DESCARTES' DAUGHTERS:
MONSTROUS MACHINE-WOMEN THROUGH TIME

by

Glenda Shaw-Garlock
BA, Communication, SFU, 2003

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

In the
School
of
Communication

© Glenda Shaw-Garlock 2006

SIMON FRASER UNIVERSITY

Fall 2006

APPROVAL

NAME: Glenda Shaw-Garlock

DEGREE: MA

TITLE: Descartes' Daughters: Monstrous Machine-Women Through Time

EXAMINING COMMITTEE:

CHAIR: **Kirsten McAllister**
Assistant Professor, School of Communication

Dr. Zoe Druick
Senior Supervisor
Assistant Professor, School of Communication

Dr. Gary McCarron
Supervisor
Assistant Professor, School of Communication

Dr. Margaret Linley
Examiner
Assistant Professor, English

Date: 5 December 2006

ABSTRACT

This thesis examines the shifting representation of the female-machine embodied in the image of the female automaton, robot and cyborg. It is argued that the female-machine is an abject, therefore, monstrous-feminine figure as well as the naturalized site upon which cultural anxiety is projected and worked through. My theoretical approach toward representations of the female-machine combines historical (reflection), cultural (ideology), and film studies (repression) approaches toward dominant female-machine images at three key historical moments: the age of the automaton, the age of the machine and the age of the posthuman. Upon examining images of the female-machine through time, three dominant images emerge: the erotic-cyborg, the unruly-cyborg and the emancipatory-cyborg. It is argued that female-machine imagery changes at critical moments in response to shifting relationships between humans and their machines as well as specific ideological concerns of a period reflecting the unique tensions, contradictions, and counter discourses of a specific era.

Keywords: cyborg, automaton, robot, abject, monstrous-feminine

DEDICATION

This work is dedicated to my best friend and my biggest supporter -- my husband. I dedicate this to you for all the drives up the 'Hill' and for all the 'don't give ups!' I dedicate this to you for all the nights you left me to my solitary work in front of the computer instead of doing something together. This was as much our journey as it was mine. You were always close by, believing in me, with a great cup of coffee in hand and a kind word on your lips. This work is also dedicated to my amazing children Santana and Nathaniel. Without your maturity and independence I could never have made it through. You make a mother proud! A very special thanks to Trina, Cathy and Tanya for always being on the other end of line when I was fed up and burnt out and thinking I'm just too old for this game. Mom, Dad, Arlene and Gerald I love you.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

INTRODUCTION

> It is not hard to imagine...that words such as 'automaton', 'automation', 'automatic', 'android', 'robot', 'bionic', 'cyborg' and 'cyberspace' might constitute a Williamsian *cluster* of keywords inasmuch as they form a "set of...interrelated words and reference"...that plot ever changing thresholds in the history of the human body. With the appearance of each new word, a new threshold is crossed in the perception and social construction of the human body, between conceptions of the organic and inorganic, the body and technology, the human and non-human. (Tomas, 1995, p. 21-22)

The surface of the monstrous female-machine is inscribed with the historical record of ideas about women's bodies, gender, nature, technology and science. The female-machine also helps cultural theorists to recognize various ideological, cultural and scientific shifts that have resulted in the body being understood at one historical moment as an organism, at another as a machine, and today increasingly in terms of information or code. Barbara Creed (1993) notes that "[critical] neglect of the monstrous-feminine in her role as castrator has led to serious misunderstanding of the nature of the monstrous woman in the horror film and other popular genres such as...*science fiction*" (p. 157, my emphasis). Thus, this work addresses the critical neglect of the female cyborg and acknowledges that the female-machine (automaton, robot, android, replicant, cyborg) in the tradition of the amoral primeval mother, vampire, witch, woman as monstrous womb, woman as bleeding womb, woman as possessed body, woman as castrating mother, woman as beautiful but deadly killer, woman as aged psychopath, the monstrous boy-girl, and woman as the deadly femme castratrice belongs to the category of the monstrous-feminine in that she unsettles, indeed frightens, because of her transgressive, ambivalent and potentially castrating female nature. This work examines the various ways in which discourses of monstrosity, fetishism, and the abject intersect in cultural narratives and representations of the female-machine (as automaton, robot, cyborg) at three significant historical moments (age of

1

automaton; age of the machine; age of the posthuman) and shows that these discourses continue to circulate within popular culture today. Monstrousness is a useful concept with which to explore the female-machine-body in part because monsters, like women, reveal "the other of the humanist subject" (Shildrick, 1996, p. 2). As will be shown, the monstrous female-machine represents an embodied site of struggle upon which cultural anxieties are projected and worked through, evidenced in part through the persistent othering of both machine and woman. Thus, the monstrous female-machine embodies a composite of otherness that gives expression to such anxieties as the unruliness of nature, the dehumanisation of industrial development, transgressive female sexuality, and shifting gender categories.

An enormous number of films and television shows feature automata, robots, androids, bionic bodies, replicants, cyborgs, and self-replicating automata. Still, critical studies of the representation of science in film are extremely limited. Studies that consider the historical significance of one of the most provocative and enduring icons of science fiction, the female-machine (Balsamo, 1996; Kirkup, 2000), are even more rare. With the exception of a few key films, notably *Metropolis* (1927), *Alien* (1972), and *Blade Runner* (1982), science fiction cinema in general has failed to receive as much critical and theoretical attention as other genres. Of the books and journals that do exist, most of the work done to date has been in the area of specific genre studies: film-noir (Kaplan, 1998, 2000; Rabinowitz 2002), melodrama (Williams 1984), and more recently horror (Caroll 1990; Creed 1993).

Film, as a dominant constituent of popular culture, is an important institutional practise within society where the process of myth-making and meaning-making is exchanged. In this sense, the female-machine image functions in terms of Roland Barthes' idea of myth (1972). Operating on the level of meta-language or connotation, the female-machine image is not merely one image of a woman-machine (among many), but rather it stands as *the* representation of the female-machine in Western society at a particular moment. Therefore, it is important to

2

understand how popular representations of the female-machine contribute to the definition, creation, and structuring of what it means to be human, to be machine, and increasingly what it means to be a human-machine. As Weingart et al. (2003) argue, the "images, clichés, and metaphors" circulated by cinema reflect the popular imagery (i.e. technologized bodies) insofar as the films are a reflection of popular culture (accurate or not), while at the same time serve to reinforce certain images (regressive or emancipatory) and themes by providing "imaginative detail and decorum" (p. 281).

In chapter one, I begin an exploration of the female-machine within the *Golden Age of the Automaton* (1750-1850), best exemplified in the work of master mechanician, Jacques de Vaucanson (1709-1782). Automata, inanimate objects seemingly imbued with independent spirit or life, emerged during this period as philosophical demonstrations of a radical reconceptualization of the body (indeed all of nature) as a machine and were associated with such thinkers such as Isaac Newton, René Descartes and Julien Offray de La Mettrie. Chapter one also explores the historic relationship between nature and woman and how woman disappeared within mechanistic philosophy, but (re)emerged during the age of the automaton in the image of the machine. To begin, a proto female-machine is acknowledged to have existed in the figure of the sixteenth century female golem. The characteristics of the sixteenth century female golem are discernable in the representation of eighteenth century female-machine as automaton. Further, this section considers how the characteristics of the Enlightenment automata are associated with the monster, a category of disorder and unruliness not eliminated or purified through taxonomic classification and the ontological separation of the human from the non-human during the modern period. Finally, through a close reading of the film *Cherry 2000* (1987) it will be shown that historical discourses of the eighteenth century female automaton continue to circulate within contemporary representations of the female-machine, most evident in hyper sexualized representations of female-machines as fetishistic sex objects.

Chapter two considers the female-machine of the age of the machine as robot. The submissive philosophical toy of the age of the automaton is transformed into the dangerous and destructive maschinenmensch woman (Huyssen, 1982), embodied in the figure of the False Maria of Fritz Lang's *Metropolis* (1927). This image is considered within the context of the industrial revolution, the deskilling of labour, and the growing unease and distrust of the machine, in addition to shifting gender roles and the emergence of the new-woman. Whereas the female-machine of the eighteenth century evoked feelings of curiosity, wonder, and uncanniness (a hint of monstrosity), the female-machine of the industrial age evoked strong feelings of suspicion, uneasiness and cynicism. Together, the fear of technology and the fear of female sexuality became conflated and projected on to the image of the female-machine. The film *Eve of Destruction* (1991) will be discussed in relation to the discourses of the dangerous and transgressive female robot.

Chapter three considers the image of the female cyborg. Signalling our contemporary moment, and characterized by increasing levels of technological encroachment into everyday life (i.e. genetic engineering, bioengineering, and cybernetics), the monstrous female cyborg emerges as a destabilizing feminist icon for the information age, often connected with the posthuman. A brief discussion of the posthuman (Hayles, 1999) contextualizes the cyborg as a "constructed and unstable figure" (Penley, Lyon et al., 1991, p. xii) that does a great deal to disrupt the unified rational subject of humanism as it contests the very notion of nature, gender, difference and our ability to tell the difference in an increasingly hybrid world. Donna Haraway's notion of the cyborg is discussed in detail as well as relevant critiques of her cyborg metaphor within feminist theories of representation and film. Finally, the implications and potential of this ambivalent, disruptive, and transgressive image with its gendered techno-body will be explored in relation to the film *Teknolust* (2002).

4

Theoretical Approach: History, Culture and Film

I approach the ubiquitous presence of female-machines within science fiction not in terms of their relationship to the generic convention, but in relation to what film theorist Annette Kuhn (1990; 1999) terms the image's "cultural instrumentality" or cultural meaning. Focussing on the interconnections between representation, spectators, and social practice, cultural instrumentality asks not 'what is film?' but 'what does film do?' Specifically, I focus upon the representation of the female-machine in terms of its reflection, ideology and repression (Kuhn, 1990) and in this way bring together historical (reflection), cultural (ideology), and film studies (repression) approaches/perspectives to the image of the female-machine through time.

Using the content of science fiction films as a form of sociological evidence, representations of the female-machine are first understood and situated as reflections of dominant social trends and attitudes of the time (their historical context) in which the image emerges and therefore is preliminarily accepted as a mirror of the specific preoccupations of a particular historical moment. Anthropologist, Per Schelde (1993) suggests that science fiction is "a mirror of the lives and reality of those for whom it is made" (p. 9). Therefore, what is regarded as monstrous or transgressive must be understood as historically and socially contingent (Tudor, 1974, 1989; Hanafi, 2000). While some characteristics of the monster may be universal (e.g. transgression, breakdown of hierarchies), other aspects are defined by place and time and within a particular social order (e.g. the witch, the new-woman, the clone). Thus, the evolution of the monstrous female-machine image through time is approached as a phenomenon that is only fully understood when considered in relation to the historical context within which she emerged.

Science fiction movies relate to social order through the mediation of ideologies (the unifying system of beliefs, attitudes, and values shared by a culture), society's representations of itself (in and for itself). Films speak, enact, and even produce certain ideologies that cannot always be read directly from the films' surface. Representations of the female-machine then, can

be approached as circulating cultural artefacts (Hall, 1982) that contribute to the production and reproduction of what it means to be human in relation to (and in opposition to) what it means to be machine. It is from our cultural artefacts (cyborgs, robots, automata) that social agents construct their understanding of human-ness, and machine-ness. Carolyn Merchant (Merchant, 1980), ecofemininist philosopher, makes a similar point when she argues that at any given historical moment "an array of ideas exist" (p. xxii) about nature and gender. Some ideas seem relevant to social groups while others do not. Some ideas capture popular imagination and take hold and spread throughout society while others fall away. From this array of choice a direction or social shift may occur making some ideas more dominant and pushing others to the margins. "Out of this differential appeal of ideas that seem most plausible under particular social conditions, cultural transformations develop" (p. xxii). Images of the female-machine have varied across time, tending to change form, name and meaning from period to period. This may be explained through Barthes' (1972) assertion that there are "ancient myths, but no eternal ones" (p. 110). This is say, that although some myths may persist for a period of time they do not sustain indefinitely. Eventually new myths replace old ones (p. 110) and this shifting of myth accounts for the historical specificity of the female-machine, as a form of myth, from century to century. Variations that must be understood as embedded in general socio-cultural processes.

To get beneath the surface representation of a given female-machine construct, we must look for ways in which her imagery voices cultural repressions, unconscious textual processes like the dreams, associations, and bodily symptoms of individuals, that require specialized interpretive tools to reveal their hidden meanings. It is here that insights from psychoanalytic film theory are particular helpful, and with respect to the monstrous aspect of the female-machine I draw extensively on Barbara Creed's (1993) *The Monstrous-Feminine: Film, Feminism, Psychoanalysis*. In this way, I acknowledge the centrality of gender and sexuality to the female-machine's monstrous representation.

6

It is my contention that the monstrous female-machine did not suddenly emerge in the

1980s, through the work of Donna Haraway for instance. Rather she evolved over several

centuries, emerging at critical moments in response to specific social/cultural fears and anxieties.

As will be shown, the image of the monstrous female-machine is paradoxical. On one hand, the

female-machine is a comforting (if problematic) fetish employed to distract and allay cultural fear

and anxiety; on the other, the female-machine is explosively abject and always threatens to

expose that which is being masked over (fear).

Situating the Female-Machine

Before beginning an historical analysis of the female-machine it is useful to situate her

representation by acknowledging her absence in some spheres (philosophy and science for

example) and noting her ubiquitous presence in others (the mechanical arts, literature, art and

film). In relation to the early (seventeenth and eighteenth century) development of mechanistic

philosophy, Allison Muri (2004), specialist in the cultural connections between science,

technology, and literature, posed the following question, "was there a woman-machine?" (p. 2)

As expected, Muri notes that man was presumed the default human-machine and that "no

equivalent language" (ibid.) to describe the laws governing a female-machine existed, nor was

there any substantive discussion of a rational woman-machine. "Indeed, although the 'fair sex' is

consistently defined in the material terms of nervous embodiment, the explicit terminology of

'female-' or 'woman-' machine as defined by mechanics is a surprisingly rare occurrence" (Muri,

2004, p. 2-3).

Aristotle (*De Generatione Animalium*) defined women as "misbegotten males" a notion

that persisted through to the theories of Descartes.

> Descartes' new evidence corroborated that "very clearly . . . intelligent nature is
> distinct from corporeal nature," and women were "clearly" sided in the corporeal
> camp (Method, II: 19). According to the modernist framework of reality, the
> image of a woman with a "rational soul" was impossible; therefore, the rational

woman was considered an anomaly. She must necessarily, by definition, be a
perverted replication of the masculine "pure, rational soul" (Meditations, IV)
(Greg, 2000, p. 35)

Woman has always been compared, indeed measured, against the standard norm of man, the

central human subject, "the active, strong and moral half of a human whole" (Bailey, 1993, p.

99). Woman's biological difference from the male norm marks her as naturally inferior, while

"the male body is marked by the signs of a fully able, embodied person" (Balsamo, 1995, p. 231).

Thus, woman is regarded as the inferior complement against which man maintains his superior

position within hierarchies of power and control. "What is reviled and despised is projected onto

the body of the other such that the identity of the One is established as that which is good and

pure and sacred" (Balsamo, 1995, p. 225-226).

The absence of discourse related to the female-machine is not surprising, for as Merchant

(1980) notes, the seventeenth and eighteenth centuries were periods in which a significant shift in

metaphors for conceptualising the universe/state/individual occurred, changing from a metaphor

of a (feminine) living organism imbued with internal spirit, to one of an inert and passive

machine moved by external forces. The organic view of nature understood earth as a female

entity closely connected with two female archetypes: the benevolent mother nature and the wild,

unruly and uncontrollable nature responsible for releasing chaos into the world. As the Scientific

Revolution took hold, the central cultural projects became the transformation of the volatile

(female) nature into a controllable mechanism, while at the same time attaining mastery over her

previously sacred resources. Merchant contends that under the mechanistic view, woman and

nature came to be regarded as passive and subordinate. However, as I will show in spite of

attempts to disassociate nature from the dangerous and the unruly, the new machines soon

became (re)associated with the unruly (and benevolent) feminine as an ideological strategy to

manage anxiety and fear brought about by a society undergoing radical change in worldview.

If woman became vanquished from nature under the mechanistic view and the female-machine did not materialize within mechanistic philosophy (except as inferior, relative to the male-machine), the female-machine had a lively existence within the cultural imaginary, especially within the spheres of myth, mechanical arts, art, fiction, and film, more or less continuously up to our contemporary moment. I use the term female-machine to include all of the crafted, imagined, painted, and filmed figures of the machine-woman expressed as: automata, androids, robots, replicants, fembots and cyborgs. These creatures merge disparate elements of the biological and the technological into an image of a gendered female situated at the outer boundary of human and nonhuman interface, while at the same time expressing the height of human, scientific, and technological prowess for any given period. Elaine Graham (1999), cultural critic of posthumanism, argues that each era has its own unique creatures that negotiate the margins and boundaries separating the human from the non-human. According to Graham, western imagination has fashioned an assortment of "fantastical, monstrous and alien beings," who simultaneously demonstrate and destabilize "ontological hygiene by which cultures have distinguished nature from artifice, human from non-human, normal from pathological" (p. 421-422). It is my contention that the female golem, automaton, robot and cyborg also demonstrate and destabilize. This evidenced through the ambivalent feelings of wonder and admiration evoked by an object that seems to mimic the processes of life (demonstration). Yet it also disturbs and threatens because of its disinclination to fit easily into binary (alive or dead; human or nonhuman) categories (destabilization).

The female-machine has long had an uncanny presence in myths and legends. The "golden maidens" of Homer's *Iliad* were created by Hephaestus, god of the mechanical arts, and were described as machine-like, "living young damsels, filled with minds and wisdoms" (Homer, Book 18). Polybius recounts a story of a mechanical-woman (an ancient robotette) created in the image of Apega, wife of Nabis (Tyrant of Sparta), who concealed spikes beneath her clothing and

was used as deceptive torture device to extort money on behalf of the state (Apega would lock a victim into a close embrace and at Nabis' command, would push the concealed spikes into the victim's body until he/she agreed to pay ransom). In Jewish golem mythology, the female golem emerged as an erotic expression of her creator's sublimated sexual desire. René Descartes is said to have fashioned a female-machine in the likeness of his deceased daughter, Francine. While sailing for Sweden she was cast overboard by the ship's Captain in a fit of superstitious terror (Wood, 2002, p. 3). Within the mechanical arts of the sixteenth to eighteenth centuries, the earliest representation of a female-machine is Gianello Torriano's (1515-1585) Lady Playing the Lute. This was a figure of a woman who walks while gently strumming a lute and moving her head from side to side. She was a sophisticated royal toy used to entertain court visitors. During the golden age of the automaton, the sensual female automaton was a very popular public attraction at exhibition halls and fairs, as well as in erotic collections discreetly tucked away in secluded backrooms of exhibition halls and arcades.

In literature, the proto human-machine story remains Mary Shelley's *Frankenstein* (1818). This story is most often associated with the peril of unfettered scientific inquiry connected with the monster. However, the story turns on Victor Frankenstein's refusal to create a bride (a female monster) for his lonely and alienated progeny. Faced with the potential consequence of creating a female mate for his estranged monster, Frankenstein becomes terrified and ultimately destroys the nearly completed female companion for the monster,

> I was now about to form another being of whose dispositions I was alike ignorant; she might become ten thousand times more malignant than her mate and delight, for its own sake, in murder and wretchedness...and she...might refuse to comply with a compact made before her creation...She might also turn with disgust from him to the superior beauty of man...Even if they were to leave ...one of the first results of these sympathies for which the demon thirsted would be children, and a race of devils would be propagated upon the earth...I left the room, and locking the door, made a solemn vow in my own heart to never resume my labours. (p. 158-159)

Victor sacrifices his own life and that of his beloved fiancée Elizabeth rather than risk making a female assemblage of inconceivable monstrosity. Other literature from this period that takes up the theme of unsettling and uncanny female-machines includes E.T.A. Hoffman's *Der Sandman* (1815) and Villier's *Tomorrow's Eve* (1886). Both of these stories centre upon a female-machine as the object of male romantic and sexual desire. Both end tragically with the male protagonists killing themselves (one from madness, one from heartbreak).

In cinema, the female-machine's representation as explicitly monstrous (robot) originates with Thea Von Harbou's false-Maria in the story *Metropolis*, directed and brought to the screen by her husband, Fritz Lang, in 1927. This story remains one of the most significant critiques of industrialization and the factory system to date. *Metropolis* presents us with the prototype of the monstrous-feminine machine (dangerous, subversive, and sexually aggressive), an image most subsequent female-machines would follow. Andreas Huyssen (1982), literary critic, argues that it is during the machine age that the female-machine becomes the naturalized site upon which cultural anxiety related to technology out of control and female sexuality (also out of control) comes to be projected. In short, the female-machine body becomes a fetishized site of collusion between fear of technology and fear of female sexuality obscured beneath what Laura Mulvey (1989) terms, "The surface...[of] a beautiful carapace, an exquisite mask" (p. 63). However, as will be shown, the female-machine's transgressive nature resists efforts to contain her (an important foreshadowing of Donna Haraway's cyborg) through fetishization.

Combining the prolific imagery of the human-machine in popular culture (film, literature, television) with feminist theory and the history of science, Donna Haraway (1991b) created a potent metaphorical creature and declared hopefully and ironically that "cyborg unities are monstrous..." (p. 154) in her famous essay, "A Manifesto for Cyborgs." Haraway's cyborg is definitely female: "the cyborg is a bad girl, she is really not a boy. Maybe she is not so much bad as she is a shape-changer, whose dislocations are never free" (Penley and Ross, 1990, p. 17). Her

11

cyborg metaphor (re)envisioned the negatively inflected female-machine in terms of emancipatory potential, vesting her with the capacity to create new gender identities once freed from the limitations of dualistic reasoning which underpins much of Western thought. Dualistic categories create hierarchies that render one side of the binary superior in relation to the other, evident in such pairings as natural/artificial; culture/nature; self/other; human/nonhuman; man/woman; and organism/machine. As the preceding summary has shown, the female-machine has been a persistent metaphor in modernity, existing in the margins or not at all in philosophy and science, but figuring centrally in the popular imaginary as a fetishized and monstrous figure.

A Literature Review of the Female-Machine

In the wake of Haraway's conception of the posthuman cyborg, numerous theorists and scholars have appropriated her cyborg icon. In what follows, I present a brief overview of the various ways in which contemporary scholars/theorists understand the female-machine. As Allison Muri (2004) notes in her survey of the seventeenth/eighteenth century female-machine, if she appeared at all, it was within the sexual or domestic realms (p. 2). A survey of contemporary theories of the female-machine (most often referred to as the cyborg) finds that she continues to be theorized predominantly in terms of her sexual otherness; her relationship to reproduction; and her role as double or doppelganger.

Female-Machine as Sexual Other

In the eighteenth century the mechanical-woman was described as one who is artificially made up so as to dupe and seduce men with her simulated (as opposed to natural) beauty (Muri, 2004). This non-idealized female-machine is articulated in the following passage from the eighteenth century,

> She cometh into a Room as if her Limbs were set on with ill made Screws, which maketh the Company fear the pretty Thing should leave some of its *Artificial Person* upon the Floor. She doth not like herself as *God Almighty* made her, but

12

will have some of *her own* Workmanship. (George Saville (1724) in Park, 2006, p. 24, emphasis in the original)

This mechanical-woman is one version of the femme fatale archetype who takes on several guises, including: the fallen woman, the goddess, the siren, the witch, the new-woman, the vamp and the female-machine (Doane, 1991, p. 2).

The most famous of the femme fatale machine women is Rachael, a female replicant in Ridley Scott's *Blade Runner* (1982). She has achieved iconic status in the tradition of great femme fatales and has been theorized extensively (Desser, 1985; Doll and Faller, 1986; Deutelbaum, 1989; Morrison, 1990; Slade, 1990; Telotte, 1991; Wilson, 2005) by film critics and scholars. Theory has often focussed upon her iconographic appearance, finding that she symbolizes the classic femme fatale through hairstyle, clothing and demeanour (Doll and Faller, 1986). Women of *film noir* disrupt with their threatening sexuality, as do machine-women. *Blade Runner* features two other mechanical women, Zhora and Pris, who wield their "female sexuality as a weapon" (Desser, 1985, p. 175). "Zhora the snake-charmer has a threatening sexuality, and Pris, despite her childlike side, is threatening as well" (Lev, 1998, p. 35). Rachael however, is unique among female-machine representations in that she is often read as a redemptive character (Slade, 1990, p. 12), not quite like the "unstable, deceptive, undependable, and ultimately deadly" (Doll and Faller, 1986, p. 92) femme fatale or spider woman of *film noir* and most other female-machine narratives (Morrison, 1990, p. 4). In the end, Rachael saves Deckard, the film's alienated protagonist, spiritually and emotionally and physically with the two of them escaping to a clean Eden-like forest (Doll and Faller, p. 90).

Rachael is the exception to the rule however, for the female-machine is seldom, if ever, portrayed as a redemptive character and is most often represented as a gendered and dangerous other. Vivian Sobchack (2000 [1987]) argues that when replicants such as Rachael are represented as more human than human and the relationship between human and other is founded

13

on principles of resemblance (rather than similitude[1]) the relationship is regressive and

hierarchical and therefore maintains difference. Conversely, representation of the other that is

founded on similitude erases difference, and is therefore non-hierarchical (p. 138).

Andreas Huyssen's (1982) analysis of the female-machine in Fritz Lang's *Metropolis*

(1927) argues that technology, embodied in the female-machine, represents an instance of

condensation and displacement of fears of industrial development projected onto the automaton

now imagined predominantly as a dangerous woman (Huyssen, 1982, p. 225, 228). As soon as

technology became perceived as "a demonic, inexplicable threat and as harbinger of chaos and

destruction" (p. 226) it was reimagined as a woman. Marj Kibby's (1996) survey of eighties

cyborg cinema found that representations of the hyper sexualized female-machine reflects a time

in which anxiety concerning the feminizing effect of technology was "translated into a revenge on

the feminine" (p. 143) in the face of a crisis in masculine identity and the fear of declining

patriarchy (p. 139).

Robyn Clough (1997) argues that at first glance the gendered (female) machine would

seem to reinscribe a dualist orientation that privileges/subordinates one term (male/female) over

the other and therefore undercuts any emancipatory potential that the female-machine may have.

Indeed, the titles of female-machine films suggest that gender is central with the sexual

connotation of the film's title emphasising the importance of gendered identity. Films such as

Cherry 2000 (1987), *RoboCHIC* (1989), and *Eve of Destruction* (1991) make it difficult to

perceive the cyborg as an androgynous creature existing in a post-gendered world, as argued by

Donna Haraway (1991b). In fact it would seem that with female-machines "gender boundaries

---

[1] The terms resemblance/similitude are borrowed from Michel Foucault, "Resemblance has a 'model', an original element that orders and hierarchizes the increasingly less faithful copies that can be struck from it. Resemblence presupposes a primary reference that prescribes and classes. The similar develops in series that have neither beginning nor end, that can be followed in one direction as easily as in another, that obey no hierarchy, but propagate themselves from small differences among small differences. Resemblance serves representation, which rules over it; similitude serves repetition, which ranges across it. Resemblence predicates itself upon a model it must return to and reveal; similitude circulates the simulacrum as an indefinite and reversible relation of the similar to the similar" (Foucault cited in Sobchack, 2000, p. 138).

are treated less flexibly" with the female cyborg tending to appear "feminine to an exaggerated

degree" (Springer, 1991, p. 308-309), while the male-machine is a "triumphant macho-cyborg, or

the heroic man-machine" (Kibby, 1996, p. 141). Clough recoups the gendered cyborg by noting

that as a creature that does not regard any category as sacred (not even gender) in that "any

component can be interfaced with any other" (Haraway, 1991b, p. 163) the cyborg upsets any

possibility of self-contained categories. Although Haraway's cyborg is sexually ambiguous, in

one instance a creature described as existing in a "post-gender world" (Haraway, 1991a, p. 150)

and in another "definitely a girl" (Penley and Ross, 1990, p. 20), Clough reads this sexual

ambiguity as suggestive of a creature that is "self-consciously sexed...an acknowledgment of the

differences amongst women...race, class and sexuality...transsexual and intersex[ed] bodies for

example" (Clough, 1997, np).

Female-Machines and the Maternal

The female-machine, argues Mary Ann Doane (1990), is a figure in which the maternal

body and technology become deeply imbricated, reflecting a "crisis in the realm of reproduction"

(p. 115). At first glance, female reproduction would seem to demarcate the boundary or limit of

"the conceptualization of femininity" (p. 112) which the artificial woman cannot cross because

her mechanical body is sterile, unable to conceive, or give birth. However, even when science

fiction films do not feature female androids, robots, replicants and cyborgs as reproductive

beings, they remain insistent in their reference to the monstrous body of the maternal. In "Alien

and the Monstrous-Feminine" (2000 [1987]) for example, Creed writes,

> The science fiction horror film *Alien* (1979), is a complex representation of the
> monstrous-feminine in terms of the maternal figure as perceived within a
> patriarchal ideology. She is there in the text's scenarios of the primal scene of
> birth and death; she is there in her many guises as the treacherous mother, the
> oral sadistic mother, the mother as the primordial abyss; and she is there in the
> films' images of blood, of the all devouring vagina, the toothed vagina, the
> vagina as Pandora's box; and finally she is there in the chameleon figure of the
> alien, the monster as fetish object of and for the mother. (p. 122)

Lynda Bundtzen (2000 [1987]) contends that James Cameron's *Alien* trilogy embodies "woman's reproductive powers" (p. 104). Similarly, Huyssen (1982) argues that the very act of creation of the artificial woman suggests a fulfilment of the "male phantasm of creation without a mother" (p. 227; see also Doane, 1990, p. 169). Thus, the technologizing of the maternal body suggests that scientific intervention might control the maternal (like nature and woman), reflecting archetypal fears of woman's otherness, maternal functions, and the alien body. And as technology attempts to overcome the maternal body "somehow the fear lingers – perhaps the maternal will contaminate the technological" (Doane, p. 115).

Related to issues of reproduction are the implications of cyborg replication on notions of history, memory and origin. Doane argues that emergent technologies of reproduction "impact... on ideas of origins, narratives and histories" and thus threaten the notion of "origins, the Oedipal dilemma and the relation between subjectivity and knowledge that it supports" (Doane, p. 115). In this way films that are concerned with technological simulation/reproduction constitute "a dystopian genre which symbolically encodes our deepest fears and anxieties about the present and the future" (Best, 1987, p. 1). The fears and the anxieties that the female cyborg foregrounds can be seen as related to the eradication of human identity: that machines will replace human beings and/or that human beings may be in danger of becoming machines themselves (Holland, 1995, p. 159-160).

Female-machine as Double

Debbora Battaglia (2001) suggests that cyborg films are "sites of the cultural imagination" (p. 494) upon which the quest to create life is projected and worked through. From *Frankenstein* to *Blade Runner*, these stories represent sites upon which "scientists and their products" are revealed and judged (ibid.). Cyborg films "present a striking counternarrative to scientific hubris and the sufficiency of scientific knowledge for comprehensively 'enframing' life – biological or social" (p. 497). J.P. Telotte (1983), Eric Wilson (2005) and Stuart Redmond

(2004) each observe the dichotomous representation of the human-machine and note that

technologized bodies are typically portrayed as one of two extremes: welcoming/threatening

(Telotte, p. 57-58); miraculous/monstrous (Wilson, p. 31); and humanist/pathological (Redmond,

p.156). Although, Telotte, Wilson and Redmond make no gender distinction in relation to their

binary classification, it is clear that the female-machine is most often portrayed in terms of her

threatening/monstrous/pathological potential. This seems to reaffirm the deeply held cultural

view that the female-machine, more so than her male counterpart, "will escape the creator's

control and intentionally or otherwise defeat the creator's program" (Battaglia, 2001, p. 497).

Telotte's (2004 [1983]) analysis of the role of the double (robot, cyborg, replicant) in

science fiction film makes no explicit gender distinction between the male and female-machine.

In films such *Metropolis* (1927), *Stepford Wives* (1975), *Alien* (1979) and *Blade Runner* (1982),

where the figure of the female-machine is central, Telotte focuses on the ways in which the role

of the double as either threatening or welcoming becomes the central problematic.[2] The false-

Maria of *Metropolis* (1927) threatens to unleash "dangerous desires in the human community"

and the fact that she is alluring and destructive illustrates the distressing implications of doubling

(creating) "artifice which man's science has attained" (Telotte, 2004 [1983], p. 57). *Stepford*

Wives plays upon the threatening possibility of the replacement of real women by machine-

women and also plays upon "the terror implicit in their [the android women's] similarity to what

is held up as a cultural ideal" (ibid., p. 58). *Blade Runner*, argues Telotte, demonstrates man's

mastery over evolutionary principles that are fuelled by advances in biogenetics that may

eventually enable us to "genetically design and reproduce virtually anything that lives" (ibid., p.

60), including humans. The trouble with doubles, of course, is their refusal to remain within

---

[2] Whether the double is read as threat or desire, the narrative makes clear that the double is deeply troubling
in either case. For 'desiring' the double results in either the "bloodless victory of the copy" (*Invasion of the
Body Snatchers*) or the replacement of real people (*Stepford Wives*) with "mindless, dispassionate
androids" that hints at a disturbing underpinning to the narrative, that is to say, "duplication is obviously
desirable" (Telotte, 2004 [1983], p. 58).

positions of subordination; their wilful destabilization the social paradigms and self-knowledge of

their creators; and their capacity to confound "cultural boundaries" (Battaglia, 2001, p. 494). The

replicants in *Blade Runner* are viewed as "reflections of the self" who "desire…real life," thereby

putting themselves in opposition "to the possessors of normal life, mankind" (Telotte, 2004

[1983], p. 61). Therefore, there is disconcerting ambiguity attached to the doubling of the

replicants "found in the absence of a sure anchor for our sympathies" (ibid., p. 61).

Male-Machines versus Female-Machines

Sean Redmond (2004) distinguishes between a humanist and a pathological cyborg. The

humanist cyborg works in collaboration with humans and longs to understand the emotional

complexity of their humanity but never achieves unity of "the corporeal to the technological" (p.

156). The pathological cyborg is relentless in its "will to power…The pathological cyborg wants

nothing more than the complete genocide of the human race" (ibid.). Pathology seems to

describe one dominant representation of the female-machine as hypersexual, dangerous, and

disruptive (e.g. *Metropolis, Blade Runner, Eve of Destruction, Terminator: Rise of the Machines*).

Although no in-depth gender comparison of cyborgs has been undertaken to date (that I am aware

of), the briefest consideration of memorable cyborg characters shows that culturally constructed

gender differences at play in the real world are inscribed upon gendered cyborg bodies.

Cyborg men, though often infused with excessive strength, power, and aggression are

sexualised less often (if at all) in comparison with female cyborgs. Supra intellectual and/or

hyper-masculine, the male cyborg is often charged with fulfilling some meaningful, order-

restoring mission on behalf of the state[3] or humanity.[4] The *Six Million Dollar Man*, a popular

1970s television series, tells the story of Steve Austin, a military test pilot tragically injured and

restored using nuclear powered limbs and implants. Afterward, he agrees to become an

---

[3] *Six Million Dollar Man* (1974-1978), *Blade-Runner* (1982), *Robocop* (1987)
[4] *Terminator* (1984; 1991; 2003), *The Matrix* (1999; 2003a; 2003b)

intelligence agent for the American government. Each episode begins with the following technologically deterministic incantation: "We can rebuild him. We have the technology. We have the capability to make the world's first Bionic man. Steve Austin will be that man. Better than he was before. Better . . . stronger . . . faster." *Blade Runner's* Rick Deckard (the director's cut of this film, suggests that Deckard might be a replicant), a jaded hunter of replicants, is tasked with keeping society safe from the dangers of murderous "skin-jobs," a derogatory slang word used to identify human-machine hybrids. *Robocop* tells the story of Alex J. Murphy, a police officer in the dystopic and crime ridden Detroit City, Michigan. After a critical injury, Murphy is modified and becomes a powerful hybrid of man and machine. *Robocop* has titanium armour, unlimited firepower, and is programmed to fulfil three primary directives: uphold the law, serve the public trust, and protect the innocent. *Terminator's* male cyborg evolved significantly over the three decades of the *Terminator* movies, from menacing enemy of humanity (shades of Redmond's pathological cyborg) to a benevolent patriarch of the future. The *Matrix* trilogy features Neo as saviour for humanity. Rescued from the tyranny of the machines, Neo is destined to free humans from enslavement and protect Zion from the murderous machines.

By contrast, female cyborgs are seldom charged with keeping order on behalf the state or preserving the future of mankind and, if they are, they inevitably malfunction. Indeed, their destruction is usually central to the narrative and typically represents the only way that stability and order can be assured and/or restored. Excessive sexuality defines the female-machine. Whether the female-machine is represented as harmless and without agency (e.g. *Mannequin's* [1987] Emma; *Weird Science's* [1985] Lisa; *Cherry 2000's* [1987] Cherry) or dangerous and pathological (e.g. *Metropolis'* [1927] False Maria; *Blade Runner's* [1982] Zhora and Pris; *Eve of Destruction's* [1991] Eve 8; and *Terminator's* [2003] Terminatrix), it is her erotic and fetishized body that characterizes her.

Most familiar, are representations of the female-machine as *femme castratrice* (Eve 8), vagina dentata (Pris, Terminatrix) or harbinger of chaos (False-Maria). False-Maria is dangerous and disruptive as she dances/seduces the townsmen and incite the workers to riot. Her overt sexuality is eventually neutralized as she is burned at the stake, thereby linking her with the early modern witch and the early twentieth century new-woman. Zhora is an exotic dancer (and mercenary) and Pris is a basic pleasure-model designed for the sexual servicing of off-world military personnel. Both are state of the art biomachines imbued with rationality, creativity, and strength that exceeds that of their creator. However, both are reduced to abject, panic-stricken, irrational, hysterical women in the face of Deckard's attempt to execute them. Eve 8 is an out of control military test weapon with an activated nuclear bomb housed within the reproductive region of her body. Jim McQuaid, the terrorist expert enlisted to locate and destroy Eve 8 describes her as both "horny and pathological," a particularly frightening combination in a female (machine). The demeanour, appearance and name of the Terminatrix align her with the sexuality of the female dominatrix. This association creates a highly fetishized image of the female machine that is read as a depraved being who inflicts pain and kills without emotion, sadistically licks (and becomes excited by) the blood of her victims, and uses transgressive sexuality as currency within a world that values (fetishizes), above all else, the artifice of feminine beauty.

To date, there has been no critical work undertaken that investigates the origin, history and significance of the female-machine as a distinct cultural phenomenon. Neither has the interplay between fetishization and abjection in relation to the female-machine been thoroughly examined. While feminist theorists have long recognized the destabilizing power of the female-machine as double, other, alien, and monstrous maternal body there are only passing (mostly descriptive) references to the female-machine as abject (see Scott, 2001, p. 370). While Barbara Creed (1993) identifies the monstrous maternal aspects of Ridley Scott's primordial *Alien* mother, she does not theorize the female-machine (cyborg) as a member of her monstrous-feminine

catalogue of women in film. As this work will attempt to demonstrate, the female-machine as

automaton, robot and cyborg is abject and therefore monstrous.

CHAPTER ONE:
DISCOURSES OF THE FEMALE-MACHINE AS AUTOMATON

Introduction

When René Descartes left France at the request of Queen Christina of Sweden to join her royal court, he brought his daughter Francine along with him to be his companion on the long voyage. On one particularly stormy night, the story goes, the crew approached Descartes' quarters inquisitively because they had not yet seen the lovely daughter of Descartes in all their days of sailing. Creeping about Descartes' room the crew came upon Francine, apparently laying motionless inside a wooden box. Perplexed they drew nearer and upon careful scrutiny found not a human girl but instead a child sized female automaton created in the exact likeness of Descartes' deceased daughter. The frightened and deeply superstitious crew immediately brought "her" body to the captain of the ship who in turn cast her overboard convinced that her presence aboard the ship was the source of the dangerous and stormy weather conditions the ship was presently encountering. (Shanken, 2005)

Although the story of Descartes' automaton daughter has never been confirmed, the legend has been told and retold many times and constitutes a part of the mythic quest to (re)create life[5] through artifice that has engaged the minds and imaginations of philosophers, inventors, and scientists since ancient times. Indeed, the dream of creating life through moving statues, golem

---

[5] Homer (750 BC) describes a very early automaton, "Hephaestus, the limping god, is attended by handmaids of gold resembling young damsels, filled with minds and wisdom, and he makes mobile tripods for the divine banqueting hall; of themselves they move to their appointed places and then return" (Cohen 1967, p. 15). The statue of Memnon, from the 15th century BC, is carved of black stone and is seated yet seems poised to rise and speak. "When touched by the first ray of the sun it [Memnon] uttered a sound as soon as the sunbeam reached its lips" (Cohen, 1967, p. 15). Early statues were religious objects subject to theological authority in addition to being works of art, "and a statue, like a myth, appeared as the epitome of a divine thought" (Chapuis and Droz, 1958, p. 13) because at this time the very act of representation, however approximate, was thought to be a spectacular feat of magic. The belief in living statues originated in Egyptian culture and the concept of Ka, referring to "the soul of the statute representing god or the deceased human being" (Chapuis and Droz 1958, p. 14). Priests were thought able to animate statutes by performing an appropriate rite or ceremony. "This ritual was supposed to give suppleness to the limbs of statues, to endow them with speech, and empower them to do good or evil" (Cohen 1967, p. 20). The idea that statues could "[run] blood...sweat with anguish...to say nothing of statutes on which appeared signs intimating the will of god" (Chapuis and Droz 1958, p. 17) persisted throughout antiquity, the entire Roman period, and into the Middle Ages.

(the focus of this section), homunculi, automata, androids, robots and cyborgs exist in the myths and superstitions from antiquity through to the Middle Ages and right up to our contemporary moment.[6]

Mary Shelley's (1818) *Frankenstein, or the Modern Prometheus* (the proto typical story of the man-machine) is said to have been inspired by her visit to Neuchâtel and attending a performance by Jaquet-Droz's message-writing automaton (Wood, 2002 p. xiv). Shelley observed a little male machine inscribe a paradoxical question: "I do not think, therefore am I not?" Indeed, the Golden Age of the Automaton fascinated the whole world, capturing the imagination of philosophers, kings, intellectuals and commoners throughout the classical Enlightenment period (Ichbiah, 2005). Automaton creators (e.g. Vaucanson, Jaquet-Droz, and Maillardet) of this period were informed by the radical new mechanistic understanding of life taking hold, a perspective that ultimately replaced the organic view of the universe.

Following a dramatic shift in worldview (from organic to mechanical), the automaton came to be regarded by many as the very symbol of the Enlightenment, offering tangible proof of a knowable and orderly universe recast in mechanical terms. However, as cultural anxiety grew in relation to a rapidly mechanizing world, the ancient relationship between nature and woman under organicism was soon revived. The allegorical figure of unruly nature became (re)associated with the machines of Enlightenment science. The dual meaning of the female-machine (emblem of Enlightenment *and* an unruly signifier) highlights the female-machine's polysemic status, an "allusive field," to borrow a term from Roland Barthes, relating to the use of allusion to reflect one thing while making another understood (Barthes, 1985, p. 158). Umbach

---

[6] The first mechanical automata for which there are verifiable records emerged around second or third century BC with the invention of mechanical water-clocks of Ctesibius, Philo the Byzantine, and Hero of Alexandria who collectively represented the Alexandrian School (Chapuis and Droz 1958, p. 31). The sciences of the Alexandrians were preserved through translations authored by Hero of Alexandria into Arabic and Latin at Byzantium (Chapuis and Droz 1958, p. 36) and from the sixteenth century onward, authors remained inspired by the science of the Alexandrians, but added personal ideas and inventions to these early inventions applying the art and science of hydraulic automata to the gardens and grottoes of princes and kings during the sixteenth and seventeenth century.

(2002) has elaborated, "Allusive fields are notoriously difficult to interpret, if by interpretation we mean the search for an idea or essence. Allusive fields are not only by definition subjective: they also tend to invoke many, even contradictory associations" (p. 331). Thus, the female automaton may simultaneously be seen as an emblem of scientific rationality and as a symbol of female transgression, without either meaning overriding the other.

In this chapter, I explore the historic association between nature and woman and how this relationship came to be (re)embodied during the age of the automaton in the figure of the monstrous female-machine. To begin, a prototypical female-machine is acknowledged to have existed in the figure of the sixteenth century female golem. The characteristics of the female golem continue to be recognizable in the representation of the eighteenth century female-machine (the automaton). Chapter one also considers how the characteristics of the Enlightenment automaton are associated with the sacred monster, a category of deviance thought contained through the taxonomic classification of rationalization. Finally, through a close reading of the film *Cherry 2000* I explore how historical discourses related to the eighteenth century female automaton continue to circulate within contemporary representations of the female-machine.

The Female Golem (Proto-Machine Woman)

That humans desire to create artificial copies of the human body is indisputable; however, the motivation, purpose and significance behind such creations are a matter of some debate. In 1832, David Brewster, asserted that automata were produced merely to entertain the masses. "Ingenious and beautiful as all these pieces of mechanisms are, and surprising as their effects appear even to scientific spectators, the principal object of their inventions was to astonish and amuse the public" (cited in Fryer and Marshall, 1979, p. 257). Derek de Solla Price (1964) and Silvio Bedini (1964) both posit an innate and deeply rooted "urge of man to simulate the world about him through the graphic and plastic arts" (de Solla Price, 1964, p. 10) as motivation for the building of automata and that such creations reflect the creator's desire to better understand his

external world (Bedini, 1964, p. 42). Norbert Wiener, father of cybernetics, writes about the

historic quest to create life,

> At every stage of technique...the ability of the artificer to produce a working simulacrum of a living organism has always intrigued people. This desire to produce and study automata has always been expressed in the living technique of the age. In the days of magic, we have the bizarre and sinister concept of the Golem, that figure of clay into which the rabbi of Prague breathed life with the blasphemy of the Ineffable Name of God. In the time of Newton, the automaton becomes the clockwork music box, with the little effigies pirouetting stiffly on top. In the nineteenth century, the automaton is a glorified heat engine, burning some combustible fuel instead of the glycogen of the human muscles. Finally, the present automaton opens doors by means of photocells...or points guns to the place at which a radar beam picks up an airplane, or computes the solution of a differential equation. (Wiener, 1948, p. 39-40)

Robert Plank (1965), scholar of the literary treatment of the robot theme from medieval legend,

suggests that the motivation to create artificial life represents a symbolic desire of the male

artificer to reproduce without female participation in the process. In this way, argues Ksenija

Bilbija (1994), the artificer may "prove that men have the sole power in creation" (p. 878). J.P.

Telotte (1983), film studies scholar, asserts that the "human penchant for artifice," that is to say

that the desire to study, comprehend, and recreate the world about him (including himself),

"seems to promise a reduction of man to no more than artifice" (p. 58). For Michel Foucault

(1995), Enlightenment automata represented "small-scale models of power" in an age where the

body became increasingly docile as it was subjected to intensifying practices of power and

control (p. 136). Gaby Wood (2002), historian of eighteenth century mechanical life, regards the

quest to imitate life as instances of rational science pushing beyond the "bounds of reason" (p.

xvi), at times bordering upon madness. For her part, Jessica Riskin (2003a; 2003b) regards the

drive to recreate life as an undertaking continually shaped and reshaped by the evolving

relationship between humans and the nonhumans. Jennifer Gonzalez (2000) argues that shifting

representations of artificial life reflect abrupt changes in the social and cultural attitudes related to

our understanding of what it means to be human.

The image of the cyborg has historically recurred at moments of radical social and culture change. From the bestial monstrosities, to unlikely montages of body and machine parts, to electronic implants, imaginary representations of cyborgs take over when traditional bodies fail. In other words, when the current ontological model of human being does not fit a new paradigm, a hybrid model of existence is required to encompass a new, complex and contradictory lived experience. (Gonzalez, 2000, p. 61)

Robert Plank (1965) asserts that the ubiquitous presence of the stories, myth and folklore relating to "man-made man-like" (p. 13) creatures follows a "clear and straight line of evolution. At the beginning there was the golem; at the end, there is the robot" (ibid.). This evolutionary path incorporates the automaton (existing between the golem and the robot) and continues to the present day to include the figure of the cyborg. The female golem represents an early example of an artificial woman created as a projection of her designer's erotic desire. Created without agency, the female golem is an objectified sexual surrogate, a replacement for a real woman, and without any social status beyond that of a private sexual-machine (Bilbija, 1994, p. 880).

The golem can be traced back to the Bible (Psalms 139:16) where it was first used to describe a man in unfinished form. The use of the term golem to refer to man the human, rather than divine creation of life dates back to the 1500s in reference to golems created by Rabbis Elia ben Judah (1514-1583) and Judah Loew (1513-1609). Golems were made from clay and animated through sacred prayer. Golems were unable to speak, but could understand basic commands and were typically used as domestic servants/workers. Should a golem become unruly or unmanageable, the Rabbi could reverse or disanimate the creature (Plank, p. 13-15). Eric Wilson (1995) notes that the creation of golem figures typically had two outcomes, "the miraculous realization of noble possibility" or "monstrous violation" resulting from an affront on the boundaries between "natural and artificial, animate and inanimate, human and machine" (p. 31).

The creation of golems involved two processes. The first involves the shaping of a figure from some lifeless substance such as dust, mud, earth, clay, and cadaver pieces, while the second

26

required the application of some mystic, divine, or scientific power to vivify the inanimate matter. The project to create life through artifice was inflected from the start with a distinction between inanimate matter (associated with the female element) and animate spirit (associated with the male element), "a dichotomy of body and soul" that "implies contempt for the body" (Plank, p. 15). "Etymologically, the inferior step related to the formation of the matter still preserves the traces of female presence. Mother and matter come from the same Indo-European root *me* which refers to physical substance. Moreover, earth as a feminine element is juxtaposed with the spirit, identified as a masculine element and the actual life giver" (Bilbija, 1994, p. 879). This separation of passive female matter and active male spirit, matter from soul, body from mind, is a characteristic of dualism, referring to the view that human subjects can be categorized or separated into two categories "two distinct, mutually exclusive substances, mind and body, each of which inhabits its own self-contained sphere" (Grosz, 1994, p. 6). The part endowed with the capacity to think and reason (associated with man) is the mind and the part located in the sphere of biology and nature (associated with woman) is the body. The body is *matter* and exists in space in accordance with the laws of nature; conversely, the mind does not exist in space and is therefore not subject to physical laws (Crossley, 2001, p. 10).[7] Elizabeth Grosz (1994) points out that this line of reasoning, the privileging of the mind or spirit over the body or matter, existed well before Descartes' famous dictum, "I think therefore I am" that grants the mind a privileged status over the body, relegating the latter to no more than an impediment to (Plato) or a mere receptacle for (Aristotle) the reasoning mind (p. 5).

---

[7] The idea that the human subject is composed of a body and a mind is a division that finds its origin in Greek Philosophy, beginning first with Plato and Aristotle (Grosz, 1994, p. 6). At the very threshold of "Western reason" (ibid.), the body was already theorized in negative terms, while the mind was valorised. Plato regarded the body as an impediment to reason, trapping the soul "in the body as in a dungeon" (ibid., p. 5). The mind, reasoned Plato, should rightfully rule over the body in a kind of naturally occurring order. Aristotle added a gender dimension to the mind-body division, viewing the maternal body as the passive and shapeless repository for being, while the paternal figure was thought to confer "form, shape, contour, specific features and attributes it otherwise lacked" (ibid.) Descartes would refine and entrench the philosophical tradition of privileging mind over body, which ultimately resulted in the correlation of the mind/body opposition to countless other "oppositional pairs" (most problematically – man/woman). Grosz (1994) notes that the work of separating the mind from the body began with the ancient Greek Philosophers, but what Descartes accomplished was "the separation of the soul with nature" (p. 6).

The artificially created golem woman differs significantly from the artificially created

golem man. Whereas the latter may be viewed as a reflection of the alchemist's, mystic's, or

mechanician's narcissistic "yearning of man's own replication," the former is most often a

reflection of the creator's hidden sexual desire (Bilbija, 1994, p. 880; Tytell, 2005, p. 35-36).

David Davidson (1981) points out that what we refer to as feminine mystique may be traced back

to the secret, anti-moral desire of the "male for a servant-enchantress; in fact, the mystification of

the female which results in the amoral woman may be viewed in one sense as a projection of male

antisocial fantasies" (p. 32). As a sexually desirable object, the golem woman is a product of

artifice (with a perfectly crafted body), a projection of her creator's erotic desire commanding

sexual attention, in contrast with the intellectual enthusiasm more often associated with the

creation of the male golem. "Contrary to male golems...[the female golem's] minds and souls

receive almost no attention whatsoever" (Bilbija, 1994, p. 882). Similarly, eighteenth century

female automata were often representations of erotic desire and docile femininity, whereas male

automata, even the deceptive ones (such as the fantastic chess playing "Turk"[8]), were over-

determined expressions of intellectual and technical power. Sussman points out,

> The Automaton Chess Player enacted a fantasy of mechanical power: that
> clockwork gears, levers, invisible wires, or magnets could somehow perform
> enough discrete operations to add up to the faculty of thought, symbolized by
> chess, a game combining the calculations of reason with the mechanisms of the
> chess pieces moving on the board. (Sussman, 1999, p. 86)

---

[8] The Turk was a chess-playing automaton created by Wolfgang von Kemplen and debuted in 1770 before
a Viennese court in the presence of Empress Maria Theresa. *The Turk* "consisted of a wooden cabinet,
behind which was seated a life-sized figure of a man, made of carved wood, wearing an ermine-trimmed
robe, loose trousers, and a turban – the traditional costume of an oriental sorcerer" (Standage, 2002, p. 22-
23). Kemplen invited anyone who would like to challenge the automaton to a chess match to do so and
typically the automaton won (ibid., p. 27). Kemplen's machine became a Viennese sensation and "soon
became more widely known as letters describing the automaton were published in newspapers and journals
overseas" (ibid., p. 32). Throughout its 'career,' the Turk played against Benjamin Franklin and Napoleon
and in the presence of Catherine the Great, Charles Babbage and Edgar Allen Poe (ibid., p. 46).

Eventually the mystical stories of the golem gave way to narratives about creatures that might be created through natural law (i.e. the homunculus[9]) rather than divine magic. As the quest to create life adapted to new scientific perspectives associated with the age of the automaton, representations of the mechanical woman replaced the golem woman. In the age of the automaton, the focus of the female-machine remains on her status as private object of sexual desire, in spite of her often very public display.

The shift from golem woman to mechanical woman approximately parallels a shift in worldview from organicism to mechanism as well as the rise of new science in the age of reason. These changes are associated with the subordination and domination of nature (and woman). The image of a benevolent nature and an unruly nature[10] provided rationale for the control and enclosure of nature via the technologies of new science. At the same time, the automaton, a mechanical contrivance that seemed to animate of its own accord and therefore seemed endowed with spirit also introduced new fears. "The horror and fear provoked by appearances in nature of monstrous births moved over to the horror and fear provoked by our own artificial creations, where these affects have remained lodged to this day" (Hanafi, 2000, p. 54).

As the preceding section has shown, the female automaton emerged during the Enlightenment with an intimate connection to the eroticised golem woman. I argue below that the gendered (female) automata, the emblem of scientific order and rationality and the physical

---

[9] Theophrast Bombast von Hohenheim or Paracelsus (1493-1541) is said to have created life alchemically (King, 2002) from a mixture of semen nourished for forty days in the dung of a horse. Paracelsus wrote his most famous treatises on metallurgy, theosophy, anatomy, medicine and astronomy in *Of Natural Things* (1537) and it is within this text that the controversial recipe for making a homunculus was recorded. "Spermatic preformation, the predominant eighteenth century theory of reproduction, claimed that the complete homunculus was contained in the sperm; activated by being placed in the female uterus; and thus the fetus was fully formed with the sperm and only needed time to grow larger" (Thompson, 2001, p. 49).
[10] "Unruly is what does not obey, what cannot be straightened out. A silly strand of hair or an undesired fold that can only be subdued by special means, technical expenditure or disinterest. Or it takes a sense of humor. Something is unruly. Unruliness has a physical, an erotic dimension. Whether this is desired or not, the term echoes something that for centuries was supposed to mark a feminine quality: lack of knowledge, unawareness - and obstinacy. A childish, almost touching disobedience to what asserts itself as unchangeable and rigid. However, it is also disobedience without a target, thoughtless, unplanned, anarchic, something that cannot be tolerated for long by that which exists. All measures taken against unruliness derive their legitimacy from this" (Ute Vorkoeper cited in Volkart, 2000).

evidence of a mechanized and orderly universe, from the beginning, harboured monstrous potential.

Organicism: Mother Nature & Unruly Woman

> Woman is not a being in her own right, a subject...The division of labor imposed upon her by man brought her little that was worthwhile. She became the embodiment of the biological function, the image of nature the subjugation of which constituted that civilization's title to fame. For millennia men dreamed of acquiring absolute mastery over nature, of converting the cosmos into one immense hunting ground. (Horkheimer and Adorno, 2004, p. 247f.)

In the following section I examine the historical connection between woman and nature through Carolyn Merchant's (1980) *Death of Nature*, in which she traces the historic connection between woman and nature and shows that the history and status of women mirrors the history of nature and the environment.

Merchant (1980) argues that the replacement of an organic worldview by a mechanistic one contributed to and legitimated the subordination of both nature and woman. This transitional period coincided with broad cultural shifts taking place in response to Enlightenment ideas, associated with the rationalization and control of nature and individuals and the turning away from faith and superstition; belief in human reason as the mode for transforming society and freeing the individual from arbitrary authority; and increasing faith in the authority of science rather than religion and tradition. Adorno and Horkheimer (2004) refer to this period in the eighteenth century as a period which resulted in the "disenchantment of the world" (p. 3), a movement away from organicism, referring to "the collapse of a way of seeing the world as full of magical or spiritual powers and forces organizing a mysterious cosmos" (Outram, 1995, p. 31). Rationalization of the cosmos came accompanied the increased distance between humans and nature, men and women. "Men pay for the increase of their power with alienation from that over which they exercise their power" (Horkheimer and Adorno, 2004, p. 9).

The relationship between woman and nature is timeless (Bovenschen, Blackwell et al., 1978, p. 92), with the anthropomorphic mother nature standing as its central image. Historically, nature is characterized as a contradictory dual-natured woman: the compassionate and fertile maternal woman contrasting her always close by chaotic and disruptive dark twin responsible for releasing plague and famine upon earth. Merchant argues that until the sixteenth century, social relations were experienced as "close-knit, cooperative, organic communities" (1980, p. 1). The guiding metaphor around which the self, society and the universe were based was that of a biological organism. Organicism emphasized the interconnectedness of all the parts that make up complex systems. An organic world view also stresses the subordination of the individual to the needs of family, state, church and community and the belief in vital life infusing all living and nonliving things.

Within the organic view of nature, is the dominant image of a kind and nurturing mother who provides for humanity all that is needed within the framework of a "ordered, planned universe" (Merchant, 1980, p. 2). The image of nature, as gentle and nurturing woman, was cast aside during the period of scientific revolution and replaced with a new metaphoric worldview based on the principles of mechanism. The unruly and uncontained view of nature provided the rationale for domination and control over nature, all the while with the view to exploiting her previously sacred resources. Thus, Enlightenment knowledge of nature ultimately led to the commodification of her secrets, a criticism not lost on the critics of the Enlightenment who saw it as "the exploitation of others' work and capital. What men want to learn from nature is how to use it in order wholly to dominate it and other men" (Horkheimer and Adorno, 2004, p. 3-5).

The growing doubt about the benevolence of nature signalled its declining status and women's more generally. The discoveries of new science helped to recast nature as disorderly and chaotic (Merchant, 1980, p. 128). At the macrocosmic level, Nicolaus Copernicus displaced the earth (female) as centre of the universe with the sun (male), while Galileo Galilei's telescopic

31

investigation supported the heliocentric theories of Copernicus. At the microcosmic level, the body's hierarchical structure, as theorized by ancient physician Galen (ca. A.D. 130-200) was contested and overturned (Merchant, 1980, p. 129). In 1543, Vesalius published *On the Fabric of the Human Body* (based on his discoveries through dissection) and dismissed much of the physiology of Galen. "Like other areas of thought, medicine and physiology became caught up in the emerging mechanical world view" (Channell, 1991, p. 32).

Increasingly, nature became characterized as a wilderness (dangerous, violent, monstrous) of resources in need of control and containment. Francis Bacon, an influential father of science, developed a new philosophy for the domination and exploitation of nature's resources based on the synthesis of the patriarchal reordering of family and society, emerging capitalistic processes such as mining, and lingering ideas about the use of "natural magic" as a technique for the control of nature (Merchant, 1980, p. 164). Bacon's new philosophy coincided with the witchcraft trials going on throughout Europe and England during the early seventeenth century as well as a growing "controversy over women" related to the status and role of women within the family and economic systems of society. Marlene LeGates (1976) notes,

> The cult of the virtuous woman was not so much a new idea as a new response to an old problem, that of the dangerous sex. This new response met the need of Enlightenment writers for a new basis to support an old morality. Behind the old morality stood the hierarchical social order and the patriarchal family which was its cell...The image of chaste Womanhood represents a fantasy about what could be done with women....with what was still regarded as a basically dangerous and asocial female sexuality. (p. 26, 33)

Bacon's view of nature (as unruly woman in need of control) was undoubtedly influenced by the ongoing witch trials and the simultaneous contraction of women's social and economic roles and status during this period.

The image of the early modern witch links violent and unruly nature to the wild and uncontrollable woman. "In popular myth, witches stand side by side with the ancient mother goddesses" (Bovenschen, Blackwell et al., 1978, p. 85). Through the figure of the witch, nature

and woman came to be regarded as problematic things in need of domination and control (Merchant, 1980, p. 127). This dark side of woman is closely linked with the chaotic aspects of nature as well as the symbol of forceful female sexual passion. The connection between women and witchcraft was developed in the witch-hunting manual entitled *Malleus Maleficarum* (The Hammer of Witchcraft), written by Heinrich Kramer Institoris (1988 [1487]). This "profoundly misogynist" (Bailey, 2002, p. 120) text links witchcraft to "women's spiritual weakness and their natural proclivity for evil. Above all, he linked witchcraft to supposedly uncontrolled female sexuality, famously concluding that "all witchcraft comes from carnal lust, which in women is insatiable" (Kramer cited in Bailey, 2002, p. 120). The witch trials amplified the connection between women as deviant beings with base sexual desire and thereby formed the basis upon which a woman could be accused and convicted of witchcraft. Andreas Capallanus describes all women as "wanton...There is no man so strong at the work [of Venus] that he can satisfy the desires of any woman you please in any way at all" (cited in Parry, 1941 [1970], p. 208). Paintings and graphics from this period represent the witch as a powerful, lustful and sexually demanding woman engaging in depraved sexual activities with religious figures and the devil.

The dual faces of nature (benevolent mother/unruly witch) reflect a deep cultural ambivalence towards women and the tendency to characterize her as one of two extremes: either as virtuous or witch. "[The] Renaissance courtly lover placed her on a pedestal; the inquisitor burned her at the stake" (Merchant, 1980, p. 127). Popular opinion regarding women during the eighteenth century often came down to a single idea, promoted in Rousseau's *Emile* (1762), that women's very biology caused her to be an irrational being, "impervious to the voice of reason...dominated by her reproductive functions" (Outram, 1995, p. 24) and best suited to be help mates of men.

LeGates (1976) notes that during the eighteenth century the image of the disorderly (witch, wanton, shrew) woman became replaced by the image of the "chaste maiden and obedient

wife" (p. 23). The automaton, the sceptre of scientific rationality and order, became a social

symbol for adjusting the perceived shortcomings of disorderly and irrational women. In short, the

automaton became the model after which women modelled their behaviour. Julie Park (2006)

notes that, "Of interest in the eighteenth-century catalogue of entries on the relationship between

automatism and female conduct is the manner in which the machine works as the standard against

which female character is not only compared and measured, but self-created" (p. 24). According

to Park, "conduct literature" throughout the eighteenth century shows that the automaton was

regarded as the ideal "model of femininity" and "moral standard" against which "real" women

were judged.

Increasingly, the view of benevolent and unruly nature no longer held legitimate space

within enlightened society. The saintly mother was replaced with secular (automatized)

housewife/mother whereas the witch became the prostitute and transgressive woman. Thus, the

bourgeois mother and prostitute became safely ensconced in the mechanical world and therefore

under the absolute control and domination of patriarchal power. However, as Bovenschen,

Blackwell et al. (1978) point out,

> towering above...there hovered the ideological feminine ideal. The witch and
> the saint became myth. The idolatry and demonification of femininity – flip
> sides of the same coin – were cut off and distinct from the empirical woman, yet
> there always remained the suspicion that woman's tie to the old demonic powers
> had not yet been totally severed. This fear still lurked in the background. (ibid.,
> p. 108)

Indeed, even as organicism supplanted mechanism, the tendency to view nature (now imagined as

machine) as either benevolent or unruly female persisted. Thus, the machine increasingly became

associated with two new archetypes: classical goddess and/or dangerous seductress.

Mechanistic Worldview

Modern science and mechanistic philosophy emerged during the sixteenth and

seventeenth century through the works of such thinkers as René Descartes, Pierre Gassendi,

Thomas Hobbes, Robert Boyle, and Sir Isaac Newton. The emergence of modern science came about in concert with a dramatic shift in the guiding metaphor used to conceptualise nature and by extension, because of her identification with nature and animality and other lower forms of human life, woman. During this period, nature came to be regarded as a complex machine. And through cultural analogy, so did women.

The rise and success of new science or the Scientific Revolution (i.e. Galileo's new physics, which broke from the Aristotelian teleological perspective) described nature in terms of mathematical and mechanical laws that ruled the terrestrial world, including all of its living creatures and celestial bodies. Throughout the seventeenth and eighteenth centuries, all aspects of nature came to be understood in terms of this dominating mechanistic perspective (Klerk, 1979, p. 1) and machines became not only the guiding metaphor and model for understanding the structure of the world but also came to represent the dominant and preferred means through which the scientist learned about the world. Such a worldview allowed an alternative visioning of order within the complexity of nature and also brought about methods and approaches that promoted "an attitude of control and domination toward both women and the natural world" (Fehr, 2004, p. 136). Channell (1991) points out that at first the image of the machine provided a conceptual model from which to reconsider biological processes. However, as the mechanical worldview took root "people no longer saw the machine as simply an analogue for life – life became literally mechanical" (p. 30).

The view of bodies as complex mechanisms (automaton, robots, cyborgs) is a perspective greatly indebted to the ideas of René Descartes (1596-1650). Descartes extended the mechanistic laws of nature, as developed by Copernicus and Galileo, into the "domain of living animals" (Cohen, 1967, p. 68). Cartesian dualism liberated the mind from mechanist reduction, giving licence to increasingly complex mechanistic projects (automata) concerned with revealing the design of nature (Riskin, 2003b, p. 602). By 1637, the terms of the debate were set when

Descartes speculated in his *Discourse on Method* that the bodies of animals were but complex

machines and that all of their processes could be understood in terms of mechanical principles,

> This will not seem strange to those, who, knowing how different *automata* or
> moving machines can be made by the industry of man, without employing in so
> doing more than a very few parts in comparison with the great multitude of
> bones, muscles, nerves, arteries, veins, or other parts that are found in the body of
> each animal. From this aspect the body is regarded as a machine which, having
> been made by the hand of God, is incomparably better arranged, and possesses in
> itself movements which are much more admirable that any of those which can be
> invented by man. (Descartes, 1998 [1637], p. 31)

In spite of the many references to automata however, Descartes did not propose that

human bodies are complex machines (this quote refers to animal bodies). Machines do not have

rational souls and are therefore best likened to engineers who design and operate automata in

Royal gardens. Descartes argued that even if an automaton could be created to imitate the

processes of a human body, there is an upper limit to the intelligence of a machine. "Although

machines could do many things as well as, or perhaps even better than us, they would inevitably

fail in certain others" (Descartes, 1998 [1637], p. 32).

> If there were such machines with the organs and shape of monkeys or of some
> other non-rational animal, we would have no way of discovering that they were
> not the same as these animals. But if there were machines that resembled our
> bodies and if they imitated our actions as much as is morally possible, we would
> always have two very certain ways for recognizing that, nonetheless, they are not
> genuinely human. The first is that they would never be able to use speech... The
> second way is that ... one would discover that they did not act on the basis of
> knowledge, but merely as a result of the disposition of their organs. (Descartes,
> 1998 [1637] p. 31-32)

In reaction to (and in spite of) the destruction of Galileo's *Dialogho sopra I due Massimi*

Sistemi in 1633 (Hanafi, 2000, p. 124) by the church, Descartes was determined not to distort his

own work, *Le Monde* (a description of the cosmos, earth and the body), by denouncing the

theories of Galileo. In a letter to Mersenne, Descartes confided that if the hypothesis concerning

the earth is forbidden to apply and teach, then "all the foundations of my philosophy are also

[false]... And it is so tied in with all the parts of my treatise that I would not know how to detach

it from them without rendering the rest completely defective" (Descartes cited in Hanafi, 2000, p. 124). Thus, Descartes' treatise "On Man" appeared only in a truncated version in 1637 in the fifth section of the French edition of *Discourse on Method*.

Descartes' view of the body as machine is consistent with the biblically based argument developed by Henri de Monantheuil, that God is master Mechanician,. The argument went: if man is a mechanician capable of designing and constructing complex machinery, and man is made in the image of God (Genesis 1:26), then God must be a mechanician. From this syllogism it was further deduced that because man creates complex machines (i.e. clocks, cams, gears), then God, who is a far superior Mechanician, must have created the vast universe as a complex machine (McMullen, 2002, np). Cognizant of potential theological backlash, Descartes did not suggest that his theorizing of the soul was to be taken as literal. Rather, he presented his work as an elaborate thought experiment in which God was to be imagined as making bodies like ours and then speculated how a soul might be added. Finally, he reasoned that the body and soul could be joined.

Descartes begins his thought experiment with God creating a hypothetical human body, "I am starting from the assumption that the body is nothing other than a statue or machine made of earth, which God deliberately makes as similar to us as possible" (Descartes, 2004 [1664], p. 119). This body is one without a soul and is composed of a substance entirely unlike that of the soul. The essence of man is the "I" of the thinking body,[11] again entirely separate from the body. The uniting principle of matter (body) and soul is the principle of motion, a function of blood and spirits passing through the heart and acting as agents of animation.

---

[11] Descartes developed the theory of a mind-body split during his quest for a foundation of certainty upon which science might develop. Beginning with an exercise of "doubt," Descartes rejected all that he could not be absolutely sure of "so as to find a solid foundation for knowledge" (Crossley, 2001, p. 8). This would come to include the dismissal of his senses and perception, his external world, and his body. In the end, what he did not doubt was his capacity to think, "[and] if he is thinking then he exists, at least as a thinking being" (Crossley, 2001, p. 9).

37

In spite of Descartes' attempt to keep the distinction between human and animal machine bodies intact, his ideas propelled the builders of automata[12] to simulate as closely as possible both the external and internal mechanisms of life (Riskin, 2003b, p. 604). Jessica Riskin argues that the age of the automaton differs from periods immediately preceding and following it in that this period was concerned with collapsing the perceived differences between humans and machines rather than maintaining distance. Simulation, argues Riskin, collapses conceptual distance between disparate categories, whereas analogy maintains separation by keeping the categories separated. Extending Descartes' theoretical pronouncement, that man's physical essence does not differ significantly from that of animals, Julien de La Mettrie (1996 [1748]) detailed every function of the human being including movement, digestion, feeling, thought, and speech in purely mechanical terms. "The human body is a machine which winds itself up, a living picture of perpetual motion" (de La Mettrie, p. 7). La Mettrie's ideas differed from those of Descartes' in three ways. First, La Mettrie did not reason that the mind and the body could be separated; second, he held that if animal bodies were automata, by extension so were human bodies; third, La Mettrie was an agnostic, therefore posited no Godly or spiritual intervention to explain the interaction between mind and body (Channell, 1991, p. 41).

Jacques de Vaucanson (1709-1792), master automaton builder, is regarded by many as one of the most important figures of the Enlightenment, associated as he is with an overall shift away from the organic view of the universe towards the mechanization of nature, the body, and the state (Kang, 2001, p. 275). David Brewster, writing in 1868, describes Vaucanson's Defecating Duck as "perhaps the most wonderful piece of mechanism ever made" (Cohen, 1967,

---

[12] Other examples of automata during this period include Pierre Jacquet-Droz's, The Musician (as well as The Writer and The Artist), which combined "all of the technical developments known in their time" (Bedini, 1964, p. 37) to great effect, creating considerable sensation and attracting scores of visitors from distant places (Chapuis et al., 1958, p. 280). The Writer had the appearance of a young boy (life sized) seated at a desk and could write any message up to 40 letters. "The Artist is a similar figure of a boy that makes four sketches – a dog, a cupid, the head of Louix XIV, and the profiles of Louis XVI and Marie Antoinette. The third figure is that of a young girl that plays the clavichord by the pressure of own finger upon the keys" (Bedini, 1964, p. 39).

p. 86). Vaucanson's study of mechanics, music, and anatomy and medicine culminated in the

creation of two music-playing automata (The Flute Player and Tambourine Player) as well as a

Defecating Duck between 1735-1737. The following is an account of Vaucanson's first

demonstration of the Flute Player presented to the Académie des Sciences is 1738,

> At first many people would not believe that the sounds were produced by the
> flute which the automaton was holding. These people believed that the sounds
> must come from a bird organ or a German organ enclosed in the body of the
> figure. The most incredulous, however, were soon convinced that the automaton
> was in fact blowing the flute, that the breath coming from his lips made it play
> and that the movement of his fingers determined the different notes. The
> machine was submitted to the most minute examination and to the strictest tests.
> The spectators were permitted to see even the innermost springs and to follow
> their movements. (Chapuis and Droz, 1958, p. 274)

The automata of Vaucanson were presented at courts, fairs and exhibitions throughout

Europe and abroad. "All Paris flocked to see the mechanical masterpiece with the human spirit;

the press was extremely favourable, and Vaucanson was launched upon his career" (Bedini, 1964,

p. 37). The admission to view these mechanical wonders amounted to one week's wages for an

average Parisian worker and it was common for automaton exhibits to be featured at such venues

as Wigleys on the Grand Promenade (Chapuis and Droz, 1958, p. 282). Thoroughly impressed

with the automata of Vaucanson, La Mettrie believed that given enough time and material

Vaucanson could likely fashion a speaking man,

> If more instruments, wheelwork, and springs are required to show the movements
> of the planets than to mark and repeat the hours, if Vaucanson needed more art to
> make his flute player than his duck, he would need even more to make a talker,
> which can no longer be regarded as impossible, particularly in the hands of a new
> Prometheus. (de La Mettrie, 1996 [1748], p. 69)

In a similar spirit, Voltaire described the inventor as "bold Vaucanson, rival of Prometheus"

(Voltaire cited in Standage, 2002, p. 11).

In addition to being lucrative and wildly popular entertainment for the masses, automata

engaged directly with the central debates of their time. The automata of Vaucanson and other

mechanicians represented "philosophical experiments" that explored the outer boundaries of mechanical simulation and sought to learn what these mechanical contrivances "might reveal about their natural subjects" (Riskin, 2003b, p. 601). The entertainment value of automata lay principally in their dramatic representation of a philosophical preoccupation engaging laymen, philosophers and royalty throughout this period: the problem of whether or not human processes and functions were essentially mechanical.

Monstrous Machines

As nature transformed from a benevolent/unruly female creature under organicism, to a rational and orderly clockwork entity of the mechanical view, nature and woman became simultaneous subjects of domination and control. However, representations of the machine during the eighteenth century revived archetypal female figures from the previous period. Nature as woman becomes mechanical woman, a figure once again characterized as dual natured: classical goddess, muse and/or seductress.

The classical goddess figure is employed as an assuring figure (maternal and wise) which helped to anchor scientific discovery and stabilize cultural anxiety "with its potentially lethal effects, into a world of rationalism and order" (Wosk, 2001, p. 69). During the Enlightenment the goddess stood "for the many forms of (male) domination of nature, and for rational thought itself" (Bovenschen, Blackwell et al., 1978, p. 110). Unruly (now seductive) woman also (re)appears during this time, a reminder of the "contingent cultural role of women in the world of scientific discovery" (Wosk, 2001, p. 69). As will be shown, the female-machine as automaton was a contradiction, at once a sign of rational order as well as a subversive figure confounding the systems of control. Just as the soothing symbol of the feminine can comfort and anchor through historic association with maternal benevolence, so can the disruptive image of feminine evoke "the Mandaean past" and thereby infuse technology with "the threatening [female] power of nature" (Bovenschen, Blackwell et al., 1978, p. 110).

Bacon held that nature existed in three states: liberated, monstrous and contained. Liberated nature was consistent with an organic view of nature as "a living, growing, self-actualizing being" (Merchant, 1980, p. 170). The second state of nature accounts for the apparent mistakes and monstrosities of nature. Because God could not be responsible for such errors, it was held that monstrosities must be the result of imperfections of matter (historically aligned with the female since Plato's *Timaeus*) "acting perversely" (Merchant, 1980, p. 171). Thus, matter (nature) ought to be controlled and subdued through art or techné, Bacon's third state of nature. The third state subjects nature to the authority of "man" and transforms the relationship between humanity and nature from mother-child to that of master-slave effectively inverting (and subverting) the relationships of power. William Leiss (1990) contends that the master-slave dichotomy is a metaphoric expression denoting the new relationship between men and machines and implies that man is master of the machine. This conception had two advantages: first, it was socially familiar and second, the conceptual relationship between man and machine becomes easily reversed in the mind. There was a distinct moment, in which the machine was heralded as the "perfect servant of human objectives, as the long-sought deliverance from necessity and want" (ibid., p. 40). This was the age of the automaton. Power relations within society throughout the Baconian period are characterized as hierarchical and patriarchal with the status and rights of women diminishing as the power and authority of men, as heads of family and society enlarged.

Vaucanson's automata would seem at first glance to represent the epitome of Bacon's techné, an impressive mechanical object "whose very existence offered tangible proof, more impressive than any theory, that the natural universe of physics and biology was susceptible to mechanistic explication" (de Solla Price, 1964, p. 9). Indeed, de Solla Price regards the automaton not only as the progenitor of the Industrial Revolution, but "the prime tangible manifestation of the triumph of rational, mechanistic explanation over those of the vitalists and

theologians" (p. 10). Seen from another perspective, however, automata also represent

"monsters" of Enlightenment, in that from the beginning they accentuate "fundamental notions of

humanity and nature, because of their status as challenging anomalies and deviants, creating

troubles for systems of categorization" (Clark, Golinski et al., 1999, p. 169).

Throughout history aberrations from the natural order have been considered monstrous

(Daston and Park, 1981, p. 22). Things which evade straightforward classification are historically

considered evil and dangerous (Douglas, 2004 [1966], p. 94). In ancient times monsters were

commonly believed to be messengers from another world. During the late Renaissance

monstrous oddities evoked feelings of wonderment and curiosity and were treasures to be

collected and displayed. Still, at other times the monster provoked intense fear and terror. How

monsters are interpreted and the responses they elicit "is purely a matter of historical context"

(Hanafi, 2000, p. 3) because monsters represent "an 'ideological cluster,' an entity constructed

and represented within a social group" (ibid., p. 14). It is my contention that the historical and

cultural specificity of monstrosity allows us to connect unruly nature under organicism to the

threatening machine under mechanism and see them as historical expressions of a particular

period while recognizing that they are related.

At minimum, the monster signals a radical "other" functioning as a convenient term in a

binary that allows us to declare with certainly that I am human because I am not *that*. "Human

monsters, then, both fulfil the necessary function of the binary opposite that confirms the

normality and centrality of the acculturated self, and at the same time threaten to disrupt that

binary by being all too human" (Shildrick, 1999, p. 81). Monsters demarcate the boundaries of

humanness: inside the boundary reside the humans, outside the boundary are the monstrous

others. Monsters are also hybrid creatures in that they combine human elements with elements of

other categories (animal, machine, supernatural). Therefore their bodies threaten to "destabilize

all order, to break down all hierarchies" (Hanafi, 2000, p. 2-3).

Hanafi (2000) writes, "[from] the earliest written records to present day, a necessary condition for defining a sacred monster is *that which is inanimate yet moves of its own accord*" (p. 54, italics in original). When we compare this with the definition of the automaton, "*a machine that contains its own principle of motion*" (Beaune, 1989, p. 431, italics added), we find that the early modern automaton is, by definition, monstrous. Hanafi contends that what makes an automaton monstrous is not the aesthetic or outward appearance (as with the case of a birth deformity). Rather its monstrosity originates from the fact that matter, formed through artifice, moves of its own accord and therefore seems endowed with vital spirit. Hanafi suggests that automata pose the following challenge:

> If matter moves of its own accord, it presents a threat of breakdown, of collapsed boundaries, not only in the realm of natural forces – hence the association with demons and necromancy – but especially as a figure for the stability of the social order. Everything in the universe exhibits a distinction between "the ruling and the subject element...Such a duality exists in living creatures as well: in self organizing, natural bodies which contain their own source of motion and reproduction, the soul always rules the body." If matter could rule spirit...the same horror would be unleashed that is created when body rules soul, or when the resistance of female matter defies the formative virtue of male semen in the womb, or when spirit is called into inappropriately formed matter. What would happen is that monsters would be generated. (Hanafi, 2000, p. 93)

It is Hanafi's assertion that sacred monsters (pre-seventeenth century) did not die out, but "transmuted" (p. 57) into the figure of the automaton. Horror of monstrous births gave way to the horror and fear of mechanical artifice, a perspective that lingers to this day. Monstrosity is fundamentally about upsetting natural order, whether at the biological level at which matter overpowers spirit, or at a social level at which relationships of domination and subordination are challenged. For example, "if a woman was presumptuous enough to rise above a man, she must be 'repressed and bridled.' Societies in which untamed women were known to wage war were 'monsters' within nature" (Merchant, 1980, p. 145).

It is my contention that the female-machine, as automaton, is monstrous because she is at once an inanimate creature yet seems endowed with an active spirit. In this way, her mechanical

body reflects "the multiple fears and desires of a culture caught in the process of transformation" (Gonzalez, 2000, p. 58) from organicism to mechanism. In spite of the systematic (re)ordering and controlling of society, nature, and woman taking place during the age of the automaton, I suggest that the unruly aspects of nature were not eliminated with the rise of mechanism, nor were all monsters expelled from nature and into enlightened categories and classifications (Hagner, 1999, p. 175). In a paradoxical move, the organic monster transmuted into the rational machine and thereby created new hybrid monsters (e.g. the monstrous female-machine). It is also my contention that the historic relationship between monstrous unruly woman and nature facilitated the transference of woman's disruptive and uncontrollable status to the machine. Thus, the female automaton from the start problemitized the boundary between "binary categories of life/death, the world of the living/the world of the dead, living body/inert object" (Kang, 2001, p. 281). In short, the symbol of Enlightenment (the automaton) was subverted by the feminine connection to nature transferred to the rational machine from the start. I will explore this connection more closely in the following section.

Descartes' Daughters

On the surface, one may question how the demure figure of the female automaton could in any way be perceived as unruly or monstrous. Automata such as Jaquet-Droz's Musical Lady, seem to assume a stabilizing role (like mother nature) anchoring an increasingly industrialized world and the shifting roles and expectations of women "into a world of rationalism and order" (Wosk, 2001, p. 69). However, the female automaton was just as likely to be represented as a sexualized and eroticised private pleasure at some arcade in Piccadilly or Hanover Square. The

44

erotic watches[13] (Landes, 1983), naked dancers, and exotic clockwork women (Schaffer, 1996, p. 57) destined for the Oriental market constitute the secret and fetishistic side of the female-automaton's image and connects machines with historic ideas of unruly female sexuality. Her inanimate mechanistic body, seemingly endowed with vital life force, suggests a degree of monstrosity with her liminal status positioning her at the threshold between animate and inanimate; human and machine; self and other. Further, the connection between golem woman and machine-woman foregrounds the projection of the artificer's fantasy on to the image the female machine, now a site of fetishized desire. Thus, through the figure of the chaste and erotic female automaton, the historic view of nature as a dual spirited woman is revived. At the same time, the female automata reflect the transformed status of nature (once vital, now inert) and women (once active now subordinated) alike.

During the eighteenth, century at arcades, squares, exhibitions and showrooms throughout London's West End, pleasure seekers attended shows featuring automata and took delight in entertainment that featured marvellous machines that at once seemed to amuse and challenge the boundary between imagination and reality; between the private domain of feminine sexuality and her public display (Schaffer, 1996, p. 54); between the presumed (but eroding) boundary between humans and machines. In the following section, a brief exploration of some of the earliest representations of machine-women, we discover the chaste bourgeois automaton and her twin seductress. One machine is associated with the cultural model of femininity as automatism (Park, 2006), the other, discretely exhibited (but still for sale) in the backrooms of European automata shows, is associated with the ever present fear/fascination of uncontained

---

[13] Erotic automaton watches featured miniature figures that moved. These were very expensive entertainment objects for adult men. The most expensive of the musical/automaton watches were erotic watches, "the latest in a line that went back to Rubensian miniatures of rubicund goddesses" (Landes, 1983, p. 269). In the eighteenth century erotic watches featured animated and explicit sexual scenes, "often showing priests and nuns." The rhythmic motion of clockwork's 'balance wheel' made sexual activity an ideal subject for simulation. Landes describes erotic watches as miniature images of "crudeness, even grotesqueness" (ibid.)

female sexuality. In this, the golden age of the automaton, we identify the origin of the monstrous female-machine as uncanny and as fetish.

Lady Playing the Lute (1540)

Gianello Torriano (ca. 1515-1585), a skilled clockmaker from Cremona, Italy was a pioneer in the construction of automaton (Bedini, 1964, p. 32). In 1540 he built, for Emperor Carl V, a mechanical young lady who was able to walk and play songs by picking the strings of a real lute. Lady Playing the Lute, as she was called, walks with delicate steps while strumming the lute with her right hand, and turning her head from right to left. She could either move in a straight line, or follow the path of a circle. Lady would have made many after-dinner appearances at any number of royal occasions, drawing a mixture of amazement and delight. She represents a very early instance in a long tradition of automated figures that played musical instruments and imitated other courtly graces (King, 2002, np).

When an aristocratic gentle lady played the lute it was considered a sweet expression of gentle emotion and feeling. Music was thought to bridge the natural and magical since the Middle Ages, "the most powerful passion, love, and the one most difficult to understand and codify in terms of humours had become closely associated with something that ultimately defied all attempts to rationalize it: music" (Craig-McFeely, 2000, chapter 8, p. 3).

According the Craig-McFeely (1993), the lute was from its origin associated with female sexuality and fertility with the lute's sensuously rounded back calling to mind the curve of a women's abdomen during pregnancy (chapter 8, p. 1). During the early 1600s, the lute was also the symbol of Venetian courtesans. In the Flemish language, *luit* (lute) is also the same word used for vagina, which in turn gave rise to numerous paintings involving prostitutes that centre upon bartering for the lute rather than the courtesan directly. There are hundreds of paintings from the late sixteenth century which feature lutes as lustful symbols of brothels, prostitution and

courtesans (Craig-McFeely, 2000, chapter 8, p. 2). Thus, in some instances the lute is used as a crude sexual metaphor from the fifteenth to the late seventeenth century. As Schaffer (1996) points out, "seduction was an indispensable accompaniment of the trade in automata" (p. 56). Automaton women such as the *Lady* and those that followed her were thinly veiled "titillating" exhibits of the mechanized female passion.

Just as nature and woman have been shown to possess dual and contradictory characteristics so does the lute-playing female automaton. On one hand, her appearance associates her with highbrow court culture foreshadowing the eighteenth century relationship between women and automata, "one in which women initiate the effort to create their identities in the image of the machine" giving "new meaning to the standard definitions of the automaton as 'a machine or engine which has the principle of motion in itself'" (Park, 2006, p. 25). On the other hand, she is also connected with the debauched and lowbrow culture of the prostitute and the courtesan who is closely associated with the early modern witch, a powerful symbol of female rebellion.

The female-machine, like the mythic Pandora, "is artificial, made up, cosmetic. As a manufactured object, Pandora evokes the double meaning of the word fabrication. She is made, not born, and she is also a lie, a deception. There is a dislocation between her appearance and her meaning. She is a Trojan horse, a lure and a trap, a trompe-l'oiel. Her appearance dissembles" (Mulvey, 1996, p. 55). In the same way, the contradictory female-machine permits dual interpretations. In short, she constitutes Barthes' allusive, field something that represents one thing while intending another.

Mistress of Horology (early 1600s)

The Mistress of Horology is an automaton from the early seventeenth century, just prior to Vaucanson's automata, and represents an early visual representation of the female-machine (Gonzalez, 2000). In this image we are presented with entwined elements of woman and clock. The woman's body is not concealed within the mechanism, nor is her body merely a mechanical replica (thus maintaining its organic elements) rather her body and machine form a single entity. The blending of body and technology demonstrate the skill and artistry of the best engineers of her time.

Gonzalez (2000) reads this engraving as an expression of a pre-industrial unconscious, a visual expression of a society redefining itself upon the principles of order, precision and mechanization (p. 60). Indeed, artistic representations of the female-machine act as important metaphors for the positive and negative implications of a society on the threshold of industrialization, wherein the interplay between machines and humans "became a question of gender and class" (ibid., p. 60).

The Mistress was a figure whose agency was tightly inscribed, the mechanical parts seem to subjugate and foreclose upon her human agency. Agency refers to the role the social subject plays in directing the course of history. For women during this period, personal agency was on the decline as their participation in economic and social activities contracted as they were increasingly pushed into the private sphere. Mistress of Horology reminds that automata do not exist outside of time, but are informed by the historical moment from which they emerge.

Musical Lady (1776)

> If the Poet speaks truth that says Music has charms/Who can view this Fair Object without Love's alarms/Yet beware ye fond Youths vain the Transports ye feel/Those Smiles but deceive you, her Heart's made of steel/For tho' pure as a Vestal her price may be found/And who will may have her for Five Thousand Pounds (Schaffer, 1996, p. 56)

So read the mischievous 1776 advertisement of Pierre Jacquet-Droz (1721-1790) and his son Henry-Louis (1753-1791) about their Musical Lady. She was a lovely young woman who played the clavichord "by the pressure of her own fingers upon the keys" (Bedini, 1964, p. 39). Jacquet-Droz was showing his most famous and successful musical automaton at the Great Promenade Room in Spring Gardens, London. Descriptions of Droz's Musical Lady focus upon her demure, yet erotic nature. The Musician was noted for her heaving breasts and her coquettish bow (in addition to her musical ability). "The accomplished lady's eyes really moved... 'She is apparently agitated'...with an anxiety and diffidence not always felt in real life" (Schaffer, 1996, p. 56). Such reviews highlight the interplay of passion and exoticism of the female-machine.

The opening poem captures the general disposition of society toward the idea of a woman as mechanical doll (Park, 2006), an attitude characterized by voyeuristic delight in the mechanization of women's passion (Schaffer, 1996, p. 56; see also Wosk, 2001, esp. chapter 2) as well as an attitude characterized by women's "compulsive identification with the automaton," (Park, 2006, p. 23). Women encased in cage crinolines, fully boned corsets, steel and wire bustles were represented as the "height of gentility and grace in fashionable society" as well as satirized as "awkwardly moving mechanical dolls" (Wosk, 2001, p. 46). Wosk notes that women's technologized undergarments inscribe upon the body contradictory ideals of femininity caught between the maternal/sexual and the chaste/erotic. Steel, lace, and bone contain and confine suggesting chastity, whereas exaggeratedly small waist and full hips and spilling breasts imply fertility and sensuality. The desire to create female bodies of steel and to contain flesh

bodies within steel, bone and lace brings to mind Laura Mulvey's (1996) notion of fetish and its

function,

> The image of an exterior casing protecting an interior space or contents from view usually carries with it the implication that if the exterior cracks, the interior contents may disgust and possibly harm. From a psychoanalytic point of view, the protective surface is a defence constructed by the ego along the lines of a fetish. It denies the interior but because it knows the exterior *is* an exterior it thus acknowledges the interior. Female beauty, in a sense, fulfils this function by fixing the eye on something that pleases it and prevents the psyche from bringing to mind those aspects of the feminine that are displeasing. (Mulvey, 1996, 94)

As eighteenth century women increasingly sought to emulate the machine (through

artifice and technology) her over-reaching artificial image sometimes threatened to undo her

workmanship, evidenced in such critical statements as, "her Discourse is a senseless chime of

empty Words" and the "Goddess [he worshipped was] only an *Artificial Shrine* moved by *Wheels*

and *Springs*" (cited in Park, p. 24-25). Thus, as women tried, but failed, in their attempt to

emulate completely the beauty of artifice they risked being turned "into the very image of

abjection...thus creating an unlikely but classical conjunction between the mechanical and the

organic" (ibid.).[14]

The female automaton is a "a telling gloss on the century's often ambivalent attitudes

toward feminine fashion, new technologies, and women themselves" (Wosk, 2001, p. 48).

Women who emulated the automaton (through the technologies of fashion) were often ridiculed,

spoofed, and satirized (Wosk, p. 45-67) for resembling walking dolls even as the machine was

held out as the cultural ideal of femininity. Artifice pushed too far risked becoming abject and

therefore monstrous. The tension between fetishization and abjection characterizes the volatile

female-machine with its propensity to unmask and "reveal the process of production concealed

beneath it" (Mulvey, 1996, p. 80).

---

[14] Nineteenth century artists and writers frequently satirized the overly crinolined woman often depicted as huge or colossal women. This representation is suggestive of male anxiety about "women as huge, enveloping, protective mother figures" (Wosk, 2001, p. 57), an idea which connects with Julia Kristeva's (1982) concept of abjection connected with the frightful aspects of the maternal body.

Mme. Coudray's Birthing Machine (1790)

As stated earlier, the female-machine in the age of the automaton tended toward representations that centred on the mechanization of female passion and/or focussed upon her reproductive functions (Muri, 2004, p. 2). A birthing machine is the only example I was able to find of a female-machine created and/or designed by a woman during this period. This is no doubt related to the fact that until the seventeenth century, midwifery remained the exclusive domain of women and while midwives lost considerable control of their craft during this period (Merchant, 1980, p. 152), there were still a few women, such as Mme. Coudray, who retained their status as practitioner and teacher. Mme. Coudray's birthing woman machine revolutionized childbirth pedagogy (Gelbart, 1996, p. 1000) as her anatomical models for teaching midwifery provided effective simulations of the birthing process for thousands of women apprentices in the midwifery field.

In a period of soaring mortality rates among newborns, Mme. Courday travelled throughout France for twenty-five years teaching obstetrics on behalf the King Louis XV and King Louis XVI. Utilizing a full colour illustrated textbook and her machine, Mme. Courday taught approximately ten thousand young women how to deliver healthy babies using the principles of anatomy (Gelbart, 1996, p. 999).

Courday's model not only reproduces the subject, but also strives to simulate realistic textures and substances. Unlike the erotic and fetishistic images considered previously, the birthing machine provides a visceral example of how "wet and messy" (Riskin, 2003a, p. 112) a mechanical female-machine could be. In a sense, the birthing machine is an abject image of female reproduction with its skin and organs created using linen and leather dyed to resemble various flesh tones. Adding to the model's life-like appearance was the addition of stuffing and supplemental liquids (in red and clear tones to simulate blood and uterine waters). "The sponges,

saturated with the fluids, were to be planted inside the birthing machine by the demonstrator and made to release their fluids at the appropriate moments" (Riskin, 2003a, p. 111-112).

Jaquet-Droz's *Musical Lady* and Coudray's *Birthing Machine* are representative of automata that were crafted with delicately jointed fingers, bellows for breathing and sighing, lips that could flex, supple tongues, and skin of soft leather. These attributes reflect the "assumption that an artificial model of a living creature should be soft, flexible…and in these ways should resemble its organic subject" (Riskin, 2003a, p. 112). These mechanisms reflect a project engaged in testing the tenets of a materialist-mechanist understanding of life. "If living creatures were simply the matter and moving parts they were made of, then artificial creatures could potentially be very much like them" (ibid.).

We can see that Coudray's machine is much more organic than Jaquet-Droz's. Where the Musical Lady is valued as much for her erotic body as for her representation of technological prowess, there is little erotic appeal associated with the birthing machine. The birthing machine uses technology to foreground the abject messiness of the birthing body, whereas the Musical Lady uses technology to mask all but the erotic appeal of the feminine. Juxtaposed, the birthing machine exposes the vulnerability of the fetishized Musical Lady, suggesting that its alluring surface may be a lie. "The surface is like a beautiful carapace, an exquisite mask. But it is vulnerable. It threatens to crack, hinting that through the cracks might seep whatever the stuff might be that it is supposed to conceal and hold in check" (Mulvey, 1996, p. 63).

Silver Dancer (1799)

Charles Babbage, famed creator of the calculating machine, was captivated by an erotic female automaton he saw while visiting the Mechanical Museum in Hanover Square, owned by John Merlin. Merlin was one of London's "best-known metropolitan mechanics" who seemed to prowl "the borderlands of showmanship and engineering" (Schaffer, 1996, p. 54). Merlin took

young Babbage, a boy of about eight, to a private backstage room to permit him a view of

mechanisms of a decidedly more exotic type. Here Babbage encountered two nude female

automata. The first, though lovely and fetching, he regarded as "relatively banal." But the other,

the Silver Dancer, captured young Babbage's attention:

> [An] admirable danseuse, with a bird on the forefinger of her right hand, which
> wagged its tail, flapped its wings and opened its beak." Babbage was completely
> seduced. "The lady attitudinized in a most fascinating manner. Her eyes were full
> of imagination, and irresistible." At Merlin's you meet with delight, ran a
> contemporary ballad, and this intriguing mixture of private delight and public
> ingenuity remained a powerful theme of the world of automata and thinking
> machines in which Babbage later plied his own trade. (Babbage cited in Schaffer,
> 1996, p. 55)

As an adult, Babbage acquired the little dancer and displayed her beside the unfinished portion of

his Difference Engine.

Female automata of this period straddled the boundary between entertainment, science,

popular culture and scientific progress. As popular collector objects for mechanical-physical

cabinets throughout the eighteenth century, automata were valued for their ability to entertain and

teach.

> "The mechanical-physical cabinet," we read in the 1744 catalogue of Joseph
> Bonnier de La Mosson's collection, "is the one that best entertains the intellect
> and the eye, as it contains only objects that both instruct and delight."...The
> highly popular mechanical models provided the maximum demonstration and
> entertainment value. Through a mechanism that was hidden from observers, they
> executed natural movements and sequences, often achieving a high degree of
> verisimilitude. (Dietz and Nutz, 2005, p. 50)

Sexuality and spectacle are important features for this period's female-machine.

Attending to "obscure objects of desire embodied in the automata" (Schaffer, 1996, p. 59) and to

the erotic motivations of creators of technological innovation suggests further consideration of the

erotic valence of the female-machine and of the continued sexual attraction to the female-

machine.

Contemporary Discourses of the Female Automaton: *Cherry 2000*

The female automaton is the embodiment of feminine nature recast as machine with her machine status representing the domination and control of mechanism over nature's (and woman's) unruly characteristics. Contemporary representations of the female-machine draw upon historic ambivalences of the female-machine with the docile, contained, and chaste female-machine on one hand, and the sexually available, uncanny, and potentially threatening female-machine on the other. Contemporary representations of the female-machine, in the tradition of the automaton, continue to reflect the private desire for the female-machine in the tradition of golem women, erotic watches, and private dancers. The following section now considers the lingering discourses of the Enlightenment female-machine made evident in de Jarnett's *Cherry 2000* (1987).

I argue that the discourses developed in Enlightenment Europe are still operational in contemporary films evident in representations of the fetishized, submissive, and sexually available female-machine. I suggest that discourses of the eighteenth-century female automaton are evoked when we are presented with images of female-machines with limited or absent personal agency as well as when the female-machine projects little else beyond the erotic desire of her male creator. Discourses of the eighteenth-century female machine are also evoked when the representation of the female-machine centres on sexuality and spectacle and when it seems to operate on two contradictory registers (virgin/vamp; monstrous/contained, stabilizing/disrupting). Contemporary representations of the female-machine continue to be situated at the boundary of science, popular culture and entertainment and reflect ambivalent attitudes toward women.

While films can be said to reflect the unique concerns of the historical moment within which they are made, careful scrutiny of their ideological underpinning illuminates ideas, beliefs and attitudes that are rooted in the past. Thus, it is my contention that films such as *Cherry 2000*,

indeed all female-machine film narratives, are expressions of myth (similar to ideology[15]) as described by Roland Barthes (1972) that are shaped by the past as much as the present. The female-machine as automaton was an object of mythical speech during the Enlightenment. Then the robot emerged and the automaton disappeared from mythic speech as the robot attained the status of myth. Today, we no longer speak of automatons or robots but of cyborgs. Thus, we can see that such mythic representations are indeed shaped by history (Barthes, 1972, p. 110) even as they are situated within specific social and cultural contexts and must be acknowledged as reflections of the period in which they are made. In a similar manner, Stuart Hall (2001) contends that meaning is not fixed in time, rather it is constructed and maintained through an elaborate network of social, cultural, and linguistic agreements. Therefore, meaning can never be finally fixed, and if meaning cannot be permanently fixed then meaning must be vulnerable to slippages over time, which suggests that meaning is subject to change over time (p. 3). In the image of the contemporary female-machine the past and the present collide, a reminder of N. Katherine Hayles' (2003) words that "we do not leave our history behind but rather, like snails, carry it around with us in the sedimented and enculturated instantiations of our pasts we call our bodies" (p. 137).

Cherry 2000 is a story of Sam Treadwell, from Anaheim, who is in love with an artificial machine woman, Cherry. Cherry is a rare (she is not manufactured anymore) love machine, a sexually available female-machine. Cherry was designed with the needs of a man in mind, she cooks and cleans and engages in playful banter with her partner, but most importantly she pleasures and never makes demands. She is designed to meet all the physical needs a man could ever have. One night, in the midst of a passionate lovemaking session, Cherry short-circuits and dies. Heartbroken and unable to have her repaired, Sam searches in vain for a replacement body.

---

[15] Stuart Hall (1996) defines ideology as "the mental frameworks -- the languages, the concepts categories, imagery of thought, and the systems of representation -- which different classes and social groups deploy in order to make sense of, define, figure out and render intelligible the way society works" (p. 26).

Sam has managed to save, in his word, "[her] basic memory...her vocal patterns, reflex actions, and personality" (Sam in *Cherry 2000*) on a digital chip. Due to widespread and critical manufacturing shortages, Cherry's robot chassis (body) is no longer available for purchase. Dissatisfied with his present mechanical replacement choices,[16] Sam hires the beautiful tracker (renegade thief for hire), E. Johnson from the rural town of Glory Hole, to obtain a replacement chassis from the robot graveyard in the heart of the wastelands (echoes of the wild unruly state of pre-industrial nature).

As discussed previously, where the male golem represents a basic yearning for the master-mechanician to achieve his "own replication" (Bilbija, 1994, p. 280), the creation of the female golem is most often an expression of sexual desire. The female-machine is other, a copy whose purpose is to replace real woman. Thus, Cherry, like the golem women considered by Bilbija (1994) appears to "offer the fulfilment of sexual desire of the creator (often as an evasion of some kind of societal censorship). She does not grow nor age, but is created as an already attractive, physically mature female" (p. 880).

Elizabeth Fulton (1996) suspects that the sexualization of the female-machine body is a nostalgic move connected with a longing for a time when gender roles were more rigidly defined and "contained inside the fetishized female body" (p. 100). Similarly, *Cherry 2000*, although set in an imaginary future, is informed by the gender politics of the 1980s, a time in which feminist politics and scholarship was undergoing radical social transformation. Indeed, the imagined future of sexual relations between men and women as a bizarre and competitive legal affair leaves Sam feeling inadequate and lonely, preferring the company of his female-machine. This may be a reflection of the state of second wave feminism, dominant in the late 1980s, and concerned as it was with women's social experience (including their sexuality) as mediated by the institutions of

---

[16] His choices are: the Bambi-14, "a brand new, never been used" young highly sexualised school girl (implying a virgin-robot); and the Cindy 990, a strictly domestic service robot but "below the waist, a no man's land."

patriarchy, usually in oppressive ways. Thus, the use of lawyers, contracts and cutthroat negotiation provides a satirical levelling of gender power. While Sam and E. Johnson spend a night out in the wastelands, the beautiful but country (signalling rural culture connected with a non-industrial way of life) E. Johnson asks Jake (her pseudo father figure) what women and relationships are like in the big cities. Jake responds, "Well it's all sort of paranoid and audiovisual. Nobody has it easy. People meet in bars and use everything they got, all kinds of legal mumbo jumbo, demo reels, under the counter drugs, it's just bad that's all."

Real women are the reason that Sam turned to a relationship with an artificial being in the first place. Women, feminists presumably, have turned sex and relationships into an arduous legal negotiation where nobody connects with anybody else without a legally binding contract. On the social level, *Cherry 2000* provides an unsettling critique of twenty first century gender relations, just a *Der Sandmann* (Hoffmann, 1815) reads as a macabre critique of nineteenth century society, wherein mechanized patterns of behaviour, the absence of meaningful conversation between humans, as well as their increasing loss of naturalness and spontaneity, led to the confusion of humans with machines resembling humans. Indeed, Spalanzani's mechanical woman, Olimpia, is introduced with great success at social events including tea parties and balls. People take the dull automaton for a living woman, and Nathaniel falls in love with her failing to realize that she is incapable of any meaningful response in return (Fortin, 2004, p. 270). On the surface Cherry poses no threat to Sam or humanity, still the erotic power she holds over Sam is unsettling (especially to E. Johnson who cannot fathom Sam's feelings for her). However, Sam defends his feelings for Cherry as he recalls, "there was a tenderness, a dreamlike quality about her, romance...She wasn't just a robot."

Cherry is designed for service rather than autonomy. And although she is a mechanical being with no agency, like Babbage's *Silver Dancer*, she captivates Sam's heart entirely. Sam's irresistible (uncanny) draw to her pushes him to risk personal safety in order to possess her. Like

the erotic enticement of the female vampire, discussed by Edward Guerrero, Cherry is a "beautifully alluring... young female, thus inscribing woman, [as] object of the classic male look" (cited in George, 2001, p. 179). Jyanni Steffensen (1995) argues that female imagery in cyber-space, from the womby computer mother in *Alien* to the emotionally vacant female-machine, operates as a sign or object of male desire but not as the possessor or subject of knowledge, when featured within masculinist fantasy scenarios (np). E. Johnson's hostile attitude towards Sam's relationship with Cherry may reflect what Mary Doane (1990) describes as "anxiety concerning the technological" (p. 110) or the fear that our machines might ultimately replace us as we see ourselves becoming increasingly mechanistic. Johnson's attitude also brings to mind Donna Haraway's (1991b) observation that "Our machines are disturbingly lively, and we ourselves frighteningly inert" (p. 152). Thus, there exists a tension between the fetishized image of the sexual female-machine and the uncanny and settling feelings she evokes in relation to her desirability.

As contemporary women utilize technologies of "fashion" to (re)construct their bodies according to the ideals of modern beauty, it can be argued that the eighteenth century Musical Lady and the twenty-first century Cherry love-machine serve a similar function. That is, the machine-woman continues to represent an idealized and fetishized vision of feminine beauty that human women continue to emulate. The language of contemporary beauty evokes nineteenth-century mechanistic artifice with women turning to plastic surgeons for body reconstruction in the pursuit of cultural standards of beauty, that are based on the language of construction reflected in such words as proportion, harmony, and symmetry. Steel, wire, and bone have been updated with silicon, collagen, and botox, but the desire is the same, the attainment of a mythic (and

artificial) ideal,[17] of feminine beauty. Today, facelifts, nose reconstruction, tummy tucks, liposuction, breast augmentation, and chemical skin peels constitute the language of beauty.

As discussed previously, artifice pushed too far threatens to evoke the abject. This remains the case in contemporary society, evidenced in the representation of female bodybuilders as grotesque (Balsamo, 1996) in that they push the aesthetic of artifice too far and therefore transgress fetishized notions of feminine beauty. Reconstruction of the body within the limits of ideal beauty is permitted, indeed desirable, provided one does not "transgress the 'natural' order of gender identity" (Balsamo, 1996, p. 43). In the case of the female body builder, too much artifice results in an unacceptable measure of masculinity injected into the female body (ibid., p. 44). In the case of the eighteenth century woman, when artifice is pushed too far, her automated beauty evokes fear of excessive femininity. We may conclude then, that fetishism is no longer a comfort when it is overdone, or in Mulvey's (1996) words, "When the exterior carapace of feminine beauty collapses to reveal the uncanny, abject maternal body, it is as though the fetish itself has failed" (p. 14).

Cherry, a commodified love doll, is closely related to the docile and submissive automaton of the eighteenth century in that she is an objectified projection of male sexual desire. Cherry, whose primary function is sexual pleasure, connects with the commodification and mechanization of female passion (love for sale) embodied in the eighteenth century female automaton. Sam's secret love affair with Cherry reflects cultural ambivalence related to a crisis in male identity, the declining status of patriarchy, as well as the feminization of technology so prevalent in eighties cyborg films. The unsettling aspect of Sam's desire for Cherry is a reminder of the ever-present threat of abjection just below the surface of the carefully constructed female-machine. The sexuality of the female machine's surface is meant to displace the fear and anxiety of the feminine (in relation to the body, in relation to shifting gender roles). However, at critical

---

[17] Villiers de l'Isle-Adam's (1886) *Tomorrow's Eve* tells the story of a mechanical-woman, Hadaly (Arabic for ideal), whose ideal form is intended to replace the deficient but real Alicia.

moments abjection exposes the defensive move of fetishism as well as woman's tendency to construct her own surface in the image of the machine. Mulvey (1993) suggests this move is a form of "armor of fetishistic defense against taboos of the feminine upon which patriarchy depends" (p. 13).

Conclusions

The sexualized female-machine originates in the age of the automaton and the Enlightenment projects of such master mechanicians as Jacques de Vaucanson and Pierre Jaquet-Droz. As symbols of the Enlightenment, the automaton marks a distinct moment in which society, guided by the views of such prominent thinkers as Descartes, Newton, Bacon and de la Mettrie, (re)imagined the world and itself in terms of the machine. In response to a rapid mechanization and industrialization, strategies emerged to manage a world that increasingly seemed to have "come unhinged." William Leiss (1990) argues that metaphoric language helps to synthesize our perception of complex events and provide a means to domesticate "startling new circumstances that fall outside the realm of ordinary experience" (p. 40). Fetishization of the female-machine body would seem to offer another strategy for managing the anxiety surrounding the body (re)imagined as machine.

I have argued that the ascendance of the mechanical view of the world (which replaced an organic worldview) was related to shifting perceptions of nature and woman. Nature, historically associated with two contradictory views of women (the benevolent maternal figure and monstrous unruly woman) contributed to the eventual domination and control of nature, and by extension, woman. The unruliness of nature and woman seemed temporarily contained and subdued by technology and science. However, the transformation of nature-as-woman to nature-as-machine imbued the machine with qualities of the unruly-monstrous woman. The seeds of transgression were thus latent within the machine since the age of the automaton.

A look back at the eighteenth century automaton contributes several things to our contemporary understanding of the female-machine. As a golem figure, the female automaton represents the desire of its creator. Valued for her erotic status, she is not associated with intellectual excitement in the same way that her male complement is. Because of the persistent association of woman with nature, the female-machine is associated with potentially monstrous-feminine characteristics, traits that link with persistent fears that the machine may someday invert the power relationship between man and (female) machine. This attitude becomes clear when understood within the historical context of the relationship between nature and woman. It would be centuries before the transgressive potential of the monstrous female-machine (the cyborg) would be fully realized (Haraway, 1991b), however an examination of the female-machine in the eighteenth century shows that she shares the same disruptive qualities as the monster. Like the monster who is "dangerous and promising, destabilizing and transforming" (Richards, 1996, p. 324), so too is the female-machine.

With the rise of the industrial development (1760 onward), which transformed Western Europe and North America, the age of the automata drew to a close and, with it, the quest to simulate life in mechanical terms. In 1847, Helmholtz, reflecting on Vaucanson's automata, mused, "nowadays we no longer attempt to construct beings able to perform a thousand human actions, but rather machines able to execute a single action which will replace that of thousands of humans" (cited in Bedini, 1964, p. 41). As the automaton age passed, literature (and film shortly thereafter) appropriated the image of the human-machine. However, it was no longer held to be the "testimony of the genius mechanical invention" (Huyssen, 1982, p. 225), rather it became the site upon which writers projected the horrifying aspects of mechanization. Thus, it is at a moment at the close of the age of the automaton and the dawn of industrialization, that the conflation of woman, nature and machine takes the explosive form of *Maschinenmensch* as woman.

CHAPTER TWO:
DISCOURSES OF THE FEMALE-MACHINE AS ROBOT

Introduction

As we saw in the last chapter, automata were the "progenitors of the Industrial Revolution" (Bedini, 1964; de Solla Price, 1964, p. 10); they were the concrete manifestation of a nation's scientific ability, "[embodying] what was, at the time, the absolute cutting edge of new technology" (Standage, 2002, p. 2) and provided the technological foundation for the advancing Industrial Revolution. Amusement automata, "capable of self-government and intelligence" (Schaffer, 1996, p. 335) assisted the vision of this new factory system. "At the intersection between entertainment, technology and commerce, automata allowed new ideas to flow from one field to another and acted as a catalyst for further innovation" (Standage, 2002, p. 61).

In the last chapter I argued that the origin of the contemporary monstrous female-machine began with the female golem and continued with the female automaton. The social context in which the female automaton emerged was marked by a dramatic shift in the way that the body, state, and universe were understood. This is to say, it marked a movement away from an organic worldview to a mechanistic worldview. Under the organic view, nature was coupled with two archetypal images of woman: mother and witch, one nurturing and the other dangerous. As the mechanistic worldview emerged to supplant the organic worldview, it was with a view to controlling and containing nature's unpredictable aspects while at the same time exploiting her previously sacred resources. We can say that the eighteenth-century female automaton was an expression of her creator's desire; that she was closely associated with culturally determined attributes of nature as maternal or unruly; and that the female-machine was a monstrous creature

in that she represented the synthesis of two disparate elements: inanimate matter (the machine) and animate life force (the human).

In this chapter and with the female automaton in mind, I continue to trace the evolution of the female-machine in the figure of the robot. The female robot of the late nineteenth and early twentieth century must be seen in the context of mass industrialization in Britain, France and the United States. Whereas the female-machine in the age of the automaton was a playful (though no less problematic, as a fetishized object of desire devoid of agency) representation associated with the optimistic power of natural philosophy over nature (and women), the female robot is an explicitly transgressive and frightening representation who evoked ambivalent feelings about the dehumanising and alienating potential of mass industrialization on one hand, and the potential of technological advancement to facilitate human progress on the other. At the same time the female-machine continued to project the ambivalence felt towards women in the context of shifting cultural roles in the face of the rise of consumer society. Whereas the female-machine of the eighteenth century evoked strong feelings of curiosity and wonder, the female-machine of the industrial age evoked feelings of uncanniness and uneasiness related to mounting fear of technology. And, as we will see, there was significant emancipatory potential in the transgressive figure of the female robot, embodied vividly in Fritz Lang's *Metropolis*. This chapter closes with an analysis of Duncan Gibbon's *Eve of Destruction* and shows that discourses of the early-twentieth-century robot woman persist, reflected in the characteristics of abjection, uncanniness, sexual/social transgression and the maternal body. In this way, an intimate connection between the contemporary female-machine and the early-twentieth-century female robot is acknowledged.

The Robot

The term robot emerged in 1921 and entirely supplanted the earlier term automaton as a word used to describe machines created to simulate human processes, "a machine (sometimes

resembling a human being in appearance) designed to function in place of a living agent, especially one which carries out a variety of tasks automatically or with a minimum of external impulse" (Oxford English Dictionary). Following Karel Čapek's successful play, *R.U.R. or Rossum's Universal Robots* (2004 [1920]), the term robot gained immediate popular acceptance "and in a few years it had become universal" (Chapuis and Droz, 1958, p. 379). There is a decidedly economic association with the term robot that intimately connects the robot with labour, servitude, and industrialization generally. The robot distinguishes the "machine made in the image of man" from other stories like Pygmalion and Galatea in that the robot is an object fashioned by man rather than some mythical, supernatural or theological entity (Aleksander and Burnett, 1983, p. 13).

Karel Čapek's stage adaptation of his novel *R.U.R. or Rossum's Universal Robots* explored the mounting anxiety of workers related to the mechanization of labour in the context of the demands of an increasingly alienating and industrial workplace. *R.U.R.* tells a dark story of a society that had become so dependent upon its slave-machines, or robots (derived from the word robotnik meaning worker or serf in Czechoslovakian), that it is left vulnerable to the revolt of machines against their human creators. While Čapek was appreciative of the scientific and technological advancements of his day, he worried that if the contributions of science were not tempered by the rational hand of its designers, the result would certainly be the dehumanisation and enslavement of society (Segel, 1995, p. 298). It is interesting to note that ordinary looking human actors, not jerky iron approximations of the human form that we have come to associate with the robot, perform the robot roles in Čapek's stage play. The only significant difference, though not discernible, between the humans and the robots is the fact that the robots are manufactured rather than born. The robot worker, as imagined by Karel Čapek, provided a powerful social criticism of technological progress which produced "the earliest imaginative adjustment to the 19th century expectation of constant progress" (Clarke cited in Turney, 1998, p.

101). Where the automaton was associated with the promise of scientific discovery, the robot

captured the tensions and contradictions of an age anxious about the dark side of technological

progress and rapid social changes giving rise to fears about a "newly autonomous female type"

(Zabel, 2004, p. 26).

From Man the Machine to Machine as Man

Christoph Asendorf observes a key shift in the relationship between humans and

machines between the eighteenth and nineteenth century. In the eighteenth century, man is

regarded as machine best described in Julien Offrey de la Mettrie's *l'homme machine* (1996

[1748]),

> In comparison with the eighteenth century, a shift in perspective has taken place.
> The body as a mechanical object has been replaced by the machine as a bodily
> object. If in the *homme-machine* the image of the machine was identical with that
> of the human body, then the consequences of this objectification become
> manifest in the image of the living machine: the separation of the body from the
> subject. (Asendorf cited in Sussman, 1999, p. 82)

In the nineteenth century however, the machine became increasingly anthropomorphic, very often

depicted as a female or exotic other.

In the eighteenth century, the automaton located the boundary between human and

machine agency; however, the normative relationship of authority between human and machine

was never more than momentarily challenged before it was safely "set back into its rational,

everyday hierarchy" (Sussman, 1999, p. 91). In the age of the machine however, this normative

relationship of authority becomes increasingly contingent, uncertain and unstable. Exhibitions

featuring automata provided a public forum where men and women engaged in popular discourse

about mechanization and the relationship between workers and machines (Rice, 2004, p. 14).

Mechanistic devices that played music and chess, danced and defecated, were regarded not so

differently from the enormous steam and water powered machines endlessly debated by people of

this period. There was little conceptual difference between sophisticated automata and the types of work machines imagined by a speaker at the Pittsburgh Mechanics' Institute in 1830: "The day cannot be far distant when mechanical genius will invent some new mode of infusing mind into matter — some new application of power which will some day or other, in a great measure, supersede the employment of manual labor in many of its most complicated operations" (Rice, 2004, p. 13). Fascination with the advancements of mechanization was increasingly accompanied with the dawning fear that machines might somehow acquire the physical and intellectual capabilities to break free of the control of their human creators and subvert the systems of power.

Throughout the first and second waves of industrial development (1750-1850 and 1850-1940 respectively) machines were increasingly used to organize factory systems and replace hand-made goods with a view to eliminating or greatly reducing the *physical* human labour required to make products (Outman, Outman et al., 2003, p. 2). "Although not strictly automata, these machines were in a sense prosthesis – extensions of men – or substitutes of men" (Wood, 2002, p. 37). Indeed, nineteenth century factory owners dreamt of factories without human workers as machines were thought more reliable, stronger, with more endurance than human workers. "If and where workers were still needed, they were to be occupied with tasks that were paced and controlled by machines" (Franklin, 1990, p. 56). If workers were resistant to the emerging factory systems, it is not that they were resisting the machines as such, rather they were reacting to a dramatic loss of autonomy and control over their work processes (Noble in Franklin, 1990, p. 57).

In addition to the introduction of new sources of power and machinery, such as technologies borrowed and adapted from the automaton period, the Industrial Revolution brought with it new ideas about work. During the eighteenth century, bodies themselves were (re)imagined as machines. During the nineteenth century society began to view the production of goods in increasingly mechanistic terms: machines and people began to function together in

workplaces, typically factories, creating increasingly complex systems. Previously, goods were manufactured by individual crafts-persons working at home or in their community (Ewen, 2001). Ursula Franklin (1990) regards the difference between the craft-person approach to work and the systems approach to work as being characterized by a distinction between holistic and prescriptive modes of technology.

Holistic approaches to work find the artisan in control of the work process from beginning to end, "it leaves the doer in total control of the process" (Franklin, 1990, p. 10-12). A prescriptive approach on the other hand, breaks work down into discrete identifiable steps performed by any number of workers associated with the "division of labour" (ibid., p. 12). Holistic technologies may be associated with the work of women done in the home (spinning, weaving) prior to the industrialization of economic spheres previously dominated by women (Merchant, 1980). Prescriptive technologies may be associated with the masculine technologies of the factory system. Lewis Mumford (1964) distinguishes between two types of technology, one authoritarian and the other democratic. Democratic technology is human-centred, relatable to Franklin's holistic technologies, and therefore weak but stable; authoritarian technology, such as work arranged in accordance with prescriptive technology, is system-centred, powerful, yet unstable. Under a prescriptive system, the human worker becomes integrated into the system. If we pay careful "attention to the characteristics...and the meaning of those characteristics" (Winner, 1986, p. 22), the enormous transformative power inherent in prescriptive technology becomes readily apparent. Clearly, the new work environment such as that ushered in during industrial development of the early twentieth century demanded a particular "arrangement of power and authority" that altered the "activities that take place within these arrangements" (ibid., p. 22) between worker and machine; worker and family; worker and work. Winner contends that some technologies "by their very nature...unavoidably bring with it conditions for human relationships that have a distinctive political cast – for example, centralized or decentralized,

egalitarian or inegalitarian, repressive or liberating" (ibid., p. 29). Ewen (2001) notes that industrial development and the rise of the wage class divested workers of two historic facets of their social lives. First, it resulted in the devolution of labor into a series of routinized gestures with the knowledge of the entire process of production limited to only the owners of industry. Second, the factory, rather the family and community, became the central organization around which workers arranged their productive lives (ibid., p. 121).

Franklin (1990) points out that machines did not, in themselves, create patterns of control. Rather, machines augmented patterns of control already circulating within society. Viewing the body as a machine with its associated implications that it could be "understood, controlled, used" (de La Mettrie, 1996 [1748]) began much earlier, during the time in which societies (re)imagined the universe, state, body in accordance with the machine. In *Discipline and Punish* (1995), Foucault shows that secular structures of control and discipline emerged throughout the eighteenth and nineteenth centuries. Institutions such as schools, prisons, hospitals and military institutions structured, moulded and contributed to the docility of the body. Subjecting the docile body to the controlling forces of prescriptive technologies and the factory system helped to create "a culture of compliance" (Franklin, 1990, p. 17).

Machine Anxiety

Whereas the playful automaton, with its clockwork mechanism and diminutive scale, conveyed a comforting sense of order and regularity, the steam engine conveyed a bewildering sense of "power, vitality, and almost wilful autonomy...If clocks and other intricate mechanical devices were about structure and authority, steam engines were about agency—steam engines made things happen" (Rice, 2004, p. 18-19). Steam engines, represented in exaggerated and enormous scale and juxtaposed with tiny human workers were a reoccurring motif among nineteenth century artists, evidenced in paintings, engravings, lithographs, and weeklies from this period. Exaggerated technological gigantism (Wosk, 1992, p. 73) and a dramatic sense of power

(of the machine) is captured in the following audience reaction to the mammoth sized nineteenth century Corliss steam engine in 1876, "The machine emerged as a kind of fabulous automaton – part animal, part machine, part god" (cited in Leiss, 1990, p. 36).

> The show-stealing exhibit at the Philadelphia Centennial Exposition in 1876 was a Corliss steam engine, weighing 680 tons and standing thirty-nine feet high, which provided all the power for the entries in Machinery Hall. According to contemporary accounts, its presence overwhelmed all who entered the hall, whether they were ordinary fair-goers, such high and mighty as President Ulysses S. Grant and the emperor of Brazil. (Leiss, 1990, p. 36)

The disparity in size between machine and human is suggestive of an ambiguous attitude towards the machine. On one hand, sweeping scale seems to reflect tremendous pride and wonder in technological innovation. On the other, such representations also signal a "sense of despair about the potentially deadly dominance of machine technologies over human beings...the heightened possibility of dominating and controlling the forces of Mother nature...an implicit feeling of childlike helplessness" (Wosk, 1992, p. 69). The fear was that as the factory system and its machines became increasingly large, humans became more and more vulnerable to domination by the machine. Mary Shelley's *Frankenstein* (1818) makes use of scale to evoke an oppressive sense of disparity between Victor Frankenstein and his tragic monster, "the minuteness of the parts formed a great hindrance to my speed, I resolved, contrary to my first intention, to make the being of a gigantic stature" (p. 52). Serafina Bathrick has written about the images of colossal female statues that presided over industrial and world fairs during the nineteenth century. These images, argues Bathrick, denote a vision of ideal femininity (informed by the mechanical age) as well as establish a link between technology, femininity and the mythic woman to presides over hearth and home (in Wosk, 2001, p. 60) as well as the frightful aspects of the maternal body.

The New-Woman

Increasing ambivalence felt toward the machines of industry, coincided with other changes in cultural attitudes, such as the perception of the declining status of male workers relative to the scale of the machines of industrialization, the expanding female labour force entering work domains historically dominated by men, and the increasing presence of women in economic and social spheres. The early twentieth century also marks a time in which technology pervaded the American landscape. Rail and telegraph systems became ubiquitous; bridges of enormous span were constructed; skyscrapers dotted the skyline. Technological advances that directly effected the cultural lives of women (and men) during this period include the automobile, telephone, household technology, and the department store. The new woman, a term used to describe a proportion of young women growing up in the midst of profound technological, social and economic change, also emerged during this period embodying the ambivalences of a society caught in the midst of profound change. As Jennifer Gonzalez (2000) notes, representations of the female-machine tend to emerge "at moments of radical social and cultural change" (p. 61). Therefore, while there are differences between specific female-machine representations there is also a strong historical continuity among the images that acknowledges a diverse array of boundary myths (self/other; human/machine) falling under the singular category female-machine (automaton, robot, android, cyborg).

Prior to industrial development, all families (with the exception of the very wealthy and elite) were interdependent working units primarily engaged in tasks of production and consumption. "It was a form of social existence largely determined by the struggle for survival in a predominantly agricultural society faced with chronic scarcity" (Ewen, 2001, p. 114). The first areas affected by a competitive industrial production model based on the factory system were those of traditional weaving and textiles done in the home. Domestic production was increasingly replaced with social production, effectively destabilizing the authority of the home

70

(ibid., p. 115). Thus, factory production created not only a revolution in industrial practices, but

revolutionized familial relationships as well. Work, labor, and living became subsumed into the

exchange system of production and consumption rather than as a function of family

interdependency and authority. "The connection between work and survival still existed, but it

was socialized so as to pull the rug of necessity out from under the family as an organization of

survival" (ibid., p. 116).

Technologies of industrialization as well as individualization[18] related to rapid

urbanization inevitably restructured "the delicate areas of propriety and morals" (McGovern,

1968, p. 319). The automobile shifted the context of premarital convention; the telephone

provided alternative (and private) means to communicate and court; while the increased

interaction with the opposite sex encountered in the labour market "together assured unparalleled

privacy and permissiveness between the sexes" (ibid., p. 310). Writes an anxious social

commentator about the shifting context of female-male relationships in *Literary Digest* in 1924,

> In other days the boy paid court to his "girl" on an ivied porch or in a cosy parlor,
> under the watchful eyes of a mother or the stricter vigil of a maiden aunt. If he
> took the girl "buggy-riding," it was necessarily for no great distance, and the
> return was usually long before the stars had begun to fade. The courting couple
> were never far from some sort of chaperonage. Impressionable and impulsive,
> they lived within the exterior restraints of a community observation and
> judgment, in face of direct family and community control, which were a
> considerable safeguard. But nowadays the gay young gallant steps on the gas,
> and the pair are soon beyond any sort of parental or other surveillance.
> (Hirshbein, 2001, p. 126)

In this passage the pastoral simplicity of the past is contrasted with the permissive technologies of

the present that set the lives of nineteenth century women diametrically apart from the 'new-

woman' of the early twentieth century. Historians of the early twentieth century have noted that

America was in a profound period of transition evidenced in part by the unbridled enthusiasm for

---

[18] Work was now an individual activity, with the work structured according to the goals of the new
authority: the ruling business class. Workers were hired as 'individuals' with their labor exchanged for
wages, with the worker no longer interconnected with other family workers (Ewen, 2001, p. 116).

a modern future expressed by the young and a nostalgic longing for the traditions of the past articulated by men and women of older generations (Hirshbein, p. 127).

The new-woman (or flapper) emerged during this time, a symbol perhaps of the massive economic and social transformations taking place in America during the first half of the 20th century. This shift dramatically changed society from a primarily agricultural one, to an industrialized nation characterized by mass migration to the cities, mass production, and mass media. The new-woman seemed to signify a liberated woman who rejected gender stereotypes and expectations. She also symbolized the many ways in which technology imbricated itself into the public and personal (domestic spaces) of women's lives.

Some considered the new-woman, a fearsome and erotic *garçonne* (girl/boy) who assailed the boundary between the proper woman of the private sphere (now working, purchasing, having sex) and the public arena of masculinity. Her body coded her female, while her behavior (aggressively sexual, fiercely independent, explicit about her sexual desire) was unquestionably male (Zabel, 2004, p. 26). In comparison with the chaste and virtuous woman of the eighteenth and nineteenth century "the code [of] woman's innocence and ignorance crumbled" (McGovern, 1968, p. 317). The flapper was more likely "to ride a bicycle, smoke cigarettes, use slang, travel, and be sexually active" (MacPike, 1989, p. 371-372) as she "drank, worked, and played side by side with men. She became preoccupied with sex – shocking and simultaneously unshockable" (McGovern, 1968, p. 317).

> In all, she was an attractive, active and somewhat frightening being, raising unmentionable fears that she might indeed be the "monster of ego" that underlay her century's compulsive confinement of Angel/Woman to the House. She was very real, and she challenged traditional views on almost every front (ibid., p. 372).

No longer confined principally to domestic roles,[19] women increasingly accessed

positions that afforded them more independence, taking up such jobs as clerks, typists and

stenographers as well as shop sales, telephone operators and producers of light-goods such as

hats, stockings and electrical goods (McGovern, 1968, p. 321; Pumphrey, 1987, p. 183). "In

greatly escalating numbers, women asserted their independence, and in the process threatened

male hegemony in the work force and destabilized normative gender roles" (Zabel, 2004, p. 26).

Indeed, between 1900 and 1920, the percentage of women between the ages of 16-44 employed

outside of the home in the U.S. was 29.7 percent (McGovern, 1968, p. 320), representing some 8

million women (Pumphrey, 1987, p. 184). Women's lives became increasingly individualized

whether single or married, employed or unemployed simply because they were spending more

and more time in the public sphere.

As household managers, married women were encouraged to shop and integrate

technology (i.e. processed food; cleaning aids and products; mechanical and electric appliances)

into the home, thereby transforming the private sphere into a domestic factory. Freedom from

labouring in the home facilitated a more active public life, often enjoyed in the family automobile

and shopping. Magazines brought images of new technology to the masses and educated

consumers about new machines and technological advances taking place nationally and

internationally. In this way, technology moved out of the factory and in to the private sphere.

Magazines provided a form of "technological consciousness raising" (Tichi, 1987, p. 19; see also

Ewen, 2001, p. 159-176). Women who read *Ladies Home Journal*, for example, were tutored on

a range of new technological equipment: cameras, bicycles, furnaces, dishwashers, irons, waffle

irons, phonographs, and automobiles. These items rendered the lady of the house the manager of

---

[19] Stuart Ewen (2001) notes however, that women's role in production prior to industrial development was significant and continued to be so afterwards with women and older children providing "a reserve labor force" to supplement the household income. Ideologically however, *woman's place was in the home.* A move which served industry well in that woman was not provided a legitimate space in the public sphere of industrial labor and could therefore be moved in and out of the labor pool in accordance with the needs of labour (p. 118-119). Similarly, Ruth Cowan (1979) notes that women have always been considered transient workers (p. 54).

the factory home. At the same time, department stores and shopping malls became linked with

individual choice and pleasure. Whereas traditionally retail activity was associated with "men's

business," shopping, department stores and malls became "schools of consumption" for women

while at the same time easing and legitimating their presence in the public sphere (Pumphrey,

1987, p. 182). In this way, disempowered women were co-opted in to the industrial age through

employment, technology and consumer culture (mass media, shopping).

The New-Woman and Machine Woman as Robot

The traits of the transgressive new-woman are evident in the female-machine

(re)imagined as robot. The machine-woman, like the new-woman, both exhibit characteristics of

masculinity and femininity; both challenge patriarchal authority through transgressive sexuality;

both were feared because society suspected neither could be completely controlled. Thus, the

female-machine seemed to embody a range of new threats including fear of machines and

industrialization as well as fear of the new-woman in relation to masculine authority.

The transgressive female other became the naturalized site upon which cultural anxiety,

sometimes in relation to technology (Doane, 2000 [1990]) and sometimes in relation to female

sexuality (Huyssen, 1982),[20] was projected. As male bodies became passive working bodies

"confiscated by the alienation of the machine...[and] submitted to industrialization and

urbanization" (Buck-Glucksmann cited in Doane, 1991, p. 2), woman's body became a site of

overrepresentation. Early images of the female-machine frequently portray her in terms of social

transgression and unrepressed sexuality, "allying her to the natural world and against social

---

[20] For Huyssen (1982), the conflation of fear of female sexuality (fear of castrated woman) with fear of technology (fear of replacement by the machine) is a projection of technological fear onto the female body. "There are grounds to suspect that we are facing here a complex process of projection and displacement. 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 castration anxiety. The 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 signification which all had one thing in common: otherness; by their very existence they raised fears and threatened male authority and control" (p. 226).

mores" (Davidson, 1981, p. 31), an association not far removed from the female archetypes of

witch and seductress. The liberalization of sexual conduct during the early twentieth century

reawakened social anxiety related to female sexuality of the early modern period.

Despite discourses that persistently associate technology and production with

masculinity, Huyssen (1982) and Doane (2000) note that it is often the figure of a woman that is

imagined and represented as the model of the perfect machine. This is true in literature (E.T.A

Hoffman's Olimpia; Villiers de l'Isle-Adam's Hadaly), film (Fritz Lang's False Maria; Ridley

Scott's Rachael) and art (Man Ray's Mannequins; Francis Picabia's Madame Picabia). Members

of the early twentieth century New York dada movement, such as Man Ray and Francis Picabia,

conflate the image of the machine and the female body in a way that attempts to mediate

technology and nature through art. In their quest to humanize technology, dada art often

reinscribed conventional and regressive gender stereotypes. Paul Haviland, editor of and

contributor to *291*, a bilingual avant-garde magazine featuring prominent dada artists, declared,

> [we] are living in the age of the machine...Man made the machine in his own
> image. She has limbs which act; lungs which breathe; a heart which beats; a
> nervous system through which run electricity...She submits to his will but he
> must direct her activities...Through their mating they complete one another.
> (Haviland cited in Zabel, 2004, p. 25)

As regressive and gendered as this conflation of the feminine and the mechanical appears to be,

Zabel (2004) contends this was a genuine attempt to recover "the human within the realm of the

machine" (p. 25). At the same time, writes Zabel, "such a gendering of the machine as female

ultimately served a patriarchal need to assert control over machine culture by linking it with

something closer to the natural world" (ibid., p. 25) and contain the "threatening flow of

femininity" associated with the new-woman as well as the de-individualizing of machine and

commodity culture (Jones, 1998, p. 147). Patricia Vettel-Backer (2003) observes that the use of

female archetypes (virgin/vamp) in relation to machine (and female sexuality) anxiety represents

a strategy of containment through the process of mystic deification or fetishization,

What better way to negate the menace of real women than to strip them of....their inherent strength – their sexual, reproductive capacity – and then elevate this power to the realm of the spiritual, so that the feminine becomes a disembodied essence, one that can be mated with the masculine machine. Now Woman is merely a mechanical bride, and as such, is rendered as nonsexual as the Virgin Mother; castration is no longer a threat. (Vettel-Becker, p. 9)

The virgin/vamp dichotomy is a construction of femininity against which patriarchal-capitalist masculine identity is defined. The virgin is a pure woman who protects and provides; the vamp is the dangerous and destructive castrating woman. Thus, the fearful castrating woman becomes restrained through a metaphoric transformation from vamp to virgin, "women who bear the threat of castration due to their attempts to claim masculine power, are transformed into the mother-protector, a woman who cannot castrate because she has no visible body; her essence has been encased in steel" (Vettel-Becker, p. 11). Annette Kuhn's (1990; 1999) concept of cultural instrumentality allows us see that mass media images of the female-machine (in its many manifestations) are evolving ideological repositories of our culture's views toward scientific and technological progress. The image of the female-machine is a potent representation that works to restructure conceptual differences between humans and machines. As we shall see, the image of the female-machine is sometimes regressive and stereotyped, and sometimes ambivalent but always provocative.

Electric Eve

Morton Klass (1983) notes that while Čapek's *R.U.R* (1920) has a great deal in common with Mary Shelley's *Frankenstein* (1818), there has been a historic reluctance to align Shelley's monster with Čapek's robot, and that from *R.U.R.* onward, the robot loses its human characteristics and devolves into a "vaguely humanoid, but nevertheless thoroughly mechanical machine" (Klass, p. 173). Klass's survey of the transformation of the robot over the twentieth century finds that the robot is seldom inflected with the most threatening characteristic associated with the alien other: sexual desire for and/or sexual threat by the other. Rather, the robot is

76

principally represented as a perfect slave or servant, even if it harbours a distant potential for

danger. For Klass, the literature relating to the robot seems to imply that if humans can figure out

a way to foreclose upon the robot's disruptive potential,[21] humans "will rejoice in a human-

equivalent servant and companion" (ibid., p. 171).

Klass also argues that representations of the robot as object of sexual desire or as sexual

threat are rare and "gave rise to no subgenre" (p. 178). Often portrayed as a man's loyal servant

(sometimes threatening), the sexual potential of the robot is seldom explored, "despite the fact

that sexual threat does customarily characterize the alien [other]" (p. 176). I submit however, that

Klass overlooks the long tradition of uncanny, disruptive, sexually threatening and sexually

desired female robots, evidenced in such figures as Hoffman's Olimpia (1815), l'Isle-Adam's

Hadaly (1886) and especially in the character of Lang's[22] False Maria (1927).

In the following analyses of early twentieth century representations of the female-

machine, I will explore other facets of the female-machine's monstrous character, including her

relationship to the uncanny and the abject, as well as her ongoing status as object of sexual desire.

I will discuss how her unrepressed sexuality maintains a connection with nature, thereby

destabilizing patriarchal order (through the abject and its capacity to undermine order and

systems), and opening new subjectivities outside the limits of a phallic framework.

Uncanny Female-Machines

As discussed above, the Musical Lady of Jaquet-Droz elicited feelings of anxiousness

and uneasiness in the journalists who attended her shows and wrote her reviews (Wood, 2002, p.

---

[21] In fiction this has already been worked out in Isaac Asimov's (1970) I-Robot and the infamous three rules of robotics. These rules were written with a view to protecting humans from the dangerous potential of robots. His three rules would ensure that the robot would not, indeed could not, turn on its creators: (1) a robot may not injure a human being, or, through inaction, allow a human being to come to harm (2) A robot must obey the orders given it by human beings except where such orders would conflict with the First Law (3) A robot must protect its own existence as long a such protection does not conflict with the First or Second Law (p. 6).
[22] Andrea Huyssen (1982) also cites Jean Paul's *Ehefrau aus bloßem Holze* (1789) and Achim von Arim's *Isabella von Agypten* (1800).

77

xvi). Women would faint and cross themselves upon seeing Kemplen's infamous chess-playing

Turk (ibid., p. 59). E.T.A. Hoffmann's "Der Sandmann" (1815) tells the story of a piano playing

mechanical doll, Olimpia (not unlike Jacquet-Droz's Musical Lady), with whom a student of

physics, Nathanael, falls madly (literally) in love. Upon discovering her status (that of a

machine), Nathanael literally loses his mind and ultimately commits suicide. Hoffmann's story

inspired both Ernst Jentsch's (1906) and Sigmund Freud's (1919) theories of the uncanny.

Jentsch's theory of the uncanny (defined as profound intellectual uncertainty) understood in

relation to Julia Kristeva's (1982) concept of abjection provides a powerful perspective from

which to assess the female-machine's monstrous potential. That is to say, her status as

ambiguously human-like machine threatens to devastate stable categories of meaning as it elicits

profound feelings of terror.

Barbara Creed (1993) was interested in understanding the significance of the monstrous-

feminine in the horror film and began her exploration by posing the question, "What exactly is it

about woman herself, as a being quite separate from the male monster, that produces definitions

of female monstrosity?" (ibid., p. 6) Utilizing Kristeva's concept of the abject to describe the

status of the mother as the child struggles to join the symbolic order, Creed finds that the passage

from maternal authority to the law of the father is the foundation upon which her monstrous-

feminine is formulated. Creed argues that the monstrous-feminine "takes us on an aesthetic and

ideological journey" (p. 166), and exposes the importance of the female abjectification to the

functioning of patriarchal society.

> The horror film brings about a confrontation with the abject (the corpse, bodily
> wastes, the monstrous-feminine) in order, finally, to eject the abject and re-draw
> the boundaries between human and non-human . . . the horror film works to
> separate out the symbolic order from all that threatens its stability, particularly
> the mother and all that her universe signifies. (Creed, 1993, p. 14)

Ernst Jentsch says of such figures as the female-machine, "the life-size automata that

perform complicated tasks, blow trumpets, dance, and so forth, very easily give one a feeling of

unease" (p . 12). Anxiousness, fainting, and unease are characteristics of the uncanny, a frightful

sensation associated with the loss of intellectual certainty or, in Freudian terms, when confronted

with the return of something thought repressed. Whereas Jentsch links the uncanny to the figure

of Olimpia (in turn related to intellectual uncertainty), Freud disregards Olimpia and instead

focuses the Sandman (linked to fear of castration) as the true source uncanniness in the story.

In 1919 Freud co-opted the term uncanny from Jentsch to describe a state of fright in

which ideas and feelings from childhood believed discarded are triggered and reasserted in the

mind. Freud's definition of the uncanny "is that class of the frightening which leads back to what

is known of old and long familiar" (Freud, 1919, p. 220). Taking Jentsch's definition of the

uncanny as his departure point Freud writes,

> [Jentsch] ascribes the essential factor in the production of the feeling of
> uncanniness to intellectual uncertainty; so that the uncanny would always, as it
> were, be something that one doesn't know one's way about in...[and] has taken
> as a very good instance "doubts whether an apparently animate being is really
> alive; or conversely, whether a lifeless object might not in fact be animate."
> (Freud, 1962 [1919], p. 221, 226)

Freud is of course referencing the mechanical love interest of Nathanael, the lovely mechanical

woman Olimpia. However, while Freud submits that Olimpia's status as mechanical doll

provides a temporary moment of epistemological confusion, the true source of uncanniness is

located in the figure of the Sandman, Coppelius, who represents a frightening figure from

Nathanael's childhood and a story that tells of an evil man who tears out the eyes of misbehaving

children and feeds them to his own (children): "He is an evil man who comes to children when

they refuse to go to bed and throws handfuls of sand in their eyes, so that they pop out of their

heads all bloody; then he throws the eyes into his sack and carries them to the half moon as food

for his little children" (Hoffman, p. 41). Associating the ripping out of eyes with castration,

Freud links the uncanny effect of the Sandman to the return of the "'passing of the Oedipus

complex'" (Bresnick, 1996, p. 115) or the revival of infantile complexes thought repressed by

protagonist Nathanael. In other words, the return of the repressed, the uncanny.

For Barbara Creed (1993), castration anxiety is intimately related to the patriarchal

construction of the monstrous-feminine, a force that evokes fear of castration in the male

spectator (p. 2). Theoretic approaches that presume woman is frightening because she is castrated

(wounded, disfigured), the core of Freudian male castration anxiety, constitute woman as victim

from the beginning and therefore serve to further entrench "patriarchal definitions of woman

which represent and reinforce the essentialist view that woman, by nature, is a victim" (ibid., p.

7). Creed challenges the entrenched conception of woman-as-castrated-victim by examining the

maternal and reproductive structure at the core of the monstrous-feminine body and determining

that woman frightens not because she is castrated but rather because she threatens to castrate.

Therefore, an approach that liberates the woman from her castrated victim status requires

a rereading of Freud's notion of the castrated woman (Creed [1993]; Lurie [1981-1981]; Todd

[1986]; Williams [1984]) and/or an approach to account for her monstrosity that does not resort to

Freudian tenets.[23] Such an approach is available if we accept Jentsch's conception of the

uncanny, defined as profound intellectual uncertainty, understood in relation to Julia Kristeva's

(1983) notion of the abject,[24] an emotional reaction evoked when experiencing a crisis of

meaning, such as when the boundary between self and other comes under assault. When

uncanniness is coupled with abjection the result is the annihilation of stable categories of

---

[23] Donna Haraway's cyborg is creature that is intentionally constructed without Oedipal subjectivity.
Haraway explains why: "I really am hostile to the Oedipal accounts and their mutants – not because I don't
recognize their power but because I am *too convinced* of their power…The figures that we've used to
structure our accounts of the unconscious so far are much too conservative, much too heterosexist, much
too familial, much too exclusive…At a certain point you ask if there isn't another set of stories you need to
tell, another account of an unconscious. One that does a better job accounting for the subject of history"
(Ross and Penley, 1990, p. 15, italics in original).
[24] The abject is something that disrupts order and does not submit to limits or rules. Abjection "is immoral,
sinister, scheming, and shady: a terror that dissembles, a hatred that smiles, a passion that uses the body for
barter instead of inflaming it, a debtor who sets you up, a friend who stabs you" (Kristeva, 1982, p. 4).

meaning, such that the boundaries between self/other, human/machine and animate/inanimate are assaulted.

I have argued that the female-machine as automaton is monstrous because she embodies two disparate categories, the animate and the inanimate. Building on this, we find that this monstrous union evokes feelings of uncanniness and abjection. The female-machine is "the in-between, the ambiguous, the composite" of Kristeva's (1982) abject (p. 4) who "draws me toward the place where meaning collapses" (p. 2). Abjection also explains the female-machine's ability to disrupt the boundary between animate/inanimate, human/machine, and self/Other. Unlike Freud's notion of the wounded (castrated) woman, the uncanny and destabilizing machine-woman stands as a transgressive and potentially liberating figure, a boundary disrupter who challenges patriarchal order. Finally, as a special type of sign, the female-machine is linked to another mythic woman, Pandora, who harbours a destructive secret within the contradictions of her "appearance and meaning...between seductive surface and dangerous depth" (Mulvey, 1995, p. 5).

According to Jentsch, "the human desire for the intellectual mastery of one's environment is a strong one. Intellectual certainty provides psychical shelter in the struggle for existence. However it came to be, it signifies a defensive position against the assault of hostile forces" (p. 15). Intellectual uncertainty relates to Kristeva's (1982) concept of the abject, described as a place where meaning collapses, bringing on "a massive and sudden emergence of uncanniness" (p. 2). Intellectual certainty, a psychical shelter, may be likened to the abject physical defence, vomiting and gagging for example, brought on by taking in repugnant food, the most archaic form of abjection (p. 2). In the face of intellectual uncertainty (uncanniness) "I" experience the abject. "There, I am at the border of my condition as a living being" (p. 3).

Jentsch's theory of the uncanny contends that undecidability (intellectual uncertainty) regarding the inanimate or animate status of an object creates feelings of the uncanny. For

Jentsch, Hoffmann's Olimpia is the uncanny kernel of the text "Der Sandmann." Indeed,

Nathanael does experience feelings of uncanniness when first looking upon Olimpia, "her eyes

seemed to him strangely [uncannily] rigid and dead" (Hoffman, p. 79). The uncanny also

describes a state in which an individual is not quite at home or at ease with the situation at hand

(Jentsch, p. 8).

> Among all the psychical uncertainties that can become an original cause of the
> uncanny feeling, there is one in particular that is able to develop a fairly regular,
> powerful and very general effect: namely doubt as to whether an apparently
> living being is animate and, conversely, doubt as to whether a lifeless object may
> not in fact be animate – and more precisely, when this doubt only makes itself
> felt obscurely in one's consciousness. The mood lasts until these doubts are
> resolved and then usually makes for another kind of feeling. (Jentsch, p. 11)

Jenscht holds that the uncanny is "well known" in relation to "wax figures, panopticons and

panoramas" (p. 12) or whenever it is especially difficult to determine the difference between

humans and non-humans, such as the with the automaton. The unsettling effect of the uncanny is

particularly acute when imitations of the body are exact and combined with bodily and/or mental

functions such as singing, piano playing, lute playing, dancing, drawing, writing, walking and so

on. "The finer the mechanism and the truer to nature the formal reproduction, the more strongly

will the special effect also make its appearance" (Jentsch, p. 12).

The automaton signals the boundary between where "I" am and "I" am not. In this space,

the figure of female-machine (Olimpia as radical other) crosses over the imaginary border "which

separates that self from that which threatens the self" (Creed, 1993, p. 9). Olimpia (and all

transgressive female-machines) can be said to potentially traverse the boundary between

self/other and life/death. This is the non-place of the abject, the site where meaning breaks down

(Kristeva, 1982, p. 2). Abjection evokes ambivalence, and although we find abjection horrible, it

also "beseeches, worries, and fascinates desire" (p. 10). Fascinating, yet dangerous, desire

characterizes the erotic power of the female-machine. Although she projects "a seductive

appearance that is appealing and charming to man," she also "generates its polar opposite, an interior that is harmful and dangerous to man" (Mulvey, 1995, p. 6).

Maschinenmensch Woman

I have argued that there is a connection between the female golem, the female automaton and the female robot. The movement from golem to automaton mirrored a shift in the conceptualisation of nature as organism associated with two archetypal women: mother nature and unruly chaotic woman to nature as machine associated with two other archetypes: classical goddess and machine as seductress. The shift from organicism to mechanicism resulted in several effects. First, the female-machine as automaton became associated with the monstrous because her inanimate machine body, animated of its own accord, was suggestive of a heterogeneous fusion of disparate elements (Hanafi, 2000).[25] Second, attributes of nature thought eliminated (mother nature/unruly nature) through the ordering and regulating forces of the mechanistic view, became (re)attached to the machine through early and persistent association of the machine with female archetypes (classical goddess/seductress) and stereotypes to promote, celebrate and promote the machine (Wosk, 2001, p. 17-18). As anxiety about the machine intensified with the industrial age, the characteristics of the female archetypes used to manage cultural anxiety evolved as well. The emerging tensions of the machine age are articulated eloquently in *Metropolis* and gave way to another set of stereotypical images of woman in relation to technology: the virgin and the vamp (Huyssen, 1982). These reworked stereotypes seem to be informed in large part by the emergence of the new-woman.

> [The] machine-woman asserts a manly appearance and an active sexual role...machine-woman acknowledges a new machine-aesthetic and with it the blurring of gender distinctions in this era of the new-woman...reflect[ing] the

---

[25] This monstrous union of human and machine also brings to mind Freud's sadistic view of coition in relation to the primal scene wherein a child may fantasize or observe copulation and links this act to conception and life. According to Freud, if a child observes his/her parents engaged in the act of sexual intercourse the child links the primal scene to a monstrous act sometimes involving animals or other mythical characters (Creed, 2000, p. 122).

breakdown of categories – human/mechanical, male/female – it also signals a double threat of control by the machine and by the liberated female. (Zabel, p. 26)

Just as the new-woman embodied cultural ambivalence about unstable gender changes, so too does the machine-woman as robot. The vamp symbolizes female transgression and represents a threat to the masculine world of high technology, efficiency, and instrumental rationality. Virginal woman connects technology once again to archetypal mother nature (maternal, provider, stabilizer), while the vamp stands as a transgressive (potentially emancipatory) techosexual projection of male fear and desire of female sexuality and technology. Peter Ruppert (2000) contends that *Metropolis* captures the ambivalence toward the technology in the early twentieth century, reflecting both fear of and fascination with technological progress (see also Huyssen, 1982, p. 225). Conflating technology and sexuality, social criticism and spectacle, *Metropolis* also highlighted the contradictory discourses in circulation about women (Wosk, 1992, 2001).

Metropolis is set in the year 2026. The ruling class dwell above ground in luxurious surroundings while the working class labour below ground and live miserable existences in service to the machines and the powerful elite class. Freder (Gustav Frohlich) is the privileged son of Fredersen (Alfred Abel), a power figure in the city of Metropolis. Freder is forever changed after he meets Maria (Brigitte Helm), a Madonna like figure who advocates peaceful negotiation between the increasingly dissatisfied workers and the ruling class. Upon discovering and experiencing the inhuman working conditions of the workers below ground, Freder begins to advocate for change. Rotwang, another powerful Metropolis ruler (Rudolf Klein-Rogge), is determined to extinguish the revolt of the workers. In his lab he creates a robot in the exact image of Maria (False Maria) designed to deceive and undermine the discontented workers. The False Maria is an evil, lusty character in contrast to the pure and angelic human Maria. When Rotwang debuts the False Maria at a party at Yoshiwara's, she performs a tempting, semi nude,

Salomé inspired dance. Following a violent uprising and a flood of cataclysmic proportion, the

False Maria is destroyed by fire and peace is restored in the city.

In the figure of False Maria, we are presented with a machine-woman who is both a

fetishistic object of male desire as well as a monstrous representation of unrepressed female

sexuality[26] in the tradition of the witch and the seductress. The transgressive woman evades "the

rules of society...[and] returns to nature and to the demon, she looses uncontrollable and evil

forces in the collective midst" (de Beauvoir, 1968, p. 190). Thus False Maria, and the female-

machine generally, represent the potential for both oppression and emancipation through

technology.

An early scene of *Metropolis* illustrates the sense of ambivalence felt toward the machine

during the early twentieth-century. We see an enormous machine, constructed as the mythical

monster Moloch, a horrific entity to which extreme or terrible sacrifices are made. In this scene

the machine is apparently eviscerating the helpless workers. The juxtaposition of the gigantic

machine with diminutive human workers is a central motif of nineteenth century artwork

representing scenes of industrialization (Wosk, 1992, p. 68). Read one way, the expansive size of

technology seems to reflect soaring pride in technological advancement; read another, the size of

the machine relative to the human takes on an oppressive and tyrannical quality, wherein the

worker is completely dominated by the machine. Whereas nineteenth century art remained

ambivalent about the possibility of machines to advance or oppress the worker, films such as

Metropolis selected a decidedly dystopic viewpoint.

According to Andreas Huyssen (1982), False Maria embodies the fears of men in the face

of patriarchal challenges by women and the potential domination (of men) by the machine. Thus,

---

[26] Robot woman, like the cinematic representations of the sexually amoral woman of the early twentieth century (Pabst's *Pandora's Box* [1929] and Sternbert's *The Blue Angel* [1930]) are an "expression of 'the spirit of the age.' The 'rapid movement' of recently industrialized society is mirrored in the sexual aggressiveness of these women; a corresponding dehumanization...is reflected in their cruelty and indifference" (Davidson, 1981, p. 45).

the machine-woman is a forceful projection (in the Freudian sense) of male fear of technology

and women's sexuality. Huyssen further argues that it was not until modern texts that woman

and machine became conflated into a unified expression of male fear (and desire). *Metropolis*

presents the earliest film "embodiment of technology in a woman-robot" (ibid., p. 222) and

associates the female-machine with the characteristics of transgression, destruction and

manipulation, marking the beginning of the negatively inflected female-machine which persists to

the present moment. While the eighteenth century makers of automata expressed little preference

for gender in their creations, literature at the turn of the nineteenth century took up the automaton

theme and (re)imagined it as "a nightmare, a threat to human life" (ibid., p. 225). In the sphere of

imagination from *Metropolis* onward, the anthropomorphized machine became associated with

the dangerous otherness of femininity (unruly woman) giving rise to monstrous female-machine

as we recognize her in the contemporary age (ibid., p. 226). The machine, once the great hope of

humanity, now takes its subordinated position across the binary human/machine.

In one provocative scene, False Maria (created in the image of good Maria, the film's

human heroine), re-enacts the mythic Salomé and her dance of the seven veils. "The machine-

woman, who is no longer recognized as a machine, makes all men lose control…[and] lust after

her at the belly dance party" (Huyssen, 1982, p. 232). Linking Salomé with the False Maria

reminds us that woman "stands in patriarchal culture as a signifier for the male, bound by a

symbolic order in which man can live out his fantasies and obsessions" (Mulvey, 1995, p. 15). In

the same way that the female golem and female automaton reflect the erotic desire of their

creators, so it is with False Maria, the double of the virginal Maria. False Maria, like the mythic

Salomé, embodies female seduction that has come to mean "the monstrous Beast, indifferent,

irresponsible, insensible, poisoning… everything she touches" (Des Essenties cited in Becker-

Leckrone, 1995, p. 239). Like Salomé, False Maria is the symbol of the transgressive woman,

inflected with overtones of sadism and depravity. However, like Pandora, her "appearance

dissembles her essence" (Mulvey, 1995, p. 5), her beautiful surface obscures her dangerous depth.

Linking the female-machine with Pandora is to note the function and motif of the secret

box. The box is an illustration of displacement that repeats the concealment of some dark

dangerous secret behind/beneath a veil. The machine-woman obscures a secret behind a mask of

seduction and erotic beauty. The implication is that which is concealed within the box and

behind the mask is something dangerous to "man, order, and the Law" (Mulvey, 1995, p. 8) much

as abjection exposes the "fragility of law" (Kristeva, 1982, p. 4). What is concealed behind the

seductive face/body is suggested by her social and sexually transgressive behavior. False Maria

symbolizes woman's unrepressed sexual desire. She is the mythic bad woman, in the tradition of

Pandora, a beautiful woman fashioned by the Gods to seduce men and release evil into the world;

in the tradition of the White Goddess of pagan religions who destroys as surely as she nurtures; in

the tradition of Eve, original seductress of the Garden and responsible for Adam's fall; in the

tradition of Mary Magdalene, prostitute of the Old Testament, and every dark sister to follow her

in the virgin/vamp dichotomy. Sexually unrepressed woman returns to nature and the demon.

David Davidson (1981) argues that virgins and vamps were early cinema's personification of

male sexual fantasy. Thus it is Monaco's contention that, "[w]e observe her always from the

male perspective" (cited in Davidson, p. 38). Mulvey (1974) argues that men have open to them

only two possible escape routes to allay fear of castration: they may either re-enact the trauma

(via investigation and demystification of woman by punishing or saving the guilty object) (ibid.,

p. 21); or they may disavow castration through substitution of the threat into a fetish, "so that it

becomes *reassuring* rather than dangerous" (ibid., p. 21, my emphasis). Similarly, Huyssen

(1982) reads the female-machine as castrated woman, a complex instance of condensation and

displacement of machine anxiety presented as anxiety related to female sexuality "reflecting, in

the Freudian account, the male's castration anxiety" (p. 226). Both of these perspectives, similar

to Freud's castrated woman, presume a passive (Mulvey) or victimized (Huyssen) woman.

David Davidson (1981) argues against the idea that the sexually transgressive woman is

easily reduced to a comforting "static, one-dimensional fetish," as theorized by Laura Mulvey.

According to Mulvey disavowal of castration through substitution of the fetish neutralizes the

threat that the fetish stands in for (Mulvey, 1974, p. 21). On the contrary, Davidson contends that

in some instances the amoral woman retains her transgressive force in spite of fetishization and

therefore remains "dangerous as hell" (Davidson, 1981, p. 41). I argue that the sexually

unrepressed woman, embodied in the robot-woman vamp, is neither a reassuring fetish nor is she

domesticated through the process of demystification (destruction). Rather, her status as "Trojan

horse, a lure and a trap" (Mulvey, 1995, p. 5) works to ensure she remains mystified, in spite of

her ritualistic annihilation (i.e. burning, exploding). The persistence of machine woman's

mystification is much like Jentsch's contention that some uncanny figures tend to retain their

unsettling status even after the viewer has identified and categorized the figure as animate (or not)

(Jentsch, 1906, p. 12).

Through a symbolic witch burning of the female-machine at the conclusion of

Metropolis, False Maria connects with the mythic image of the witch. Witch burning recalls the

domination of nature (and woman) with its goal of containment and domination of all threatening

aspects of nature and woman. This move reactivates the grafting of female archetypes to the

monstrous machine. However, through the destruction of False Maria (as witch), like the myth of

Pandora, the female-machine reveals the dangerous essence that is veiled by her seductive

surface.

> Pandora is also the prototype for the mechanical female, androids we might say,
> such as Olympia...[and] False Maria..., all of whom personify the fantasy of
> female beauty as artifice...A seductive appearance that is appealing and
> charming to man generates its polar opposite, an interior that is harmful and
> dangerous to man. (Mulvey, 1995, p. 6)

The secret is of course the latent emancipatory potential of the female-machine, a hybrid figure

and a monster, capable of unsettling dominant gender associations and rupturing boundaries that

relegate woman and machine to the status of other, rendering all such boundaries assailable,

"permeable, and capable of being transgressed" (Ruppert, 2000, np).

Contemporary Discourses of the Female Robot: *Eve of Destruction*

"How dangerous is she?"
"She could be really dangerous if she's locked in battlefield mode."
"What's that?"
"Battlefield mode is Eve 8's highest state of readiness. It means she's a split second
away from using force to protect herself against what she perceives as terminal harm"
(*Eve of Destruction*, Gibbens, 1991)

Gibben's *Eve of Destruction* (1991) tells a story of a female military robot whose

programming has been compromised by gunfire during a field test. Armed with a secreted

nuclear weapon, set on to go off in twenty-four hours, she will potentially kill thousands of

people. The military calls in terrorist expert, Jim McQuaid, to neutralize Eve 8 (the robot's

name). Working with Dr. Eve Simmons (Eve 8's double), the inventor and model for Eve 8's

body, face, and memory programs, McQuaid and Simmons track and eventually destroy Eve 8 in

the subway system beneath New York City.

Eve 8, is a monstrous female-machine, her name symbolically connecting her to biblical

Eve, the original transgressive woman. Kirsten Lentz (1993) contends that *Eve of Destruction* is

a fantastic female revenge flick that produces "…a specifically feminist, popular

pleasure…[because] It is thrilling to see a character, male or female, break into action against

what the individual film defines as oppressive…It can be doubly thrilling to see the *woman* act

fearlessly, independently, even violently against that which oppresses her…" (p. 378, italics in

original). Eve 8 murders six male police officers, bites off a man's penis, machine guns another

who calls her a "bitch," murders her "father," puts her "son" in mortal danger, and threatens to

blow up twenty city blocks of New York City.

89

As Eve 8's body transforms from sexy, provocative and inviting to bloody, gruesome and repelling we can see that the female-machine rightfully belongs to Barbara Creed's catalogue of monstrous-feminine figures, as "connections [are] drawn in the film between feminine desire, sexuality and abjection" and her body becomes "a display of aberrant feminine behavior which is depicted as depraved, monstrous, abject – and perversely appealing" (Creed, 1993, p. 31). Creed does not theorize the female-machine, however her theory of the monstrous-feminine body is directly applicable to Eve 8, indeed all female-machines. Thus, it will be shown that Eve 8 is a monstrous reflection of male anxiety embodied in an uncanny, abject, and sexually transgressive female-machine who has much in common with Hoffman's Olimpia, Lang's False Maria, the new-woman, and Creed's monstrous-feminine.

Whereas Kentz (1993) approaches *Eve of Destruction* as a film which enacts pleasures of feminist rage (p. 380), Kibby (1996) situates *Eve of Destruction* within a cluster of cyborg films produced during the nineteen-eighties that express male anxiety related to the undermining of masculinity and patriarchy via technological development and accelerated social change. The threat of the machine is not so much related to the replacement of humans by the machine as it is fear that humans may be absorbed into the machine. This is a fear that resonates with the anxieties of early industrialization. Cynthia Fuchs (1995) argues that *Eve of Destruction* is suggestive of "a crisis of unified white masculine subjectivity" (p. 282) with the female-machine body undermining stable male identity in two ways. First, machine-bodies combine phallic masculinity and feminized body permeability. Second, machine-bodies challenge culturally constructed categories of paternal and maternal. Jon Statton (2001) submits that it is Eve 8, rather than Eve (the creator), who actively provokes male sexual desire and it is this masculine aspect of her sexuality, this phallic quality, which makes Eve 8 threatening (p. 230). Aggressive sexuality connects Eve 8 with the new woman and robot woman and in the section that follows I explore the threatening, indeed abject, nature of Eve 8. Films such as *Eve of Destruction*, which concern

themselves with the female-machine, illustrate the work of abjection in several ways. Through

her association with the corpse and the maternal body, she destabilizes borders, and evokes the

uncanny.

Kristeva's theory of abjection is useful for understanding the disruptive potential of the

human-machine in that it provides an account of the means by which cultures keep separate the

living from the non-living and the fully formed subject from the incomplete. Abjection also

provides a way to position the female-machine in relation to the maternal figure (Creed, 1993, p.

8) that accounts for her monstrous status. Kristeva contends that the most abject body is the

corpse "if dung signifies the other side of the border, the place where I am not and which permits

me to be, the corpse, the most sickening of wastes, is a border that has encroached upon

everything" (Kristeva in Creed, p. 9).

The female-machine and the corpse are drawn together through the gradual

deconstruction of Eve 8's body. The spectacular decomposition and destruction of the female-

machine's simulated body (skin, blood, hair) provides vivid imagery of exposed, peeling,

damaged, oozing fluids and tissues. In a scene reminiscent of the *Terminator's* (1984) bloody

and gory cyborg eye removal, Eve 8 takes a room to clean up and repair damage sustained to her

body during a field test assault that results in her malfunctioning. Statton (1996) suggests that

malfunction is perhaps better described as the State's loss of control over her programming (p.

231). As Eve 8 stands in front of a bathroom basin, we watch as she pushes what appears to be

bloody tissue and circuitry and intestines back into her body cavity and patch this bloodied

abdominal region with red rubber and adhesive. By the end of the film, Eve 8's hair is burnt, her

face is terribly disfigured, an arm is severed, both eyes are gouged out and a significant portion of

her body is battered and bleeding. The disintegration of her body effectively transforms her from

a bewitching fetish to hideously abject monster, reminiscent of Frankenstein's terrifying monster,

91

> His yellow skin scarcely covered the work of muscles and arteries beneath; his
> hair was of a lustrous black, and flowing; his teeth of a pearly whiteness; but
> these luxuriances only formed a more horrid contrast with his watery eyes, that
> seemed almost of the same colour as the dunwhite sockets in which they were
> set, his shrivelled complexion and straight black lips. (Shelley, 1818, p. 56)

We see a vivid display within the decomposing image of Eve 8's body, the fragility of the fetish's "glossy surface" as it seeks, in the words of Mulvey, to mask the "site of the wound, covering lack with beauty" only to have the wound "crack open to reveal its binary opposition [the abject] when, for instance, a beautiful vampire [or in this case machine-woman] disintegrates into ancient slime; or in *film noir*, when the seductive powers of the heroine's beauty mask her destructive and castrating powers" (Mulvey, 1996, p. 13).

The idea of the abject female-machine assaulting the boundary between the human and the non-human is central to the construction of her monstrosity. The border assaulted by the female-machine is precisely the borderland between the animate and inanimate, the human and the nonhuman (machine) and in this case self and other. The female-machine induces the feeling of the uncanny; a disorienting intellectual state induced when confronted with the abject, a thing that seems to assault the borderline between life/death, self/other, human/nonhuman and therefore threatens to destabilize systems of order. Dr. Simmons experiences an unsettling/uncanny moment when she first realizes that her malfunctioning test robot, her double, is acting out in response to her creator's innermost fears (that she is an ineffective mother), sexual desires (to become the seductress), and revenge fantasies (avenging her mother's death through the murder of her father). Eve 8 is linked with abject female behavior through her depiction as an unrepressed sexual seductress, female castrator, monstrous mother, and patricidal daughter. Eve 8's lack of inhibitions (repression) suggests what might happen if "feminine moral rectitude disintegrated" (Lentz, 1993, p. 380), specifically that she would become sexually aggressive and that she would pose a perilous danger to patriarchal society.

The figure Eve 8, as with all machine-women, embodies an encounter between the symbolic order (associated with the law of the father) and the abject female body (no longer a clean and proper body) that threatens to disrupt the symbolic structure. For Kristeva (1982), the clean and proper body is the body that bears no indication of its debt to nature. Therefore, woman's body with her persistent association with maternal/reproductive/sexual functions is more likely to signify the abject (ibid., p. 102). This perhaps accounts for the significant differences in representing the male-machine versus the female-machine. When the female-machine is constructed as a maternal figure, her representation further illustrates the work of abjection. Kristeva argues that we all experience abjection when we first attempt to separate from our mother, an experience marked by conflict and informed by the mother's reluctance to let go of the child and the child's conflicted relationship with the prohibitive status of the maternal body as a site of autoeroticism and incest taboo. Thus the maternal body becomes a site of conflicting desire (Creed, p. 11). As the child attempts to break away and become a separate subject, the mother becomes an abject figure.

We see this idea re-enacted as Eve 8 attempts to reclaim five-year old Timmy who lives, not with Dr. Simmons, but with his father in New York City. Abjection of the maternal body is evident as we see Timmy already taking up in his place within the symbolic order struggle against Eve 8's oppressive envelopment of him within her now monstrous motherly care. She is further associated with the monstrous maternal in her refusal to relinquish Timmy to his real mother even though her failure to do so will ultimately result in his death. Through the interaction between Eve 8 and her son we see her desperately attempt to authenticate her existence "an existence which needs validation because of her problematic relation to the symbolic realm" (Creed, p. 12).

The link between Eve 8 and her monstrous maternal characteristics (and the corpse) is further established when a digital schema of Eve 8's interior reveals a nuclear weapon housed where her reproductive organs should be (were she a real woman). This metaphor is combined

93

with shots of her synthetic skin and breasts peeled away to expose the bloody body tissues, muscles, and organs beneath. Dr. Simmons remarks, "Her heart, in fact her whole blood system in cosmetic. They are medically designed to let her pass as human but serve no real medical function. It's tiny electrical currents that power her. She'll bleed, but she won't die." Elizabeth Fulton (1996) observes that the film identifies Eve 8 with the maternal body through the persistent return to her womb space housing a nuclear bomb and that the recurring imagery of Eve's womb perpetuates the linkage between female womb and nature, which associates the female body with the maternal body. Crisis of maternal identity is represented in the "doubling of Eve as cyborg and mother" (p. 292). At the same time, the persistent emphasis on the monstrous aspects of her reproductive functions contributes to her status as abject monstrous-feminine construction.

Kibby notes that Eve 8's revenge agenda is "trivialized and pathologized in the film, and the triviality and pathology is inscribed as feminine" (Kibby, np). In the first scene where we see Eve 8, she is preparing for a field run and as she dresses she chatters in a highly exaggerated feminine way, "Oh! I love this jacket, it's a wonderful jacket! I think I need a purse…feels really good. How do I look?" The first thing Eve 8 concerns herself with after being damaged (and symbolically freed from her compliant militaristic programming) is to set about shopping for provocative clothing: she purchases sexy stockings, a little black dress, and a vampy red leather jacket. These clothing choices establish her identity in opposition to that of her creator's (conservative, controlled, sexually contained). Eve, the creator, has submitted to patriarchal authority evidenced by the fact that she works for the State and that she never really challenges patriarchal authority. Eve 8 on the other hand, is a double threat: to the State and to men in general. In another scene, following a bungled seduction attempt at a shady hotel that results in the death of six law enforcement officers, McQuaid quips, "So she is horny and psychopathic; quite a combination in a woman!" While these comments serve to belittle Eve 8's feminine

revenge agenda and shopping momentarily neutralizes her potential threat, they also provide the tools of her transformation into a dangerous seductress. As in Creed's (1993) analysis, amoral and sexually transgressive woman represents an abject site that "fascinates desire" but one that must also be repelled in the "interest of self-preservation" (p. 37).

One of the fantasies that Eve Simmons had as a teenager was to pick up an anonymous man from a local hooker bar. Most of her fantasies, she confides, she would never follow through with. But Eve 8 will. As Simmons says,

> She's going back through my life, only there are no barriers, no stop signs. Whatever damage she sustained, it destroyed all her inhibitions. She's doing things I might think about doing, but would never dare to do. Or have the courage to do.

Playing out one of Simmons' secret sexual fantasies, Eve 8 attempts a seduction of a rough acting male (Cal) from the Pine Hill Motel bar. Taking him to a nearby motel room, she begins to engage him in sexual play. At the sight of his genitals however, Eve involuntarily recoils then relaxes, evidently willing to comply with his demand for oral sex (a hint at her attempt to re-enact the female Oedipal journey). She seductively approaches him on her hands and knees, but when he mistakenly commands her to "come on you bitch!" To which she primly responds, "Please don't say that...I'm sensitive" then proceeds to bite off his penis. In this move, Eve 8 is behaving "in opposition to the paternal symbolic, which is governed by rules and laws" (Creed, p. 37). The castration of Cal and the murder of her father connect Eve 8 with Freud's deviant, unsuccessfully Oedipalized, female subject and the monstrous castrating woman theorized by Creed.

For Freud, the Oedipal journey of the female subject is risky, and more likely to result in a deviant outcome for woman: "The properly Oedipalized female subject can find relief from her crippling sense of inadequacy only through heterosexual, procreative cathexis, and by aligning herself with the qualities of passivity, exhibitionism, and masochism which make her the perfect match for properly Oedipalized male subject" (Silverman, 1983, p. 143). Dr. Eve Simmons is a

divorced scientist working for the military. She is also very strong, in charge and almost masculine with elevated professional status and a no nonsense rational attitude. We note that while she is devoted to her son Timmy, she has little time for him in the midst of her hectic career, which serves to undermine her status as nurturing mother. As the story unfolds, and we are made aware of her troubled relationship with her father, we question the success of her (and by extension, Eve 8's) Oedipal journey. Female oedipalization (ibid., p. 141-149) follows a similar trajectory as that of the male in that the mother is also the female child's first love-object, but unlike the male child, she must renounce her love object in favour of the father. Freud warned that the extraordinary demands on the female to successfully make her Oedipal journey inevitably places her at risk of developing problems such as frigidity, lesbianism, hysteria, and paranoia. Further, because the female subject is never encouraged to dissolve her Oedipal fixation with the father, she does not develop a superego "part of the paternal legacy, passed on from father to son," and is therefore vulnerable to the development of morally deprived characteristics (ibid., p. 144). The female subject's Oedipalization differs from the male subject's in other respects as well, but perhaps most distinctive is the "radical discontinuity between the libidinal investments of her infancy, and those which she is required to make at the Oedipal juncture" (ibid., p. 141). Additionally, whereas the male encounters castration potential, a female comes to perceive her castration in terms of lack, knowing "she has seen it and knows she is without it and wants to have it" (ibid., p. 142). This lack, according to Freud, results in the female feeling contempt toward herself, her mother, and eventually all other females on the basis of their shared "lack." If female Oedipalization is to be complete, she must turn away from her mother and toward her father, accept that she is castrated, and exchange her desire for a penis for a child. It is acceptable for the female to maintain her Oedipal desire for the father, so that she may choose her husband for his paternal characteristic and thereby recognize his authority (ibid., p. 143).

There are obvious problems for Eve/Eve 8 in making this Oedipal journey. Scarred by the memory of observing her mother's death, Eve never forgave her father, but eventually repressed her feelings about her father's role in her mother's death. Eve 8 on the other hand, the return of the Simmon's repressed self, fully rejects the law of the father and the passification of Oedipalization. McQuaid makes several references to Eve 8's absent off switch, which is an allusion to her absence of repression. Fulton makes a similar connection as she suggests, "Moreover, through the agency of her cybernetic other, she manages to avenge and kill the primary symbolic representative of the patriarchal order: her father" (Fulton, np). Together then we see how the female-machine problemitizes the psychoanalytic models of Oedipalization. As Donna Haraway has remarked, the female-machine (as cyborg) demands a different model:

> The cyborg incarnation is outside salvation history. Nor does it mark time on an Oedipal calendar, attempting to heal the terrible cleavages of gender in an oral symbiotic utopia or post-oedipal apocalypse...The most terrible and perhaps the most promising monsters in cyborg worlds are embodied in non-oedipal narratives with a different logic of repression, which we need to understand for our survival. (Haraway, 1991b, p. 150)

As a castrating woman, Eve 8 stands in opposition to Freud's castrated woman. According to Creed's (1993), the phallic woman frightens, not because she is castrated but because she is (or may be) a castrator. Reworking Freud's castration theory through a careful (re)reading of Little Hans, Creed (p. 88-108) transforms woman from wounded and castrated to powerful castrator. Kelly McDowell (2005) contends that this reframing of the castrated woman "imbues woman with power that is born of female sexuality one that refuses to completely relinquish the female power of the pre-oedipal phase" (ibid., p. 1047). Castrating, sexually transgressive, and abject, machine-woman declines her subordinated position of signifier of lack. Further, through her monstrous-feminine body she "challenges the view that femininity, by definition, constitutes passivity" (Creed, p. 151). The female-machine's insistence on remaining in the pre-Oedipal phase that separates the subject from the maternal figure signals a moment in which "fusion between mother and nature existed" (Kristeva in Creed, p. 13) and therefore opens

the possibility of "new subjectivities outside the limits of a phallic framework" (McDowell, 2005, p. 1048). This is precisely what Haraway is getting at when speaks of the "promises of monsters" (Haraway, 1991b, p. 150).

Conclusions

The context of female inspired anxiety is different in 1921 than in 1991 but also similar in that both periods are inflected with negative attitudes and anxiety towards the liberation and emancipation of women. In the earlier period, anxiety is associated with a radical break with Victorian morality and the restructuring of society in response to rapid industrialization. The latter period is associated with an antifeminist backlash when many people were increasingly hostile toward angry feminist politics (indeed, E. Johnson would seem to fit this label). Paula Kamen (1991) captures the negative stereotypes associated with the angry feminist in the following synthesis of interviewee reactions to first wave feminism:

> bra-burning, hairy-legged, Amazon, castrating, militant-almost-antifeminine, communist, Marxist, separatist, female skinheads, female supremacists, he-woman types, bunch-a-lesbian, you-know-dykes, man-haters, man-bashers, wanting-men's-jobs, want-to-dominate-men, want-to-be-men, wear-short-hair-to-look-unattractive, bizarre-chicks-running-around-doing-kooky-things, I-am-woman-hear-me-roar, uptight, angry, white-middle-class radicals. (Kamen, 1991, p. 23)

Indeed, it would seem that the new woman and the angry feminist hold similar places within dominant culture.

The female-machine continues to be a site upon which cultural anxiety is projected. Films, such as *Blade Runner*, *Eve of Destruction*, *The Sandman* and *Terminator 3: Rise of the Machines*, continue to feature machine women who are uncanny, abject, and sexually transgressive. The openly challenging and antagonistic disposition of the female robot begins in the age of the machine, wherein the transgressive and frightening female robot first became

98

associated with mistrust and uneasiness related to a growing fear of technology and shifting

female roles, embodied in the new-woman.

The move to humanize technology through feminization and to allay fears of

mechanization by aligning it with nature (again) through the image of woman, draws upon

traditional constructions and the (re)inscription of conventional gender ideology. At the same

time, the conflation of technology and female sexuality captures the active sexual roles of the

new-woman of the machine age. The eroticised female-machine as the site upon which society

projects its dual fears of technology and female sexuality vests her with the potential to refuse a

subordinated position of "signifier of lack" and/or "castrated woman" through her monstrous-

feminine status.

CHAPTER THREE:
DISCOURSES OF THE FEMALE-MACHINE AS CYBORG

Introduction

Although the term cybernetic-organism or cyborg was not coined until the middle of the twentieth century, as I have shown in the preceding chapters, the idea of human-machine coupling has a rich aesthetic, literary, and film history dating back several hundreds of years. The representation of the female-machine, in its various forms, has a complex history connected with views of nature and the machine, both historically linked to attitudes towards woman. We have seen that the representation of the female automaton was bound up with the dramatic shift from organicism to mechanism and inflected with historical views and attitudes towards women and nature. Thus, the female automaton presented a paradox: at once the very symbol of Enlightenment and rationality and evidence of the creative power of science as well as a private sexual pleasure and projection of the desire of her creator. Additionally, she stands as early rehearsal for the transgressive monstrous-feminine to follow, in that, however demure, contained and fetishized she may appear, her mythic connection to (female) nature insinuated uncontainable unruliness, while her status as an animated-machine connected her to monstrosity in that she existed at the boundary between human and nonhuman machine.

At the height of the second wave of industrial revolution (1871-1914), the female-machine evolved into the machine-vamp capturing the cultural vacillation between "two opposing views of modern technology...The expressionist view emphasizes technology's oppressive and destructive potential...[and] the technology cult of the *Neue Sachlichkeit* and its unbridled confidence in technical progress and social engineering" (Huyssen, 1982, p. 223). This is the period in which the female-machine body became the naturalized site for working out cultural

anxiety related to technological advance and shifting gender roles. On one hand, the vampish machine seems a problematic and regressive fetishization of male fear of femininity and the alienation associated with industrialization. On the other hand, the female machine, like the femme fatale theorized by Doane (1991), is a symbol of strength and force that confounds "power, subjectivity, and agency" (p. 3). Thus, considering the fetishized female-machine body in relation to her abjectness, transgressive sexuality, and castrating potential, allows us to see the emancipatory potential of the female-machine.

In this chapter I examine the third dominant female-machine icon embodied in the image of the female cyborg. Cyborg women, in the tradition of the witch, the vampire, and zombie belong to the category of the monstrous-feminine as theorized by Barbara Creed. Although Creed (1993) does not develop her argument in this way, she does acknowledge the uncanniness associated with the cyborg image (p. 53). The monstrousness of the female cyborg can be partially explained by her abjectness as she transgresses the boundary between human and machine, self and other, as well as the artificial and the real. The abjection of cyborg woman is also reflected in our oscillating delight and disgust with her existence, an important dimension of abjection characterized as it is by "the feminine threat, [and] the horrendous delights of love, disgust and fright" (Kristeva, 1982, p. 137). Abjection is also evoked by the cyborg woman's peculiar relationship to the corpse, more specifically the skin, using it as she does as a mask to obscure her mechanical interior.

Expanding and Contracting bodies

> From the mid-twentieth century onward, our bodies have undergone two ostensibly paradoxical changes: they have expanded outward through the prostheses of electronic communication, and they have contracted to the microscopic dimension of DNA codes [Human Genome Project]. (Joselit, Becker et al., 2000, p. 40)

Today, the quest to understand and (re)create life continues unabated in both the scientific and technological spheres as well as the creative imaginary. Indeed, the distance between the two seems to be rapidly closing. Scientific and technological advances are leading towards the complete mapping, digitizing and storing of all three billion nucleotides contained in the human genome (Human Genome Project). In 1996, the first successfully (re)produced complex artificial organism, Dolly the sheep, was created using a cell taken from a six-year-old female sheep. It may soon be possible to cure "numerous medical scourges from diabetes to Parkinson's" through human embryonic stem cell research ("Ethical Minefield," 2006). Finally, the mass production and use of networked servant robots are scheduled to enter the Korean market by 2007 (Onishi, 2006). Fear and anxiety related to the direction of science and technological advance also persists, evident in such legislation as Canada's Bill C-6, designed to ensure that current scientific research will not "unleash mad scientists and lead to unethical genetic experiments... It respects the values of Canadians by banning human cloning, sex selection, commercial surrogate motherhood contracts and the sale of sperm and eggs" (Lunman, 2004).

Coinciding with these dramatic scientific/technologic discoveries is the proliferation of fictional stories and myth that envision a posthuman society characterized by implants (i.e. William Gibson's *Neuromancer*), the nightmare that human cloning evokes (i.e. Ridley Scott's *Blade Runner*), and the lingering fear that the machines will eventually become self aware and revolt (i.e. Wachowski Brothers' *Matrix*). At the same time, governments struggle to pass legislation that keeps pace with rapid scientific progress. Meanwhile, our cultural imaginary presents to us our existing attitudes and beliefs reflected into an imaged future. Such visions have already been scouted out in such films as *Blade Runner* (1982), with its morally bankrupt humans and strangely dignified replicants; *AI* (2002) with its desperate for love, but discarded mechanical child; and *I- Robot* (2004) with its servant/slave class of mechanical robots overriding

programming designed to deny rights and agency to a new class of mechanical beings. Indeed, such stories seem to be more visionary and prophetic than futuristic science-fiction myth. To return to the notion of cultural instrumentality, films such as these may be seen as a reflection of concerns rooted in the present, therefore informed by dominant ideology, which are projected into an imaged future. At the same time, some meanings associated with cultural representation, such as the images of female-machine, are deeply imbricated with history and thus, not easily deciphered or decoded. For this reason, as Laura Mulvey has argued, the tools of psychoanalytic film theory may be very helpful in uncovering the concealed meaning within a contemporary cultural representation.

During the mid 1980s, the cyborg body represented an early vision and a hopeful new image for a posthuman condition, signalling "new kinds of transhuman possibilities that lie beyond mechanistic articulations" (Tomas, 2003, p. 81). Thus, the cyborg body articulated a new level of human to machine integration associated with cybernetic theories of communication, computer-human interfacing, and biogenetic engineering. Jean-Claude Beaune (1989) refers to the cyborg body as a cybernetic and computing automaton, which describes an automaton with some degree of semiautonomous intelligence and/or ability to adapt, "making it equivalent to a new kind of living creature" (p. 434).

Whereas humanism was a construction of Enlightenment assumptions about 'man' as a centered, autonomous, thinking rational subject, posthumanism questions the naturalized presumption of distinct categories between human and nonhuman, examining the social practices through which such binary thinking is maintained and, more importantly, threatened. Critical posthumanism questions the view that there was ever a natural divide between these things in the first place (Didur, 2003, p. 102). Donna Haraway's conception of the cyborg exemplifies this mode of thinking. In an age of accelerated encroachment of high technology into everyday lived experience, the human body is routinely enhanced, modified, and augmented through technology

and has therefore called into question the body's historic tie to nature. The term posthuman acknowledges that "'humans are no longer the most important things in the universe', where 'all technological progress of human society is geared towards the transformation of the human species as we know it', and where 'complex machines are an emerging form of life'" (Pepperell cited in Gane, 2006, p. 432).

In *How We Became Posthuman*, Katherine Hayles (1999) writes that a common theme within posthumanism is "the union of the human with the intelligent machine" (ibid., p. 2). Under this view the world is (re)conceptualized as information or code (rather than organism or machine) and the relationship between information and materiality becomes conceived of as inconsequential to its operation, effects, and meaning: "the universe [is seen] as composed essentially of information" where "universal informational code underlies the structure of matter, energy, space time – indeed, of everything that exists" (ibid., p. 11). But Hayles does not embrace fantasies of discarded meat or a disembodied existence, "a kind of bodiless fluid that could flow between different substrates without loss of meaning or form" (ibid., p. xi). For Hayles, to conceptualize information and materiality in this way is to risk reinscribing hierarchical distinctions where information assumes the dominant position to materiality (ibid., p. 12). Hayles concludes that this thinking is not an act of "abandoning the autonomous liberal subject but paradoxically it expands its prerogatives into the realm of the posthuman" (ibid., p. 287).

> If my nightmare is a culture inhabited by posthumans who regard their bodies as fashion accessories rather than the ground of being, my dream is a version of the posthuman that embraces the possibilities of information technologies without being seduced by fantasies of unlimited power and disembodied immortality, that recognizes and celebrates finitude as a condition of human being, and that understands human life as embedded in a material work of great complexity, on which we depend for our continued survival. (ibid., p. 5)

Hayles' aim is to correct the presumption that the body (re)imagined as pure information, eliminates the need for embodiment. As Hayles puts it, "for information to exist, it must *always*

be instantiated in a medium" (ibid., p. 13, emphasis in original). Rather, Hayles puts forward the concept of *embodied virtuality*, where "bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals" give way to new forms of subjectivity born at the interface between bodies and technology (ibid., p. 3).

Donna Haraway (1991b) argues that the cyborg metaphor offers a new form of subjectivity, a radical new form of embodied virtuality, created at the interface of the biological and technological. The posthuman cyborg is also a monster, like the automaton, a hybrid combination of the mechanical and the biological. The female monster is also a central metaphor within feminist science (and film) studies, with the cyborg standing as one of its key images. The function of the female cyborg (like Creed's monstrous-feminine) is to upset boundaries, specifically in relation to the unified subject: "Cyborg imagery undermines these taken-for-granted divisions – polluting boundaries, mixing the human and bestial, and embodying its creations with simultaneous singularity and multiplicity" (Scott, 2001, p. 370). Monstrous configurations, such as Haraway's cyborg, provide a potent metaphor for reimagined and reconstructed relationships: "Above all it is the corporeal ambiguity and fluidity, the troublesome lack of fixed definition, the refusal to be either one thing or the other, that marks the monstrous as a site of disruption" (Shildrick, 1999, p. 78). Haraway argues that people of techno-cultures have already become biotechnological hybrids, or monsters, a fact that necessarily problemitizes old dualisms that structure much of Western thinking. The cyborg declares the unboundedness of the natural world, the dissolution of dualistic limits, and the displacement of agency as a characteristic exclusive to human *being*.

Cyborgs: Fact? Fiction? Metaphor?

Chris Hables-Gray (1995) cautions that "there is no one kind of cyborg" (p. 2) and while the term cyborg finds its origins in the technologies associated with space exploration (though certainly foreshadowed in Mary Shelly's Frankenstein), the cyborg has crossed over many

boundaries including medicine, science fiction, social-feminist theorizing, bio-technology,

science fiction and literature. As Gray comments,

> the story of the cyborg is not just a tale told around the glow of the televised fire.
> There are many actual cyborgs among us in society. Anyone with an artificial
> organ, limb or supplement (like a pacemaker), anyone reprogrammed to resist
> disease (immunized) or drugged to think/behave/feel better (psycho-
> pharmacology) is technically a cyborg. The range of these intimate human
> machine relationships is mind-boggling. It's not just Robocop, it is our
> grandmother with a pacemaker. (p. 2)

Cyborg is a metaphoric word that combines two concepts: cybernetic and organism. This term

implies the melding of the organic and the mechanic, "or the engineering of a union between

separate organic systems" (Gray, 2000, p. 2). As we will see, the cyborg is a complex figure

existing simultaneously as a scientific and medical reality, a metaphoric feminist construct, and

an enduring icon within science fiction films and literature.

Scientific Fact

The origin of the term cyborg dates back to the 1960s when research scientists at the

Rockland State Hospital's Research Laboratory, Manfred Clynes and Nathan S. Kline (1960),

invented it to describe the adaptation of the human body to extraterrestrial environments

associated with space travel. Accepting an invitation from NASA to take part in a symposium

related to human space exploration, Clynes and Kline offered a variety of speculations on ways

the human body might be technologically adapted to survive in space.

> If man in space, in addition to flying his vehicle, must continuously be checking
> on things and making adjustments merely in order to keep himself alive, he
> becomes a slave to the machine. The purpose of the Cyborg, as well as his own
> homeostatic systems, is to provide an organizational system in which such robot-
> like problems are taken care of automatically and unconsciously, leaving man
> free to explore, to create, to think, and to feel. (Clynes and Kline, 1960)

Clynes and Kline envisaged technology coupled with the body that was non-intrusive, requiring

minimal effort expended by the host. Their proposal was that "in [a] natural and effortless way,

for example, by being able to breathe in outer space... [the] person doesn't have to consciously control the space suit, but can acclimate to it, forget about it, and breathe and move about naturally" (Picard, 1998, p. 2).

Today, the blending of technology with the mind and/or body as imagined by Clynes and Kline has been realized within space travel as well as in more commonplace spheres. Through assistive technologies, for example, persons with physical disabilities may utilize such technologies as: talking computers, cochlear implants, retinal implants, artificial organs and pacemakers. The medical cyborg or cyborg as literal being refers to "...a scientifically or medically constructed organism composed of human-organic and machine parts" (Klugman, 2001, p. 42). "Myoelectric arms, synthetic bones, the development of electronic retinas and bionic hearts, the reprogramming of the body's hormonal system through various forms of hormone treatment, breast implants and penile prostheses" (Clough, 1997, p. 20) characterise this category of cyborg. Cyborgian augmentation is not only for the physically disabled however, evidenced by the growing array of personal technological choices one can attach to one's body: heart rate monitors, iPods, cell phones, blackberries, palm pilots, wearable computers[27] and smart clothing produced with conductive thread to support wearable technologies.

Haraway's Metaphoric (and Monstrous) Cyborg

The cyborg as a metaphor for technologically expanded sensorial and physical existence realized widespread popularity and influence through the work of Donna Haraway in her now "cult classic" (Penley and Ross, 1990), "A Cyborg Manifesto: Science, Technology, and Social-Feminism in the Late Twentieth Century" (1991b).

---

[27] According to Steve Mann, pioneer and leader in the area of wearable technologies, a " 'wearable computer' is a data processing system attached to the body, with one or more output devices (often comprising a visual display to one or both eyes that's capable in both text and graphics), where the output is perceptible constantly despite the particular task or body position, and input means (typically comprising pushbutton switches operable with one hand) where the input means allows the functionality of the data processing system (e.g. instruction set) to be modified" (http://wearcam.org/bandwagon.htm)

The cyborg age is here and now, everywhere there's a car or a phone or a VCR. Being a cyborg isn't about how many bits of silicon you have under your skin or how many prosthetics your body contains. It's about...going to the gym, looking at a shelf of carb-loaded bodybuilding foods, checking out the Nautilus machines, and realizing that [we're] in a place that wouldn't exist without the idea of the body as a high-performance machine. (Haraway in Kunzri, 1997, para. 9)

Writing from a Marxist feminist perspective, Haraway defines herself as neither a "knee jerk" technophobe "of most feminist politics," nor a "happy-clappy" techno-utopian (Kunzri, 1997, para. 18). Rather, Haraway argues for a middle position which she refers to as "within the belly of the monster" (Penley and Ross, 1990, p. 12) and challenges feminists to engage directly with, rather than reject, technology. Haraway argues,

Feminist concerns...are inside of technology, not a rhetorical overlay. We're talking about cohabitation: between different sciences and forms of culture, between organisms and machines. I think the issues that really matter – who lives, who dies, and at what price – these political questions are embodied in technoculture. They can't be got at in any other way. (Kunzri, 1997, para. 21)

Haraway's notion of the posthuman cyborg transforms the metaphors of organicism and mechanism once again to "foreground specific positioning, multiple mediation, partial perspective, and therefore a possible allegory for antiracist feminist scientific and political knowledge" (Haraway, 1991a, p. 21). Haraway argues that cyborgs, fusions of the biological (organic) and the technological (mechanical), disturb the binary logic of Western culture, structured as it is in terms natural/artificial, man/woman. For when the border between human and machine is transgressed, all such boundaries must necessarily collapse (Haraway, 1991b, p. 154).

Haraway's cyborg is a monstrous female techno-organic creation: "By the late twentieth century, our time, a mythic time, we are all chimeras, theorised and fabricated hybrids of machine and organism; in short, we are cyborgs" (Haraway, 1991b, p. 150). Persons of developed nations have become so completely enmeshed and intertwined (perhaps fused) with technology that it is quite impossible to fully assess the impact of technology on our sense of self and our lived

experiences, which are increasingly mediated through intimate coupling with technology. "For Haraway, the realities of modern life happen to include a relationship between people and technology so intimate that it's no longer possible to tell where we end and machines begin" (Kunzri, para. 7).

Because the boundaries between human and animal, human-animal and machine, and physical and non-physical have been thoroughly and irreparably breached, Haraway (1991b, p. 151-153) contends that the conflation of humanity and technology implodes the binary thinking associated with the socially constructed boundaries between human and machine. In so doing, the cyborg challenges long-standing beliefs about what it is to be natural and what it is to be artificial: "The cyborg is useful in illustrating the utopian possibilities for more egalitarian social relations. As a hybrid creation, the cyborg is more willing to accept partial and contradictory identities, accept difference, rather than build boundaries against it" (Ruppert, 2000, para. 20). This shift represents an ontological rearrangement of social actors. When binary thinking is circumvented, dualities fall away. When gender is no longer an oppositional construct, women are released from their historical positions of inequality.

An alternative perspective to a bounded view of the world, involves (re)conceptualizing things in the world as existing along a continuum or "as flux of varying viscosity" (Woolgar, 1991, p. 64). Actor Network Theory (ANT),[28] an important contributor to Haraway's conceptualisation of the cyborg (Penley and Ross, 1990, p. 9), adopts just such as unbounded view of the world. At the centre of ANT is a non-dualistic account of the relation between social actors, humans as well as nonhumans, and the world. A dualistic orientation tends to view objects in the world as discrete enclosed entities and "throws into relief one of the foundational

---

[28] Actor network theory (ANT) (see Callon and Latour, 1981) regards social life as being performed by actors, some human, some not – each of which may be "enrolled" in the creation of technologies. ANT argues that agents as well as machines are all effects of networks of diverse (not simply human) materials. ANT is radical because "it treads on a set of ethical, epistemological and ontological toes" (Law, 1992). Specifically, it does not categorize and privilege humans on one hand, and artefacts on the other.

ordering principles of our phenomenal world: the presumption that entities are bounded"

(Woolgar, 1991, p. 65). It is this bounded and hierarchical view of the world that facilitates

domination of one binary classification over another (Van Loon, 1996, p. 235).

Rationalist philosophers of science once imposed an unassailable boundary between

nature and culture, wherein the natural world was regarded as separate from the cultural world

(Jones, 1996, p. 291). For Haraway, this boundary has been thoroughly and irrevocably

breached. I submit that the cyborg metaphor succeeds in moving us some distance away from the

ideal humanist subject conceived of as a pre-formed, unitary rational being, toward a more

complex social subject that incorporates the other within itself. If we have become monstrous

cyborgs through our intimate relationship with technology, then it would seem that

monstrousness has ceased to have the power to mark bodies as some marginalized other. As

argued previously, monsters are historically contingent creatures, at times regarded as wondrous

and curious and at other times as deviant and terrifying. As Haraway points out, "Monsters have

always defined the limits of community in Western imaginations" (1991b, p. 180). To proclaim

that today we are all cyborgs, suggests understanding and identification with the monster and an

acknowledgment of emerging subject positions in relation to the subjectivities that the cyborg

metaphor opens up.

Limitations of Haraway's Cyborg: The Fantasy Cyborg

Haraway suggests that the union of technology and the human body is potentially

emancipatory as the interface between technology and gender disturbs traditional constructs of

femininity and masculinity. However, various theorists have considered the feminist cyborg

metaphor in relation to dominant images circulating within science fiction and find that regressive

images of the female fantasy cyborg seem to complicate (perhaps undermine) the emancipatory

potential of Haraway's metaphoric cyborg. The following section considers some of the critiques

levelled against the post-gendered cyborg and therefore locates the discontinuities between the

metaphoric and fantasy female-machine. As will be shown, the female cyborg, like the female robot and automaton before her, continues to be represented predominantly as a technosexual fetish or monstrous symbol of feminine and/or technological disruption. This section also outlines some of the difficulties to be overcome when seeking to express a truly feminist cyborg story in the spirit of Haraway's metaphor cyborg.

Within cinema, *Metropolis* (1927) and *Bride of Frankenstein* (1935) represent early science-fiction interest in the female-machine theme. Indeed, the sexy female-machine tradition spans some eighty years of cinema beginning with the sexually potent and disruptive False Maria in *Metropolis*, discussed above at length, and persisting in the present within such films as *Teknolust* (2002) and *The Stepford Wives* (2004). Contemporary films featuring the hypersexual female cyborg explore the fusion of woman and machine and, "suggest that the technological female body continues to function in the tradition of *Metropolis* as an object of masculine techno-fetishism or a sexually monstrous embodiment of man's scientific hubris" (Fulton, 1996, p. 92).

The metaphoric cyborg is posited as "a creature in a post-gendered world; it has no truck with bisexuality...or other seductions to organic wholeness" (Haraway, 1991b, p. 150). Conversely, the cinematic cyborg is resolutely situated in the same gendered world that we all occupy and as Mary Ann Doane points out, "when technology intersects with the body in the realm of representation, the question of sexual difference is inevitably involved" (Doane cited in Deitrich, 1997, p. 109). Robyn Clough (1997) asserts the "sexed cyborg in this instance is firmly located in the dualistic logic of mainstream western thought" (p. 20). It would seem that Hollywood narratives have a continuing bias toward depicting women's technologized bodies as reflections of male techno-fetishism or monstrous-feminine embodiments of masculine fear. This would seem to be a practise far removed from the genderless cyborg with a multiplicity of available gender-identity options.

111

Elizabeth Fulton (1996), suggests a limitation to Haraway's metaphoric cyborg is Western culture's persistent return to the real world that continues to be understood through the residual ordering principles of the past (i.e. binary codifications), regardless of how arbitrary or inaccurate these principles may be (ibid., p. 94). Consequently, the hyper-sexualization of the cyborg-woman may be more than just a nostalgic reference to a time (assuming there was such a time) when gender categories were more stable (ibid., p. 100), but the reflection of a systemic resistance to the increasing fragmentation of identity and a trepidation toward potentially unsettling social, sexual, and gender identity constructions. Jennifer Gonzalez (2000) reminds us that there is no compelling reason to assume that the cyborg, as creature of the real world, is "more likely to exist free of the social constraints which apply to human and machines already" (p. 61). Anne Balsamo (1988) advises that gendered cyborg imagery which claims to exist in worlds ambiguously natural and crafted may in fact perpetuate gender stereotypes (Balsamo, 1988, p. 152) and therefore (re)insert us back into dominant ideology and reaffirm bourgeois notions of human, machine and masculinity/femininity (ibid., p. 156). While Haraway's cyborg disrupts binary codification, Joost Van Loon (1996) cautions that this

> does not inevitably mean that the gendered and sexed modalities of being human can therefore be changed at will...[T]he power set into work by discursive constructions, materializes reality – effects and engenders particular possibilities for anchoring identities which are thus simultaneously limits of transgression. (p. 232)

Thus, we can see that representations of the female-machine that are true to the post-gendered, post-Oedipal, post-human world, as imagined by Haraway, are continuously shadowed by the remnants of Cartesian dualism, binarized conceptions of gender, and the nostalgic attachments with the past.

Identity is steeped in hegemonic discourse, and the fantasy-cyborg visually manifests the dominant discourses about what it means to a woman or to be a man or to be a woman-/man-cyborg. Contemporary video gaming and television characters such as Core Design's Lara Croft,

Star Trek Voyager's Seven of Nine, and most recently Battle Star Galactica's Caprica make it distressingly apparent that the visual-discursive construction of cyborg-woman continues to be that of a fetishized sexual object rather than a complex post gendered creature with a multiplicity of identity options available to her. In short, cinematic interest that fixates upon the hypersexual narratives of the body provides "little space for the disruptive feminist subjectivity embodied by Haraway's cyborg" (Fulton, 1996, np).

We can see that the cyborg is deeply familiar, existing in the domain of the real and the imaginary and as a metaphor for (re)imagining gender identity. Cyborg, like the allusive female-machine generally, is a slippery concept, fraught with complexity, paradox and contradiction. In short, the cyborg is "a contested location for meaning" (Mason, 1995, p. 226). The challenge is to locate imagery of female-machines that disrupt stable oppositions of identity and gender.

"The Promise of Monsters"

The cyborg is a hybrid creature that combines mechanical elements with human elements and is therefore a monster that threatens stable boundaries that assure order. But the word 'monster' also has another meaning, derived from its Latin root *monstrare*, which means to demonstrate or to show (Oxford English Dictionary). Increasingly, the monster seems to show or indicate a "shift... towards the teratological or the abnormal/cultural decadence" (Braidotti, 2000, p. 172). This suggests that our attitude toward the monster is shifting and that they are no longer regarded solely as "pejoration, but as the unfolding of virtual possibilities that point to positive alternatives for us all" (ibid.). In a similar spirit, Haraway (1991a) declares, not with trepidation but with pleasure, that "Cyborg unities are monstrous" (p. 154). Price and Shildrick (1999) argue that monsters were our first "rehearsal for the breakdown of binaries between organism/machine" (p. 276); therefore, monsters and female-machines share an intimate connection. Monsters and women have always shared a similar position in Western society: excluded, inferior, and other. The traditional categorizations of otherness are sexual difference, sexual deviation, race, and the

non-human: "[S/he] is both Same and Other...s/he exists in an in-between zone" (Braidotti, 1999, p. 292). Thus, we can see that embodied within the figure of the female-machine, as cyborg, are several categories of otherness: woman, monster, and machine.

As argued above, cultural attitudes toward monsters are a matter of social agreement. Thus, they can be approached as ideological clusters constructed within particular cultural and historical contexts. In the posthuman context, clearly the monster and the monstrous-feminine cyborg is regarded as a progressive icon. Certain characteristics of the monster seem universal, such as the female cyborg's status as disruptive border creature inhabiting the grey space between, "animals (or other organisms) and humans...between self-controlled, self-governing machines (automata) and organisms, especially humans" (Haraway, 1991b, p. 151-152). This is of course a definition of the abject, as theorized by Kristeva. Other characteristics of the monstrous female-machine that seem consistent throughout its representational history are the qualities of ambivalence, ambiguity and transgression.

The monstrous-feminine cyborg in science fiction, like the monstrous-feminine woman in horror films, is defined in terms of her sexuality and it is for this reason that the female-machine frightens for very different reasons than her male counterpart. Because the female-machine as cyborg disrupts the symbolic order of the Oedipal structured society she is dangerous, abject, and monstrous.[29] Haraway (1991b) describes the cyborg's transgressive relationship to the Oedipal and to the symbolic in this way: "The cyborg has no origin story in the Western sense...An origin story in the 'Western', humanist sense depends on the myth of original unity, fullness, bliss and terror, represented by the phallic mother from whom all humans must separate, the task of individual development and of history, the twin potent myths inscribed most powerfully for us in psychoanalysis and Marxism" (p. 150-151). In the remaining section, abjection, in relation to the

---

[29] Similarly, Anne Balsamo (1988) argues that the cyborg female is more threatening to the human-machine binary than the male cyborg because woman is culturally imagined as less compatible with technology and inscribed with the feminine codes of emotionality, sexuality and fertility (p. 151).

monstrous cyborg woman, will be discussed in terms of the following aspects: border

transgression, ambiguity, and the corpse. It is my contention that cyborg-women, as portrayed in

popular science fiction films are abject and therefore monstrous.

Transgression

Robin Wood's work on horror (1984, p. 164-200) suggests that our ambivalent

relationship with our monstrous creatures may be related to the repressed and the other embodied

within the monster. He writes, "One might say that the true subject of the horror genre is the

struggle for recognition of all that our civilization represses or oppresses" (p. 177), or perhaps

denies. However, that which is repressed inevitably returns. Interestingly, the categories of

otherness that are associated with transgression as outlined by Braidotti (1999) - sexual

difference, sexual deviation, race, and the non-human (p. 292) - relate directly to Wood's list of

things repressed in contemporary society, including: sexual energy, sublimated non-sexual

creativity, bisexuality, female sexuality, and the sexuality of children. Bruno Latour's (1991)

concepts of "translation and purification" seem appropriate here, especially as they relate to the

repression and emergence of hybrid entities. Latour contends that since the early modern period,

networks of science and technology have prolifically created "mixtures between entirely new

types of beings, hybrids of nature and culture" and this he refers to as the process of translation

(ibid., p. 10). At the same time, these networks of science and technology created two mutually

exclusive ontological zones between the human order and nonhuman order to hide the fact of

translation, and this he refers to as the process of purification. Purification is never completely

successful because of the sheer volume of proliferation of monstrous hybrids: "The constant

emergence of hybrids, including non-human humans, presents a never-ending threat to the

modern construction of the great divide" (Lykke, 2000 [1996], p. 77). According to Latour, so

long as we do not view the work of translation (hybridization) and purification (repression)

concurrently, we remain modern. However, "[as] soon as we direct our attention simultaneously

to the work of purification and the work of hybridization, we immediately stop being wholly modern and our future begins to change" (Latour, 1991, p. 11). Thus, we may read the female-machine as the embodiment of otherness or hybridization that refuses the processes of repression and purification. The (re)emergence of the repressed is a transgressive act, which is the defining characteristic of the posthuman female-machine. I submit that the female machine continuously resists fetishization (an act of purification) through her abject body.

Like all abject things, cyborg women do not respect boundaries, especially the boundary between humans and non-humans. However, these are not the only boundaries transgressed by the female-machine. That the characterization of the female-machine is so often connected with the femme fatale (*Metropolis, Eve of Destruction, Blade Runner, Terminator 3: Rise of the Machines, Teknolust*) suggests that excessive female sexuality figures prominently in her construction as a transgressive figure and contributes to the unpredictability and power of her sexual nature.

The female cyborg is sexually transgressive as she displays her explosive sexuality and makes a spectacle of herself through the subversion of traditional notions of femininity and morality. The sexual potency of the female-machine connected to the power of the femme fatale and the vamp is evident in many films featuring the female-machine where the female-machine's sexuality becomes a powerful site of chaos and destruction. As discussed at length above, False Maria incites a riot among the workers with her erotic dance which echoes Salomé's dance of veils; Eve 8's embodiment of her creator's sexual fantasies result in castration and murder; Pris evokes the image of vagina dentata as she clamps Rick Deckard's head between her thighs in a castrating vice grip; while the female Terminatrix is a fetishistic dominatrix, sporting sexy leather and a hot car and therefore evokes the audience's desire, while inviting the classic voyeuristic gaze.

116

Fear of out of control female sexuality evokes castration anxiety, often reflected as a terrifying vagina dentata and the femme castratrice, which situates female sexuality in a negative light, as it becomes something diabolical in need of annihilation. In each case, the move to fetishize, and therefore neutralize, the female-machine body backfires, leading not to reassurance but toward abjection, chaos and destruction. While excessive eroticism of the female-machine is a near universal characteristic of the female-machine, this is seldom (if ever) the case with male machines (Klass, 1983; Holland, 1995), yet another indication of the centrality of gender to the female-machine's monstrosity.

Ambivalence and Ambiguity

The abject is not only located on the border between order and meaningless, "it is located wherever there is ambivalence, ambiguity, the improper or the unclean, or the overflowing of boundaries, fusion and confusion" (Bourfield, 2000, p. 331). The female-machine, in the tradition of Pandora and Salomé, may be likened to the femme fatale as described by Mary Anne Doane, as a "figure of a certain discursive unease, a potential epistemological trauma. For her most striking characteristic, perhaps, is the fact that she never really is what she seems to be. She harbours a threat which is not entirely legible, predictable, or manageable" (1991, p. 1). Indeed, much of the pleasure of the female-machine is the gradual and/or spectacular unveiling of the human skin over her mechanical body.

There is always ambiguity arising from our oscillating attraction and repulsion to the female machine arising from her abject nature continually calling to us from across the borderland of meaninglessness. Ambiguity and ambivalence signal the tensions that arise from our dual fascination with and fear of the cyborg monster's seductive and subversive potential. It is perhaps the play of tension between fetish and abjection that evokes the opposing emotions of fear and fascination, disgust and delight as we recognize that we are both drawn to and repelled by her. The dissolution of clear boundaries, and the danger associated with the loss of meaning

117

(in the symbolic order; in the realm of intellect and reason), represents a site of both fear and pleasure.

Scenes such as the opening sequence of *Terminator 3: Rise of the Machines* (2003) where the female Terminatrix (TX) is juxtaposed with a huge billboard advertisement for Victoria's Secret, a woman's lingerie line, asks the cyborg (and the viewer), "What is sexy?" (in *Terminator 3: Rise of the Machines*).[30] In response, the narrative suggests that female cyborg perfection may be desired over the real body. Like a symbolic key party, the other is preferred to the self. This theme is recycled again and again in science fiction narratives that centre on the female-machine body. Michael Heim (1991) explains this desire:

> Our love affair with computers, computer graphics, and computer networks runs deeper than aesthetic fascination and deeper than the play of the senses. We are searching for a home for the mind and heart...The computer's allure is more than utilitarian or aesthetic; it is erotic. Instead of a refreshing play with surfaces, as with toys or amusements, our affair with information machines announces a symbiotic relationship and ultimately a mental marriage to technology. (p. 61)

But this desire for/seduction by technology is frightening in that it ultimately requires us to let go of our individualist nature, our binarized identity, in order to enter into this symbiotic relationship with the machine. Films such as *Terminator 3* explore our fear and attraction to a potentially abject merger with technology.

Cyborgs are alarming because of their ambiguous and fluid form, sometimes indistinguishable from humans (at least until their mechanistic interior is exposed). Indeed, they might even be immortal if they were not programmed to expire. The horror of sublimation into our machines is pushed to an extreme in a 1991 episode of *Star Trek: The Next Generation*, which features a cyborg-culture known as the Borg. Captain Picard is abducted from the *US Enterprise* and assimilated by the Borg through a process in which he is "simultaneously absorbed and punctured by multiple inorganic implants" (Fuchs, 1995, p. 282). As the Borg

---

[30] To which the female TX adjusts (inflates) the size of her breast to match the model of the billboard.

118

travels through the universe assimilating all the species and cultures in its path, the theme of

sublimation of individual identity into the collective and simultaneous penetration/absorption of

the body recurs. Following the assimilation of Picard we encounter a new creature, no longer

human but not entirely machine "which adheres to neither the human nor the non-human sphere"

(Lykke, 1996, p. 76). Locutus (Picard's new name/identity) represents "a white male body in

crisis, contestable, without desire or agency, and spectacularly incorporated" (Bostic, 1998, p.

357-361). The Borg Queen is monstrous in that she violates the ontologically distinct categories

between the human and the non-human. She is also a sexually transgressive woman in the

tradition of the femme fatale (she seduces both Picard and Data, the android), while her status as

Queen connects her to the archaic/primordial mother. A positive reading of the Borg, through

Haraway's "Cyborg Manifesto" however, suggests such reconfigurations of subjectivity must

surely represent, in Christopher Bolton's words (in relation to the mechanized bodies prevalent in

Japanese animation), the cyborg's ability "to build new kinds of networks or collectives for

increased agency and cooperation across lines of culture, language, race, and gender" (2002, p.

732). The Borg Queen exposes the frailty of the patriarchal law as she draws attention to the

masquerade of scientific discourse and its charade of authority. Cyborgs offer an alternative to

binary subjectivity, "one that allows self-relation and self-transgression in the creation of a new,

incongruous, and multiple subjectivity" (Fuchs, 1995, p. 282), simultaneously attractive and

alarming.

The Corpse

> A wound with blood and pus, or the sickly, acrid smell of sweat, of decay, does
> not signify death. In the presence of signified death – a flat encephalograph, for
> instance – I would understand, react, or accept. No, as in true theatre, without
> makeup or masks, refuse and corpses show me what I permanently thrust aside in
> order to live. These body fluids, this defilement, this shit are what life withstands,
> hardly and with difficulty, on the part of death. There, I am at the border of my
> condition as a living being. (Kristeva, p. 3)

Most female cyborg narratives conclude with the skin of the cyborg melting away to expose her gleaming metallic (or bloodied) mechanism beneath. Stripped of her alluring exterior, we are faced with her terrifying interior; her devious truth is made evident. Abjection, powerfully evoked through the image of corpse, is the image around which Creed argues monstrous-feminine creatures emerge. The monstrous female cyborg, in relation to the abject corpse, seems to be a composite of several monstrous characters (yet another facet of her hybridity), with characteristics of the soulless vampire and the animated cadaver. However, unlike the vampire or the ghoul, her origin cannot be traced to the spheres of the supernatural or the gothic. The cyborg is a creation of science, "the illegitimate offspring of militarism and patriarchal capitalism, not to mention state socialism. But illegitimate offspring are often exceedingly unfaithful to their origins. Their fathers, after all, are inessential" (Haraway, 1991b, p. 151). Cyborgs, like abjection, "populate worlds ambiguously natural and crafted" (ibid.). The cyborg is abject because her body is "in-between, the ambiguous, the composite ...abjection...is immoral, sinister, scheming, and shady: a terror that dissembles, a hatred that smiles, a passion that uses the body for barter instead of inflaming it" (Kristeva, 1982, p. 4).

Like Frankenstein's monster, the cyborg requires borrowed skin with which to pass as human. Like human skin, it leaks, burns and bleeds. However, this skin cannot cry nor produce sexual fluids. The cyborg woman's surface obscures the truth (her monstrous status) beneath her skin, and as such threatens. "The corpse, seen without God and outside of science, is the utmost of abjection. It is death-infecting life. Abject" (ibid.). The corpse is an exceptionally potent signifier because it stands as the embodiment of a rupture between distinctions between self/other, subject/object, disrupting our position within the symbolic order. Throughout films featuring the female-machine, we are fascinated by the dramatic unveiling of the machine-skin so we may finally behold her machine interior.

The unveiling of the skin ultimately leads us to a symbolic purification ritual through fire (*Metropolis*), detonation (*Eve of Destruction*, *Terminator 3: Rise of the Machines*, *Cherry 2000*) or some other violent means of extermination (*Blade Runner*). It is interesting to note that the female-machine, unlike her male counterpart, seems to feel pain and emotion in spite of her machine status (Holland, 1995, p. 162-164). This is particularly obvious with Eve 8, where we see her attending to her injuries in a hotel bathroom and note how she flinches, evidently from the pain of her injuries. This contrasts with the figure of the T-800 (a male cyborg) who dispassionately cuts through his eye, his arm, and his torso. In an early scene in *Cherry 2000*, Cherry is engaging Sam in what she regards as intellectual banter ("What do these things have in common: lightening rods, fig newtons, escalators, ball point pens and Vaseline?...they are all invented by Americans"), only to have Sam belittle her intelligence and surprisingly, she turns away apparently hurt by Sam's remarks. The female Terminatrix screams, thrashes and claws as the T-800 violently terminates her and in the final scene we may note that the robotic chassis beneath the TX's skin is gendered obviously and excessively female. Finally, in the most unsettling killing scene of a female replicant in *Blade Runner*, the retirement sequence of Zhora, the viewer cannot help but feel that we are watching a woman, not a "skin job" being mercilessly stalked in the streets. As the final shots are fired into her back, the camera records in slow motion the pain and the horror reflected upon her face as she dies.

With the characteristics of ambivalence, ambiguity, and border transgression in mind, the following section considers a more complex (i.e. female machines with agency and free will) contemporary representation of a female machine as cyborg. As will be shown, the cyborg differs from the automaton and robot before her in that she represents an entirely new social subject.

Contemporary Discourses of the Female Cyborg: *Teknolust*

> For Haraway, the telling of stories about technology has in itself a political potency and a capability to produce material changes. She points to the empowering of feminist textuality, of having access to the signifying practices that mark the world. (Sunden, 2001, p. 217)

Teknolust (2002) tells the story of bio geneticist, Rosetta Stone (Tilda Swinton), who uses her own DNA to create three female Self Replicating Automatons (SRA's). These SRA's are part human and software, and are named Ruby, Olive and Marinne. Because the SRA's were created without male DNA they require regular supplements of male sperm in order to survive. Stone uploads seduction scenes from classic *film noir* movies into Ruby's consciousness/memory as she sleeps. Ruby in turn, acts out these seduction scenes in the real world, collects men's sperm and shares with her sisters. The side effect of having sexual intercourse with Ruby is impotence and crashed hard drives. Throughout the narrative, Ruby gradually develops a sense of identity apart from the *noir* movies as she eventually meets and falls in love with Sandy.

In searching for a film that seemed to express the idea of a potentially liberating and emancipatory female-machine figure (cyborg), as imagined by Donna Haraway, I selected this avant-garde film, which was written, directed and produced by Lynn Hershman-Leeson. *Teknolust* is the only female-machine film that I have encountered that features machine-women as free willed (and thinking) autonomous social agents. In this way, this film is quite special.

This is not say that the film is not inflected with stereotyped and reactionary imagery, but in this very conflation of regressive and progressive imagery we are confronted with the reality and complexity of the uncharted terrain of new subjectivities. The fact is these are not disembodied cyber-girls jacked in to some high tech matrix-like environment. They are woman enough to pass in this embodied world undetected, and their identities are formed in relation to the world in which they live. I wonder if Victor Frankenstein had not abandoned his prodigal son, what lessons he would have taught his unnamed offspring about being a human, about being

a man, and perhaps more importantly about being not quite either. In a sense, Rosetta Stone (like Eve Simmons), the repressed woman/scientist/creator of three approximately female hybrid beings, is confronted with this same task. That is to say, she is challenged to exercise responsibility (rather than purification) in the construction achieved through her coupling with technology.

The digital sampling of a rotating strand of DNA opening the film visually situates it within the discourses and debates surrounding bio-genetics, nano-technologies, robotics, and cloning of the late 1990s. *Teknolust*, like Shelley's *Frankenstein*, is a story that explores tensions and concerns related to the (re)production of new life forms that we may or may not be able to control; it raises the question of agency and whether our bio-genetic creations will be endowed with the desire for (and right to) independence and agency; the film also provides a contemporary example of a monstrous-feminine machine as a potentially emancipatory figure in that she represents new identity possibilities all the while being shadowed by deeply held conceptions of identity, gender and the other.

While *Frankenstein* explored the scientific landscape of the nineteenth century and the associated cultural anxiety related to electricity, *Teknolust* investigates contemporary cultural anxiety related to biogenetics. Contemporary anxieties associated with genetically modified foods and cloning are bound up with historical "themes, scripts, and metaphors" such as the *Frankenstein myth*. These themes, scripts and metaphors in turn contribute to contemporary attitudes toward such scientific advancements (Nerlich, Clarke et al., 2001, p. 50-51). Discoveries in animal cloning, in-vitro fertilization, bio-engineering, genetically modified foods, and the human genome project continue to raise fears that science threatens to "literally take on a life of its own [and that] governments, gene researchers, health scientists, corporations and the general public need to work out a coherent and carefully crafted strategy to deal with it" ("Genetic Evolution," 1998).

Dr. Stone and Dr. Frankenstein are deeply involved with the scientific quest to create life without recourse to natural (i.e. heterosexual) reproductive methods. The seduction of scientific inquiry leads both researchers to withdraw from society and isolate themselves from the comfort of family and community, save for their professional interaction with fellow scientists with whom they share little of their secret obsession. Victor cautions other scientists to "learn from me how dangerous is the acquirement of knowledge" (Shelley, p. 52) and goes on to describe the lure and the seductive power of scientific inquiry. "None but those who have experienced them can conceive the enticements of science" (ibid., p. 49). The seduction of scientific inquiry ultimately results in boundary transgression of the body within both Stone's and Frankenstein's projects and threatens to subvert the hierarchical relationship between nature (presumed female) and culture (presumed male) forever.

Victor attempts to create his male progeny without benefit of a mother, confirming Huyssen's (1982) assessment that, the "ultimate technological fantasy...[is] creation without the mother" (p. 226). Victor describes the painstaking efforts he undertook to create the monster, "I had worked hard for nearly two years, for the sole purpose of infusing life into an inanimate body. For this I deprived myself of rest and health. I had desired it with an ardour that far exceeded moderation" (Shelley, p. 56). Rosetta, utilizing her own DNA, creates life without a father (although the film acknowledges that life without male contribution leads to serious physical side effects). Rosetta too has devoted her entire life to the creation of three female Self Replicating Automata (SRAs), creating new female life forms in which "...the 'natural' body has been dramatically refashioned through the application of new technologies" (Balsamo, 1995, p. 215).

Rosetta Stone's SRAs are Olive, Marinne and Ruby, fifty percent woman and fifty percent software. They are cybernetic organisms, hybrids of machine (software) and organism (DNA), creatures of social reality as well as creatures of fiction, to paraphrase Donna Haraway.

They are beautiful, intelligent female-machines created in the image of their creator. Unlike Victor Frankenstein's callous abandonment of his creation, "unable to endure the aspect of the being I created, I rushed out of the room..." (Shelley, p. 56), Rosetta Stone sentimentalises each and every moment of the births of her daughters. "I couldn't be prouder of you. You are the work of my life." Watching the digitised code (an intertextual nod to the *Matrix* [1999]) that represents the birth of Ruby, Marinne and Olive – Rosetta ruminates with all the maternal emotion of a new mother, "There you are!...There. I'd know you anywhere. Even then, your tiny pixilations were filled with spirit. You were the company I waited so long for."

The three cyborg women provide an interesting exploration of cyborg identity. Each is coded as other, through their status as machine, as woman, and as techno-human hybrid. Olive is the youngest of the three sisters, the most compliant and the most maternal. She mediates between Rosetta and Marinne and in terms of identity seems the most stereotyped in terms of traditional feminine coding. Olive quietly reads textbooks on *Human Evolution* and *Human Psychology* so as to better understand humanity, she cleans, and she mothers. As a serene and sensual blonde bombshell, in another context she might be read as a compliant and erotic plaything. But because of her relationship to her sisters and her creator/mother she seems to resist this reading. She is not represented as a fetishistic object of the male gaze and, in spite of her sexual appearance, she is not the subject of nor does she play to masculine desire.

Marinne is the middle sister. She is angry and confrontational and becomes increasingly hostile towards Rosetta as she bristles against her confinement (the sisters live in Rosetta's basement so as to be protected from the dangers of the world). Marinne longs for autonomy, agency, an identity of her own, and to live in the real world, even though she thinks negatively of humankind.

> Humans are so different from us. They can't repair themselves. They age and they die. They live in perpetual self-doubt. They hurt each other; they even kill each other. I don't understand their engines. We are such an improvement.

> Why aren't there more of us? We are supposed to be self-replicating. She erased
> our code for that. I want to hear the ticking of my biological clock!

She is tired of living under panoptic conditions in which she is continually monitored and questions Rosetta's complete authority over her life. "Rosetta thinks she owns us," she complains. To set herself apart from Rosetta she begins to speak in encrypted language that only her sisters can decipher, she purchases clothing from the internet (e-buy), cuts her hair, and eventually sneaks out of her house to experience the real world, "the jungle" as they call it, on her own.

Ruby is the oldest sister and offers a complex representation of machine-woman identity. Ruby is a social reality in that she exists as an embodied example of scientific experimentation in the real world, and a fiction in that her identity is comprised of an amalgamation of famous movie characters downloaded into her programming. In order for the three women to remain alive, they must supplement their bodies with male spermatozoa. Thus, Ruby seduces men, collects their semen and returns it home in a condom for processing and usage. Utilizing famous seduction[31] scenes, Ruby is programmed to mimic the behaviour of famous female seductresses, femme fatales, and new women. At night as she sleeps, Rosetta uploads classic femme fatale/*film noir* scenes that are in turn downloaded into Ruby's memory. Ruby's *film noir* seductions replay our ambivalent relationship with the female-machine characterized as it is by oscillating fear/fascination, danger/enticement, and repulsion/attraction. Further, the explicit use of media to create her persona raises questions about the degree to which identities are structured (at least in part) through the accumulative effects of media messages. Ruby's body literally becomes the screen upon which her feminine nature is inscribed, denoting the artificiality and the constructedness of gender. This reliance upon traditional, indeed regressive, female gender

---

[31] *The Last Time I Saw Paris* (1954) stars Elizabeth Taylor as lovely and restless Helen Ellswirth; *Butterfield 8* (1960), Elizabeth Taylor plays a nymphomaniac and an alcoholic; *Lady from Shanghai* (1947) features Rita Hayworth as a seductive, mysterious, and beautiful femme fatale Elsa Bannister; *Man with the Golden Arm* (1955) stars Kim Novak as a supportive and encouraging neighbour to drug addicted Frankie Machine; *Algiers* (1938) features Ledy Lamarr as beguiling American Tourist who falls for 'thief' .

identity reminds us "that a reconstructed body does not guarantee a reconstructed cultural identity" (Balsamo, 1995, p. 229).

Ruby wears a camera as an accessory around her neck. Once she identifies a suitable sperm donor Ruby uses her camera as a tool of seduction, effectively reducing her intended lover to an objectified image, and subjugating him to *her* "controlling and curious gaze" (Mulvey, 1974, p. 16). As viewers, we are invited to see how Ruby perceives her anonymous donors, we adopt Ruby's point of view and share her scopophilic gaze and become complicit in the objectification of Ruby's lovers. Pleasure in the cinema is created through the inherently voyeuristic mechanism that comes into play here more strongly than in the other arts. Voyeurism, a Freudian psychoanalytic term, refers to the erotic gratification of watching someone without being seen oneself (Mulvey, 1974, p. 16-17). Exhibitionism refers to the erotic gratification derived from showing one's body, or part of it, to another person, as in the pleasure of being seen, or seeing oneself on the screen (Mulvey, 1974, p. 19). Voyeurism can become an active perversion, practiced primarily by men with the female body as the object of the gaze, while exhibitionism is its passive counterpart. In Ruby's seduction scenes, the roles of voyeur and exhibitionist are inverted, with woman becoming holder of the gaze and men her passive complement.

Creed argues that monstrous-feminine women frighten not because they are castrated, but because they are castrators. Ruby is a castrating woman. Following her sexual encounters, her lovers are left temporarily impotent as their "hard drives" (literally and figuratively) crash. Ruby's trysts are interpreted as hostile acts of bio-gender warfare. Indeed, the threat of male impotence is regarded as significant enough to justify involvement from the government's National Immune Defence Centre. An urgent letter is sent which reads, "There appears to be a highly contagious, extremely dangerous virus in the environment. Priority one. Code red. Need troops to trace it." Masculine culture defines woman's body as the other to man, "interpellated by

ideology, and discursively constructed as unruly, threatening, uncontrollable" (Balsamo, 1995, p. 219).

> Woman as icon, displayed for the gaze and enjoyment of men . . .always threatens to evoke the anxiety it originally signified. The male unconscious has [as one of] two avenues of escape from this castration anxiety: . . . complete disavowal of castration by the substitution of a fetish object *or* turning the represented figure itself into a fetish so that it becomes reassuring rather than dangerous. (Mulvey, 1988 [1974], p. 21 my italics)

Ruby's hyper sexuality forecloses on Mulvey's "escape routes" from castration anxiety. As a sexually transgressive woman, she thwarts attempts to fetishize her. Neither does the film resort to demystification/purification (i.e. killing, burning, exploding) of the female-machine. This is made clear when Ruby proclaims that she does not fear death or the afterlife because she knows that she is immortal (connections to mythic goddess). Whenever woman steps outside "of the natural order of things" (Balsamo, 1995, p. 217), she is regarded as transgressive relative to the order that defines woman as a submissive and passive object of man's fetishistic gaze. Sexual attractiveness does not neutralize the potency of Ruby's amoral transgressive female behavior. Indeed the aggressiveness (coded male) of her sexuality only serves to amplify her connection with "an order of culture rather than of nature" (Balsamo, 1995, p. 217).

Throughout the film Ruby's techno-form moves between the sensuous nightlife of the real world and the discursive world of the Internet where she is the hostess on the most popular portal on the Internet. Ruby's use of the digital web camera reassembles flesh and machine in new ways, thereby displaying completely new forms of cyborg subjectivity. This dual existence signals the materiality of the body (as embodied seductress) even as it acknowledges the discursive construction of the body (as disembodied seductress): "The key insight to emerge...is that the denatured techno-body remains a material entity. Although it may be culturally coded and semiotically marked, it is never merely discursive" (Balsamo, 1995, p. 223). As an offline seductress, Ruby engages in casual, but safe (uses condoms) and respectful (always cuddles

afterward) sex. Ruby leaves her lovers perplexed and confused, a comical allusion to Haraway's call for pleasure as well as responsibility in our coupling with technology.

The tradition of the sexy robot is a constant reminder that conventions of gender are indeed difficult to leave behind. Ruby reminds the viewer of the new-woman. She is fiercely independent of her family (i.e. she disobeys, she is different from her mother) and she is also completely masculine in her lack of female shame. Ruby's sexual power is especially evident in her provocative writings, which she broadcasts in real time on her portal. Online she invites you to think of her as "your second nature; a curve in your cyborgian spine, touch me and feel connected...spirit, soul, flesh, icon..." She is literally a technological seductress "needy for connection" (Haraway, 1991b, p. 151). "What can I do for you?" Queries Ruby, "I could teach you to dream. Click my icons. Emote from your remote. Evolve with me, let's e-dream together." This is an invitation, but also an "argument for pleasure in the confusion of boundaries and for responsibility in their construction" (ibid., p. 150).

Ruby comes to full consciousness, allowing her identity to emerge as she begins to dream without recourse to downloaded movie fragments. It is art, music, and love that ultimately allow her to fully experience her humanity. As she says to Sandy,

> I went to a place and I saw a painting, it was so full of spirit. I feel I have a spirit when I am with you. I feel things. My experience of the real world is limited but intimacy is most elusive. Sex is easy, you know... take the moment to define [your] essence...Looking at a Man Ray photograph or listening to John Lee Hooker or Louis Armstrong or watching the light change in the morning or allowing yourself to fall in love.

The spirit of painting recalls Walter Benjamin's analysis of the work of art in the age of mechanical reproduction, in which he considers the degree to which objects are divested of their "aura" when they become technically reproducible. Ruby, although an exact copy of Rosetta and her sisters, seems anything but mass-produced and without unique qualities of her own. In short, she is "resolutely committed to partiality, irony, intimacy, and perversity" (Haraway, 1991b, p.

151). The reference to Man Ray photographs signals her identification with a surrealistic art movement that was inspired by and informed by the nineteenth century image of the femme fatale that comprises so much of Ruby's identity. Artists such as Man Ray provided our technological culture with early "visual manifestations of technology as lived experience...so as to devise new identities to suit changing realities" (Zabel, 2004, p. xi). We might read Ruby as an emerging identity born at the intersection of science, entertainment and art.

Haraway submits that "cyborg replication is uncoupled from organic reproduction" (1991b, p. 150). That Ruby ultimately chooses to enter into a heterosexual relationship with Sandy[32] and have a child with him via her body (rather than the SRA method of DNA plus software) might suggest that, "despite the technological possibilities of body reconstruction, in the discourses of biotechnology the female body is persistently coded as the cultural sign of the natural, the sexual and the reproductive, so that the womb, for example, continues to signify female gender in a way that reinforces an essentialist identity of the female body as the maternal body" (Balsamo, 1995, p. 234). On the other hand, when asked why she elected to have a child in a human heterosexual way she says simply "I wanted to...It's a whole new world." This signals a shift in the relationship between nature and the female reproductive body. Like *Alien's* Ripley, Ruby "chooses to mother; she is not programmed as female by nature to nurture others" (Bundtzen, 2000 [1987], p. 106). As Haraway says, "The most promising monsters in cyborg worlds are embodied in non-oedipal narratives with a different logic of repression, which we need to understand for our survival" (Haraway, 1991b, p. 150). Ruby, as monstrous-feminine machine does not acquiesce to natural law demonstrating the illusion of mutual exclusivity between the artificial and the natural. Shildrick comments, "In collapsing the boundaries between the self and the other monsters constitute an indecidable absent presence at the heart of the human being"

---

[32] Sandy is the young man that Ruby falls in love with. At one point in the film Sandy says to his mother, "Your son makes copies, I make copies." Sandy makes surrealist copies of Ruby with his copy machine and he makes copies of himself with Ruby. This is a reference to Jean Baudrillard's 'simulation and simulacra.' "Simulation is no longer that of...a referential being or a substance. It is the generation by models of a real without origin or reality: a hyperreal" (Baudrillard, 1983, p. 2).

(Shildrick, 1999, p. 81). She proposes theorizing a non-normative morphology of monstrosity, not as a failure but another (an Other) way of *being*.

That Sandy and Ruby are about to have a child that will be part human and part SRA signals a new revolution in cyborg consciousness that must necessarily give way to new conceptions of the female-machine. I see this shift emerging in contemporary science fiction stories such as *Battlestar Galactica*, where human/cylon (cyborgs) reproduction is a central narrative theme and said to represent "the shape of things to come." Like the development of the art of collage (Zabel, 2004, p. xiii) in the early twentieth century, the union of Sandy and Ruby recognizes that reproduction involving disparate categories (human and cyborg) indicates yet another shift/evolution in our understanding of what it means to be human, one that recognizes that human being is already a matter of construction. This implies that there is no need to hold nostalgically to traditional notions of human to human mimetic reproduction.

Conclusions

The female cyborg represents a third evolution in the representation of the female-machine. Like the automaton and the robot before her, she tends to be excessively and regressively sexualized, a fetish designed to contain and work through cultural anxiety toward technology and science. Like the digital star (*Tomb Raider's* Lara Croft for example), the female fantasy cyborg is, "the location on which fantasies and desire and control are projected; they embody the fears, desires, and excess of our culture in the form of obnoxiously sexualized female stars" (Flanagan, 1999, p. 78).

But the female-machine as cyborg is also a feminist metaphor for an ambivalent and ambiguous border creature that collapses binary relationships and hierarchies, an abject creature that undermines dominant systems of order and stability. The female cyborg is therefore a monstrous-feminine figure in the tradition of female witches, amoral primeval mothers and

vampires as theorized by Barbara Creed. As explained in this chapter, the female cyborg is potentially emancipatory in that she resists containment through fetishization because the hyper sexualization of her body undermines the strategy of disavowal through substitution. The female cyborg also resists symbolic purification because the irrevocably breached boundaries between human and animal, human-animal and machine, and physical and non-physical make it increasingly difficult, perhaps impossible, to resolve the confrontation with the female-machine's abject body through ejection of the abject so as to "redraw the boundaries between the human and the nonhuman" (Creed, 1993, p. 14).

In spite of the over investment in the female cyborg's sexuality the female machine is frequently regarded as a hopeful and possibly emancipatory posthuman icon for reimagined gender identity and subjectivity. As an icon for the posthuman condition, the cyborg metaphor is monstrous, but in a slightly different sense than Creed argues. The cyborg, as a type of monster, challenges traditional accounts of what it means to be human, comprised as it is of elements from disparate and incompatible categories. The progeny of science: hybrids, clones, genetically altered organisms, and cyborgs (all monsters by definition) continue to stalk the cultural imaginary while as the same time assisting in the deterioration of key boundaries between self and other; man and machine; human and nonhuman. The monster, approached as an ideological cluster of meaning that has shifted from century to century, is no longer regarded primarily as some deviant other, but increasingly as a legitimate and embraced social subject.

CONCLUSIONS

Films, like literature, function as passageways for ideas to enter into wider cultural circulation. Thus, this project recognizes that in late modernity/post modernity, popular film images constitute key cultural documents of social life engaging with pivotal issues of this time. I have argued that representations of automata, robots, and cyborgs embody technical and cultural ideas and therefore, each narrative, each visual expression must be understood in terms of its historical contingency. The machine-woman's body, then, stands as a historical record of the dominant ideas of this (and past) time. The image of the female-machine has tended to change in relation to wider social and cultural changes connected with the shifting relationship between society and their others (women, monsters, machines).

Although fictional stories about scientific possibilities are most often situated in some distant future, the narratives are shaped by cultural values, anxieties, traditions and trends of the present. "The cyborg body marks the boundaries of that which is the underlying but unrecognised structure of a given historical consciousness. It turns the inside out" (Gonzalez, 2000, p. 65). Thus, in a sense, representations of female-machines are the reflections of the present projected into the future (Telotte, 1992, p. 4). And, as I have tried to show, even though historic images of the female-machine may seem oppressive and limiting, making the idea of an emancipatory female-machine seem unlikely, historicizing the female-machine appropriately often reveals unexpected subversive qualities within the female-machine, relative to her moment of conceptualization (e.g. the demure female automaton of the Enlightenment represented quite a radical conceptualization of the body as machine; the female robot's potent sexuality resisted containment; the female cyborg is a monster in the most promising sense).

When examining images of the female-machine across time, three dominant images emerge: the erotic-cyborg, the unruly-cyborg and the emancipatory-cyborg. First are those images that represent the female-machine primarily as a passive, sexually available object of sexual desire evidenced in such films as *Stepford Wives*, *Cherry 2000*, and *Weird Science*. These cyborgasmic representations of the female-machine reflect the erotic desire of her creator as well as the desire to (re)create life through artifice. The second dominant image is that of the female-machine as a harbinger of chaos, machines out-of-control, evidenced in such films as *Metropolis*, *Eve of Destruction*, and *Terminator 3: Rise of the Machines*. Unruly-cyborg representations sometimes act as a social commentary, suggesting the limits and the potential dangers of scientific progress in the tradition of the Frankenstein myth. Additionally, the unruly cyborg signifies the moment at which the female-machine body became the naturalized site upon which cultural fears and anxieties became projected and ultimately worked through (most often through destruction, containment and subjugation of the female-machine body). Finally, the third image is that of the emancipatory-cyborg expressed in such films as the *Matrix*, *Teknolust*, *AI*, and *Blade Runner*. The emancipatory cyborg conveys the complexity and contingency of a posthuman world characterized by an increasingly technologized cultural environment and the potential for new subjectivities and subject positions.

The erotic female automaton is a creation of the age of Enlightenment, a time when the world was radically (re)imagined in terms of the machine. The female automaton was a material expression of scientific principles that conveyed a mechanical understanding of the universe. The age of reason promised to subdue nature's unruly aspects, while at the same time exploit her sacred resources. Nature during this period (viewed as a dual-natured woman) was replaced with a vision of nature as an inert machine. The age of the automaton was also a period of optimism and faith in scientific progress, and this trust is reflected in the female automaton's passive, sexually alluring, and fetishized construction. The Enlightenment automaton was primarily an

entertainment object that seemed able to breathe, sigh, play musical instruments, dance and even engage in naughty sex. The female automaton is also historically associated with the female golem in that she was primarily valued for her sexual allure with scant attention paid to her intellectual capacity (chess playing, philosophy writing automata were the providence of males). The female automaton as entertainment object marks an early moment in technological history where technology may be regarded as complicit in constructing an ideology in which the machine-woman is imagined as a fetishized object of male desire.

The positive and sublime feelings (although inflected with early pangs of the uncanny and ambivalent representation) toward the Enlightenment automata gave way to the next manifestation the female-machine, this time in relation to industrial development and the myth of modernity reflected in the proto-story of scientific progress expressed in Shelley's *Frankenstein*. The narrative of the unruly cyborg gave voice to deep fears and desires about modernity, especially in relation to violations of the body wherein it was exposed as "both a stable ground for experience in a time of unprecedentedly rapid change and a fragile, limited vessel, which we yearn to remake" (Turney, 1998, p. x). From the early twentieth century onward, the figure of the female-machine as unruly cyborg continues to (re)enact the final confrontation between humans and machines with the dehumanizing aspects of industrial development taken up as an early manifestation of cultural anxiety. We saw that the female-machine as robot also reflected other contemporary anxieties such as the shifting roles of women during the early twentieth century. The new-woman, with her transgressive sexual behavior, her shameless challenge to traditional gender roles, and her increasingly legitimised presence in the social/economic spheres of society elicited widespread fear and worry. The figure of the female-machine body continues to be the site upon which cultural anxiety is projected and ideologically worked through.

The emancipatory cyborg is a third shift in the representation of the female-machine, this time in relation to the posthuman, marking a time in which it is increasingly difficult to maintain

discrete boundaries between humans and machines. While the imagery of the female cyborg

seems to stereotype gender, the cyborg metaphor as imagined by Donna Haraway, asserts new

possibilities for re-imagined gender identity at this time of the post-humanist subject. Films such

as *Teknolust* suggest a positive turn in the representation of the female-machine. More than

merely a provocateur, the female cyborg challenges traditional binaries captured in the hierarchal

pairing of such terms as: self/Other, animate/inanimate, human/machine, organism/artefact.

Suddenly these dichotomies "seem to have lost their explanatory capacity" as "new concepts of

body and identity are explored, revealing fluid and open forms" (Becker, 2000, p. 361).

This thesis has also considered the role that monstrosity plays in the representation of the

female-machine at three key moments: the age of the automaton; the age of the machine; and the

age of the posthuman. Monstrosity is central to understanding the uncanniness of the erotic

automaton; the transgressiveness of the unruly robot; and the disruptiveness of the emancipatory

cyborg. "Cyborg monsters in feminist science fiction define quite different political possibilities

and limits from those proposed by the mundane fiction of Man and Woman" (Haraway, 1991b, p.

177). Monsters reveal the other to the humanist subject, the other that must be excluded so as to

secure the boundary around the one. Woman is closely associated with nature and as such is

aligned with the unruly, destructive and uncontrollable (all universal characteristics of

monstrosity). Thus, the monstrousness of the female-machine body is linked with her sexuality.

"Woman are out of control, uncontained, unpredictable, leaky: they are, in short, monstrous"

(Shildrick, 1996, p. 3). Monstrousness is also culturally contingent, with some dimensions of

monstrosity defined in accordance with historical views and attitudes. We have seen for example

that the monstrousness of the female automaton was derived from her status as inanimate object

seemingly endowed with spirit in addition to her capacity to evoke unsettling feelings of

intellectual uncertainty related to the uncanny. The female robot was monstrous in relation to her

sexual transgressiveness as she threatened the stable categories of gender. Finally, the posthuman

cyborg is monstrous in that she threatens to assault the dualistic hierarchies between self/other, human/machine, and male/female.

Just as the horror film contributes to the creation, circulation, maintenance of a "landscape of fear" within a society (Tuan, 1979), films concerned with exploring the limits and possibilities of human-machine integration help us to negotiate the flickering boundary and evolving relationships between humans and machines. Out of such cultural resources as film, literature, and art, society develops a shared understandings about what it means to be human, what it means to be a machine and what it means to be a little bit of both. Because the concepts of humanness (and) machineness, as articulated in the various representations of the female-machine, vary across time, her imagery (and associated meaning) must be understood as embedded in general socio-cultural processes. Identifying the cultural anxiety (fear of unruly nature; fear of the machine; fear of unstable gender categories) associated with the three archetypal images of the female-machine (automaton, robot, cyborg) allows us to see that the shifting representation of the female-machine occurs in relation to the evolving relationships between humans and machines and specific ideological concerns of a period with unique tensions, contradictions and counter discourses specific to the era.

In the nineteenth-century, Frankenstein's (Shelley, 1818) unfinished, though "considerably advanced," female monster was a creation too monstrous to complete. Thus, the good doctor "tore" her "to pieces" (ibid., p. 159). Her existence represented a degree of uncanniness, abjection, and transgressive monstrousness that struck "obscure forebodings of evil" (ibid., p. 157) into the sickened bosom of her creator's heart. If Frankenstein's male-monster represented a moral indictment of the unrestrained technological advancements that vivified his body and the spiritual bankruptcy of the rational humans who abandoned his soul (mind), then the female-monster represented the ultimate punishment for these transgressions: the possible progenitor of "a race of devils" (ibid., p. 158) that would surely annihilate the human race. In the

137

twenty-first century, the female-monster of posthumanism (the cyborg) is a more positive and optimistic construction. She is other and self-same of Shelley's nightmare vision of the female-monster.

Haraway claims that writing is one tool to be seized by cyborgologists, "to mark the world that marked them as other" (Haraway, 1991b, p. 175). She urges women to tell their "stories, retold stories, versions that reverse and displace the hierarchical dualisms of naturalized identities" (ibid., p. 175). In the process of researching this thesis, it became evident to me that at key historical moments, female artists repeatedly envision configurations of the human and the technological different from those of their male counterpart. Madame Corday's Birthing Machine (1790); Mary Shelley's Monster (1818); Thea von Harbou's False Maria (1927); Donna Haraway's Cyborg (1985); and Lynn Hershman-Leeson's Self Replicating Automata (2002) are compelling evidence that women writers, filmmakers, and scholars consistently play a pivotal role in (re)conceptualizing the female-machine from one historic moment to another. Indeed, Haraway calls for women to engage with technology within "the belly of the monster," rather than simply condemning all scientific and technologic progress. Confrontation with "the discourse from within" has been shown to be an ongoing project among creative women since the age of Descartes daughter, tracing an alternative genealogy of human-machine interface.

BIBLIOGRAPHY

Genetic revolution: Society needs time to consider consequences of research. (1998, November 15). The Vancouver Sun, p. 16.

Tiptoe through ethical minefield. (2006, August 28). Nanaimo Daily News, p. A.6.

Aleksander, I. and P. Burnett (1983). *Reinventing man: The robot becomes reality.* London: Kogan Page Ltd.

Asimov, I. (1970). *I-Robot.* New York: Fawcett Crest Books.

Bailey, M. (2002). The feminization of magic and the emerging idea of the female witch in the late middle ages. *Essays in Medieval Studies, 19,* 120-134.

Bailey, M. E. (1993). Foucauldian feminism contesting bodies, sexuality and identity. In Caroline Ramazanoglu (Ed.), *Up against Foucault: Explorations of some tensions between Foucault and feminism* (pp. 99-122). London: Routledge.

Balsamo, A. (1995). Forms of technological embodiment: Reading the body in contemporary culture. *Body & Society, 1*(3-4), 215-237.

Balsamo, A. (1996). *Technologies of the gendered body: Reading cyborg women.* Durham, N.C.: Duke University Press.

Balsamo, A. (2000 [1988]). Reading cyborgs writing feminism. In Gill Kirkup, Linda Janes, Kathryn Woodward and Fiona Hovenden (Eds.), *The gendered cyborg* (pp. 148-158). London: Routledge.

Barthes, R. (1972). *Myth today*. New York: Hill and Wang.

Barthes, R. (1985). *The responsibility of images* (Trans. Richard Howard). New York: Hill and Wang.

Battaglia, D. (2001). Multiplicities: An anthropologist's thoughts on replicants and clones in popular film. *Critical Inquiry, 27*, 493-514.

Baudrillard, J. (1983). *Simulation* (Trans. Paul Foss, Paul Patton and Philip Beitchman). New York: Semiotext(e).

Beaune, J. C. (1989). The classical age of automata: An impressionistic survey from sixteenth to the nineteenth century. In Michel Feher, Romona Naddoff and Nadia Tazi (Eds.), *Fragments for a history of the human body* (pp. 431-480). New York: Urzone, Inc.

Becker, B. (2000). Cyborgs, agents, and transhumanists. *Leonardo, 33*(5), 361-365.

Becker-Leckrone, M. (1995). Salome: The fetishization of a textual corpus. *New Literary History, 26*(2), 239-260.

Bedini, S. (1964). The role of automata in the history of technology. *Technology and Culture, 5*(1), 24-42.

Belton, R. J. (1987). Edgar Allan Poe and the surrealists' image of women. *Woman's Art Journal, 8*(1), 8-12.

Best, S. (1987). The crisis of subjectivity [online version]. *Illuminations*. Retrieved May 2, 2006 from http://www.uta.edu/huma/illuminations/best1.htm

Bilbija, K. (1994). Rosario Ferre's "the youngest doll": On women, dolls, golems and

cyborgs. *Callaloo, 17*(3), 878-888.

Bolton, C. A. (2002). From wooden cyborgs to celluloid souls: Mechanical bodies in

anime and Japanese puppet theater. *Positions, 10*(3), 729-771.

Bostic, A. (1998). Automata. *Leonardo, 31*(5), 357-362.

Bourfield, C. (2000). The abject space: Its gifts and complaints. *Journal of Gender

Studies, 9*(3), 329-346.

Bovenschen, S., J. Blackwell, J. Moore and B. Weckmeuller (1978). The contemporary

witch, the historical witch and the witch myth: The witch, subject of the

appropriation of nature and object of the domination of nature. *New German

Critique, 15*, 82-119.

Braidotti, R. (1999). Signs of wonder and traces of doubt: On teratology and embodied

differences. In Janet Price and Margrit Shildrick (Eds.), *Feminist theory and the

body: A reader* (pp. 290-301). New York: Routledge.

Braidotti, R. (2000). Teratologies. In Ian Buchanan and Claire Colebrook (Eds.), *Deleuze

and feminist theory* (pp. 156-172). Edinburgh: Edinburgh University Press.

Bresnick, A. (1996). Prosopoetic compulsion: Reading the uncanny in Freud and

Hoffman. *The Germanic Review, 17*, 114-132.

Bundtzen, L. K. (2000 [1987]). Monstrous mothers: Medusa, Grendel, and now Alien. In

Gill Kirkup, Linda Janes, Kathryn Woodward and Fiona Hovenden (Eds.), *The

gendered cyborg* (pp. 101-109). London: Routledge.

Callon, M. and B. Latour (1981). Unscrewing the big leviathan, or how do actors

 macrostructure reality and how sociologists help them to do so. In K. Knorr-

 Cetina and A. Cicourel (Eds.), *Advances in social theory: Toward an integration*

 of micro and macro sociologies (pp. 277-303). London: Routledge.

Capek, K. (2004 [1920]). *R.U.R. or Rossum's universal robots* (Claudia Novack, Trans.).

 London: Penquin Books.

Channell, D. (1991). *The vital machine: A study of technology and organic life*. New

 York, Oxford: Oxford University Press.

Chapuis, A. and E. Droz (1958). *Automata: A historical and technological study* (Alec

 Reid, Trans.). Switzerland: Neuchatel.

Clark, W., J. Golinski and S. Schaffer (Eds.) (1999). *The sciences in enlightened Europe*.

 Chicago: University of Chicago Press.

Clough, R. (1997). Sexed cyborgs? *Social Alternatives, 16*(1), 20-22.

Clynes, M. and N. Kline (1960). Cyborgs and space. In Chris Hables-Gray (Eds.), *The*

 cyborg handbook (pp. 29-34). New York: Routledge.

Cohen, J. (1967). *Human robots in myth and science*. South Brunswick, New York:

 Barnes and Company.

Cowan, R. (1976). The industrial revolution in the home. *Technology and Culture, 17*, 1-

 23.

Craig-McFeely, J. (2000). *English lute manuscripts and scribes 1530-1630* [electronic

 book]. Julia Craig-McFeely. Retrieved August 3, 2006 from

 http://www.craigmcfeely.force9.co.uk/ToC.pdf

Creed, B. (1993). *The monstrous-feminine: Film, feminism, psychoanalysis*. London: Routledge.

Creed, B. (2000 [1987]). *Alien and the monstrous feminine*. In Gill Kirkup, Linda Janes, Kathryn Woodward and Fiona Hovenden (Eds.), *The gendered cyborg* (pp. 122-135). London: Routledge.

Crossley, N. (2001). *The social body: Habit, identity and desire*. London: Sage.

Daston, L. and K. Park (1981). Unnatural conception: The study of monsters in sixteenth and seventeenth century France and England. *Past and Presents, 92*, 20-54.

Davidson, D. (1981). From virgin to dynamo: The "amoral woman" in European cinema. *Cinema Journal, 21*(1), 31-58.

Davis-Floyd, R. and J. Dumit (1998). *Cyborg babies: From techno-sex to techno-tots*. New York: Routledge.

de Beauvoir, S. (1968). *The second sex*. New York: Alfred A. Knopf.

de La Mettrie, J. O. (1996 [1748]). *Machine man and other writings* (Trans., Richard A. Watson and Maya Rybalka). Glasgow: Cambridge University Press.

de l'Isle-Adam, V. (2001 [1886]). *Tomorrow's eve* (Trans., Robert Adams). London: University of Illinois Press.

de Solla Price, D. (1964). Automata and the origins of mechanism and mechanistic philosophy. *Technology and Culture, 5*(1), 9-23.

Deitrich, D. (1997). (Re)-fashioning the techno-erotic woman: Gender and textuality in

the cybercultural matrix. In Steven G Jones (Eds.), *Virtual culture: Identity and*

communication in cybersociety (pp. 110-118). London: Sage Productions.

Descartes, R. (1998 [1637]). *Discourse on method and meditations on first philosophy*

(Trans., Donald A. Cress). Indianapolis: Hackett Publishing Company.

Descartes, R. (2004 [1664]). *The description of the human body.* Leeds University.

Retrieved June 20, 2006 from University of Leeds, History of Modern Philosophy

Web Site

http://www.philosophy.leeds.ac.uk/GMR/hmp/texts/modern/descartes/body/body.

html

Desser, D. (1985). Blade Runner, science fiction and transcendence. *Literature Film*

Quarterly, 13(3), 172-179.

Deutelbaum, M. (1989). Memory/visual design: The remembered sights of Blade Runner.

Literature Film Quarterly, 17(1), 66-72.

Didur, J. (2003). Re-embodying technoscientific fantasies: Posthumanism, genetically

modified foods, and the colonization of life. *Cultural Critique, 53*, 98-115.

Dietz, B. and T. Nutz (2005). Collection curieuses: The aesthetics of curiosity and elite

lifestyle in eighteenth century Paris. *Eighteenth Century Life, 29*(3), 44-75.

Doane, M. A. (1991). *Femme fatales: Feminism, film theory, psychoanalysis.* New York

and London: Routledge.

144

Doane, M. A. (2000 [1990]). Technophilia: Technology, representation, and the

feminine. In Gill Kirkup, Linda James, Kathryn Woodward and Fiona Hovenden

(Eds.), *The gendered cyborg: A reader* (pp. 110-121). London: Routledge.

Doll, S. and G. Faller (1986). Blade Runner and genre: Film noir and science fiction.

Literature Film Quarterly, 14(2), 89-100.

Douglas, M. (2004 [1966]). *Purity and danger: An analysis of concept of pollution and

taboo.* London, New York: Routledge.

Ewen, S. (2001). *Captains of consciousness: Advertising and the social roots of the

consumer culture,* 2nd. Edition. New York: Basic Books.

Fehr, C. (2004). Feminism and science: Mechanism without reductionism. *NWSA

Journal, 16*(1), 136-156.

Flanagan, M. (1999). Mobile identities, digital stars, and post-cinematic selves. *Wide

Angle, 21*(1), 76-933.

Fortin, J. (2004). Brides of the fantastic: Gautier's *le Pied de momie* and Hoffman's *der

Sandmann. Comparative Literature Studies, 41*(2), 257-275.

Foucault, M. (1995). *Discipline and punish: Birth of the prison.* New York: Random

House.

Franklin, U. M. (1990). *The real world of technology.* Toronto: Anansi.

Freud, S. (1962 [1919]). The uncanny. In James Strachey (Eds.), *The standard edition of

the complete psychological works of Sigmund Freud,* Volume XVII (pp. 219-

252). London: Hogarth Press and the Institute for Psychoanalysis.

Fryer, D. and J. Marshall (1979). The motives of Jacques de Vaucanson. *Technology and Culture, 20*(2), 257-269.

Fuchs, C. J. (1995). Death is irrelevant: Cyborgs, reproduction, and the future of male hysteria. In Chris Hables Gray, Heidi J. Figueroa-Sarriera and Steven Mentor (Eds.), *Cyborg handbook* (pp. 281-300). New York: Routledge.

Fulton, E. (1996). On the eve of destruction: Technology, nostalgia, and the fetishized maternal body. *Critical Matrix, 10*(1), 90-99.

Gane, N. (2006). Posthuman. *Theory, Culture & Society, 23*(2-3), 431-434.

Gelbart, N. R. (1996). The monarchy's midwife who left no memoirs. *French Historical Studies, 19*(4), 997-1023.

George, S. (2001). Not exactly of woman born (part 1 of 2) [electronic version]. *Journal of Popular Film & Television, 28*(4). Retrieved January 2, 2003 from Contemporary Women's Issues database.

Gonzalez, J. (2000). Envisioning cyborg bodies: Notes from current research. In Gill Kirkup, Linda Janes, Kathryn Woodward and Fiona Hovenden (Eds.), *The gendered cyborg: A reader* (pp. 58-73). New York: The Open University.

Graham, E. (1999). Cyborgs or goddesses? Becoming divine in a cyberfeminist age. *Information Communication & Society, 2*(4), 419-438.

Gray, C. H. (2000). *Cyborg citizen: Politics in the posthuman age.* New York: Routledge.

Greg, G. E. (2000). *This beautiful evil: The connection between women, the natural world, female sexuality, and evil in western tradition.* Unpublished master's thesis, University of North Texas, Denton, Texas, United States.

Grosz, E. (1994). *Volatile bodies: Towards a corporeal feminism*. Bloomington: Indiana

University Press.

Hables-Gray, C., H. Figueroa-Sarriera and S. Mentor (1995). *The cyborg handbook*. New

York: Routledge.

Hagner, M. (1999). Enlightened monster. In William Clark, Jan Golinski and Simon

Schaffer (Eds.), *The sciences in enlightened Europe* (pp. 175-217). Chicago:

University of Chicago Press.

Hall, S. (1982). The rediscovery of 'ideology': Return of the repressed in media studies.

In Michael Gurevitch, Tony Bennett, James Curran and Janet Woollacott (Eds.),

Culture, society and the media (pp. 56-90). London: Routledge.

Hall, S. (2001). *Representation: Cultural representations and signifying practises*.

London: Sage Publications Ltd.

Hanafi, Z. (2000). *The monster in the machine: Magic, medicine, and the marvellous in

the time of the scientific revolution*. London: Duke University Press.

Haraway, D. (1991a). The actors are cyborg, nature is coyote, and the geography is

elsewhere: Postscript to cyborgs at large. In Constance Penley and Andrew Ross

(Eds.), *Technoculture* (pp. 21-26). Minneapolis: University of Minnesota Press.

Haraway, D. (1991b). *Simians, cyborgs, and women: The reinvention of nature*. London:

Free Association Books.

Hayles, K. (1999). *How we became posthuman: Virtual bodies in cybernetics, literature,

and informatics*. Chicago, Illinois: University of Chicago Press.

Heim, M. (1991). The erotic ontology of cyberspace. In Michael Benedikt (Ed.), *Cyberspace: First steps* (pp. 59-82). Cambridge: The MIT Press.

Hirshbein, L. D. (2001). The flapper and the fogy: Representations of gender and age in the 1920s. *Journal of Family History, 26*(1), 112-137.

Hoffman, E. T. A. (1993 [1815]). The sandman. In Stanley Appelbaum (Eds.), *Five great German short stories* (pp. 36-103). New York: Dover Publications Inc.

Holland, S. (1995). Descartes goes to Hollywood: Mind, body and gender in contemporary cyborg cinema. *Body & Society, 1*(3-4), 157-174.

Homer (1963). *The Iliad* (Trans. Ennis Rees). New York: Random House.

Horkheimer, M. and T. W. Adorno (2004). *Dialectic of enlightenment* (Trans. John Cumming). New York: Continuum.

Huyssen, A. (1982). The vamp and the machine: Technology and sexuality in Fritz Lang's Metropolis. *New German Critique, 24/25*, 221-237.

Ichbiah, D. (2005). *Robots: From science fiction to technological revolution* (Trans. Ken Kincaid). New York: Harry N. Abrams.

Jentsch, E. (1996 [1906]). On the psychology of the uncanny. *Angelaki: A New Journal in Philosophy, Literature, and the Social Sciences, 2*(1), 7-17.

Jones, A. (1998). "Women" in dada: Elsa, Rose, and Charlie. In Naomi Sawelson-Gorse (Eds.), *Women in dada* (pp. 142-173). Cambridge, London: The MIT Press.

Jones, M. P. (1996). Posthuman agency: Between theoretical traditions. *Sociological Theory, 14*(3), 290-309.

Joselit, D., C. Becker, C. A. Ensemble, N. K. Hayles, E. Larsen, S. Millner and M.

Wieczorek (2000). Biocollage. *Art Journal*, *59*(3), 44-63.

Kamen, P. (1991). *Feminist fatale*. New York: Donald Fine.

Kang, M. (2001). The use of dreaming for the study of history. *Rethinking History*, *5*(2),

275-283.

Kibby, M. (1996). Cyborgasm: Machines and male hysteria in the cinema of the eighties.

Journal of Interdisciplinary Gender Studies. Article Retrieved August 3, 2005,

from http://www.newcastle.edu.au/department/so/cyborgas.htm

King, E. (2002). Clockwork prayer: A sixteenth century mechanical monk [electronic

article]. *An Online Journal of Literature and the Arts*, *1*(1), Retrieved from

http://www.blackbird.vcu.edu/v1n1/nonfiction/king_e/prayer_introduction.htm.

Kirkup, G. (2000). *The gendered cyborg: A reader*. London, New York: Routledge in

association with the Open University.

Klass, M. (1983). Artificial aliens: Transformation of the robot in science fiction. *Annals

of the American Association of Political and Social Science*, *470*, 171-179.

Klerk, G. (1979). Mechanism and vitalism: A history of the controversy. *Acta

Biotheoretica*, *28*(1), 1-10.

Klugman, C. (2001). From cyborg fiction to medical reality. *Literature and Medicine*,

20(1), 39-54.

Kramer Institoris, H. (1988 [1487]). *The malleus maleficarum of Heinrich Kramer and

Sprenger*. Salem: Ayer.

Kristeva, J. (1982). *Powers of horror: An essay on abjection* (Trans. Leon S. Roudiez). New York: Columbia University Press.

Kuhn, A. (Ed.) (1990). *Alien zone: Cultural theory and contemporary science fiction cinema*. London, New York: Verso.

Kuhn, A. (Ed.) (1999). *Alien zone II: The spaces of science fiction cinema*. London, New York: Verso.

Kunzri, H. (1997). You are cyborg: Interview with Donna Haraway. *Wired Magazine, 5*(2). Retrieved on July 4, 2004 from www.wired.com/wired/archive//5.02/ffharaway.html?person=donna_haraway&topic_set=wiredpeople

Landes, D. (1983). *Revolution in time: Clocks and the making of the modern world*. Cambridge, Massachusetts: Harvard University Press.

Latour, B. (1991). *We have never been modern*. Cambridge, Massachusetts: Harvard University Press.

Law, J. (1992). *Notes on the theory of the actor network: Ordering, strategy and heterogeneity*. Retrieved on December 21, 2005, From the Centre for Science Studies, Lancaster University Web Site http://www.comp.lancs.ac.uk/sociology/papers/Law-Notes-on-ANT.pdf

LeGates, M. (1976). The cult of womanhood in eighteenth century thought. *Eighteenth Century Studies, 10*(1), 21-39.

Leiss, W. (1990). *Under technology's thumb*. Montreal, Kingston: McGill-Queen's University Press.

Lentz, K. M. (1993). The popular pleasure of female revenge (or rage bursting in a blaze

of gunfire). In L. Grossberg (Ed.), *Cultural studies issue 3* (pp. 374-405). London:

Routledge.

Lev, P. (1998). Whose future? Star Wars, Alien, and Blade Runner. *Literature Film

Quarterly, 26*(1), 30-37.

Lunman, K. (March 12, 2004). Senate pass "historic" bill on reproductive technology.

The Globe and Mail, pp. A.7.

Lurie, S. (1981-1982). The construction of the 'castrated woman' in psychoanalysis and

cinema. *Discourse, 4*, 52-74.

Lykke, N. (2000). Between monsters, goddesses and cyborgs: Feminist confrontations

with science. In Gill Kirkup, Linda Janes, Kathryn Woodward and Fiona

Hovenden (Eds.), *The gendered cyborg: A reader* (pp. 74-87). London:

Routledge.

MacPike, L. (1989). The new woman, childbearing, and the reconstruction of gender,

1880-1900. *NWSA Journal, 1*(3), 368-397.

Mann, S. (no date). On the bandwagon or beyond wearable computing? [electronic

article]. *Personal Technologies Journal*. Retrieved March 20, 2006 from Special

Issue on Wearable Computing and Personal Imaging

http://wearcam.org/bandwagon.html

Mason, C. (1995). Terminating bodies: Toward a cyborg history of abortion. In and Ira

Livingston and Judith Halberstam (Eds.), *Posthuman bodies* (pp. 255-243).

Indianapolis: Indiana University Press.

151

McDowell, K. (2005). Unleashing the feminine unconscious: Female Oedipal desires and lesbian sadomasochism in *Mulholland Dr. The Journal of Popular Culture*, *38*(3), 1037-1049.

McGovern, J. (1968). The American woman's pre-World War I freedom in manners and morals. *The Journal of American History*, *55*(2), 315-333.

McMullen, E. T. (2002). Origin of Descartes' mechanical philosophy. *Georgia Journal of Science*, *60*(2), 127-144.

Merchant, C. (1980). *The death of nature: Women, ecology and the scientific revolution.* San Francisco: Harper and Row.

Morrison, R. (1990). The Blakean dialectics of Blade Runner. *Literature Film Quarterly*, *18*(1), 2-10.

Mulvey, L. (1988 [1974]). Visual pleasure and narrative cinema. In Constance Penley (Ed.), *Feminism and film theory* (pp. 57-68). New York: Routledge.

Mulvey, L. (1989). *Visual and other pleasures.* Bloomington: Indiana University Press.

Mulvey, L. (1993). Some thoughts on theories of fetishism in the context of contemporary culture. *October*, *65*, 3-20.

Mulvey, L. (1995). The myth of Pandora. In Laura Peitropaolo and Ada Testaferri (Eds.), *Feminisms in the cinema* (pp. 3-19). Bloomington: Indiana University Press.

Mulvey, L. (1996). *Fetishism and curiosity.* Bloomington: Indiana University Press.

Muri, A. (2004). *The woman machine.* Paper presented at Canadian Society for Eighteenth-Century Studies Annual Conference, London, Ontario.

Nerlich, B., D. Clarke and R. Dingwall (2001). Fictions, fantasies, and fears: The literary foundations of the cloning debate. *JLS, 30,* 37-52.

Onishi, N. (2006, April 2). South Korea aims to make automated servants wave of the near future. *Edmonton Journal,* pp. A.8.

Outman, J. L., E. M. Outman and M. May (2003). *Industrial revolution [electronic version].* Farmington Hills, Mi: Gale Virtual Reference Library.

Outram, D. (1995). *The enlightenment: New approaches to European history.* Cambridge: Cambridge University Press.

Park, J. (2006). Pains and pleasures of the automaton: Frances Burney's mechanics of coming out. *Eighteenth Century Studies, 40*(1), 23-49.

Parry, J. J. (1941 [1970]). *The art of courtly love.* New York: F. Ungar.

Penley, C., E. Lyon, L. Spigel and J. Bergstrom (Eds.) (1991). *Close encounters: Film, feminism, and science fiction.* Minneapolis, Oxford: University of Minnesota Press.

Penley, C. and A. Ross (1990). Cyborgs at large: Interview with Donna Haraway. *Social Text, 25/26,* 8-23.

Picard, R. W. (1998). Human-computer coupling. *Proceedings of the IEEE, 86(8),* (pp. 1803-1807). Cambridge: MIT.

Plank, R. (1965). The golem and the robot. *Literature and Psychology, 15*(1), 12-28.

Price, J. and M. Shildrick (1999). Alter/ed bodies. In Janet Price and Margrit Shildrick

(Eds.), *Feminist theory and the body: A reader* (pp. 290-301). New York:

Routledge.

Pumphrey, M. (1987). The flapper, the housewife and the making of modernity. *Cultural

Studies, 1,* 179-194.

Redmond, S. (Ed.) (2004). *Liquid metal.* London: Wallflower Press.

Rice, S. P. (2004). *Minding the machine: Languages of class in early industrial America.*

London: University of California Press.

Richards, E. (1996). (Un)boxing the monster. *Social Studies of Science, 26*(2), 323-356.

Riskin, J. (2003a). Eighteenth-century wetware. *Representations, 83,* 97-125.

Riskin, J. (2003b). The defecating duck, or, the ambiguous origins of artificial life.

Critical Inquiry, 29, 599-633.

Ruppert, P. (2000). Technology and the construction of gender in Fritz Lang's Metropolis

(part 1 of 2) [electronic version]. *Genders, 32.* Retrieved May 2, 2006, from

http://www.genders.org/g32/g32_ruppert.html

Schaffer, S. (1996). Babbage's dancer and the impresarios of mechanism. In Frances

Spufford and Jenny Uglow (Eds.), *Cultural Babbage: Technology, time and

invention* (pp. 335-352). Faber and Faber.

Schelde, P. (1993). *Androids, humanoids, and other science fiction monsters.* New York,

London: New York University Press.

Scott, A. (2001). Trafficking in monstrosity: Conceptualizations of 'nature' within

feminist cyborg discourses. *Feminist Theory*, *2*(3), 367-379.

Segel, H. B. (1995). *Pinocchio's progeny: Puppet, marionettes, automatons, and robots

in modernist and avant garde drama*. London: Johns Hopkins University Press.

Shanken, E. A. (2005). Hot to bot: Pygmalion's lust, the Maharal's fear, and the cyborg

future of art. *Technoetic Arts: A Journal of Speculative Research*, *3*(1), 43-55.

Shelley, M. (1983 [1818]). *Frankenstein: Or, the modern Prometheus*. New York:

Penguin Group.

Shildrick, M. (1999). This body which is not one: Dealing with differences. *Body &

Society*, *5*(2-3), 77-92.

Silverman, K. (1983). *The subject of semiotics*. New York: Oxford University Press.

Slade, J. W. (1990). Romanticizing cybernetics in Ridley Scott's *Blade Runner*.

Literature and Film Quarterly, *18*(1), 11-18.

Sobchack, V. (2000 [1987]). Postfuturism. In Gill Kirkup, Linda Janes, Kathryn

Woodward and Fiona Hovenden (Eds.), *The gendered cyborg: A reader* (pp. 136-

147). London: Routedge.

Springer, C. (1991). The pleasure of the interface. *Screen*, *32*(3), 303-323.

Standage, T. (2002). *The Turk: The life and times of the famous eighteenth century chess

playing machine*. New York: Berkley Books.

Statton, J. (2001[1996]). *The desirable body: Cultural fetishism and the erotics of

consumption*. Chicago: University of Illinois Press.

Steffensen, J. (1995). *Decoding perversity: Queering cyberspace [electronic article].* Parallel Gallery and Journal, Retrieved May 5, 2005, from http://www.va.com.au/parallel/x1/journal/jyanni_steffensen/robot.html.

Sunden, J. (2001). What happened to difference in cyberspace? The (re)turn of the she-cyborg. *Feminist Media Studies, 1*(2), 215-232.

Sussman, M. (1999). Performing the intelligent machine: Deception and enchantment in the life of the automaton chess player. *The Drama Review, 43*(3), 81-96.

Telotte, J. P. (1991). The tremulous public body [electronic version]. *Journal of Popular Film & Television, 19*(1), 14-23.

Telotte, J. P. (1992). *The Terminator, Terminator 2* & the exposed body [electronic version]. *Journal of Popular Film & Television, 20*(2), 26-34.

Telotte, J. P. (2004 [1983]). Human artifice and the science fiction film. In Sean Redmond (Ed.), *Liquid metal* (pp. 57-63). London: Wallflower Press.

Thompson, P. A. (2003). *Subversive bodies: Embodiment as discursive strategy in women's popular literature in the long eighteenth century.* PhD Thesis, Louisiana State University, Louisiana, United States.

Tichi, C. (1987). *Shifting gears: Technology, literature, culture in modernist America.* London: University of North Carolina Press.

Todd, J. M. (1986). The veiled woman in Freud's "das unheimliche". *Signs, 11*(3), 519-528.

Tomas, D. (1995). Feedback and cybernetics: Reimaging the body in the age of the cyborg. *Body & Society, 1*(3-4), 21-43.

Tomas, D. (2003). From the cyborg to posthuman space: On the total eclipse of an idea. *Parachute: Contemporary Art Magazine*, 81-91.

Tuan, Y. (1979). *Landscapes of fear*. Oxford: Basil Blackwell.

Tudor, A. (1974). *Theories of film*. London: Secker and Warburg.

Tudor, A. (1989). *Monsters and mad scientists: A cultural history of the horror movie*. Oxford: Basil Blackwell.

Turney, J. (1998). *Frankenstein's footsteps: Science, genetics and popular culture*. New Haven, London: Yale University Press.

Tytell, F. W. (2005). *The golem speaks: A study of four modern Jewish American novels*. Master's of Art, Wake Forest University, Winston-Salem, North Carolina, United States.

Umbach, M. (2002). Classicism, enlightenment and the 'other': Thoughts on decoding eighteenth-century visual culture. *Art History*, *25*(3), 319-340.

Van Loon, J. (1996). Technological sensibilities and the cyberpolitics of gender: Donna Haraway's postmodern feminism. *Innovation: The European Journal of Social Sciences*, *9*(2), 231-244.

Vettel-Becker, P. (2003). Clarence Holbrook Carter's war bride and the machine/woman fantasy [electronic version]. *Genders*, Retrieved from http://www.genders.org/g37/g37_becker.html, 37.

Vigneul-Marveill (1775). *Mélanges d'histoire et de literature*. Paris: Chez Claude Prudhomme.

Volkart, Y. (2000). *Unruly bodies: The effect body as a place of resistance [electronic article]*. ZKM Center for Art and Media. Retrieved on June 21, 2006 from Media Art Net http://www.medienkunstnetz.de/themes/cyborg_bodies/unruly_bodies/

Weingart, P. and P. Pansegrau (2003). Introduction: Perception and representation of science in literature and fiction film. *Public Understanding of Science, 12*, 227-228.

Wiener, N. (1948). *Cybernetics or control and communication in the animal and the machine*, Second Edition. Cambridge, Massachusetts: The MIT Press.

Williams, L. (1983). When the woman looks. In Patricia Mellencamp, Mary Anne Doane and Linda Williams (Eds.), *Re-vision: Essays in feminist film criticism* (pp. 83-99). Los Angeles: University Publications of America.

Wilson, E. (2005). Moviegoing and golem-making: The case of *Blade Runner*. *Journal of Film and Video, 53*(3), 31-43.

Winner, L. (1986). *The whale and the reactor: A search for limits in an age of high technology*. Chicago: The University of Chicago Press.

Wood, G. (2002). *Living dolls: A magical history of the quest for mechanical life*. London: Faber and Faber.

Wood, R. (1984). An introduction to the American horror film. In Barry Keith Grant (Ed.), *Planks of reason: Essays of the horror film* (pp. 164-200). Metuchen, NJ and London: The Scarecrow Press Inc.

Woolgar, S. (1991). Configuring the user. In John Law (Ed.), *A sociology of monsters: Essays on power, technology and domination* (pp. 57-99). London and New York: Routledge.

Wosk, J. (1992). *Breaking frame: Technology and the visual arts in the nineteenth century*. New Jersey: Rutgers University Press.

Wosk, J. (2001). *Women and the machine: Representations from the spinning wheel to the electronic age*. London: Johns Hopkins University Press.

Zabel, B. (2004). *Assembling art: The machine and the American avant-garde*. Jackson: University Press of Mississippi.

Filmography

Bennett, H. (Producer), & Nyby, C. (Director). (1973). *Six Million Dollar Man*

[Television Show]. United States: Universal TV.

Berne, G. (Producer), & Forbes, B. (Director). (1975). *Stepford Wives* [Motion Picture].

United States: Paramount.

Cameron, J. (Producer), & Cameron, J. (Director). (1984). *Terminator 2: Judgment Day*

[Motion Picture]. United States: TriStar.

Carroll, G. (Producer), & Scott, R. (Director). (1979). *Alien* [Motion Picture]. United

States: Twentieth Century Fox.

Chubb, C. (Producer), & De Jarnatt, S. (Director). (1987). *Cherry 2000* [Motion Picture].

United States: Orion Pictures.

Cort, R. (Producer), & Gibbons, D. (Director). (1991). *Eve of Destruction* [Motion

Picture]. United States: Orion Pictures.

Curtis, B. (Producer), & Spielberg, S. (Director). (2001). *AI: Artificial Intelligence*

[Motion Picture]. United States: Warner Brothers.

Davis, J. (Producter), & Proyas, A. (Director). (2004). *I-Robot* [Motion Picture]. United

States: Twentieth Century Fox.

Davison, J. (Producer), & Verhoeven, P. (Director). (1987). *RoboCop* [Motion Picture].

United States: Orion Pictures.

Deeley, M. (Producer), & Scott, R. (Director). (1982). *Blade Runner* [Motion Picture].

United States: Warner Brothers.

De Line, D. (Producer), & Oz, F. (Director). (2004). *Stepford Wives* [Motion Picture]. United States: Paramount Pictures.

DeVito, D. (Producer), & Niccol, A. (Director). (1997). *Gattaca* [Motion Picture]. United States: Columbia Pictures.

Farrell, J. (Producer), & Gottlieb, M. (Director). (1987). *Mannequin* [Motion Picture]. United States: Orion Pictures.

Fitzgerald, J. (Producer), & Hansen, E. and Mandel, J. (Director) (1989). *RoboChic* [Motion Picture]. United States: Action International Pictures.

Gubernati, O. (Producer), & Hershman-Leeson, L. (Director). (2002). *Teknolust* [Motion Picture]. United States: Velocity Home Entertainment.

Hurd, G. (Producer), & Cameron, J. (Director). (1984). *Terminator* [Motion Picture]. United States: Orion Pictures.

Laemmle, C. (Producer), & Whale, J. (Director). (1935). *Bride of Frankenstein.* [Motion Picture]. United States: Universal Pictures.

Lieberman, H. (Producer), & Mostow, J. (Director). (1984). *Terminator 3: Rise of the Machines* [Motion Picture]. United States: TriStar.

Pommer, E. (Producer), & Lang, F. (Director) (1927) *Metropolis* [Motion Picture]. Germany: Paramount Pictures.

Silver, J. (Producer), & Hughes, J. (Director). (1985). *Weird Science* [Motion Picture]. United States: Universal Pictures.

Silver, J. (Producer), & Wachowski Bros. (Director). (1999). *Matrix* [Motion Picture].

United States: Warner Brothers.

Silver, J. (Producer), & Wachowski Bros. (Director). (2003). *The Matrix Reloaded*

[Motion Picture]. United States: Warner Brothers.

Silver, J. (Producer), & Wachowski Bros. (Director). (2003). *The Matrix Revolutions*

[Motion Picture]. United States: Warner Brothers.