contemporaneity"[25] by publishing official government reports, non-fictional pieces, and fictional extrapolations of various post-atomic futures, including stories such as Theodore Sturgeon's "Memorial" (April 1946) and "Thunder and Roses" (November 1947), Lewis Padgett's "Tomorrow and Tomorrow" (January–February 1947), and Poul Anderson and F. N. Waldrop's "Tomorrow's Children" (March 1947). The last is an early example of the mutation story that rapidly gained popularity in the post-war magazines, with nuclear radiation providing a convenient scientific rationale for such narratives. Paul Brians notes that while Campbell retained a generally optimistic stance regarding atomic power in his editorials, he frequently published cautionary tales of atomic doom from 1946–48,

[23] John W Campbell, Jr., Editorial, "Atomic Age," *Astounding Science-Fiction* 36, no. 3 (November 1945): 5, https://archive.org/details/Astounding_v36n03_1945-11_cape1736/page/n3/mode/2up.
[24] This is discussed at length in: Albert I. Berger, "The Triumph of Prophecy: Science Fiction and Nuclear Power in the Post-Hiroshima Period," *Science Fiction Studies* 3, no. 2 (July 1976): 143–50, http://www.jstor.org/stable/4239017. Theodore Sturgeon expresses a similar sentiment about science-fiction writers in his 1946 story, "Memorial": "They had been living very close to atomic power for a long time—years before the man on the street—or the average politician, for that matter—knew an atom from Adam. Atomic power was handy to these specialized word-merchants because it gave them a limitless source of story material. In the heyday of the Manhattan Project, most of them suspected what was going on, some of them knew—some even worked on it. All of them were quite aware of the terrible potentialities of nuclear energy. Practically all of them were scared silly of the whole idea. They were afraid for humanity, but they themselves were not really afraid, except in a delicious drawing room sort of way, because they couldn't conceive of this Buck Rogers event happening to anything but posterity. But it happened, right smack in the middle of their own sacrosanct lifetimes." See: Theodore Sturgeon, "Memorial," *Astounding Science-Fiction* 37, no. 2 (April 1946): 165, https://archive.org/details/Astounding_v37n02_1946-04_cape1736/page/n157/mode/1up.
[25] Roger Luckhurst, *Science Fiction* (Cambridge: Polity Press, 2005), 93.

and a few such tales continued to appear even after Campbell announced in the "Brass Tacks" correspondence section of the September 1948 issue that authors had been instructed to steer clear of the "atomic doom" narrative.[26] The continued proliferation of such stories in *Astounding* as well as other genre magazines of the time explains why Campbell describes Judith Merril's "That Only a Mother" (June 1948) as "a slightly different slant on one of the old themes."[27]

The "slant" that Judith Merril's story offers to the post-atomic discourse is, however, more than slightly different. Most other "atomic doom" stories published in *Astounding* during and after the war explored the impact of atomic power in relation to the grand, self-consciously 'important' subjects of human civilization, international warfare, military control, energy resources, global politics, and post-apocalyptic futures, often with a distinct interest in preserving American supremacy and/or monopoly in the nuclear domain (especially before the Soviet Union's self-declaration as a nuclear power in 1949). Merril's story relegates such elements to the background and refocuses attention on the microcosmic domains of the domestic and personal that have traditionally been gendered as "feminine" (a fact that may explain why Campbell describes Merril as "a new *feminine* science-fiction author" rather than as a female author).[28] Likewise, while most other stories focused on the heroism of scientists, technicians, and visionary politicians in regulating atomic power and managing crisis situations, Merril foregrounds the experiences of ordinary women and children in ways that are largely absent in other contemporary narratives. This is an emphasis that we also

[26] Paul Brians, *Nuclear Holocausts: Atomic War in Fiction 1895–1984* (Kent, Ohio: Kent State University Press, 1987). A new edition of this work is available at https://brians.wsu.edu/2016/11/16/nuclear-holocausts-atomic-war-in-fiction/.
[27] See introductory note to: Judith Merril, "That Only a Mother," *Astounding Science-Fiction* 41, no. 4 (June 1948): 88, https://archive.org/details/Astounding_v41n04_1948-06_cape1736/page/n87/mode/1up.
[28] Merril, "That Only a Mother," 88.

note in Merril's other major early work on nuclear holocaust, the novel *Shadows on the Hearth*, which documents the efforts of an ordinary housewife to grapple with the fallout of an atomic explosion in the absence of her husband. In Luckhurst's words, Merril was "breaking up the masculine and technical focus of much Campbellian fiction to explore feminine and domestic responses to the nuclear age."[29]

The potential effects of nuclear radiation on human reproduction and the resultant possibility of extreme mutations had already been acknowledged in earlier pulp publications. Heinlein touches upon these themes cursorily and almost flippantly in "Solution Unsatisfactory": "These radiation experts not only ran the chance of cancer and nasty radioaction burns, but the men stood a chance of damaging their germ plasm and then having their wives present them with something horrid in the way of offspring—no chin, for example, and long hairy ears."[30] Likewise, in Anderson and Waldrop's "Tomorrow's Children," a male character's wife gives birth to a mutant boy whose limbs are "rubbery tentacles terminating in boneless digits," but the mother's subjective impressions are never acknowledged.[31] These wives and mothers, casually dismissed by male authors as mere begetters of their husbands' monstrously mutated offspring, are given a prominent voice in "That Only a Mother." Although Merril uses a broad third-person narrative structure in her story, the focal point of view through most of the text is that of Margaret. The narrative also incorporates a series of letters that she writes to Hank, which offer the readers direct access to her subjective voice. As a result, we are aware of the pregnant Margaret's increasing sense of dread and unease as the daily newspapers steadily bombard her with warnings and images of "freakish"

[29] Luckhurst, *Science Fiction*, 99.
[30] MacDonald, "Solution Unsatisfactory," 62.
[31] Poul Anderson and F. N. Waldrop, "Tomorrow's Children," *Astounding Science-Fiction* 39, no. 1 (March 1947): 78, https://archive.org/details/AstoundingScienceFictionv39n1/page/n55/mode/1up.

mutations and of fathers murdering their mutated children. She makes conscious attempts to suppress these misgivings, but they are too omnipresent to be resisted. She also attempts to repose her faith in the opinions of male experts, such as the radiologist who reassures her that Hank's job could not have exposed him to radiation, or the geneticist who claims that the worst cases of mutation could be "predicted and prevented." However, Margaret is implicitly aware that such expertise has failed in the past: "We predicted it, didn't we? … But we didn't prevent it. We could have stopped it in '46 and '47. Now…"[32]

One aspect of the story that merits special attention is the way in which it deploys the language of psychiatric discourse in presenting its central female character. At an early juncture in the story, Margaret sits in her office and recalls her interview with a psychologist: "I'm probably the unstable type. Wonder what sort of neurosis I'd get sitting home reading that sensational paper…"[33] Later, after she prematurely gives birth in the Women's Hospital, she accuses the "battle-ax of a nurse" of being obsessed with mutations and insists: "Oh, well, *ours* is all right…"[34] When the doctor and the nurse at the hospital refuse to let her see her baby and try to "explain" things to her, she throws "a small fit," stating: "I think I got a little hysterical at that point."[35] Her determined reiteration of the thought "But MY BABY's all right" seems to suggest deliberate self-delusion.[36] A comparable strategy of evasion is implied when Hank returns home and gets increasingly tense as he witnesses Henrietta's atypical behaviours; the narrator observes: "Margaret would not notice the tension."[37] At the end of the story, the readers

[32] Merril, "That Only a Mother," 90.
[33] Merril, 90.
[34] Merril, 91.
[35] Merril, 91.
[36] Merril, 93.
[37] Merril, 94.

are given a picture of a woman who is wilfully oblivious to her husband's visceral horror as he runs his hands up and down Henrietta's limbless body before tightening his fingers on his child. In a narrative that has accorded centrality to Margaret's voice by foregrounding her musings and letters, it is interesting that she is entirely silenced in the final paragraph of the story, with the third-person narrator shifting to Hank's point of view. Margaret's reaction to Hank's act is not registered; we only perceive her through Hank's disjointed thoughts: "*She didn't know*. … *Oh God, she didn't know*."[38] On the surface, the narrative seems to suggest a link between Margaret's lack (or perhaps intentional repression) of knowledge and her ostensive 'madness,' characterised in terms of instability, neurosis, hysteria, delusion, and—by a seamless process of cultural extension—femininity. In Algis Budrys's reading, "What "That Only a Mother…" says about women is that the unique essence secreted by feminine intelligence under stress is paranoid schizophrenia; that in reference to the same child in the same situation, the father is "analytical" and the mother is "intuitive.""[39]

Whether Hank's response to the given situation may be construed as "analytical" is a question that will be examined later in this section, but one must first pause to consider the implications of Margaret's "madness" in the story, if it is madness at all. This investigation must be contextualised against the institutional entrenchment of American psychiatry (encompassing Freudian psychoanalytic theory, therapeutic practice, and psychiatric pharmacology) in the decades following World War II, with its predominant concentration on women as wives, mothers, and real or prospective patients of the psychiatric establishment.[40] Multiple books of psychiatry from the late 1940s

[38] Merril, 95.
[39] Budrys, *Benchmarks Continued*, 18.
[40] Janet Walker discusses the increasing importance of psychiatry in post-WWII America and traces how it expanded its focus from the returning war veteran to the figure of the "patient-mother," who came to be identified as the cause of most personal and social ills. See: Janet Walker, *Couching Resistance:*

located the home as the primary source of mental disorder or neurosis and identified the mother (the figure held chiefly responsible for the well-being of the home and the family) as simultaneously carrying and propagating neurotic psychopathologies through faulty practices of reproduction and motherhood. A case in point is Ferdinand Lundberg and Marynia F. Farnham's *Modern Woman: The Lost Sex*, published in 1947 and an instant bestseller, which argued: "The spawning ground of most neurosis in Western civilization is the home. The basis for it is laid in childhood… the principal agent in laying the groundwork for it is the mother."[41] According to Lundberg and Farnham, the modern home was merely a "hollow shell" of the traditional home, which in its ideal form was "a social extension of the mother's womb—protecting, warming, nourishing and affording opportunity for growth."[42] With women increasingly working outside the home, devaluing motherhood and the child, and shirking the procreative and nurturing functions that ought to be their natural routes to fulfilment, the inevitable result is psychological maladjustment and neurosis, which is then transmitted from mother to child and eventually engenders social malaise at large. The text presents psychotherapy as a potential solution to this "tide of psychic illness."[43] Lundberg and Farnham also call for "the reconstruction of the home," which entails "not only [getting] women into the home but [getting] them there on a basis satisfactory to their own feelings and aspirations."[44] Such statements demonstrate how psychiatry contributed to the concerted post-WWII effort to bring women back into the home and reinforce domestic values. Betty Friedan has noted that Freudian psychology in the post-war years was a form of

Women, Film, and Psychoanalytic Psychiatry (Minneapolis: University of Minnesota Press, 1993). Elaine Tyler May, in turn, argues that the therapeutic approach that gained momentum after the war partially worked to generate a willing conformity to the domestic ideal by helping women "feel better about their place in the world, rather than change it." See: May, *Homeward Bound*, 17.

[41] Ferdinand Lundberg and Marynia F. Farnham, *Modern Woman: The Lost Sex* (New York: Harper & Brothers, 1947), 303.

[42] Lundberg and Farnham, *Modern Woman*, 114.

[43] Lundberg and Farnham, 356.

[44] Lundberg and Farnham, 364.

inward escape comparable to the mass campaign driving the movement of American women homeward:

> After the depression, after the war, Freudian psychology became much more than a science of human behavior, a therapy for the suffering. It became an all-embracing American ideology, a new religion. … It provided a convenient escape from the atom bomb, McCarthy, all the disconcerting problems that might spoil the taste of steaks, and cars and color television and backyard swimming pools.[45]

In Merril's story, Margaret too attempts to escape the threat of eventual neurosis (an eventuality pronounced by her psychologist) by escaping the daily newspapers and their relentless reports of radiation exposure, mutation, and infanticide. It is also perhaps significant that apprehensions regarding the outcome of Margaret's pregnancy are first plainly articulated in a note from her mother—the figure who is routinely identified as the source of neurosis in post-war American psychiatric discourse—although Merril's design is evidently rather different in that it highlights a sense of intelligent, sensitive, and empathetic bonding between mother and daughter.

If one accepts the contention that one of the chief functions of American psychiatry in the post-war years was to pathologise and discipline female non-conformity and enforce restrictive sex roles to produce docile subjects within the bounds of a male-dominated clinical framework, then it is necessary to consider the extent to which Margaret is guilty of such non-conformity.[46] In Lundberg and Farnham's thesis,

[45] Betty Friedan, *The Feminine Mystique* (New York: Dell, 1974), 115.
[46] This argument is central to the feminist critique of psychiatry that gained momentum in the 1960s, with Betty Friedan's *The Feminine Mystique* playing a key role in shaping the questioning of Freudian psychoanalytic theory and therapeutic/psychiatric practice.

women are susceptible to neurosis because of their inability to accept their innate femininity and their natural position in the arena of household domesticity. Such a diagnosis hardly applies to Margaret, who religiously performs her feminine/domestic/maternal duties and evidently derives great pleasure from these roles, as the well-adjusted woman was expected to do. She climbs out of bed in the morning "with a pleased awareness of her increasingly clumsy bulkiness,"[47] makes breakfast in her kitchenette as she reads the newspaper, contributes to the war effort with her diligent work in the office (as "everyone who could do anything at all was needed"[48]), and writes regularly to her absent husband with updates about her pregnancy and professions of love. After Henrietta's birth, she becomes a doting mother and writes gushingly to Hank about her daughter's beauty and precocity, evincing genuine happiness at every step. On the day of Hank's anticipated return, she prepares a roast and puts on new clothes to welcome him, and the couple tenderly bridge the gap of eighteen months with a mutually desired act of sexual union, creating a picture of marital fulfilment and harmony. Margaret therefore consistently conforms to her prescribed roles in perfect keeping with post-war domestic standards, and she does so without malaise—indeed with overt joy. It is therefore difficult to fit her into the mould of the neurotic type as defined by the likes of Lundberg and Farnham. Conversely, the popular feminist reading of the madwoman as representative of female rage and rebellion, and of madness as a deliberate and desirable alternative to sanity within an oppressive social structure, has been challenged by critics such as Marta Caminero-Santangelo, who contends that madness not only offers little possibility for meaningful rebellion but is also fundamentally

[47] Merril, "That Only a Mother," 88.
[48] Merril, 90. Even Lundberg and Farnham acknowledge that while women must not be "career-minded to the detriment of her home, husband and children," they must be ready to offer their services outside the home in exceptional situations at the request of "community leaders." See: Lundberg and Farnham, *Modern Woman*, 7.

disempowering—"not rage… but hopelessness—not a challenge to constraining representations but a complete capitulation to them"—as it "traps the woman in silence" and removes her "from any field of agency."[49] Merril's Margaret certainly does not represent a picture of feminine rage or subversion; her silence at the end of the story may also be read as an instance of complete capitulation.

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As the title indicates, the idea of madness in the story must be critically studied in relation to Margaret's lived experience as a mother. I use the word experience to recall the distinction between motherhood (or mothering) as an experience and motherhood as an institution that was first articulated by Adrienne Rich and that has provided the theoretical underpinnings for the burgeoning field of motherhood studies.[50] Andrea O'Reilly explains the distinction in the following terms:

> The term "motherhood" refers to the patriarchal institution of motherhood, which is male-defined and controlled and is deeply oppressive to women, whereas the word "mothering" refers to women's experiences of mothering and is female-defined and centred and potentially empowering to women.[51]

Motherhood is a subject that emerges repeatedly in its complex biological, socio-political, and emotional manifestations in Merril's works; *Shadows on the Hearth* (1950), "Daughters of Earth" (1952), and "Project Nursemaid" (1955) are cases in point. In "That Only a Mother," Margaret's genuine delight in the experience of motherhood

[49] Marta Caminero-Santangelo, *The Madwoman Can't Speak: Or Why Insanity Is Not Subversive* (Ithaca: Cornell University Press, 1998), 17, 4, 12.
[50] Adrienne Rich, *Of Woman Born: Motherhood as Experience and Institution* (New York: Norton, 1976).
[51] O'Reilly, "Maternal Theory," 20.

is captured both in her letters and in her interactions with her daughter. The mutation that has made Henrietta limbless has simultaneously made her a prodigy, for she can speak and sing clearly within seven months of her birth. A brief sequence in the story presents a full-fledged conversation between Margaret and Henrietta that, while uncanny due to the latter's age, conveys the mutual love and tenderness between mother and child. After Hank's arrival, Margaret "shows off" her baby's advanced gifts to her husband: "Wait till you hear her sing, darling—"[52] This, then, represents what Rich calls "the potential relationship of any woman to her powers of reproduction and to children." However, the institution of motherhood demands that this "potential," and "all women," shall "remain under male control."[53] If Margaret's experience points towards an inclusive and unquestioning acceptance of a disabled child, Hank's reaction to that disability is an extension of the institutional ideology that imposes conformity and brutally quashes all forms of non-normativity. Moreover, while Margaret's mother-love identifies Henrietta with her abilities, Hank reads his daughter purely in terms of her perceived lack. Within the institutional framework, Margaret's subjective experience of motherhood is thus pathologised, aligned with madness.

It is, however, difficult to accept Budrys's argument that Margaret's reaction to her daughter's difference is intuitive while Hank's reaction is analytical. Hank's implied act of infanticide at the end of the text is hardly analytical; rather, it is occasioned by "a bitter spasm of hysteria,"[54] a feminine illness that is paradoxically ascribed to the husband in a text that, in Luckhurst's words, is "more about male anxiety than female

[52] Merril, "That Only a Mother," 95.
[53] Rich, *Of Woman Born*, 13.
[54] Merril, "That Only a Mother," 95.

fragility."[55] Jane Donawerth makes a similar point in *Frankenstein's Daughters* when she writes:

> Merril asks the time-honored Shelleyan question of who is mad, who is the monster? Is the mother mad because she sees her child as perfect? Is the child the monster, because deformed? Or is Hank the monster, changed by war?[56]

In an interesting interpretation of the text that draws attention to the "imaginative coupling" of bombs and babies in the post-war period, Terrence Holt argues that the generation that made the bomb, unable to accept their guilt, "identif[ied] their children with the bomb in order to hold *them* responsible for it" through a scapegoating logic.[57] Henrietta's mutated body is therefore figured in this reading as a visible symbol of and punishment for Hank's sins (the narrative mentions at an early stage that Hank was involved in the Manhattan Project at Oak Ridge), and Hank responds to this unbearable reminder of paternal responsibility by punishing the victim, Henrietta, and thereby effectively doubling his crime. Merril also seems to question the value of binding women to a domestic ideal in a world where containment is an illusion and domestic spaces are already irrevocably compromised, not due to the neuroses of mothers but due to the aggressive militarism of the fathers who bring their wartime sins to bear on their infant children. The natalist functions of the nuclear family are upended in such a world where mothers give birth only to watch their babies being murdered by their mad husbands.

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[55] Luckhurst, *Science Fiction*, 99.
[56] Donawerth, *Frankenstein's Daughters*, 133.
[57] Terrence Holt, "The Bomb and the Baby Boom," *TriQuarterly* 80 (Winter 1990–91): 207, https://www.triquarterly.org/issue-viewer#/177856#206.

4.2. Reproducing the Vital Self: The Female Scientist's Laboratory Kitchen in Katherine MacLean's "And Be Merry…"

Katherine MacLean had a memorable debut in *Astounding Science-Fiction* with "Defense Mechanism" (October 1949) and went on to publish three other early stories in the same magazine in fairly quick succession, including "And Be Merry…" (February 1950), "Incommunicado" (June 1950), and "Feedback" (July 1951). She would also publish a number of stories in the few pulps that lasted till 1955, and she even made the unusual decision of submitting one of these, "The Man Who Staked the Stars" (*Planet Stories*, July 1952) under the name of her husband Charles Dye because she was "too prolific at a time when editors wanted to publish as many different authors as possible."[58] Notwithstanding her large literary output in the 1950s, MacLean is now best remembered for "Contagion," which appeared in the very first issue of *Galaxy* in October 1950 and is representative of the author's penchant for competent female scientific protagonists and her attempt to "apply to the soft sciences the machinery of the hard sciences."[59] MacLean was advantageously positioned in this regard due to her eclectic educational and professional background: in addition to her bachelor's degree in economics and her postgraduate work in psychology, she had the experience of working as a laboratory assistant and as a quality-control lab technician at a food factory in the 1940s, and this gave her much of the technical knowledge and vocabulary that she would apply to her

[58] Davin, *Partners in Wonder*, 119.
[59] John Clute and Peter Nicholls, "Katherine MacLean," in *The Encyclopedia of Science Fiction*, ed. John Clute and David Langford, updated January 5, 2023, https://sf-encyclopedia.com/entry/maclean_katherine; Katherine MacLean, "Contagion," *Galaxy Science Fiction* 1, no. 1 (October 1950): 114–40, https://archive.org/details/galaxymagazine-1950-10/page/n115/mode/2up.

SF plots.[60] Judith Merril testifies in her autobiography that MacLean was "much more scientific than [her]," and that she had "a natural understanding of science and logic."[61]

Considering MacLean's outstanding success as a writer in the late pulps and early digests, it is surprising that critical responses to her short fiction are still rather sparse. My discussion on "And Be Merry…" in this section partly seeks to redress this critical neglect while also examining MacLean's entirely novel approach to the field of reproductive speculation.[62] I base my analysis on Jane Donawerth's assertion that MacLean "took up cell technology and molecular biology as a way of exploring reproductive alternatives and fears about control of women's bodies."[63] Cytological themes take centre stage in several early stories by MacLean, including "And Be Merry," "Contagion," and "The Diploids," and this demonstrates MacLean's close acquaintance with early- and mid- twentieth-century research on cellular reproduction and tissue culture. In "And Be Merry…," she integrates these emerging "technologies of living substance"[64] with the classic scientific quest for rejuvenation and immortality that has been a science-fiction staple since the inception of the genre. The spectres of Frankenstein and his 'monstrous' offspring re-emerge in this text, but its treatment is starkly different from that observed in the early pulps; here, the quest for rejuvenation and immortality is conducted by a female scientist in her "laboratory kitchen" and

[60] Davin, *Partners in Wonder*, 393.
[61] Merril and Pohl-Weary, *Better to Have Loved*, 118. Merril also mentions that MacLean sporadically lived with her in a number of different situations over the years of their friendship, and that the two shared a keen interest in investigations related to extrasensory perception and Gestalt therapy.
[62] "And Be Merry…" appeared under the variant title "The Pyramid in the Desert" in *The Diploids and Other Flights of Fancy*, a collection of short stories by MacLean first published in 1962. The revised title emphasises the theme of immortality at the heart of the text. However, my citations of the story refer to its original publication in *Astounding Science-Fiction*. See: Katherine MacLean, "And Be Merry," *Astounding Science-Fiction* 44, no. 6 (February 1950): 107–23, https://archive.org/details/Astounding_v44n06_1950-02_dtsg0318/page/n106/mode/1up.
[63] Jane Donawerth, "Katherine Maclean's Short Science Fiction and Cytology: Science as Parabola," in *Parabolas of Science Fiction*, ed. Brian Attebery and Veronica Hollinger (Middletown, CT: Wesleyan University Press, 2013), 56.
[64] Hannah Landecker, *Culturing Life: How Cells Became Technologies* (Cambridge, Mass.: Harvard University Press, 2007), 1.

documented in letters and voice recordings addressed to her husband. The domestic turn of SF in the post-war era is thus given a refreshingly new spin in the story, and MacLean defies contemporary cultural prescriptions that proscribed the female pursuit of science and that presented a professional career and marital domesticity as incompatible alternatives for women, forcing the "either–or" binary approach that framed the ideology of the feminine mystique.

Margaret W. Rossiter's thorough research on women scientists in America in the post-war years reveals that although they were considered "a rare and precious national resource" during the war and made important contributions to the war effort in a professional capacity (especially through their research on nutrition), they continued to be regarded as "temporary and subordinate supplements to an essentially all-male labor force."[65] As a result, any gains that women may have made in the scientific establishment during the war years proved to be short-lived as they were rapidly supplanted or demoted in the post-war period, with returning male veterans occupying most available positions in the academic and professional domains. As Rossiter notes, women and scientists were regarded as "two separate, almost mutually exclusive populations in most postwar thinking."[66] She attributes this to post-war gender ideology, particularly its pronatalist aspects:

> …[T]he real target was not the single career woman… but the married woman who chose to stay on the job. She was far more threatening to the happy vision of rigid sex roles. She might be "feminine," but if she did not have any children, she could still be faulted for being derelict in her duty to

[65] Margaret W. Rossiter, *Women Scientists in America: Before Affirmative Action, 1940–1972* (Baltimore: John Hopkins University Press, 1995), 1.
[66] Rossiter, *Women Scientists in America*, 27.

> perpetuate the race… If she did have children but continued to work, she was obviously a negligent mother.[67]

MacLean's decision to present her female scientist-protagonist Helen Berent as a 38-year-old endocrinologist without children is thus a radical flouting of post-war domestic ideology, dissociating heterosexual marriage from the imperatives of compulsory maternity, and positing a scientific career for women as congruous with domestic fulfilment and a viable alternative to biological reproduction and motherhood.

In "And Be Merry…," the archaeologist Alexander Berent returns to his American home after a five-month long expedition in "the stupendous deserts and mountains of Tibet" to find his wife missing. His only clues are "a letter and two voice records dated and filed in order," which reveal that Helen Berent, prior to her disappearance, was in the process of conducting an experiment whose "official purpose" was to investigate "The Age-Old Old-Age problem."[68] Before launching into a detailed consideration of this experiment, I wish to highlight how the post-war paradigm of domestic femininity is subtly challenged in the text from the outset, even beyond the evident mention of Helen's professional domain. As Alec stands in the empty laboratory kitchen, the third-person narrative voice reports:

> His wife was missing.
>
> She was not singing in the living room, or cooking at the stove, or washing dishes at the sink. Helen was not in the apartment. …

[67] Rossiter, 41.
[68] MacLean, 109–10.

Helen Berent was missing.[69]

The narrative thus begins by conforming to post-war gendered expectations, in that Helen is initially identified merely by her status as Alec's wife and is pictured in terms of a range of traditional domestic activities. However, as soon as she is named a few lines later, our expectations are subtly modulated to permit Helen to emerge as an autonomous individual separate from her marital identity. MacLean proceeds to shift the absent Helen's voice to the narrative centre as Alec reads the letter and listens to the recordings in chronological order. Helen's letter is also illuminating in this context, it refers to the cultural obligations associated with being a "dutiful wife": "I am the wife of an archeologist. Whither thou goest I must go, your worries are my worries, your job, my job." However, she immediately qualifies this statement by drawing attention to her occupation as a scientific/medical professional and asserting the equal importance of her own research: "What you forget is that besides being your wife, I am an endocrinologist, and an expert."[70] The letter amusingly recounts her act of feigning a foot injury in order to evade the cultural obligation of travelling with her husband so that she may have the opportunity of carrying out her forbidden experimental research in the privacy of domestic isolation. She also confesses her intention to become the test subject of her own experiment, in defiance of her husband's previous objections, for "[i]f you can cheerfully expose me to cliffs, swamps, man-eating tigers and malarial mosquitos, all in the name of Archeology, I have an even better right to stick hypodermics in myself in the name of Endocrinology."[71]

[69] MacLean, 108.
[70] MacLean, 109.
[71] MacLean, 109.

Helen's subversion of the conventionally gendered functions of domestic space also extends to her act of modifying the kitchen into a makeshift laboratory, thereby amalgamating two forms of (gendered) space that are traditionally regarded as antithetical to one another. The narrative presents a picture of a kitchen that has a cot alongside other laboratory paraphernalia, such as a corner cage with guinea pigs and rabbits; a work table with a telephone and a dictation recorder; and other miscellaneous objects including labelled bottles, alcoholic disinfectants, and hypodermic needles. Helen can therefore "eat, rest, and work all at once," and Yaszek argues that this makes her more "sensible" than Shelley's mad scientist who grows "pale with study" and "emaciated with confinement."[72] Helen also frequently describes her research through the language of domesticity: the tentative exploratory progression of steps in a scientific experiment is compared to "making up a new recipe by adding and tasting," and the process of rejuvenation is deemed to be "halfway between being born again and being run through a washing machine."[73]

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In the first chapter of this thesis, I have discussed the increasing importance and visibility of the biological sciences in the late nineteenth and early twentieth centuries, and the concomitant emergence of gerontology as a coherent discipline that posited aging as a medical and scientific problem that could be solved in the laboratory. [Notably, MacLean's Helen Berent defines old age as "a disease," "a progressive failure of anabolism."[74]] Scientific practitioners also proposed a number of rejuvenating solutions that would mould the very substance of living matter by manipulating the body's material

[72] Yaszek, *Galactic Suburbia*, 182; Mary Shelley, *Frankenstein* (New York: Norton, 1996), 32.
[73] MacLean, 111.
[74] MacLean, 110.

fluids, such as blood or glandular secretions. Theories of this nature, including the more outrageously fantastic ones, envisioned the living substrate of the body as malleable and changeable through intentional human intervention. This question of "the very possibility of reforming or re-creating living matter as technology" is what Hannah Landecker has termed "plasticity." For Landecker, the idea of plasticity encompasses three primary assumptions: the notion that living substances could be "radically altered" without causing death, that these alterations could be shaped by human scientific intervention, and that biological matter may react to this intervention in both expected and unexpected ways.[75] Helen Berent's project to "coax a replacement for every creaking cell in the body" is founded on this core assumption of biological plasticity, which can allow human beings to supersede the limitations of their evolutionary development.[76] In her own words, "The human machine is tough and elastic."[77]

Landecker also notes how the idea of plasticity was strongly correlated with the pioneering work of the American embryologist Ross Harrison, who demonstrated in 1907 that fragments of embryonic tissue could be kept alive *in vitro* for prolonged periods of time under the right conditions. Subsequent experimental research would complement this notion of cellular autonomy with the belief that *in vitro* tissue cultures could promote and sustain cellular reproduction, pointing towards the "potential immortality of cells in culture."[78] By the 1940s, tissue culture practices had been standardised and human cells were being cultured on a large scale, famously leading to the establishment of the immortal HeLa cell line in 1951.[79] Nikolas Rose has argued that

[75] Landecker, *Culturing Life*, 10.
[76] MacLean, "And Be Merry…," 111.
[77] MacLean, 111.
[78] Landecker, 16.
[79] It is now well-known that the HeLa cell line was cultured from cancerous cells harvested from the cervix of an African-American woman named Henrietta Lacks. The cells were taken in a medical setting without her knowledge or consent

the twentieth century has witnessed a transformation in the conceptualisations of life, embodiment, and reproduction from the "molar" level ("at the scale of limbs, organs, tissues, flows of blood, hormones, and so forth") to the "molecular" level.[80] The mid-century scientific climate can be situated in the middle of these two polarities, with its reimagination of life and reproduction in terms of plasticity at the cellular level. It is evident that the cytological discoveries of MacLean's contemporary moment lie at the base of Helen's hypothesis that "each cell is equipped to duplicate itself and leave a couple of young successor cells to carry on the good work," and that aging could be reversed through the application of a method that would encourage senescent, non-reproducing cells to start reproducing again. Helen is confident that this will be an "easy conquest."[81]

As Alec listens to Helen's recordings, we are introduced to the basic principles and methodology of her experiment from her own perspective. We learn that Helen has bred a special strain of mould that secretes enzymes with the capacity of working on biological matter with "a fine selectivity." These enzymes can destroy cells that had "passed the thin line between death and life," and at the same time generate a protoplasmic fluid that will "provide for an almost instantaneous regrowth" of the missing parts.[82] Helen confesses that her idea was derived from "some hints I had found in the wartime research reports on the penicillia."[83] We recall that the isolation, extraction, and purification of penicillin; clinical tests and human trials; and the commencement of mass production and circulation occurred during the war years. [MacLean's work as a laboratory technician is also believed to have involved antibiotics

[80] Nikolas Rose, *The Politics of Life Itself: Biomedicine, Power, and Subjectivity in the Twenty-First Century* (Princeton: Princeton University Press, 2007), 11–2.
[81] MacLean, "And Be Merry…," 111.
[82] MacLean, 111.
[83] MacLean, 111.

research.] Helen proceeds to conduct her own version of clinical trials within domestic confines: she starts by injecting the solution into a rabbit from her laboratory kitchen, after which she sends a sample to the hospital that is her workplace, so that the fluid may be used in small-scale tests on infected wounds and local gangrene. Deeming the results to be inconclusive but reasonably satisfactory, she proceeds to conduct a series of bold experiments on her own self, testing the plasticity of the human body as biotechnological research object to the limits. The first step of her self-administered "treatment" involves bone replacement, which she accomplishes by reducing her calcium intake levels so drastically as to prompt a rapid ossification of the bones, following which the regenerating protoplasm is allowed to do its work. The success of the treatment is confirmed when she finds that an injury-induced bump in her right humerus has been restored to its original shape and size. Helen infers that regeneration is likely to be "an unused potential of the body," with cells retaining "gene blueprints" that, with "a little encouragement," can "rebuild injuries according to specifications."[84] With this conviction, she proceeds to the final stage of her treatment: a spell of extreme fasting to spur the demolition and subsequent reconstruction of soft tissues. At the end of the process, she records: "Alec, I'm eighteen years old. That is as young as an adult can *get*."[85]

According to Donawerth, MacLean's story offers "a surprising reimagining of the role of woman, from biological mechanism for reproducing humans to female scientist who reproduces herself cell by cell."[86] I argue that the story is equally a surprising reimagining of the Frankenstein myth, especially given that the quest to create life could hardly possess the same irresistible lure for a female scientist as it did for

[84] MacLean, 114—5.
[85] MacLean, 117.
[86] Donawerth, "Women in the Golden Age of Science Fiction," 245.

Victor Frankenstein. Frankenstein and Helen build their scientific research on certain shared foundations; we recall, for instance, the former's claim that "[t]o examine the causes of life, we must first have recourse to death."[87] However, while Frankenstein externally bestows life upon an assortment of dead body parts horrifically collected from charnel houses, Helen Berent redirects her experiments with life inward, precipitating death and vital reproduction at the intimate cellular level with her own corporeal self as experimental subject. Moreover, in stark contrast to Frankenstein's self-aggrandising vision of engendering a new species that would regard him as its "creator and source,"[88] Helen assesses the implications of her discovery for the human race as a whole without descending into the solipsism of placing herself at the centre of this projected future:

> If the treatment gets safely out of the lab and into circulation—rejuvenation worked down to a sort of official vaccination against old age—it would be good for the race I think. It may even help evolution. Regeneration would remove environmental handicaps, old scars of bad raising, and give every man a body as good as his genes. …
>
> And look at cultural evolution! For the first time we humans will be able to use our one talent, learning, the way it should be used, the way it was meant to be used from the beginning, an unstoppable growth of skill and humor and understanding, experience adding layer on layer like the bark of a California Redwood.[89]

Thus, although Helen's scientific experiment starts out as a personal, intellectual quest, she is able to reconceptualise its results in utopian terms through an act of radical

[87] Shelley, *Frankenstein*, 30.
[88] Shelley, 32.
[89] MacLean, 117–8.

imagination. Helen's ideas on the utopian application of science also have a strong ethical grounding. Firstly, she insists that science must be responsibly practised, and that scientists have an ethical obligation to accept and adhere to that sense of responsibility. This assertion holds special salience in the context of the Atomic Age, a fact that Helen acknowledges when she states: "I'm not reckless enough to hand out another Pandora's box to the world." Secondly, Helen's vision of science is egalitarian and progressive; she notes that if the treatment is ever made public after due consideration, the principle of fairness necessitates that "everyone will have to have the treatment available free, for *nothing*."[90] MacLean thus hints at a feminist practice of science, one that is in accord with what Donawerth calls "utopian science": "a woman-oriented science that works in partnership with nature, that depends on the subjectivity and empathy of the scientist, and that is organized in a co-operative and non-hierarchical manner."[91]

*

In the last section of the story, MacLean proceeds to revise other aspects of the archetypal "mad scientist" narrative by inflicting her female scientist protagonist with a form of madness and by situating that madness within the post-war framework of clinical psychiatric practice. The newly rejuvenated Helen soon develops an obsession with death and a visceral fear of anything in her physical environment that could potentially cause accidental death: "People are too careless. I never realized it before, but they are."[92] In her panic, she has herself admitted to a hospital, accuses the psychiatric resident doctor of carrying germs, and fixates on the "miasmic vapors" drifting in through the "barred windows" of her hospital room, imagining that the vapors are "laden with microscopic

[90] MacLean, 117.
[91] Donawerth, *Frankenstein's Daughters*, xxvi.
[92] MacLean, "And Be Merry…,"120.

living things that could turn food to poison while one ate, bacteria that could find root in lungs or skin, and multiply, swarming through the blood."[93] The psychiatric doctor is unable to identify the cause of her ostensible malady, diagnosing it vaguely as a "complex" or a "warp." MacLean here suggests that the disciplinary tools of institutional psychiatry merely work to enforce conformity and are inadequate for any meaningful understanding of female subjectivity. The doctors probe Helen with their standard techniques of psychoanalysis and dull her senses with sedatives but dismiss her claims of being a middle-aged woman and her fear of "little things" as irrational. It is Alec who is finally able to arrive at the root of the problem, and he counters the psychiatrist's talk of repression and irrationality with the statement that Helen is "just too rational."[94] In fact, Helen's seemingly irrational fear of death is revealed to be a manifestation of her perfectly rational fear of immortality, and Alec resolves her predicament by telling her that she is dying of a rare incurable cancer that is growing in an unreachable part of her body. This death sentence ironically becomes life-affirming in that it frees her from the burden of immortality and directs her scientific energies towards a new channel of inquiry.

Helen's outlook towards cancer at the end of the text yields interesting interpretations in relation to Landecker's notion of plasticity discussed earlier in this section. Landecker emphasises that the principle of plasticity, despite being based on notions of infinitely sustained cell reproducibility through human intervention, comes with the corollary recognition that such intervention may yield unanticipated results due to exigencies of ontology and environment. Helen recognises the same principle as she formulates what is effectively the theory of somatic mutation: "Didn't see that all cells

[93] MacLean, 108.
[94] MacLean, 121.

are mutable, not just germ cells, but all cells. If they keep on multiplying—each cell with the same probability of mutation—and some viable mutations would be cancerous, then everybody–…"[95] She does not complete her thought, but the implications are clear: while her experiment in regeneration has succeeded in replacing old sterile cells with new reproducing cells, it has not accounted for the phenomenon of somatic mutation that will inevitably lead to the formation of cancerous cells over time, making her quest for rejuvenation a "wild goose chase."[96] Helen's response to this oversight is relieved laughter and renewed scientific zeal.

In this context, Susan Sontag's observations on disease in her 1978 essay *Illness as Metaphor* are pertinent. Sontag highlights the pervasive cultural propensity (originating in the nineteenth century) to ascribe value judgements and fatalistic meanings to certain diseases through the use of metaphors of warfare, punishment, disease, and death:

> … there is an increasing tendency to call any situation one disapproves of a disease. Disease, which could be considered as much a part of nature as is health, became the synonym of whatever was "unnatural."[97]

Sontag uses cancer as an example of current relevance and argues that the negative metaphors commonly associated with the disease will lose credence only if cancer is "de-mythicized," treated not as an "evil, invincible predator" but as just another disease.[98] She also writes:

[95] MacLean, 123.
[96] MacLean, 123.
[97] Susan Sontag, *Illness as Metaphor* (New York: Farrar, Strauss and Giroux, 1978), 74.
[98] Sontag, *Illness as Metaphor*, 7.

> In cancer, non-intelligent ("primitive," "embryonic," "atavistic") cells are multiplying, and you are being replaced by the non-you. … [C]ancer is the disease of the Other. Cancer proceeds by a science-fiction scenario: an invasion of "alien" or "mutant" cells, stronger than normal cells. One standard science-fiction plot is mutation, either mutants arriving from outer space or accidental mutations among humans. Cancer could be described as a triumphant mutation, and mutation is now mainly an image for cancer.[99]

Sontag connects this conception of cancer as other (an association solidified by the post-War preoccupation with radiation-induced mutations) with the political rhetoric of the twentieth century in which cancer metaphors are used in an "implicitly genocidal" context.[100] Given this range of negative connotations, Helen's joyful response to the prospect of her own cancer (and its fatalistic prophecy of certain death) becomes a form of revisionist myth-making in that it serves as a reassuring confirmation of her mortality. The "unregulated, abnormal, incoherent" multiplication of cancerous cells is of course enmeshed in reproductive discourse, but Helen's perspective displaces this metaphor of growth and reproduction from the register of monstrous excess to that of creative science.[101]

I will conclude my analysis of MacLean's story with a brief (re-)consideration of the domestic paradigm embedded in the text in, one that is underscored by the reunion of Helen and Alex at the end of the text. Their relationship not only represents an ideal of domestic partnership that is based on mutual respect and understanding, but also complements that ideal with a model of scientific partnership, with each partner actively

[99] Sontag, 67–8.
[100] Sontag, 84.
[101] Sontag, 62.

supporting the scientific enterprises of the other. According to Lisa Yaszek, Alec is "a domestic partner who serves as both moral compass and scientific confidante" for Helen, and their marriage is "a microcosm through which to imagine a new kind of scientific community that respects both women's voices and their scientific practices."[102] Helen refers to several types of scientific collaboration with Alec in the text: she solicits his help in writing out the explanatory report on her experiment; she considers an immortal future where each could pursue new disciplinary specialties and work together on common projects[103]; and at the end she asks Alec to "[w]ork it out on a slide rule for me, Hon."[104] Alec's intimate acquaintance with Helen as a person and his awareness of her keen intellect enable him to locate her after his return, to correctly identify the cause of her "madness," to defy a clinical framework of psychiatry that undermines and pathologises female intellectual practice, and to devise an appropriate solution that appeals directly to her rational faculties. The story ends with a passionate embrace between "the vindicated female scientist and her devoted husband" that, for Yaszek, has all the "connotations of fertility and generation," resisting the sterile endings of the early pulp-era tales that foreground the theme of mad science.[105]

[102] Yaszek, *Galactic Suburbia*, 184.
[103] In the aftermath of her experiment, Helen imagines the contours of a future in which both her and Alec have been rejuvenated: "You could learn neurology, and I could learn anthropology and psychology, and then we could talk the same language… covering the field of human behavior between us." MacLean, "And Be Merry…," 118.
[104] MacLean, 123.
[105] Yaszek, *Galactic Suburbia*,185.

CONCLUSION

PULP PASTS

In a cleverly self-reflexive utopian story written for the December 1929 issue of *Amazing Stories*, Leslie F. Stone surveys the terrain of contemporary pulp SF through the eyes of a young man from the twenty-fourth century who accidentally discovers "a pile of old magazines," "yellowed by age," in the cellar of a centuries-old house:

> They dated for the most part from the year of 1920 to about 1935, and proved to be stories of predictions, prophecies of the future, jaunts into interplanetary space, of strange finds and of stranger discoveries. What a wealth of imagination was disclosed!
>
> … In one tale we were to become mechanical geniuses; in another it was prophesied that we would become the mere pawns of people from another planet, again we were torn by wars; the white race to be subjected to the black, or the alternative of all being submerged into one great race!
>
> Another tale had to do with the supremacy of woman and the deterioration of man; of children bred and reared by machines; a third told about machines

> that controlled mankind; ... Of … oh. I could go on and on indefinitely with the details of the stories I found, but I leave the rest to your imagination.[1]

As a reader situated in the far less utopian world of the twenty-first century, I have similarly found the pulp magazines to be a fascinating textual domain "of strange finds and of stranger discoveries," hitherto languishing in the forgotten cellars of SF history. Recent attempts to reconstruct the role of the pulps in that history and pay renewed attention to specific pulp SF texts have made it clear that there is a considerable body of original, inventive, discerning, and politically engaged writing amidst the prodigious quantities of formula-based fiction that the pulp magazines had to offer. It is also amply evident that women played a key role in shaping the corpus of pulp thought-experiments, and no history of women's SF in America can be complete without serious critical attempts to re-situate these pulp pioneers within that history in ways that do not reduce them to a prefatory comment or a footnote. SF scholars such as Jane Donawerth have initiated such attempts in the past three decades, but there is more work to be done.

The first part of the title of my thesis, "Women with Wings," is borrowed from Stone's story of the same name, and its connotations of imaginative flight and freedom from constraints make it a suitable metaphor for the female pulp SF authors studied in this work. During the process of researching and writing about this under-explored body of fiction, I attempted to ensure that my study would look at each story as a cohesive and self-contained textual entity that generates meaning independently as well as in relation to a larger body of texts in the SF tradition. This approach helped uncover a complex network of recurring themes, tropes, and ideas that connect the chosen texts both implicitly and explicitly without reducing them to interpretive homogeneity. It is to be

[1] Leslie F. Stone, "Letter of the Twenty-Fourth Century," *Amazing Stories* 4, no. 9 (December 1929): 860, https://archive.org/details/Amazing_Stories_v04n09_1929-12_-ifc_ibc_bc_sas/page/n92/mode/1up.

remembered that the broad area surveyed in this thesis is, by its very nature, heterogeneous and polymorphous, and therefore resistant to singular overarching conclusions. My attempt in this study was to highlight a plurality of forms, approaches, and concerns rather than to impose a single theoretical or critical framework on a varied body of texts simply because their authors were all women. Nevertheless, certain general insights and observations on pulp SF by women warrant our attention.

Each of the texts studied in the four chapters of the thesis evinces an active authorial engagement with current socio-political, scientific, and literary-cultural discourses, thereby debunking the stereotype that the pulps merely offered mindless entertainment detached from reality. The SF pulps confirm David M. Earle's contention that pulp fiction "held cultural and political criticism submerged, sometimes extremely subtly, within their pages."[2] In fact, we have already seen how the women of the SF pulps did not necessarily limit themselves to hyper-cautious subtlety. Lorraine writes openly about the dream of socialist revolution; Rupert refers directly to the contemporary feminist movement; Stone boldly critiques the twin values of militarism and imperialism; Ludwick alludes to the birth control campaign; Moore explores the contours of the technologically mediated body; and Merril offers a woman's perspective on the presumed "wonders" of the Atomic Age. One can hardly accuse their fiction of being politically inert. Rather, stories by female authors have demonstrated an inherently political outlook through their female-centred critiques of the masculine scientific tradition and their attempts to formulate alternative, inclusive models of science and social relations. The foregrounding of female narrative voices and the presentation of

[2] Earle, *Re-Covering Modernism*, 105.

female characters in traditionally male-dominated fields are also politically charged decisions.

Most importantly, female pulp SF authors do not shy away from the exploration of issues that are of special relevance to women, even as they work within the demands of a genre that conventionally privileges masculine domains of activity and interest. The strategies they adopt to cement the female presence in SF draw from the older utopian tradition and both enable and anticipate the second-wave feminist metamorphosis of the genre. Their stories conceptualise imaginative elsewheres where gender equality has been achieved, or where women are the dominant social group. Such thought-experiments allow them to suitably revise gender roles and thereby encourage the readers to conduct a corresponding scrutiny of the patriarchal status quo. Female pulp authors also frequently introduce a host of gender and reproductive concerns such as procreation, sexuality, pregnancy, marriage, motherhood, nutrition and childcare, and domesticity into their fiction. They are simultaneously able to defamiliarise and reconstruct these categories through the presentation of alternative gendered/reproductive arrangements and even artificial reproductive technologies. The stories that present encounters with the archetypal SF other—the alien—work to unsettle deep-seated preconceptions regarding gender identity, embodiment, and subjectively and are often remarkably astute in identifying the social constructions that govern hegemonic ideologies and hierarchies of gender. Pulp SF by women is also alert to the fractured gender(ed) relations that operate within and without the intimate domestic space of the home.

It is, however, to be noted that the American pulp landscape is governed by certain fundamental biases and erasures that its women writers rarely recognise or correct. Lisa Yaszek and Patrick B. Sharp note in the introduction to their anthology,

Sisters of Tomorrow, that the first women in the pulps were mostly middle class and white. This explains their wholehearted (or minimally critical) ideological acceptance of the American discourses of racial hierarchy and eugenic theory, which they routinely incorporate into their utopian visions.[3] (The excerpt from Stone's "Letter of the Twenty-Fourth Century" quoted above registers this strand in pulp writing by women.) Likewise, the post-war variety of domestic fiction that Merril and MacLean inaugurate are inherently exclusionary in their focus on the suburban setting, which is an overwhelmingly white, middle-class setting. The alien narratives of Moore and Brackett partially succeed in complicating preconceived notions of racial difference through the presentation of hybrid others, and Brackett goes further than most in her delineation of black characters in adventure settings, but such inclusions remain perfunctory in the history of women's SF in the early- and mid-twentieth century.

PULP FUTURES

In writing this thesis on pulp SF by women, I found myself in the difficult and somewhat surprising position of having to exclude far more than what I could include. A number of factors governed these decisions on inclusion and exclusion. To begin with, I chose only those texts that dealt in a substantial way with the twin issues of gender and reproduction, which were the focal points of my study. Important early pulp authors such as Amelia Reynolds Long and L. Taylor Hansen therefore had to be left out of the study because their stories fell outside or were inadequately related to the scope of my inquiry. I hope to return to their fiction in a scholarly capacity in the future, especially because Long brought a rare strand of humour into her speculative extrapolations that warrants

[3] Yaszek and Sharp, *Sisters of Tomorrow*, xviii.

closer attention, while Hansen unusually combined science-fiction writing with non-fictional articles on science mysteries. Furthermore, in my thesis, I chose to restrict myself to one or two stories by a single author in an attempt to do justice to individual texts while also showcasing a relatively wide range of authors with different approaches and styles. However, most of the female authors who published multiple stories in the pulps, such as Harris, Stone, Moore, and Brackett, await sustained critical studies that take the entirety of their literary output into account. This is another area that I hope to address in the future.

The reader discussion columns of the pulp SF magazines also offer immense scope for further research because they offer concrete evidence of the female presence in SF readership and fandom. As Davin observes, "the comments [women] made in the letter columns of all the science fiction (and fantasy) magazines indicate that the female readership of these magazines was a dedicated, enthusiastic, and influential cohort of readers" who occasionally even engaged "in heated discussions on a basis of equality with male fans."[4] Occasionally we find the authors writing to the editors of the magazines, reacting to stories by other authors or offering suggestions and critical commentary. An interesting sample is a letter by a "Mrs. L Silberberg" published in the October 1928 issue of *Amazing Stories*, which reacts to the publication of another letter from a woman in the June issue with the comment: "… this is the first time I have seen a letter from a woman reader. In fact, I was somewhat surprised as I had believed that I was the only feminine reader of your publication. However, it is with pleasure that I note that another of my sex is interested in scientifiction."[5] In his response to this letter, Gernsback states: "We are very glad to hear from one of the fair sex and would be glad

[4] Davin, *Partners in Wonder*, 81.
[5] L. Silberberg, Letter to the Editor, *Amazing Stories* 3, no. 7 (October 1928): 667, https://archive.org/details/Amazing_Stories_v03n07_1928-10_missing_ifc_ibc_bc/page/n91/mode/1up.

if more of the weaker (?) sex were contributors to our Discussions Column."[6] It is quite possible that Mrs. L. Silberberg would go on to feature on the Contents page of the magazine the following year under the name Leslie F. Stone (whose actual name, we recall, was Leslie Frances Silberberg). Such connections cannot be made with absolute conviction given the merely suggestive nature of the evidence, but it raises interesting questions about the interchanges that occurred among pulp readers, pulp editors, and pulp authors.

However, the critical project of the greatest immediate interest to me is one that would look at the intersections between the declining pulps of the late 1940s and early 1950s and the emerging digest magazines of the 1950s. The digests gave the genre of SF an image makeover. They discarded the lurid covers of the early pulps and adopted more stylised and sophisticated covers; they dispensed with interior artwork and reader-discussion sections and introduced book review columns; they promoted a form of fiction that was, in Mike Ashley's words, more "people-orientated rather than ideas-orientated"; and, in the process, they gave SF an added layer of respectability.[7] However, the pulps and the digests had several regular female writers in common in the early 1950s, including Merril and MacLean, Margaret St. Clair (who usually published in the digests as Idris Seabright), and Miriam Allen deFord. Thus, a study of these authors in the context of this overlapping period of pulp- and digest- magazine publication promises to shed light on how the SF field adapted itself in response to the changing demands of the readership and the market and, ultimately, created the conditions for the emergence of the New Wave of SF writing in the late 1960s, one that would finally put science fiction on the map of mainstream publishing and academia.

[6] Silberberg, 667.
[7] Ashley, *Transformations*, 26.

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