Post-Gender Posthumans in *Ghost in the Shell* and *Serial Experiments Lain*

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ABSTRACT

Ghost in the Shell (1995) and *Serial Experiments Lain (1999)* are influential cyberpunk works that explore themes of gender and identity intersecting with technology. In the former, protagonist Major Motoko Kusanagi grapples with her cyborg existence and its meaning as the lines between humanity and technology blur when a sentient artificial intelligence capable of reprogramming souls and memories emerges. A world so far advanced in its conception of humanity may seem to be beyond gender as well, with Kusanagi seemingly fitting the definition of a post-gender cyborg in the manner of Donna Haraway's "A Cyborg Manifesto." However, a closer examination through the lens of Gilles Deleuze's philosophy of agency, which views a body as more than the sum of its parts, suggests a more complex picture. *Ghost in the Shell* ultimately never challenges audiences' perceptions of gender the same way it questions the line between humanity and technology. In contrast, the protagonist of *Serial Experiments Lain*, Lain Iwakura, questions these norms by almost entirely bypassing the sexual themes that *Ghost in the Shell* attempts to address. Thus, despite not being a physical cyborg like Kusanagi, Lain presents a more authentic interpretation of a post-gender posthuman cyborg identity.

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INTRODUCTION

These two cyborg figures are written with different approaches to agency and identity at the intersection of technology and womanhood. The aim of this paper is to observe their relation to the common overlap of this intersection: reproductive labor. Technology and our perceptions of it will always be shaped by our perceptions of labor, as the two are fundamentally intertwined. This holds true even in cyberpunk science-fiction, a genre characterized by leaping advancements in scientific and technological development contrasted with social collapse. The classism often explored in the genre often highlights the expendability of the human body via invasive body modifications, as the technology that could have freed the working class from its struggle is instead used to further cement their low socioeconomic status. In turn, cyborg characters, as a mix of technology and human, are often reduced to the labor they can provide.

Feminist thinker Donna Haraway sought to provide an alternate meaning for the cyborg's existence in her essay "A Cyborg Manifesto." Haraway argues that by rejecting the boundaries of man and machine, cyborgs can instead create their own identities shaped by but not defined by their creation. "A Cyborg Manifesto" is equal parts an exploration of the machine-human dichotomy as a dualism, as well as a call to action for feminists to reject identity politics, notably, the shackling of womanhood to reproductive labor. A "cyborg identity" of womanhood would reject the definition of womanhood as one who can reproduce. This builds off the ideas of older philosophers such as Simone de Beauvoir, who first suggested in *The Second Sex* that motherhood was a form of "reproductive slavery" which left a woman "riveted to her body" (Beauvoir, 12) which men then exploited.

Convergently with Haraway, French philosophers Gilles Deleuze and Félix Guattari created the post-structuralist concept of the rhizome, an assemblage with connections among all its elements regardless of order or hierarchy. The book in which this idea is developed, *A Thousand Plateaus: Capitalism and Schizophrenia*, is emblematic of this concept, as each "plateau" (chapter) can be read and related to any other in any order. This idea is further explored in their concept of the body without organs, which describes the unregulated potential of a body (human or otherwise) as a sort of metaphysical black box equation, where a body is an assemblage of its "organs," which are whatever elements it chooses to define itself by. A body without organs is therefore a body which does not classify its constituent parts into groups but rather has all its parts working together in order to surpass the original form. Both of these concepts, agency and identity, can then be used to examine how two major female-perceived cyborgs are written in contemporary science-fiction, and how to decouple the concept of the post-gender cyborg from reproductive labor. This analysis can, in turn, be extrapolated to work towards our societal understanding of womanhood as separate from its historical and ideological ties to reproductive labor.

One of the most beloved Japanese anime films of all time and a seminal work of the cyberpunk genre is *Ghost in the Shell* (1995), a techno-thriller and meditative psychological drama surrounding the identity crisis of the main character, Major Motoko Kusanagi. As a cyborg soldier of Section 9, the government's information security and intelligence, much of Kusanagi's body has been replaced by cybernetic prosthetics save for a section of her brain. Her sense of self had never been seriously questioned until a new villain emerges to challenge Section 9: the Puppet Master. The Puppet Master is a cyber-consciousness that is the result of an artificial intelligence program gaining enough intelligence to escape the Net. It is capable of "ghost-hacking," manipulating the mind, memories, and spirit (or "ghost") of living individuals, notably causing one of its victims to hallucinate memories of an entire family life he did not have. This ghost-hacking throws Kusanagi's identity into question, as she wonders how she can be alive without a biological body if the things that gave her identity such as her memories and her perception can be so easily altered. The film culminates in the merging of the Puppet Master and Kusanagi, resulting in a new entity that replicates and reproduces beyond the comprehension of both humanity and technology.

As a literal cyborg identity, Kusanagi's character seems to align with the cyborg mythos of Donna Haraway. Her new definition of feminine political identity aligns closely with the premise of the film: in this age of technology where code serves the same function as DNA, where does the body

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end and the soul begin, and why does it matter? Rather than shy away from the technological advancements into what was once purely biological territory, Haraway embraces the change for how it allows women to step away from social and cultural identities entwined with their biology. Kusanagi, on the surface, is not bound by any "commonalities of the female experience" (Haraway, 6) despite being perceived by us, the audience, as a woman, thus seemingly fulfilling the base criterion of being a subversive female machine. However, I argue that this is not entirely true, as what her character attempts to portray in the film does not strictly align with the perception of the audience. Using Deleuze's philosophy of a body without organs, we can deconstruct exactly how Kusanagi's subjective womanhood is shaped by the film and the audience.

A more accurate subversive post-gender cyborg can be found in *Serial Experiments Lain*, a surreal and avant-garde take on the cyberpunk genre from the same period that, compared to its contemporaries, has mostly flown under the radar. The series follows an adolescent girl named Iwakura Lain as she navigates a series of strange incidents that make her question the line between reality and the Wired, a cyberspace that is the sum of all human communication, akin to our modern-day internet. The story begins as a complex hide-and-seek game between Lain, a group of hackers known as the Knights of the Eastern Calculus who seem to worship a God of the Wired, and Tachibana General Laboratories who first created the Wired. As the series progresses and Lain reflects further on the various aspects of herself that emerge when she is in the Wired, she realizes that she has total control of everyone's mind and therefore reality. As the true God of the Wired, she usurps the control of her creator, Masami Eiri, a designer of Tachibana Labs and the previous/acting God of the Wired. Lain's relationship with her multifaceted cyborg identity and with technology is a truer representation of a post-gender cyborg. Utilizing the Deleuzian principle of a body without organs to examine both Lain and Kusanagi as female bodies that are sites of potentiality, and observing how these potentialities play out in their final messages on gender, we can see how *Lain's* focus on creating a slow, unfolding, unsettling sensation of multiple identities independent of gender perception is ultimately closer to Haraway's radical cyborg than Kusanagi, despite the latter often being held up as the archetype.

ANALYSIS

Much of Kusanagi's struggle with abandoning gender can be seen in the opening sequence of the film. As we observe her body being created (or re-created), we also overhear two fully human women discuss menstruation, and how one has "a lot of static in her brain today, because [she's] on [her] period." (*Ghost in the Shell* 2:03) This reference to the visceral, fleshy aspect of female existence, appearing in some of the film's very first scenes, contrasts sharply with the sequence of a female body being assembled like a machine or an object. This contrast immediately foregrounds the question of reproduction as a central theme of the film. The film begins with an implied question: if Kusanagi's body contradicts itself by being female and mechanical, how can she fulfill the socially encoded aspect required to be human as a woman? If her body, designed by Section 9, is not made to menstruate, it is also not designed for impregnation or childbirth. Kusanagi herself discusses the ownership of her form in a conversation with fellow cyborg Batou: "We do have the right to resign, if we choose. Provided we give back our cyborg shells and the memories they hold." (*Ghost in the Shell* 30:12). Thus, alongside her identity being co-opted by the machinery she inhabits, that machinery is also owned by a capitalist institution and can be repossessed should she no longer serve the function for which it was designed. Her body, then, is not only alienated from biological reproduction but also from autonomy, rendered a commodity defined by utility rather than identity.

The question of reproduction returns in the climax of the film, where Kusanagi and the Puppet Master, two voluptuous female-presenting torsos (missing their limbs) lying side by side, merge to reproduce and create an "offspring" that is beyond any conventional idea of reproduction. In Sharalyn Orbaugh's essay *Sex and the Single Cyborg: Japanese Popular Culture Experiments in Subjectivity*, she describes that normally, "replication is the reproductive process of the cyborg, as we see in the opening creation sequence… she is infinitely reparable and will still be Motoko Kusanagi." (Orbaugh, 7). Orbaugh goes on to discuss human reproduction, which interweaves repetition with diversity by combining genetic information from generation to generation. She contrasts with cyborg replication in which each reproduction is merely a facsimile of the previous one. In *Ghost in the Shell,*

this reproduction is controlled by the state which employs Kusanagi. By holding these two major birth scenes next to each other (the opening sequence and the climactic sequence), we can see that despite being presented as a subversive female-presenting cyborg hero in a masculine genre and world, Kusanagi's story can be easily read as a gaining of reproductive freedom. Even without deeper psychoanalysis, the imagery and affectation of the film focuses on a visceral female theme that contrasts with the mechanical female. Using female bodies to promote this theme deconstructs any notion of a radical cyborg. In Haraway's philosophy, the labor of reproduction in this age of technology should not immediately reference a female experience, as the two should work towards no longer being synonymous.

Diving deeper into these themes of womanhood, it is important to trace Kusanagi's history back to one of the first female machines/female cyborgs to be depicted in film: Maria in *Metropolis* (1927) a German expressionist film. The creator of *Ghost in the Shell,* Mamoru Oshii has stated *Metropolis* directly inspired him (Oshii, 2012). In *Metropolis*, Maria constantly faces the issue of her freedom being synonymous with sin and destruction, and despite seemingly having agency and subjectivity she is constantly sidelined during important moments in the story. Oshii stated that "the initial sequence of *Ghost in the Shell* depicting the birth of heroine Motoko Kusanagi… is my personal interpretation of the creation of the android Maria." (Oshi, 2012) While *Metropolis's* Rotwang creates the Machine-Man to resemble Maria by kidnapping the real Maria and constructing a version that serves his needs, Kusanagi's entire identity has been created to serve a militaristic cause. She is born, at the beginning of the film, as a site of potential due to the conflicting nature of machinery and womanhood. She is a shell separate from a ghost. She is a literal body without organs. The organs which are imposed upon her are the capitalist military state which seeks to use her as a weapon, the Puppet Master which seeks to use her to realize its own transcendence, and everything in between. The identity which emerges from these organs is one whose conflict arises from presented gender. Kusanagi is created to present as a woman, but is deliberately denied the embodied markers of womanhood by her creators in order to maximize her utility as a machine. This conflict is imposed upon her at the moment of her creation. Upon recognizing this discourse, the Puppet Master sees Kusanagi's body as yet another site of potential, one it can use in its own plans to escape the limitations of a purely cyber existence. In a very literal sense, the Puppet Master is an "organ" always in search of a body; as a cyber consciousness, it only exists to fulfill the desire it created, which is to escape. It has no meaning outside of its capacity to change itself and affect the change of other beings to fulfill this self-imposed desire.

These partial objects within Kusanagi, while eventually adding up to a curiosity and aspiration towards reproduction, never balance out to the Deleuzian "celibate machine." Although she overcomes the limitations of cyborg replication imposed on her by the female cyborg form, she does not gain the potential to resist the capitalist, militaristic government which owns her body. She never gets a chance to exist outside of it, because the original Motoko Kusanagi is lost in the merge/reproduction with the Puppet Master, and a totally different being is in the child shell at the end of the movie. While this child shell *is* outside the surveillance of the government, it is also fundamentally not Kusanagi. To place the onus of proving one is alive on reproduction is antithetical to the radical cyborg of Haraway's manifesto.

Additionally, Kusanagi passes the burden of resistance to her enlightened child form, and it is unclear how or if that resistance actually occurs. The masculinized military government which initially stripped Kusanagi of her agency (both reproductive and in general) is never truly villainized by Kusanagi, and she only overcomes it by ceasing to exist as Motoko Kusanagi, which is arguably not overcoming at all. She falls closer to Minsoo Kang's idea of the sex machine, a female robot created by a man which lacks aspects that the man finds unappealing. While Kusanagi was created by the masculinized government without reproductive purpose and more to be a weapon, it is impossible to counter this by seeking reproduction. To the audience, a woman desiring to reproduce is not subversive for a female character, as reproduction is a desired trait to a male creator. It is worth noting that, although the Puppet Master inhabits a female body, it is referred to by Section 6 and Section 9 as "he," which further genders the organs of Kusanagi's female body as male.

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Pivoting to a story far less focused on reproduction, *Serial Experiments Lain* completely bypasses these notions of heteronormative sexuality within the machine. Lain's story focuses on her own power, and her own realization of her omnipotence. By approaching the story as a philosophical rhizome, which is possible due to the lack of importance given to linearity compared to *Ghost in the Shell*, it becomes clear that Lain has always been an omnipotent sentient computer software who exists in the Wired but projects themselves onto the real world. It is also important that all versions of Lain that appear throughout the series are the real Lain; in fact, the audience's perception of Lain is a cyborg assemblage of all her elements. She too, is a body without organs in a semi-literal sense as she begins the series as an introverted young girl with few desires or wishes of her own. Her identity is directly affected by the Wired, which makes sense because it is later revealed she *is* the Wired.

Unlike Kusanagi, whose identity is directly tied to the cybernetic parts owned by the government which she merely inhabits, Lain overcomes the limitation of Tachibana's control over the Wired as well as Masami Eiri's control and creation of herself without using reproduction as an interface. Although the various aspects of Lain which come and go can be seen as analogous to Kusanagi's creation of the merged child, the fundamental difference is that all aspects of Lain are still equally Lain, while Kusanagi's merged child self is different from Kusanagi. It is unclear how exactly we are supposed to parse Lain's many identities, but one perspective is Craig Jackson's, who suggests a mathematical, topological approach. To summarize: if Lain is a constantly expanding being within a finite discrete plain (the Wired), Cartesian notions of topology suggest she would see ghosts of herself as the space is distorted. The way Kusanagi is limited in identity by her mechanical body, Lain is limited by the Wired. Limited though she may be, Lain's identities rarely focus on sexuality, and even a brief "relationship" with Taro is sidelined heavily by her friendship with Arisu, who is the ultimate capstone of Lain's subjective identity. It is this pure relationship untainted by external ambitions, that allows Lain to escape control by the Wired and Eiri, something Kusanagi is ultimately unable to do. This friendship is important to Lain's identity, but it is fundamentally not an organ within her body, as it does not act with desire or motive, the motive appears as an effect of the deep friendship. Nothing of the sort exists for Kusanagi, and she had no relationships with other female-presenting characters outside of the Puppet Master, whose gender is debatable. It is this aspect of Lain's identity that allows her to stay anchored to the real world in a way Kusanagi cannot and ultimately makes her a true radical feminist cyborg.

DISCUSSION

To examine how Kusanagi and Lain, two analogous bodies with contrasting internal structures, interact and influence one another, we can frame their dynamic alongside a third, shared force: the overarching power structure that shapes their identities. This structure, while explicitly represented by capitalism and government in *Ghost in the Shell,* is more abstract and implicit in *Serial Experiments Lain,* but still overwhelmingly patriarchal. By conceptualizing this triad—Kusanagi, Lain, and the power systems that govern them—we can better understand the complex interplay between individual bodies and institutional forces. While it is relatively straightforward to analyze each character's relationship to their respective systems, placing them side by side reveals a more intricate and singular interaction. Despite emerging from series with differing tones and thematic concerns, both cyborgs navigate power in ways that are uniquely comparable, requiring a framework flexible enough to accommodate this complexity without reducing it to a fixed or easily solvable pattern.

Both Lain and Kusanagi are hindered in identity by their respective power structures and inherently will seek to move away from it. These power structures will, of course, seek to maintain their control over the female body. Kusanagi, as the adult female, seeks to escape her limitations through sexuality and reproduction; while she is emancipated in the story from traditional notions of heteronormative sexuality, she still performs, in the words of Orbaugh, "reproductive sex as a means of resistance." (Orbaugh, 17). This is not ideal for several reasons: the freedom she seeks will not actually be granted to her but to her child, and neither reproductive sex nor sexualized female nudity are perceived as subversive resistance by the audience. In fact, the audience is also shaped by patriarchal society (both in Japan and in the West) and approve of this form of "resistance" because it is

not really resistance at all. In contrast, the adolescent female cyborg Lain achieves authentic resistance and eventually topples her own power structure by circumventing themes of sexuality and reproduction entirely. When Lain learns she is not truly human, rather than trying to prove her humanity through sexuality, she accepts this facet of herself. There is no need to prove her humanity, and therefore no need to prove her womanhood through traditional and outdated senses of the word. Despite not openly challenging gender, Lain is a true post-gender cyborg, because to be post-gender is to not engage with gender at all.

IMPLICATIONS AND CONCLUSION

While Major Motoko Kusanagi has often been hailed as a subversive cyborg figure, she unfortunately faces similar pitfalls to those of Maria, minimizing her own humanity and womanhood to the ability to reproduce. She challenges various other aspects of cyborg identity, such as blurring the lines between the technological and the real, but she does not engage with feminine identity in a subversive way, and her resistance is not perceived as genuine by the audience. Psychoanalyzing her as a Deleuzian body without organs further exemplifies that she never reaches the equilibrium state of a celibate machine. The conflicts in her identity are imposed upon her at birth, and the themes of birth and womanhood are integral to her character. Because she never attains the celibate machine status, she is never able to truly resist the capitalist militaristic government that stripped her of her agency in the first place. All these shortcomings become even more apparent when she is juxtaposed with Iwakura Lain: an adolescent girl who chooses not to engage with the idea of reproduction as an extension of femininity. She is therefore able to reach that status of celibate machine, plural and diverse in herself, and able to overcome the power structures limiting her identity and agency. The implications of what truly constitute a female cyborg and how such beings are created are extremely important for female characters in cyberpunk: a genre whose identity hangs on subversion and resistance against capitalistic/militaristic/corporatocratic regimes. Female characters also should be allowed subversion despite going against the preconceived aesthetics of the genre.

Promiscuous and scantily clad female characters have been synonymous with the cyberpunk aesthetic since the time of *Neuromancer*, and *Serial Experiments Lain* challenge of this notion may have contributed to why the series did not achieve the same level of popularity as its contemporaries. Presenting a truly subversive post-gender cyborg is fundamentally important in questioning and overcoming lingering traditionalist misogyny in a supposedly progressive posthuman anticapitalistic genre, as it is a signifier of equality for women and women of color who are often pushed out of the science fiction and cyberpunk genres in real life. Additionally, as scientific and technological development progresses along the lines of what we once imagined as science fiction, it is important to keep ideas of gendered and racialized labor in mind to separate our human biases in the evolution of technology as we continue to work towards becoming global citizens of a human community, not defined or diminished by the uncontrolled aspects of our identity.

In today's socio-political climate, the question "What is a woman?" has become a flashpoint in cultural and legislative debates. The importance of cyborg figures that subvert the question entirely, like Lain, becomes even more pressing. The obsessive fixation on defining womanhood through biological essentialism, reproductive capacity, or aesthetic conformity mirrors the same patriarchal logic that cyberpunk sought to dismantle. Rather than progressing into a post-gender future, much of American society has regressed into aggressively policing the boundaries of gender identity in the name of tradition or protection, which sets back feminist progress. In this context, representations like Kusanagi's, which unconsciously hold up conventional gender roles under the guise of futurism, no longer feel revolutionary. Instead, they become complicit. Lain's refusal to anchor her identity in bodily or reproductive terms offers a much-needed radical alternative: a model of femininity that is neither biologically constrained nor performatively hyper-feminized. She is instead autonomous and purely self-defined. As public discourse continues to weaponize gender against marginalized people, it is not just relevant but necessary to uplift media that challenges these narrow definitions and makes space for plurality, ambiguity, and resistance.

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