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Kusanagi's Body: Gender and Technology in Mecha-anime

This article comments on the increasing significance of the action heroine in media entertainment by focusing on Mamoru Oshii's animated film, Ghost in the Shell. *The author argues that the body of the film's protagonist, Major Motoko Kusanagi, serves as 'a battleground for conflicting representations of power in an era of global capitalism...' and represents 'a desire to preserve the feminine and the human in the midst of an increasingly mechanized modern world where patriarchal capitalism reigns supreme.'*

An article in a recent issue of *Time* magazine entitled 'Go Ahead Make Her Day' states that American audiences are beginning to see more and more women playing the part of the action 'heroine' in their media entertainment. Along with popular television programmes such as *Dark Angel* and *Buffy the Vampire Slayer,* the article mentions hit cartoons such as *The Power Puff Girls,* video game heroines such as Lara Croft of *Tomb Raider* fame, and of course, the recent spate of female martial artists in such films as *Charlie's Angels* and *Crouching Tiger, Hidden Dragon.* Given the present climate for screen representations, icons of masculinity such as Arnold Schwarzenegger seem to be holdovers from a previous era where power could only be represented by the pumped up bodies of strong male heroes. It seems as though popular culture has finally begun to account for the shift in power dynamics brought on by the information age, where the signifiers of strength, efficiency, and speed need no longer be gendered in stereotypically masculine ways. Finally, mainstream American popular culture is catching on to what has been a standard feature of less visited genres, such as Japanese animation.

'Anime', the Japanese word for animation, has a long tradition of representing power in the bodies of women, skinny teenage boys and

girls, and even the bodies of cute, furry little animals. The sub-genre that I would like to discuss in this paper is 'mecha-anime', or mechanical animation, because mecha-anime explicitly take on technology, power, and gender as subject matter. Mecha-anime have also been criticized for their violent and sexual content, but a closer look shows that the violence and sex in mecha-anime is far from gratuitous. Instead, sex and violence become the tools for representing conflicting visions of power distribution and deployment in rapidly changing technological and economic conditions. After a brief introduction to the mecha-anime subgenre, I will focus on Mamoru Oshii's animated feature film, *Ghost in the Shell,* which gained wide popular distribution in 1995.[1] Although dismissed by some critics for its appeal to prurient interests and teen-age bloodlust, *Ghost in the Shell* actually presents a protagonist whose body serves as a battleground for conflicting representations of power in an era of global capitalism. Far from thwarting the values of feminism and humanism, the blurring of boundaries between masculinity and femininity or machinery and human flesh in mecha-anime often signifies a desire to preserve the feminine and the human in the midst of an increasingly mechanized modern world where patriarchal capitalism reigns supreme.

• **Mecha-anime, and** the techno trip from robots to cyborgs

Mecha-anime are primarily science fiction narratives, often taking place in dystopian futuristic cityscapes where advanced technology figures prominently. They cover the full spectrum of screen narratives, from broadcast television programmes to feature films, and even what are known as OVAs (original video animations) which are released directly for sale as VHS cassettes or DVDs. It is impossible to speak of mecha-anime as an exclusively Japanese creation, because the genre itself is a hybrid born amidst the intense competition and cooperation which have characterized economic and technological relations between the United States and Japan in the postwar era, and reached a fever pitch in the 1980s. The literary equivalent of mecha-anime is the genre known as cyberpunk. Both present a relationship with technology which is fundamentally different from that found in the science fiction narratives of the previous era. Where the SF

[] 1. Ghost in *the Shell* was released in Japan as *Kokaku kidotai* in 1995.

narratives of the early 1960s depicted technology as separate from human beings, either decrying it as our downfall or celebrating it as our salvation, such judgements were no longer possible in the 1980s, when new consumer technologies such as the personal computer and designer drugs were introduced into the cultural landscape. Technology in cyberpunk is, in the words of Bruce Sterling, spokesperson for the cyberpunk movement, 'utterly intimate. Not outside us, but next to us. Under our skin; often, inside our minds' (1986: xiii). Both cyberpunk and mecha-anime are also provocative and problematic in terms of their treatment of gender, and it is particularly this intersection of gender and technology which makes the comparison of the two forms interesting.

Cyberpunk writers like Sterling and John Shirley made overt claims to cyberpunk's revolutionary potential. The values of the free spirited hacker heroes in cyberpunk narratives are placed in opposition to the trickle-down conformity of the Reagan era. According to Peter Fitting, 'The defenders of cyberpunk saw the correlation with punk values in terms of both social resistance and punk's aesthetic rebellion against the overarranged and commodified music of the 1970s' (1991: 296). Critics of the cyberpunk movement such as Nicola Nixon fail to see any real opposition in these value systems. For Nixon cyberpunk has more in common with Reagan era Republicanism than its authors care to imagine:

> For all its stylish allusions to popular culture—to punk rock, to designer drugs, to cult cinema, to street slang and computer-hacker (counter) culture—cyberpunk fiction is, in the end, not radical at all. Its slackness and apparent subversiveness conceal a complicity with '80s conservatism which is perhaps confirmed by the astonishing acceptance of the genre by such publications as *The Wall Street Journal, The Washington Post,* and *The New York Times...* (1992: 231)

The real problem for Nixon is cyberpunk's gender politics. Far from revolutionary, Nixon sees cyberpunk as a reactionary movement attempting to undermine the efforts of Utopian feminist SF writers of the 1970s, such as Joanna Russ and Ursula K. LeGuin. Mecha-anime are similarly conflicted with reactionary and revolutionary utopian/ dystopian visions, but that is part of their appeal. Neither cyberpunk nor mecha-anime present an agenda for change. What they do show is where the culture wars are being fought. One particularly active battleground depicts the struggle for masculine and feminine representations of technology. In mecha-anime the change in gender

representation begins with the transformation of characters from what are essentially robots to what are now cyborgs.

The precursors to mecha-anime narratives of the 1980s were the robot narratives created in Japan and imported into the US in the 1960s. The first of these to be featured as a television series in Japan, and then later in the US, was Osamu Tezuka's *Tetsuwan Atomu,* better known in the US as *Astroboy*. Like many anime, *Astroboy* started out as a manga, or comic book, created for an audience of postwar Japanese baby boomers. Tetsuka was a great admirer and imitator of Walt Disney, so much so that he is often called 'the Walt Disney of Japan' [Levi, 1996; 19). He pioneered many of the animation techniques which are still widely used in Japan today. In 1951, when Tetsuka created the character for *Tetsuwan Atomu,* he was already aware of the growing mechanization of Japanese society. 'He had created Atom to be a 21st century reverse Pinocchio, a nearly perfect robot who strove to become more human and emotive and to serve as an interface between the two very different cultures of man and machine' (Schodt, 1996: 245). In the US the programme was also very popular, running 104 episodes. When asked the reason for the success of the programme, Fred Ladd, the NBC supervisor of rescripting, responded, 'It succeeded for many of the same reasons Pinocchio succeeded and *Home Alone* succeeded—there's an empowered youngster outperforming the adult bad guys' (Schodt, 1996: 248). By endowing Astroboy with human emotions Tetsuka was creating a character ahead of its time, one that foreshadowed the coming of cyborgs in the 1980s. By contrast, some of the other programmes which the US imported from Japan in the 1960s featured a young adolescent male hero who was the exclusive commander of a piece of very advanced technology. Typical examples of these types of programmes were *Gigantor (*1965), about a boy who controlled a giant robot using a radio wrist watch, and Speed *Racer* (1968), about a teenage driver of a high-tech racing car. In this early period technological mastery became the factor which gave these young male heroes their advantage. These narratives of the 1960s place high technology in the hands of young boys—something that still had a fantasy element to it in the era before Bill Gates and Steve Jobs.

The view of technology represented in these proto-mecha narratives is essentially an industrial era view. Technology is seen as 'gigantic' or as the product of an assembly line. Although Astroboy himself doesn't fit this description, many of his adversaries in the show do. The animated shows of the 1960s express resistance by placing

technology where it ordinarily wouldn't be—in the hands of young boys. Although there are a few exceptions, predominantly the representations in these programmes belong to an older view of technology. They are all essentially robotic. In *Electronic Eros,* Claudia Springer points out that 'robots belonged to the age of factories and mills, when machines forcefully announced their powerful presence' (1996: 101). The same degrees of ambivalence which characterize contemporary views of technology were present during this earlier era. According to Springer, during the:

> Industrial Revolution, when people's lives were radically transformed, widespread optimism that machines would bring progress was accompanied by anxiety about technology's potentially destructive powers. The fear evoked by machines was exacerbated by their sheer magnitude; they were often huge and loud, and they thrust, pumped, and turned with an aggressive persistence. Their power was palpable and visible (1996: 99).

The SF representations of this era were correspondingly large and masculine. Mary Shelley's *Frankenstein* is a classic early example of technologically created life. Films like *"The Terminator* (James Cameron, 1984) perpetuate and even exaggerate the anachronistic industrial-age metaphor of externally forceful masculine machinery' (Springer, 1996: 111). This view of technology has not disappeared from the cultural landscape, but it has been challenged by an alternate view.

By the 1980s, animated programmes had left the industrial age where giant machines served as representations of enormous power. Now power is digital and small; a laptop computer with 500 megahertz of processing power can crunch numbers faster than an entire room full of ENIAC tubes. Where the heroes that appealed to the generation of TV watchers in the '60s were usually solo boys (even if they were robots like Astroboy) in control of powerful technology, gradually the gendered perception of power begins to change as technology becomes smaller and closer to human scale. We see the introduction of the cyborg into popular culture, and as technology and the organic human body become interwoven, the bodies controlling the technology are less likely to be male.

The 1980s were the decade when anime took off in the US. New imported Japanese programmes like *Star Blazers* (1981), *Voltron* (1981), and *Robotech* (1982) were attracting a new generation of fans who were accustomed to Japanese products such as VCRs, TV sets,

Walkmans, and of course, fuel-efficient economy cars. Differences in these programmes reflect changes in the popular perception of technology. The robots of the previous era are gradually replaced by cyborgs, and the bodies that are becoming cybernetic are more and more often female.

Mobile Suit Gundam (1979) and *Robotech* build upon the giant robot theme of 1960s programmes like *Gigantor* by immersing the pilot inside the robot. While still looking like giant robots, the tech-weapons in these programmes are more like armored suits. In more contemporary programmes like *Genocyber* (1993(and *Neon Genesis Evangelion* (1995), female characters are as likely to pilot these giant armored suits as men or boys. With the change in the perception of power from giant machines to microcomputers comes a change in the way that technology is gendered. It no longer is seen as an exclusively masculine realm. There is also a new mutability associated with technology. It allows for merging between people and machines as well as the merging of masculine and feminine roles.

By the 1980s, in both Japan and the US, technology was no longer visualized as something external to its human controllers. As Bruce Sterling has pointed out in the Preface to *Mirrorshades: The Cyberpunk Anthology,* 'Technology itself has changed. Not for us the giant steam snorting wonders of the past: the Hoover Dam, the Empire State Building, the nuclear power plant. Eighties tech sticks to the skin, responds to the touch: the personal computer, the Sony Walkman, the portable telephone, the soft contact lens' [1986: xiii). As previously stated, Sterling's promotion of cyberpunk as a revolutionary movement is part of the optimism that accompanies any major shift in technology. Still, the claim that cyberpunk—and by extension any movement that places technology within the human grasp—is somehow liberatory is difficult to substantiate. What is easier to see is that the narratives serve as a battleground for conflicting representations. As cultural barometers these battles are well worth observing.

Mecha-anime combine science fiction and animation, and are therefore ideally suited for narratives which depict escape from oppressive gender roles as they reimagine the human body merging with-technology. They also provide Utopian ways of visualizing a harmonious global society in the midst of dissolving national barriers. In the 1980s, the animated series *Robotech* featured a crew that was divided equally between males and females, while also being composed of different ethnicities and nationalities. Premised on the notion that peace can be established on Earth once a common extra-terrestrial enemy appears, *Robotech* tells the story of the crew of an interstellar

battle cruiser who fight a race of technologically advanced aliens known as the Zentraedi.

It should be noted, however, that the mecha-anime narratives focusing on this techno-organic merger are not the exclusive site of gender transformation in Japanese animation. In Rumiko Takahashi's animated series, *Ranma 1/2* (1990), Ranma (the main character) completely collapses the boundary between masculinity and femininity. Approximately half of his appearances in these episodes are as a girl (Ranko) and the other half are as a boy [Ranma). The series draws heavily on Hong Kong martial arts films, but has little connection with the mecha-anime subgenre that primarily treats the merger of technology and organic life. The point of Ranma's transformations seems to be to show the constructedness of gender and the limitations placed on individuals in a society which strictly enforces distinct masculine and feminine roles. It also emphasizes that there is a market for narratives depicting gender in flux beyond the science fiction oriented mecha-anime subgenre.

One of the most interesting series of the late 1980s which featured four female principal characters and was extremely popular is the OVA, *Bubblegum Crisis* (1987). *Bubblegum Crisis* was released in eight 40-50 minute episodes spanning from 1987 to 1991, and then followed by three sequel episodes called *Bubblegum Crash.* The narrative is set in a MegaTokyo of the future in the year 2032, seven years after 'The Second Great Kanto Earthquake'. It is typical of many contemporary mecha-anime narratives in that it takes place in a setting dominated by corrupt multinational corporations. In *Bubblegum Crisis* the Genom corporation surreptitiously rules over the political and economic affairs of the entire Western World. Their enemies are the Knight Sabers, the four teenage girls whose bio-mechanical armored suits make them invincible, as well as somewhat gender indeterminate.

Bubblegum Crisis is just one of many mecha-anime OVAs that features a female lead character (or characters). Others include *Appleseed* and *Dominion Tank Police,* both derived from manga created by Masamune Shirow, who created the manga upon which *Ghost in the Shell* is based. *Genocyber,* another popular mecha-anime, features a prepubescent girl cyborg named Laura, who must destroy a super-weapon invented by the United States navy. Annalee Newitz has suggested that the mecha-anime genre is about generating new beings from the combination of technology and humanity. 'Female bodies and sexuality are therefore "best suited" to mecha—and male bodies and sexuality are disfigured by it—precisely because it is related to reproduction and birth.' (1995: 9) Newitz' astute observation

undoubtedly has merit, but another reason for the switch to female lead characters in '80s era mecha-anime may be to account for new gendered perceptions of power. We need to consider the possibility that the female body makes a better vehicle for representing resistance to patriarchal power than the male body, even if the male body is adolescent.

Like most science fiction based genres, mecha-anime reflects a great deal of ambivalence concerning technology—a tendency to both celebrate and decry its potential. This ambivalence has been embodied in the cyborg, the character that is part organic human and part machine, and figures prominently in both cyberpunk and anime. Since the *Socialist Review* first published Donna Haraway's 'Cyborg Manifesto' in 1985, the term has also grown in popularity with academics as a useful constellation of ideas for describing the radically decentred and fragmented subjectivity that postmodernism ushers into human consciousness. The term has been adopted by various disciplines, including film studies, in order to investigate the many representations of man/machine combinations in cinema and popular culture. Haraway established the paradigm for future discussions of the cyborg by making her essay, 'an argument for pleasure in the confusion of boundaries and for responsibility in their construction.' (1991: 150) Theorists of the cyborg following Haraway can either support or refute the optimistic claim of her manifesto, but they certainly cannot ignore it. Along with the cyborg's status as a hybrid of cybernetic technology and organic matter, there is also a hybrid nature to the cyborg's gender. Although they may be amply endowed with sex characteristics, cyborgs do not have stable gender identifications. According to Haraway, The cyborg is a creature in a post-gender world.' (1991: 150) To the extent that gender identity and the fixed roles that gender creates for people are oppressive, then the cyborg's refusal to fit into a fixed category for gender is liberatory.

Other feminist theorists such as Anne Balsamo have pointed out that 'cyborg identity is predicated on transgressed boundaries.' (1996: 32) It is this ability to transgress gender boundaries, as well as the boundaries defining the organic and technological origins of the human body, which give cyborg characters their potential for critiquing the commodification of the body in the era of global capitalism. Transgression provides the cyborg with a kind of agency which is never present in the robot character. It is, of course, human agency, which has always been problematic in machines. HAL 9000 of Stanley Kubrick's 2001: *A Space Odyssey* (1968) serves as a good example of

this. HAL's sole concern is survival, which places him at odds with his crew, but the cyborg is never completely at odds with humans because it is part human.

However, theorists have also pointed out that the feminine appropriation of the cyborg is not necessarily progressive. Again, a comparison with the cyberpunk movement of the 1980s reveals an almost reactionary tendency in the male writers of these narratives. In 'Cyberpunk: Preparing the Ground for Revolution or Keeping the Boys Satisfied?' Nicola Nixon demonstrates that many of the 'progressive' turns taken by the predominantly male cyberpunk writers of the 1980s were actually appropriated from female science fiction writers of the 1970s, in particular, the idea of the strong, technologically-enhanced female, a staple of the cyberpunk genre beginning with William Gibson's best selling novel *Neuromancer* (1984). *Ghost in the Shell* offers a vision of the future that owes much to the influence of William Gibson's cyberpunk fiction, particularly *Neuromancer*. Both feature a beautiful but deadly female cyborg and a global corporate technocracy that is only vulnerable to highly sophisticated computer hackers. In *Neuromancer* and other novels, such as *Mona Lisa Overdrive* (1988), Gibson provides a dense network of Japanese corporations, with names like Ono Sendai and Fuji Electric to stand in as representatives of patriarchal capitalism.

Others have pointed out that while feminist theorists like Donna Haraway present a Utopian view of the union of technology and humanity, cyberpunk fiction presents its dystopian alter ego. According to Peter Fitting, the cyberpunk fiction of William Gibson offers:

> a violent, masculinist future, one in which feelings and emotions seem to have disappeared along with what I have been calling the "human." Donna Haraway offers us a more hopeful way of reading the cyborg as the posthuman figure of our uncertain future, an analysis that renews the possibility of political action even as it acknowledges the cyborg's origins in the worst features of contemporary capitalism (1991: 308).

If we regard both the Utopian and dystopian futures as equally possible, it is clear that what cyberpunk and mecha-anime narratives achieve is a presentation of both possibilities in a battle for preeminence. They provide visual representations of the struggle to find humanistic values in a landscape dominated by high-tech corporate power and mechanized military might.

In spite of the trend to include more female main characters in the mecha-anime narratives of the 1980s, the biggest release of that decade, Katsuhiro Otomo's *Akira,* an international hit in 1988, featured two adolescent males as its protagonists. *Akira* takes place in a dystopian future where high-tech machinery and weapons overshadow human endeavours. The film opens with an image of present-day nuclear holocaust in Tokyo, and then quickly flashes forward to Neo-Tokyo in 2019. Susan Napier, in her analysis of the film, describes Neo-Tokyo as 'a place of overwhelming aesthetic and social alienation, a decaying cityscape that is physically fragmenting, at the same time as its political centre is only barely held together by corrupt politicians and enigmatic military figures' (1996: 245). Built around the bombed out crater of old Tokyo, Neo-Tokyo is home to cults, militant groups, and motorcycle gangs such as the one to which the two main characters belong. Thanks to a scientific experiment conducted by a group of quasi-military researchers one of the boys, Tetsuo, begins to develop technologically enhanced telepathic powers, which he ultimately uses for purely destructive ends. Telepathy itself is often associated with female characters in Japanese popular culture, particularly in science fiction fantasies. Many of the Godzilla movies feature a heroine who can communicate telepathically with the monster, and *Mothra* (Inoshiro Honda, 1962) featured two miniature twin girls called the 'Cosmos' who could summon Mothra through song and control her telepathically. With that in mind, Tetsuo's telepathic powers could easily be seen as an exploration of his own feminine side. The subsequent loss of control he experiences is symbolic of his loss of male ego boundaries, By the end of the film Tetsuo has evolved into a monstrous semi-organic blob which bears no resemblance to his original adolescent male body. But the film is far from being a lament for this loss. It is closer to being a celebration of new possibilities. Napier states:

> This sense of exhilaration has to do with the ambivalent attitude toward the monstrous and towards power in general embedded in Akira's subtext. The film is both a subversion of traditional power and authority and a celebration of a new kind of power, one that is linked to the issue of identity in the form of Tetsuo's astonishing metamorphoses ... Tetsuo's mutations epitomize the "subject [which] has disintegrated into a flux of euphoric intensities, fragmented and disconnected" (1996: 248).

From *Astroboy* all the way up to *Akira,* sharp distinctions can be made between patriarchal power and the varying shades of masculinity

which mecha-anime offer up. Patriarchal power tends to be represented by large robots with heavy mechanical or pumped up bodies, whereas the resistance to it takes the form of youthful boys and girls. In the cyborg, mecha-anime found a hybrid which could blur the distinctions between masculinity and femininity even further. I will now turn my discussion towards a film which shows the battle over representations of technology, gender, and power as part of its narrative, and discuss what can be gleaned from the study of mecha-anime.

• *Ghost in the Shell* and the critique of global capitalism

Ghost in the Shell (1995), like *Akira,* is one of the very few mecha-anime to gain international theatrical release. Like most anime it is based on an original manga, compiled as a graphic novel, by Masamune Shiro. Set in Tokyo in the year 2029, *Ghost in the Shell* paints a world which is as dystopic as Akira's, but in a far more controlled and systematized way. My discussion of this film is rooted in the conflict of visions which characterizes many complex narratives in the era of global capitalism. For *Ghost in the Shell,* the premise for a conflict of visions begins with the two major artistic talents behind the construction of the narrative. The director, Mamoru Oshii, is as accomplished at presenting fully realized futuristic worlds in the medium of animation as Masamune Shirow is in the medium of manga.[2] Usually their respective visions and treatment of humanity's place in an advanced corporate capitalist setting are complementary, but there are occasional discrepancies which, like the tension between alternative views of the interaction of gender and technology, succeed in making the narrative more compelling.

Ghost in the Shell is also a Japanese-British coproduction with Kodansha, Bandai, and Manga Entertainment supplying the near $10 million in funding for its release. According to Roger Ebert, ' "Ghost in the Shell" was intended as a breakthrough film, aimed at theatrical release instead of a life on tape, disc and campus film societies' (1996). As a breakthrough film, *Ghost in the Shell* was intended to capitalize on the success of *Akira* and the growing popularity of anime in markets outside of Japan, particularly the US. The complex

D 2. Masamune Shirow's previous manga, *Appleseed* and *Dominion* have already been mentioned. Along with *Ghost in the Shell* Mamoru Oshii has directed feature film versions of *Patlabor (*1990), *Patlabor 2* (1993), and written the screenplay for the animated feature *Jinroh* (1998).

multinational economics which factor into the film's production are also apparent in its narrative line.

Ghost in the Shell investigates the possibilities for a merger between the bodied cyborg and the disembodied collection of data. The hacker antagonist in *Ghost in the Shell* is known as the Puppet Master, a 'ghost', an identity in search of a 'shell', a cyborg body. The heroine of the film, Major Motoko Kusanagi, and her partner, Bateau, are agents assigned to the case of catching the Puppet Master, who has been hacking into the minds of top level secretaries and attaches. Their assumption is that the hacker is a master criminal who manipulates the stock market, commits high-tech terrorist acts, and indulges in illegal data gathering for personal reasons. But the Puppet Master has never been a person. It was a computer program created in the United States which becomes self aware and now declares itself 'a sentient life form, demanding political asylum.'

The plot of *Ghost in the Shell* is remarkably complex, especially for American audiences which still tend to regard animation as a children's medium. It is derived from specific volumes of Shirow's manga, yet it is also transformed. Invariably, movies made from manga need to condense storyline into very brief visual sequences. For *Ghost in the Shell* Oshii takes certain themes which are explicit in Shirow's dialogue, such as the exploitation of workers by omnipotent corporations, and suggests them visually. Shirow wastes no time in doing this for his 82 minute narrative. The first three sequences, one of which is the very dense and ingeniously constructed credit sequence, provide the foundation for a critique of global capitalism.

An epigram which precedes the film reads, 'In the near future-corporate networks reach out to the stars, electrons and light flow throughout the universe. The advance of computerization, however, has not yet wiped out nations and ethnic groups.' Along with giving us some information about the setting, this statement reveals the near limitless range of capitalist corporations in this narrative. Corporate control now extends outward beyond the global to the stars. But as the input jacks in the necks of the film's characters suggest, it also extends inward to the human body. When we first see Major Kusanagi she is standing on a rooftop, pulling these wires from the back of her neck, preparing for an assassination of a high level bureaucrat. As part of her preparation she removes all of her clothing so that the 'thermoptic camoflage' she wears will make her invisible. It is, no doubt, this initial sequence, showing Kusanagi bare-breasted and big chested (no genitals are visible) which prompts many critics to see the

film as part of the sexploitation subgenre of anime, which typically shows 'Barbie' doll-like females performing a variety of sex acts with their animated male counterparts. However, Oshii seems to be using Kusanagi's over-developed body for other purposes.

This point is driven home during the opening credit sequence during which we see Kusanagi's mechanical construction. By the opening credits of the film we learn that Kusanagi is a cyborg. With the exception of a titanium shell containing her brain and spinal cord, Kusanagi's body is completely mechanical; only her mind contains the ghost of her former organic self. Where cyborgs blur the boundaries between technology and humanity they show similar ambivalence towards the boundaries which separate masculinity and femininity. Here we see, interspersed with the names of the production crew and staff, scenes from the construction of Kusanagi's body. The sequence echoes with self-reflexivity, because it not only shows the process of Kusanagi's construction within the diegetic world of the film, it also gives us the names of the real world producer, director, writers and artists responsible for her construction as an animated character on a movie screen. At first we see the skinless, electronically laced, mechanically reinforced muscles and skeleton into which a small piece of the original, organic Kusanagi's brain has been placed. Then, through varying stages which gradually refine the mechanical cyborg interior by applying coatings of latex-like skin, we arrive at a version of Kusanagi which cannot be distinguished from an organic human.

The juxtaposition of Kusanagi standing naked on the rooftop with the credit sequence showing her construction creates a tension which permeates the rest of the film. The first scene gives us what appears to be the natural body of a fetishized nude female, but the very next sequence ruptures that fetishized surface by showing us the hard mechanical interior of that body. By juxtaposing the fetishized body with the image of that body's construction, Oshii establishes the possibility for a critique of global capitalism. Unlike robots, which are completely mechanical, cyborgs are a hybrid of humanity and technology which, as has already been established, also disrupt the binary separation of masculinity and femininity. Oshii works with these ideas, as well as the notion of fetishism, to make his critique.

The point is to emphasize technological augmentation, whether it conies in the form of steroid-induced pectorals, balloon-like breast implants, or circuits and wires attached to a cyborg's torso. While she is obviously meant to be female, Kusanagi is presented in a way which also highlights her androgyny. Kusanagi appears in the nude

several times throughout the film. From the very first scene where she stands on a rooftop, and strips in order to activate the cloaking device that makes her invisible, we see Kusanagi's ample breasts and narrow waist. This initial depiction of Kusanagi prompted reviewer Kirn Newman to speculate on why Kusanagi had 'been constructed to simulate a punkette babe' (1996: 39). Newman's conclusion is consistent with the usual critiques leveled against mecha-anime: 'further excuses for animated breast-jiggle'.

Perhaps inadvertently, Newman is relying on a somewhat dated and restrictive view of the female body, as well as the notion of the fetish. The titillation model for critiquing representations of the female body is largely derived from Laura Mulvey's 1975 essay, 'Visual Pleasure and Narrative Cinema'. In this essay Mulvey defines woman as image, and man as bearer of the look, because of the way the passive female on screen serves as the object of an active 'male gaze'. Mulvey's later work, which explores the Marxist view of the fetish, is more helpful when discussing representations of the body in mecha-anime narratives. In this view, the body of the cyborg can be explained not as an integral component of the Freudian, view of fetishism, which defines it as an idealized phallic substitute for the female's missing penis. Instead, Mulvey's later work takes a Marxist turn, supplementing the Freudian concept with a discussion of the fetishism of commodities. According to Marx, the value of a commodity is nothing more than the amount of abstract human labour congealed in it during the process of production. Labour is an expression of a social relation among human beings, but this social relation is never apparent in the commodity itself. Consumers of commodities disavow the human labour that went into its production, preferring to believe that the commodity has innate value. This is what is meant by the fetishism of commodities, where relations between human beings take form as the relations between the products of their labour.

Closely tied to the concept of commodity fetishism, is the concept of reification. Reification is what happens when capitalism penetrates every aspect of the social sphere. 'Social forms, human relations, cultural events, even religious systems are systematically broken up in order to be reconstructed more efficiently' (Jameson, 1981: 63). In other words the social sphere becomes commodified. In the epigram we observed that *Ghost in the Shell* takes place in an era beyond global capitalism. It is an era where the process of reification is almost complete. In the setting of *Ghost in the Shell* capitalism has penetrated every aspect of the social sphere.

Capitalism depends on reification to continue functioning smoothly, and more importantly, profitably. The industrial era of capitalism ushered in the mechanization of the work place in order to increase productivity. With the mechanization of the workplace, the life of the worker also became mechanical, doomed to perform rote tasks in precise time intervals. *Ghost in the Shell* shows us an era of such advanced capitalist reification that the worker's body itself has become a mechanical object. Kusanagi has been created by a company called Megatech, specifically so that she can perform assassinations and other covert operations for a government agency called the Bureau of Internal Affairs. At one point she argues with her partner Bateau about the amount of control the Bureau has over their lives. When Bateau tells her that she is free to leave if she wants, Kusanagi says, 'If I leave the Bureau I have to give back my body and all the memories it holds.' Reification has completely eliminated her organic body and replaced it with a more dependable and manageable mechanical one. Yet her ghost expresses a humanistic desire for liberation.

Reification is nearly complete in *Ghost in the Shell,* but reification must function in tandem with fetishism. Capitalist ideology depends upon the worker's perception that the conditions of capitalism mirror the conditions of the natural world. Notions like the nuclear family, the patriarchal breadwinner, and the nurturing female have each been reified under capitalism so as to appear natural and historically transcendent. To transcend history in this way, the actual processes of reification must be erased, rendered invisible. This is the work of fetishism. In the opening sequence of *Ghost in the Shell* we are shown Kusanagi's fetishized body. All the marks of production have been rendered invisible so that she appears to be a natural female. Even her breasts and waistline, though perhaps exaggerated, function to further the illusion that she was born rather than made. But in the credit sequence this fetishism is immediately destroyed. We are shown the process of Kusanagi's construction. Her body is revealed as a product of human labour. Her status as a commodity is made overt just as it is at the end of the film when machinery literally bursts through her surface. Laura Mulvey has written that 'a commodity's market success depends on the erasure of the marks of production, any trace of indexicality, the grime of the factory, the mass moulding of the machine, and most of all, the exploitation of the worker' (1996: 4). Initially, in the rooftop scene Kusanagi appears to be a perfectly fetishized commodity with no marks of production, but the very next

sequence shows the process of her construction, thus rupturing the commodity fetishism of the previous scene.

Kusanagi, then, obviously does not function as an object of male visual pleasure, since the marks of her production are too obviously foregrounded. Instead, she succeeds in revealing the process of capitalist reification. It is useful to compare Oshii's sequence, which is interspersed with the opening production credits of the film, to Shirow's original manga depiction of the same sequence in Volume 5 of his graphic novel, 'Megatech Machine 2: The Making of a Cyborg.' Shirow's rendition shows Kusanagi witnessing the creation of a cyborg similar to herself while she receives information about the process from another cyborg. The frames are full of detailed drawings and notes which are both informative and imaginative, but not necessarily critical. The effect is quite different in the film. Oshii draws attention to Kusanagi's creation in the diegetic world of the film narrative, while also giving the extra-diegetic details of the film's creation. The effect, like so many aspects of the film, is contradictory. On the one hand, there is an almost Brechtian 'alienation effect' distancing the viewer from the narrative, while on the other hand, the viewer is being seamlessly sutured back into the narrative. The viewer is being asked to keep a critical distance and to suspend disbelief simultaneously.

For his part, Shirow provides a very practical explanation for Kusanagi's body in the author's notes which accompany his manga. He writes:

> Major Kusanagi is deliberately designed to look like a mass-production model so she won't be too conspicuous. In reality, her electrical and mechanical system is made of ultra-sophisticated materials unobtainable on the civilian market. If she appeared too expensive, she might be suddenly waylaid on a dark street some night, hacked up, and hauled off to be sold. (1995: 103)

His mention of Kusanagi's body as 'a mass-production model' no doubt provides the seeds for Oshii's foregrounding of her commodity status in the film, but the critique is certainly amped up a notch by Oshii.

Shirow's opinions with regard to global capitalism are difficult to ascertain from his manga. On the one hand, he has a connoisseur's love for weaponry, surveillance systems, and all manner of tools used for systematic repression. On the other hand, his characters frequently voice criticisms of the corporate-government conglomerates that control

them. Interestingly, this is a point of departure between Oshii, and Shirow.[3] Shirow makes constant reference to the exploitation of factory workers in his *manga,* and in particular, to the exploitation of foreign factory workers, as when he has a factory boss shout, 'If you don't want to work ... I won't apply for your citizenship papers for you!' (1995: 25) In another sequence a white collar worker who is being tortured by his employer to reveal industrial secrets warns, I'll report you to the labor union!' His employer replies, ' "Labor union?" With our new, unmanned factory, we won't need one of those for the next three hundred years.' (1995: 125(Nor are the critical statements in Shirow's manga restricted to the working class. Even agents, who are presumably more invested in the system, find reason to criticize it. In one of the many arguments Kusanagi has with her boss, she retorts, 'Emphasizing a lifestyle based on consumption is the ultimate violence against poor countries.' (1995: 307) In the film version, Oshii concentrates the many overt critiques of global capitalism in Shirow's manga into the fetishized bodies of the cyborg characters.

Along with foregrounding the processes of production, Oshii suggests critique with gender ambiguity. In *Ghost in the Shell* the characters who appear the most extreme in terms of male traits and female traits are also the most androgynous. In Kusanagi's case, her heightened femininity at the beginning of the film adds emphasis to the masculine transformation she makes at the end of the film. The final time that Kusanagi removes her clothes, this time to battle a tank, her bulging muscles make her look more like a male action hero such as Arnold Schwarzenneger than a female sex symbol such as Pamela Anderson Lee.

The other main character, Bateau, makes another interesting case in point. He is a head taller than the other characters in the film and has shoulders twice as wide. Yet, even when he comes to Kusanagi's aid, he does so like the faithful female secretaries in Mickey Spillane's detective stories which inspired film noir movies like *Kiss Me Deadly* (1955). In this classic Robert Aldrich-directed version of Spillane's novel, Maxine Cooper played Velda, Mike Hammer's secretary, as a strong, resourceful partner. She is obviously in love with Hammer (Ralph Meeker), but he is indifferent toward her. Bateau is the mirror image of Velda. He follows Kusanagi's initiative, and seems vaguely enamoured of her. Yet, like Velda, the object of his desire, Major

D 3. For all references to Shirow's version of *Ghost in the Shell,* the source I follow is the graphic novel. Masamune Shirow, *Ghost in the Shell,* trans. Frederik Schodt and Toren Smith, (Milwaukie, OR: Dark Horse Comics, 1995).

Kusanagi, shows no sexual interest in him. There is certainly ample material for a study of the connections between mecha-anime, cyberpunk, film noir, and detective fiction, although that is beyond the scope of this paper. It is worth mentioning, however, along with the behavioural resemblance between Bateau and Velda, Kusanagi, as she is drawn by Shirow, shows a propensity for explosive violence and often inexplicable sadism which closely mirrors Spillane's Mike Hammer. The big difference between the two narratives is that gender roles are reversed.

Project 2501, the only other major character in *Ghost in the Shell,* is an artificial life form, 'born in the sea of information on the net'. Project 2501 is also known as the 'Puppet Master' because of its ability to hack into and take over the 'shells' of important government officials. The Puppet Master is a collection of disembodied data. It is both ironic and fitting that it should become an 'organic' life form which originated on the net. In *Ghost in the Shell* the boundary between organic life and technological AI (artificial intelligence) no longer applies. Personality becomes data, and data takes on personality. Throughout the movie, the Puppet Master appears in the nude torso of a blonde Barbie-like cyborg, yet its voice is deeply masculine. Both its sex and its gender are impossible to determine because differentiating them no longer makes sense in the advanced capitalist world where this narrative is set. Donna Haraway's description of cyborg subjectivity is the new paradigm here; *Ghost in the Shell* is set in 'a post-gender world'.

Aside from the opening credit sequence, there is one other scene in which Kusanagi's fetishized commodity status is destroyed by revealing that she is a constructed cyborg. Near the end of the film Kusanagi is trying to get inside an armoured vehicle that protects a cyber criminal. Again, she has stripped and donned the cloaking device as she approaches the vehicle, and leaps on top of it. As Kusanagi pulls at a sealed entrance hatch, she no longer looks like the soft and voluptuous female who appears on the rooftop at the beginning of the film. Instead, her body takes on the traits of the fetishized male body: hard with phallic rippling muscles. This time the fetishism is destroyed not by juxtaposing with a scene showing the machinery underneath the fetishized surface, but by showing that machinery literally bursting through the surface. Kusanagi pulls herself apart.

Where the opening credit sequence destroys fetishism by revealing Kusanagi's construction, this scene towards the end does it by showing her destruction. The Schwarzenegger-like transformation of Kusanagi's body just prior to that destruction makes it difficult to regard her

body as conventionally male or conventionally female. Her cyborg status blurs the boundary between masculinity and femininity as much as that between technological and organic matter. Kusanagi's rapid transformation from fetishized female body to fetishized male body works against the naturalizing effect that fetishism strives to create. While such a blurring of the boundaries does not eliminate the possibility for visual pleasure, it certainly complicates it, suggesting the male gaze which fixes on Kusanagi's body as an object of pleasure is at least partially homoerotic.

The gender indeterminacy of *Ghost in the Shell* is most pronounced near the end of the film. After her battle with the tank which has kidnapped the Puppet Master, Kusanagi's body is wrecked and further defeminized through scarring and loss of limbs. She decides to dive (i.e. conduct a psycho-electronic analysis) into the Puppet Master's shell. Since both Kusanagi's body and the Puppet Master's Barbie body are wrecked, the faithful Bateau must set up the dive. Once it occurs, the voices of the characters switch and Kusanagi's feminine voice emanates from the Barbie body while Kusanagi's shell produces the Puppet Master's masculine voice. During the dive, the Puppet Master tells Kusanagi's ghost that he has engineered the pursuit and capture which led her to him so that they might meet. As an artificial life form, the Puppet Master can copy itself, but it cannot reproduce combinations which allow for diversity and originality. The Puppet Master tells Kusanagi that it wants to merge with her so that she can 'bear [their] varied offspring into the Net', and the Puppet Master can die. Desire for these organic functions is mirrored in the Puppet Master's early pursuit of Kusanagi's feminine body. Gradually Kusanagi's body becomes more masculine until the Puppet Master takes it over and she takes over the Barbie body that the Puppet Master previously occupied. They merge just before a rival government agency destroys both of their bodies. Fortunately for Kusanagi, Bateau protects her head, the one part of her that contains her organic brain, and hides her away until he finds a new cyborg body for her. She then walks out of Bateau's apartment saying, 'Where does the newborn go from here? The Net is vast and infinite.'

By portraying Kusanagi as the agent of her own destruction, Oshii also suggests that she is rebelling against the Bureau of Internal Affairs which owns her body. Unlike Bateau, who, as previously stated, believes he is free, Kusanagi acknowledges her reified state. She cannot exist without her mechanical body, but to keep her body she must continue working for the Bureau. Pulling herself apart, then, can be read as an act of revolt against the reifying effects of

capitalism which have replaced her organic body with a body that the Bureau can control more effectively. By destroying her body Kusanagi denies the Bureau its ability to control her. *Ghost in the Shell,* then, critiques capitalist ideology both by destroying the fetishizing effect of Kusanagi's feminized mechanical body and by depicting her as the agent of her body's destruction after acknowledging its reified state. What is fetishized in the body of Kusanagi and the Barbie body of the Puppet Master is the organic impulse to procreate before dying. Like the exaggerated sex characteristics that endow their bodies, these organic impulses are compensatory gestures, designed to disavow the near total annihilation of nature in a world where 'corporate networks reach out to the stars'.

Again, there are some interesting differences between the ending of the manga and the movie. Shirow does not have Kusanagi destroy herself in the manga, but he does have Bateau remove her brain from her body just before it is assassinated by a government agency. The replacement body Bateau provides for her is male (though an extremely androgynous male), which further emphasizes the irrelevance of gender in this futuristic setting. In the movie.Bateau provides Kusanagi with a child's body (which appears to be female). Where Shirow suggests that the battle over how to represent power is still being waged in Kusanagi's body, Oshii's ending is more optimistic, suggesting, like the Starchild in *2001,* a rebirth.

• Conclusion

Popular culture narratives are fraught with differing views on the subject matter they represent. The subject matter of mecha-anime, like cyberpunk, is technology and the gendered bodies that control it. Female bodies empowered by technology in these narratives are not necessarily serving a feminist agenda. There is certainly ample evidence to the contrary. The sexy bodies of cyborg heroines which have been 'revamped' in SF narratives since the 1980s have been exploited to market a variety of popular culture texts, many of them blatantly misogynistic.

Certainly there are subgenres of *anime* which are primarily designed to attract and titillate an audience of teenage male viewers, and these subgenres have provoked a considerable amount of criticism and charges of misogyny towards anime in general. Mamoru Oshii appropriates some of the conventions of the titillation subgenres in his film version of *Ghost in the Shell,* but its complex narrative and - sophisticated presentation make it difficult to view his heroine in any reductionist terms. *Ghost in the Shell* has none of the usual markers which would indicate that Kusanagi's body is an object of male visual pleasure. There is almost no erotic interaction between any of the characters. And in many cases, as when Kusanagi's sidekick Bateau accompanies her on a scuba dive, the male character actually turns away, diverting the male gaze from the object of visual pleasure, as Kusanagi removes her wet suit. While it is true that Kusanagi's oversized breasts certainly aren't necessary for the job she performs in the narrative, this feminizing of her body serves an alternate purpose.

Anticipating the trend in contemporary mainstream American popular culture, Oshii's film shows that real power looks even more powerful when cast in the body of the most delicate looking woman. Ang Lee's *Crouching Tiger, Hidden Dragon* won an Oscar for his live action depiction of this message. One of the things that makes *Crouching Tiger, Hidden Dragon's* heroines (Michelle Yeoh and Zhang Ziyi) so compelling to watch is that their strength and power are so disproportionate to their diminutive size. *Ghost in the Shell's* Kusanagi is far more androgynous looking than the women in *Crouching Tiger, Hidden Dragon,* but that is part of the conventions of mecha-anime, where power is rooted in gender ambiguity. Perhaps the cyborgs of mecha-anime narratives like *Ghost in the Shell* have served their purpose in popular culture, acting as a bridge to convey power across gender lines, and now we welcome the idea of petite and powerful feminine bodies. In our post WTO world, where capitalist corporations appear more powerful than national governments, this idea of dimunitive size containing overwhelming strength will, no doubt, become more and more appealing in a growing number of popular culture texts.

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